

**Sociophonetic Perception of African American English in Minnesota**

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My friends and family lost in this endeavor: Being an adult student away from home is taxing and expensive in time and treasure. I'm glad we had the good times; the warmth of happy memories and feelings made the lonely winters more tolerable. You are missed.

## **Abstract**

Although it can be authentically spoken by people who don't share their lineage, African American English, a variety of American English, is primarily spoken by the descendants of forced immigrants from Africa to North America. An assumption underlying most work on African American English (AAE) is that the variety is not subject to regional variation. Despite this assumption, some studies have found regional variation in AAE (Hinton and Pollock, 2000; Thomas, 2007). This variation is typically explained as assimilation toward or away from local varieties spoken by European Americans. Some studies have suggested that it assimilates with other dialects in less segregated areas or where blacks have greater access to educational opportunity (Hinton and Pollock, 2000). Other studies show that AAE speakers are less likely to produce mainstream regional variants and even less likely in cases of greater racial segregation (Labov and Harris 1986; Bailey, 2001.)

This dissertation studies listeners' associations between regional variation and ethnicity. The study focuses on the influence of the regional features of Minnesota English on the perception of talker ethnicity. Hinton and Pollock (2000) begin their study of regional AAE phonology with the understanding that that the Midwest is less segregated than the south, and consider that this may imply that AAE in the Midwest is more likely to assimilate with regional European American varieties.

Hence, we would predict that listeners in Minnesota would expect some tendency on the part of African Americans to use Minnesotan English (MNE) features, and hence said listeners would have little hesitation labeling speech containing Minnesotan variants

as having been produced by European Americans even if it were produced by an African American.

This study examined this topic with a perception experiment. Previous research has shown that listeners can ascertain a speaker's race from audio-only samples of content-neutral speech (Buck, 1968; Roberts, 1966; Walton and Orlikoff, 1994; Plichta, 2001; Thomas and Reaser, 2004). We examined listeners' judgments of the likelihood of particular speaker-listener comparisons. We paired the speech of African Americans and European Americans from Minnesota with pictures of African Americans and European Americans. We were particularly interested in whether listeners would be less likely to judge the speaker-picture pairs to be a match when the tokens contained variants that were characteristic of the 'mainstream' regional variety spoken in Minnesota, and the pictures were of African Americans. Listeners were more likely to rate actual matches between voice and face ethnicity as matches than they were to rate them as mismatches for male voices, but not for female ones. The unwillingness to rate voices produced by European Americans with local Minnesotan features as matches to African American faces suggests that listeners do not believe the local variant of AAE to incorporate Minnesota English features, at least for male speakers. Implications for models of sociophonetic perception and for studies of variation in AAE are discussed.

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## **Chapter 1: Introduction**

### ***1.1 Sociolinguistics***

The field of Sociolinguistics illuminates the understanding of the effect of social structures on the evolution and use of language. For example, it has led to an important generalization about the nature of language change: There is a low probability of dialectal change in an isolated speech community (Holmes, 2001). This understanding and others go at least as far back as far as the Labov (1966) study of sound change in Martha's Vineyard if not further in the history of dialectology. African American English, henceforth AAE, is a dialect whose speakers have often been isolated by factors such as the ghettoization of its speakers. However, AAE also exists in a larger American linguistic and cultural setting. Early in its study, AAE was considered remarkably uniform from coast to coast. Consider the following quote from Labov (1972):

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

An assumption underlying most work on AAE is that the variety is not subject to regional variation. This is evident from research with a primary focus on the supra-regional similarities of the variety (Wolfram and Schilling-Estes, 1998). Despite this assumption, some studies have found regional variation in AAE (Hinton and Pollock, 2000; Thomas, 2007). For example, Hinton and Pollock (2000), found a consistently sharp contrast between usage of vocalic and postvocalic /r/ among speakers of AAE in

Davenport, Iowa and Memphis, Tennessee. This variation is typically explained as assimilation toward or away from local varieties spoken by European Americans.

Regionally stratified European American vernaculars across the area mentioned by Labov (1972) exhibit variation as well, though they are ‘relatively uniform’. Labov’s description leaves open the possibility that there may be some regional variation in AAE. Hinton and Pollock (2000) note that the majority of research on AAE, since at least the 1960s, has focused on the uniformity found in AAE.

Some studies have suggested that AAE assimilates with other dialects in less segregated areas or where blacks have greater access to educational opportunity (Hinton and Pollock, 2000). Other studies show that AAE speakers are less likely to produce mainstream regional variants and even less likely in cases of greater racial segregation (Labov, 1986; Bailey, 2001.)

Regional variation in AAE has not been studied widely. To aid in addressing this gap, the present study focuses on regional variation and ethnicity in listener’s perceptions of AAE. Hinton and Pollock (2000) is a study of the regional production of AAE; this is a study of the regional perception of AAE.

Anecdotal evidence for regional phonological variation by native AAE speakers is sparse. However, present empirical evidence for regional variation in native AAE speakers, and the well-researched regional phonological variation in European American varieties, leads to a reasonable expectation of regional variation in AAE, despite views of relative uniformity along ethnic lines.

The small amount of research on the issue of varying AAE phonology, such as Hinton and Pollock (2000) in their study on vocalic and post-vocalic /r/ and Eberhardt (2010) in the study of AAE vowels in Pittsburgh, has focused on regional AAE production. This approach may offer insights into social and other non-regional issues affecting AAE speakers, countering the assumption that AAE has little or no regional variation. This dissertation is a study of listeners' associations between regional variation and ethnicity. It focuses on the influence of the regional features of Minnesota English on the perception of talker ethnicity. Considering the history of the formal Jim Crow laws in the south, Hinton and Pollock (2000) begin their study of regional AAE phonology with the understanding that that the Midwest is less segregated than the south, and consider that this may imply that AAE in the Midwest is more likely to assimilate with regional European American varieties.

“...speakers of AAVE who have more contact with whites have been observed to assimilate toward such speech and have less of a change in their lexicons and phonologies ... These findings have implications for the dialects of African Americans residing in the Midwest region where communities are less segregated.” (Hinton and Pollock, 2000, p. 1)

Hence, we would predict that listeners in Minnesota would expect some tendency on the part of African Americans to use Minnesotan English (MNE) features. We would predict said listeners would have little hesitation labeling speech containing Minnesotan variants as having been produced by European Americans even if it were produced by an African American. However, as stated earlier, little research has been done in the study of Midwestern AAE phonology, and regional variation in AAE in general, to support that prediction.

The goal of the line of research conducted for this dissertation is the examination of the hypothesis with respect to Minnesotans by answering the following questions via sociophonetic perception experimentation:

- (1) To what degree do people have stereotypic associations between ethnicity and regionally marked variants?
- (2) What characteristics (phonetic, ethnic, gender, etc.) affect perception of African American as compared to one local European American variety, Minnesotan English (MNE)?
- (3) Differences in the occurrence of vernacular usage by males and females are well documented; females tend to use less vernacular. So what if any differences might there be in the perception of speech by those two sexes?

## ***1.2 Sociophonetics and Attitudes***

### **1.2.1 Sociolinguistics**

Sociolinguistics is the study of language in relation to society (Matthews, 1997). Sociolinguistic inquiry includes the study of language variation across three main dimensions: Temporal, Spatial (e.g., geography), and Social. According to Edwards (2013), Thomas Hodson was the first to use the term ‘sociolinguistics’ in 1939, but the roots of considering sociolinguistic issues has a longer history in dialectology, lexicography, and even art. In the east, sociolinguistic scholarship goes back at least as far as Yang Xiong’s Zhou Dynasty *Fāngyán* regional vocabulary survey and the *Shiming* from which recorded spoken pronunciations of Hàn-era Chinese making it valuable for understanding the periods of phonological change between Old and Middle Chinese. In

the west, non-scholarly plays by Terence differentiate speech with Vulgar Latin used by slaves and more standard Latin used by masters, a recognition of differing speech among the social classes of Rome. In the 1960s, researchers like William Labov borrowed methods and insights from disciplines as diverse as sociology and historical linguistics for frameworks to analyze language variation with respect to the social context of its use.

Prime concepts in the study of sociolinguistics include communities of practice and speech, social networks, prestige, geographic location, as well as personal characteristics like ethnicity and gender. Drager (2010) notes numerous insights that have come from sociolinguistic inquiry including the correlation of speech production and the formality of the situation (Labov 1972), token frequency (Bybee 2002), and the predictability of a word's position in a sentence (Jurafsky et. al. 2002). Sociolinguists interested in variation across both regions and ethnicities are likely to find the present research interesting because it deals with AAE, a commonly discussed dialect in the field, yet strays from the tendency to focus on cross-regional similarities of the dialect. Research on assimilation within the AAE speaking community with respect to region is still an underrepresented area of study, relative to other research in AAE or regional variation in mainstream dialects.

Speech indexes information beyond that found in a dictionary. The speech signal also carries information about the social membership of the speaker, and it can even contain information about the social membership of the listener as perceived by the speaker. This kind of social membership information is carried through the speech signal by means of social-indexical variation.

Social-indexical variation can be found in multiple areas in the structure of language. In phonetics, the area of language focused on the individual sounds that make up a language, social-indexical variation is called sociophonetic variation.

Sociophonetics is a relatively young area of sociolinguistic inquiry. According to Hardcastle et. al. (2010) the first recorded use of the term “socio-phonetic” ( sic ) is by Deshaies-Lafontaine (1974) , in a dissertation on variation in Canadian French carried out squarely within the emergent field of Labovian or variationist sociolinguistics. However, work jointly providing insights into sociolinguistics and phonetics came earlier. For example, Ladefoged and Broadbent (1957) in their realization that a speaker’s regional origin can predict both their speech production and perception predates even Labov (1966) in his study of stratified New York English, a common reference point in the history of sociolinguistics and sociophonetics.

Sociophonetics is also used to refer to phonetically-oriented research in variationist sociolinguistics. It focuses on relationships between phonetic/phonological form and social factors like speaking style, speaker background, and issues of group membership. This dissertation deals with two phones and how they are perceived in certain environments with respect to the social and regional groups to which speakers belong. It is in line with the term sociophonetics, although Dressler and Wodak’s (1982) less common ‘sociophonology’ could apply to one of the elements under review as well.

Sociophonetic inquiry has contributed to our understanding of many areas at the intersection of language and society. For example, Strand (1999) used a synthetic /s/ to /ʃ/ continuum, paired with female and male faces to show that phonological

categorization can be influenced by the listener's expectations about the purely social attributes of a speaker. According to the study, category boundaries were shown to differ for male and female speakers with higher frequencies as boundaries for women and lower ones for men. Since men generally produce fricatives at lower frequencies than women, this could be expected. Studies on speech perception have yielded information on the ability of listeners to identify sound changes in progress, e.g. Di Paolo and Faber's (1990) study of Utah English. There, they argued they found an apparent, but non-actual, vowel merger that speakers of Utah English had difficulty differentiating. Speech perception studies have also yielded information that indicates listener perceptions of the speaker's personality may be determined not only by physical features, sex, and age, but also by the speech signal itself, e.g. Giles and Powesland (1975).

In addition to benefiting general sociolinguistics and phonetics research, sociolinguistics as a field can inform pedagogical issues such as the pedagogical use of AAE, the tolerance for natural variation by automated speech recognition systems and other fields as well. Foulkes (2010) also indicates that sociophonetics work has helped in adjustments to phonological frameworks. In Optimality Theory, for example, Nagy and Reynolds (1997) used constraint hierarchy to explain word-final deletion in Faetar, a Franco Provençal dialect.

### **1.2.2 Phonetics**

Phonetics is the branch of linguistics most purely concerned with speech sounds, or in the case of non-vocal languages, similarly critical elements of the signs used. Examining the phonetic level for AAE is interesting because acoustic measures can be used to better

understand degrees of perceptual differences from mainstream vernaculars. (Contrast this with the use or non-use of a syntactic structure.) Work on sociophonetic perception contributes to phonetic theory inasmuch as it illustrates that listeners have access to a great deal of fine phonetic detail in perception.

### **1.2.3 Production**

Variationist studies in sociophonetic production generally involve the phonetic analysis of utterances and correlations of them with characteristics of the speaker such as regional dialect, ethnicity, age, gender, etc. Most of the studies listed prior to this section were production studies, including Labov's (1966) early work. Work by researchers like Mayo (1990) and Walton and Orlikoff (1994) have been unable to show measurable differences in production between AAE speakers and regional mainstream speakers in cases where certain regional vernacular features were shared by both sets of talkers. Perception work has, however, shown that listener accuracy in rating characteristics of the speaker is reduced when the speaker shares phonetic characteristics with speakers of a contrasted dialect. Mayo (1990) as well as and Walton and Orlikoff (1994) advocate greater study of spectral noise and voice quality differences among races, as well as in laryngeal and ventilator function for phonation (Walton and Orlikoff, 1994); however, getting natural speech samples like those under ideal laboratory conditions was difficult to gather and outside of the needs of the dissertation. For this dissertation, samples from European Americans that were recorded under more controlled circumstances than with the AAE samples were used; studying differences in production between the two wasn't particularly practical.

### **1.2.4 Perception**

For most of its history, sociophonetic work was largely relegated to studies of production. Sociolinguists have recently begun to recognize the value of studying perception. Thomas (2002) explains “although perception has been a neglected stepsister of production in sociolinguistics, it, like Cinderella, may have its day soon” (p. 1). In the early stages of the development of Labovian sociolinguistics, devices for recording and analyzing speech were bulky and expensive. Linguists relied on their own perception abilities to transcribe the speech of the communities they studied. This made precise measurement in natural settings very difficult and it left transcriptions open to possible human error due to perception biases created by their own linguistic backgrounds. Recent advances in technology have made the mechanism for recording and analyzing speech less expensive, less intrusive in recording sessions, and easy to use. This dissertation will focus on the first and third of the five issues listed by Thomas (2002) identified as the focus of most sociophonetics research which include the following:

1. How stereotypes can influence the perception of sounds
2. The presence of vowel mergers or splits in perception
3. How dialectal differences affect the categorization of phones
4. Stereotypical attitudes investigated by having subjects assess the speaker’s personality suitability for particular jobs, or other personal traits

### **1.2.5 Distinguishing Speaker Ethnicity**

Unsurprising, given the significant role of race evident throughout the history of the Americas, studies of differences in speech correlated with ethnicity grew with the development of modern linguistics. Preston and Niedzielski (2010) note that the earliest

of these studies, Dickens and Sawyer (1952), is more than 5 decades old. That's a clear demonstration of the longstanding research interest in discriminating speaker ethnicity. A number of studies have been written on speaker ethnicity identification. Most pertinent are the studies on the indexing of African American identity in speech. Preston and Niedzielski (2010) further note that listeners can generally distinguish African American voices from European American voices and that rates of accuracy in most of these studies fell in the range of 70% to 90 %.

Important for this dissertation is the issue of African American adoption of standard and European American vernacular features. Baugh (2003) notes that African Americans with more standard speech are not as easily identified as African American. This finding is in line with the Buck (1968) study on African American/European American dialectal variation and others. Also important is the fact that some studies restricted the cues the listener could use to identify the speaker's ethnicity. Roberts (1966), in a study of AAE vowels, used a stimulus word list to find that African American and European American speakers could be identified from isolated vowels and diphthongs with 83% accuracy. Walton and Orlikoff (1994) for instance, used one-second acoustic samples and found that listeners were capable of distinguishing ethnicity of the speakers. Similar to Mayo (1990), they found no significant differences in F0 or formant structure. This led them to determine that listeners were probably able to distinguish between European American and African American speakers based on differences in the samples due to spectral noise. African American speech with features found in the regional vernacular of European Americans has also been demonstrated to

reduce accurate rating (Thomas and Reaser, 2004). Because this dissertation focuses on features of mainstream vernacular in Minnesota not normally described in AAE, findings like those above have informed the approach to the research and the set-up of the experiment. In the experiment discussed towards the end of this chapter, there is discussion of the use of visual stimuli to aid in assessing a listener's ability to perceive ethnicity. This follows other researchers such as Plichta (2001) who used video of African Americans and European Americans as mixed audio and visual stimuli and asked video viewers to what degree the recorded speech matched the listener's own speech along with other factors such as standardness. Interestingly, European Americans rated speakers of both African American and European American ethnicities equally; however, African Americans rated other African Americans lower than European Americans with regard to the standardness of their speech. This is a clear demonstration that the attitude of the listener is a part of speech perception.

### ***1.3 Attitudes***

The study of language attitudes is valuable in both theoretical and applied linguistics. It may inform theoretical linguists of perceptive biases towards certain dialects as well as any stigma surrounding the usage of a particular dialect. A major concern in doing attitude experiments is the possibility of self-censorship by the listener. Listeners may be reluctant to generalize about an entire category of people. A number of methods have been developed to avoid this problem. Many of these methods involve asking the listener to rate the speaker along personal dimensions rather than more stigmatized categorizations like femininity or ethnicity. In a separate study, listeners

were asked to rate the acceptability of the sample rather than rate the speaker's relative ethnicity (blackness, whiteness) or regional-ness (more or less northern). Campbell-Kiebler (2010) asked listeners to evaluate speakers based on dimensions like attractiveness, perceived integrity, and perceived social status, allowing listeners to evaluate the stimuli by evaluating specific individuals. In this way, listeners were free to offer specific evaluations without resorting to indicating attitudes about whole groups of people.

## ***1.4 Minnesotan English and Its Speakers***

### **1.4.1 Minnesotan Speech Community**

Minnesota is situated in the northern and eastern parts of the upper Midwest, an area which includes Wisconsin, Iowa, Nebraska, and the Dakotas. The original settlers of Minnesota were Native American tribes like the Sioux, Ojibwa, and Mendota, who together owned all of Minnesota west of the Mississippi after they ceded land to American migrants. According to Allen (1973), the original European American settlers (circa 1850) were foreign born or from New York and New England. Their number ballooned to nearly 700,000 in a decade. With more migration and battles with the Sioux, as well as treaties with other Native groups, the Upper Midwest became a very international area. The largest single national group to inhabit the area was German, but Allen uses census data to note that the largest element of the population was Scandinavian. Other nations of origin represented include Sweden, Norway, Denmark, Russia, Canada, Czechoslovakia, the Netherlands, England, Ireland, Finland, and Poland. Americans of non-European descent have also migrated to Minnesota including African

Americans, Somalis, Hispanics, Latinos, and Hmong tribes. As of 2010, 37.9% of Minnesota's residents claim German ancestry, and 32.1% claim Scandinavian ancestry (U.S. Census Bureau, 2008 A).

### **1.4.2 Minnesotan English**

In 1976, Allen completed a dialect survey of Iowa, Minnesota, Nebraska, North Dakota, and South Dakota. The survey gives a broad description of the dialectal characteristics for the states in the region focusing on differences in lexical item, verb use, and pronunciation. Together with a detailed description of the origins of the settlers of the region, Allen provides reasons for variation within the Upper Midwest and expectations of how intraregional dialect change may develop. Minnesota dominates the dialect region and sits along several isoglosses with the North Central dialect region. As a result this dialect may be colloquially referred to as Minnesotan accent. Allen (1973) details the speech expansion areas of the region and numbers them chronologically for the westward expansion of European Americans who brought their ethnic languages and dialects with them. The first two speech expansion areas cover the northern third of Iowa all of Minnesota, and the western quarter of North Dakota. This study deals with features common to the first two speech expansion areas, Minnesota English (MNE). Allen (1973) explains that the ethnic heritage and dialects of the European American immigrants in the area and along with their settlement patterns ultimately led to regional variation in the English spoken in the Upper Midwest. There are enclaves of variation within the expansion areas, such as Iron Range English, spoken in the Mesabi Iron Range, north of the Twin Cities. Schmelzer (2009) notes the existence of speculation that

Iron Range English is a dialect distinct from MNE. Although significant dialectal contrasts in elements of the Upper Midwest have been documented, especially in the older more rural populations, the opening of the Mississippi enabled movement further north which reduced contrasts in dialects already spoken in the region (Allen 1973).

### **1.4.3 Dialect Characteristics**

Nearly 20 years ago, the characteristics of MNE received renewed national interest with the critical success of the movie *Fargo*, which begins in the city of the same name in Allen's speech expansion area #2 and largely takes place in Brainerd near the border of areas #2 and #1 and the Twin Cities area which is located in area #1 and features exaggerations of the dialect when compared with anecdotal self-reports in the Twin Cities. More recent generators of interest include the radio program *Prairie Home Companion* and the rise of Alaskan politician Sarah Palin. Palin was raised in the Matanuska-Susitna (Mat-Su) Valley area, a place largely settled by Minnesotan farmers during the Great Depression. Her speech patterns have brought attention to Minnesotan and the Upper Midwestern dialect features. The Northern Cities Vowel Shift, a chain shift in the sounds of some vowels in the dialect region known as the Inland North, may show signs of growing in this area, but it is not yet a defining characteristic for the region. This dialect exhibits the *cot-caught* merger, which is noteworthy as it contrasts with much of the North Central region, though this merger is common elsewhere in the country. In this dialect, /u:/ after non-coronal consonants remains back while it is fronted in most of the country. For an in depth description of the Northern dialect, see Labov, Ash, and Boberg, (2006). Influences of German and Scandinavian languages can be

found in older more rural locals. This includes the use of the German/Scandinavian ‘ya’ for ‘yes’ or ‘yeah’ and the occasional deletion of the object of prepositions (Allen, 1973) as in “Would you like to come with?” instead of the more standard “Would you like to come with us?”

Characteristic phonetic features and phonological patterns which extend from the Upper Peninsula of Michigan, the “Yooper dialect”, through Minnesota and into adjacent parts of North Dakota include the phonological pattern at the heart of the experiments and sociolinguistic interviews conducted for this dissertation. In this region, Mainstream American [æ] is realized as [eɪ] when it immediately precedes a voiced velar consonant, and Mainstream American [oʊ] is realized as [o] in this dialect.

For example, ‘ragtag’, ‘sang’, ‘goat’, and ‘snow’, are pronounced as /reɪgteɪg/, /seɪŋ/, /got/, and /sno/, respectively.

The twin cities area exhibits varying degrees of strength in the usage of these patterns. The upgliding of [o] is a feature that appears to be varying in strength. Allen’s (1976) [o<sup>u</sup>] and [o<sup>o</sup>] transcriptions in the Twin Cities area were taken by him to suggest that a weakening of the upglide was leading to a possible trend toward a pure [o]. This trend toward monophthongization seems stronger in Northern speech in the Twin Cities area. The Minneapolis and St. Paul areas have a mix of the characteristics found in both northern and southern parts of Minnesota and parts of adjacent North Dakota and Iowa.

## ***1.5 African Americans and African American English***

### **1.5.1 African Americans**

As this dissertation is concerned with research on language attitudes involving African Americans and AAE in Minnesota, some discussion of the situation of African Americans, AAE, and the meaning of those labels is warranted.

Although there are a number of groups that have valid claims to the term *African American*, I'm limiting my use to those descendants of African migrants who came to what became the continental United States as indentured servants and forced laborers. In my initial investigations, I interviewed self-identifying African Americans who could trace their lineage through emigration from Jamaica in the early 1900s; they and others with similar backgrounds will not be considered representative African Americans for the purposes of this dissertation.

Historically, sociologists and sociolinguists have, viewed the development of modern African American culture and language as existing in a continuum of assimilation toward or away from European American culture and language. Smitherman (1977) describes this continuum as “Push-Pull” towards the mainstream. It describes pushing towards adopting the culture, religion, and language of the dominant white culture as a means to survive. It also describes pulling away from white culture as an act of resistance against white oppression. This characterization of African-Americans' relationship with their dialect, as existing on a continuum of acceptance of white culture, is set in an understanding at the time of variation in African American language among members of different socioeconomic groups. In this continuum, wealthier African Americans are more assimilated and more likely to have their language assimilate toward that of the Mainstream American English (MAE) speaking communities.

### **1.5.2 African Americans in Minnesota**

In a recent census, 4.4% of Minnesotans identified themselves as African American; 88% identified themselves as White. That's considerably smaller than the national percentage. African Americans make up 12% of the population nationally. That's according to the 2006-2008 U. S. Census Bureau. American Community Survey 3-Year Estimates. The 1849 census of the Minnesota territory listed forty free African Americans, thirty of whom lived in St. Paul (Spangler, 1963). According to Lehman (2011) the first African American born in Minnesota called John Butler, son of Mary Butler was born into bondage. Mary was the legal property of the Elizabeth Lowry; she was the sister of Sylvanus Lowry, the first mayor of St. Cloud and founder of a pro-slavery newspaper, The Union, which later became the St. Cloud Times. According to Lehman, several legal matters made it possible to bring forced laborers along on vacations to Minnesota. One of these was the Dred Scott Decision, an 1858 Supreme Court decision that forced laborers were property, were non-citizens and had no right to sue for their freedom. Another was the striking of the Missouri Compromise, a pre-Civil War deal that prohibited slavery in Minnesota and other western territories of the time.

Jim Crow laws legalizing segregation were instituted in Minnesota by at least 1920, though records indicate that segregation was an expected norm before that. One example is the story of an African American man who was fired by his employer, threatened with murder by locals, and expelled by police for his secret relationship with a European American woman. This was reported on November 26<sup>th</sup> 1917 in the St. Cloud Daily Times with unclear authorship and titled "*Nigger Jim*" Gets Walking Papers. Escure (2006) notes that the issue of African American men having relationships with

European American Women may indirectly have an influence on female support of vernacular structures, and that the lack of large ghettos like those in other cities may facilitate the development of linguistic attitudes through contact between African Americans and European Americans.

African Americans make up roughly 6.4% of the Twin Cities population (American Community Survey, 2008). Very significant immigration to the Twin Cities, primarily from African American communities in Chicago and Detroit but also Boston, Philadelphia, and New York, has increased the African American population (Escure, 2006). The small number of African Americans in the state, and the immigration of non-Minnesotan African Americans to the Twin Cities was a challenge to collecting the speech samples recorded for the research in this dissertation. In the last few decades, several waves of foreign born immigrants have also moved to the cities often among the African American communities, including Hmong tribes, Somalis, Eritreans, Russians, Vietnamese, Latinos, and Laotians among others.

In the 2005, Minnesota was tied for the 11<sup>th</sup> highest ratio of AA to EA inmates in America's prisons systems (Mauer and King, 2007). Surrounding states show similarly high incarceration rates. For example, the state of Wisconsin, adjacent to Minnesota, incarcerates more AA men than any other state in the union, nearly double the national average (Pawasarat and Quinn, 2013). Given the achievement gap, and AA male incarceration leadership, of the region and the state of Minnesota in particular, segregation of the AA and EA communities is arguably an issue for the dialect region.

### 1.5.3 African American English

African American English (AAE) is the variety of American English most commonly associated with the descendants of forced immigrants from West Africa to North America. It can, however, be spoken authentically by people who do not share that lineage. AAE is often contrasted with Mainstream American English (MAE). A concise review of AAE by Smitherman (1977) reveals a number of features which are unexpected in MAE. These include absence of the copula ‘to be’ in the present tense (i), and non-conjugation of the copula in the habitual aspect (ii). Word initial / ð / is realized in AAE as /d/ (iii). Word final /ə/ is realized as /f/ (iv), and a pleonastic use of ‘it’ is used for the locative where Mainstream American would use ‘there’ (v). AAE also uses grammatical tone to indicate a continuing state (vi) with /ben/ + intonational nuclear accent. Examples are below.

- i. MAE: He is tired. (at the moment)  
AAE: He tired.
- ii. MAE: He is habitually tired.  
AAE: He be tired.
- iii. MAE: them  
AAE: [dɛm] (3<sup>rd</sup> pers pl pronoun)
- iv. MAE: south  
AAE: [sauʃ]
- v. MAE: There is a snake outside  
AAE: It’s a snake outside.
- vi. MAE: She’s been married. (and is no longer)  
AAE: She been married. (and is no longer)  
MAE: She married and continues to be married. / She’s been married for a while.  
AAE: She BEEN married.

There have been at least as many labels for AAE as there have been labels for African Americans. Pardoe (1937) referred to it as Negro Dialect, but how linguists refer

to it is actually an example of language change over the time and social dimensions mentioned earlier. It has been known by many names including African American Vernacular English, Black English, Black Vernacular, Black English Vernacular (BEV), and Black Vernacular English (BVE), among others depending on the time period and commentator. In various names and studies on the dialect, some recognition of variation is observable as well. For example, Kane (1925) discusses Gullah, an unnamed dialect, and a dialect which she calls “Swamp Nigger”. This dissertation’s author was raised calling AAE ‘Blacklish’. It may also be popularly referred to as ‘Ebonics’, a term built of the words ‘phonics’ and ‘ebony’ and coined by social psychologist Robert Williams. ‘Ebonics’ was originally meant to refer to the language of all descendants of forced African laborers (Williams, 1975). On December 18, 1996, the Oakland Unified School District Board declared that Ebonics refers to an African language system with roots in the Niger-Congo languages, not a Germanic one like English. The term and the dialect gained great attention in 1996 during a debate over its use in the Oakland Unified School District. It is not properly a synonym of African American English. It never gained wide use by linguists (Baugh, 2000).

AAE is a stigmatized dialect. Its features were documented in various ways prior to the advent of modern sociolinguistics, including in novels like Mark Twain’s *Huckleberry Finn*. Focus on the dialect because of pedagogical concern for African American children drove a great deal of modern early work on the dialect (Tidwell, 1942). Regional variation in the language attitudes of teachers (Williams and Shamo, 1972), reasons for illiteracy in African American ghettos (Torrey, 1970), phonological

variation among school children (Stamps, 1972), and variation among European American and African American school children are just a few of the relatively early AAE studies motivated by an interest in pedagogy. Escure (2006) explores variation among native Minnesotan African American and immigrant Minnesotan African American school children. Linguists (Baratz, 1968; Labov, 1969) have defended the status of AAE as a dialect of English against ideas that use of AAE indicated a cognitive deficit, as well as its use in easing the study of standard English. For more on this, see the Ann Arbor decision of the late 1970s writing from the Center for Applied Linguistics (1979), and the Oakland Ebonics controversy of the 1990s in Rickford (1999) and Baugh (2000). More recently legal issues in discrimination based on linguistic profiling of AAE and other dialects have been explored (Baugh, 2003). Those interested in a comprehensive introduction to the features and social issues surrounding AAE may benefit from Green (2002), McWhorter (2000), and Dillard (1972) among others.

### ***1.6 Data Collection Options***

There are several methods available to researchers seeking to collect sociolinguistic data. They differ in approach, but they all involve the collection or use of speech samples. A large amount of time and effort was devoted not just to the collection of speech samples from African Americans, but also consideration for how the researcher might passively avoid affecting listener responses or losing the trust of AAE talkers. A selection of the data collection methods available is listed below; additional measures taken are also described in this dissertation.

1. Direct Elicitation

2. Ethnographic Method of Observation
3. Sociolinguistic Interview

### **1.6.1 Direct Elicitation**

Direct elicitation involves asking a talker how he or she actually says something. At first glance, this might seem the reasonable way of seeking data from a listener. It has the benefit of allowing the listener to consciously focus on what the researcher seeks to understand. Unfortunately, this is not really a benefit. Conscious focus on one's own speech and reporting on it, especially in the case of dialect work, leaves open other possible interferences such as concern about bias towards one's own dialect. Listeners may attempt to speak in a more mainstream way or report no differences between their speech and more prestigious forms. The situation in which the speech patterns a linguist is studying disappear due to the linguist's own observation is called the Observer's Paradox (Labov, 1972).

Remedies used to avoid this paradox run along a common theme. They include making the listener more comfortable during elicitation and methods such as eliciting in a familiar environment. Another common tactic involves generating less guarded responses through the discussion or elicitation of data about emotional topics.

The ideal environment for recording high quality speech samples for sociophonetics research is a controlled laboratory; however, that is a very unfamiliar environment. AAE is a stigmatized dialect; focusing talkers on their AAE use more than necessary by asking directly, is also not an optimal method of gathering speech samples for this study. This method is likely to lead to unnatural, guarded speech.

### **1.6.2 Ethnographic Method of Observation**

Hymes (1974) proposed an ethnographic framework for observing linguistic phenomena. The ethnographic observation method is the one most likely to yield authentic samples. In this method, the linguist observes the listener in familiar comfortable environments. Instead of gathering samples by directly asking the talker, the linguist collects them indirectly, waiting for relevant uses of language to occur. Unlike the hyper-controlled environment of a laboratory, observable utterances may take place just about anywhere. Observation may even take place in the course of the talker's daily activities. This method gives speakers a freer chance to produce relaxed speech samples; this makes the samples collected very valuable.

However, as this method is uncontrolled, it may make gathering relevant samples difficult. They may be buried in all of the uncontrolled free form language not of interest to the researcher and may not occur very frequently. Another major drawback, due to the lack of control to focus the talker, is the time commitment that may be necessary to gather the relevant samples. Canagarajah (2006, p. 155) notes that: "Ethnographers expect to live for an extensive period of time in the community they are studying in order to capture first-hand its language patterns and attitudes. As much as possible, they try not to alter the 'natural' flow of life and social relationships of the community, but understand how language works in everyday life". Although this method is clearly less susceptible to the observer's paradox, Tusting and Maybin (2007, pp.578-9) point to the fact that "ethnographic work normally requires the researcher to be actively involved in

the social action under study...but the involvement of the researcher inevitably changes the language practices under study.”

A best case scenario with this method would yield natural samples, of great quality, and in great number. While the ethnographic method of observation is far less likely to lead to unnatural speech samples, it has the potential to be seriously time intensive. It offers observing sociophoneticians little control over the environment and thus the quality of the speech samples. Also unlike recording non-phonetic or phonological data, the phonetician does not have the luxury of a time lag between utterance and recording. The recording device must be recording when the features of interest are uttered. This makes the method time consuming, and potentially frustrating.

### **1.6.3 Sociolinguistic Interview**

The sociolinguistic interview is unlike the direct elicitation methods of simply asking the talker’s opinion of his or her usage or directly eliciting speech samples. This method has several strategies available in it, including the use of word lists, the reading of passages, as well as direct questioning. A controlled environment, though not necessarily a laboratory, can also be used by the researcher to ensure the acoustic quality of the speech samples recorded. The ability to hide the features being observed among features of little interest to the sociolinguist may distract speakers from focusing on and erasing the relevant features, as they are likely to do under the direct elicitation method. This, combined with the researcher’s ability to plan which features will be used by the speaker, vastly improves the odds of getting relevant samples in a shorter period of time when compared with the ethnographic method.

Major drawbacks of this method include the lack of a familiar setting, though this can be addressed, and the potential for speakers to tend more towards standard speech. Reading narrative passages and word lists, generally written in a standard dialect is not the best way to get the speaker of a dialect to avoid using a more standard way of speaking. However, as described above, using emotional topics or making the listener comfortable can help to mitigate this issue.

### ***1.7 Purpose of the Dissertation***

This dissertation is an experimental assessment of language attitudes via a perception experiment. It seeks to shed light on whether listeners associate the speech of European-Americans from Minnesota with African-American faces, and vice versa. Put differently, the study explores whether listeners believe the speech of African-Americans in Minnesota to have assimilated to the regional variety spoken by European Americans.

Previous research has shown that listeners can ascertain a speaker's race from audio-only samples of content-neutral speech (Buck, 1968; Roberts, 1966; Lass et al, 1979; Lass et al, 1980; Walton and Orlikoff, 1994; Wolfram, 2001; Plichta, 2001; Thomas and Reaser, 2004). In this study, we examined listeners' judgments of the likelihood of particular speaker-listener pairings. We paired the speech of African Americans and European Americans from Minnesota with pictures of African Americans and European Americans. We were particularly interested in whether listeners would be less likely to judge the speaker-picture pairs to be a match when the tokens contained variants that were characteristic of the 'mainstream' regional variety spoken in Minnesota, and the pictures were of African Americans. A finding that listeners reject such

matchings would be evidence that they don't believe African Americans use the mainstream regional variants.

## ***1.8 Research Motivations***

The primary motive for this study is to examine whether people have stereotypic associations between ethnicity and regional mainstream European-American vernaculars.

The dissertation's focus on perception rather than production was influenced by the following: (1) Evidence from other studies indicating that in cases where African Americans have adopted European American vernacular features, production evidence was not as helpful an indicator as perception. (2) Evidence of high listener capability in perceiving ethnicity for features which are not shared between AAE and European American vernaculars.

## **Chapter 2: Methods**

### ***2.1 Stimuli Collection***

AAE speech samples were recorded, not synthesized, from Minnesotans self-identifying as AA and as AAE speakers. Minnesotans listened to the samples and provided their ratings. Both listeners and speakers were screened and given environments that were deemed easily conducive to their respective tasks. Below, there is a description of the characteristics sought in the samples elicited, the recruitment, the method of elicitation, and the experiences of both the speakers and the listeners in the experiment.

This study examines the perception of Minnesotan varieties of English spoken by African Americans qualified by the researcher as AAE speakers and mainstream speakers. Given the phonetic characteristics of MNE, the choice of Minnesota was not merely convenient; some of its characteristic pronunciation differences are not expected in AAE. Since they are not expected in AAE, but are expected in MNE, any differences in perception by listeners are of interest. Similarly, the choice of AAE was also deliberate. AAE is one of a few English dialects to have been considered relatively uniform across an area as massive as North America.

Minnesotan African Americans qualified as AAE speakers by the researcher were recorded pronouncing words and phrases likely to exhibit sound patterns characteristic of the conventionally described Minnesotan dialect; however, they were asked to and usually did impose their own dialect, AAE, on the prompts. The passages were written with standard grammar, but talkers were encouraged to, and often did, change the grammar and phonology of the passage. They sometimes left out whole words such as the copula, the absence of which is a feature of AAE syntax for the present tense. Talkers were encouraged to speak AAE by the researcher, who asked them to speak as they would in an unguarded moment with family. The researcher also spoke some AAE with them to build rapport and with intent to demonstrate that AAE was an acceptable dialect to speak in his presence.

This provides not only an opportunity to determine whether born and raised Minnesotans speak AAE and actually exhibit a non-traditionally described AAE phonology, but also

whether non-AAE speakers expect them to have a conventionally described Minnesotan phonology.

### **2.1.1 African American Talkers Selection Criteria**

Because the main participants examined in this study are the listeners, not the recorded, to avoid confusion, I refer to the recorded as talkers and the as listeners.

AAs were offered the opportunity to provide speech samples via fliers and networking. No one under 18 was recorded. Procedures were approved by the Institutional Review Board of the University of Minnesota.

The talkers were male and female. Females ranged in age from their late teens to their 80s. Males ranged from their late teens to their late 60s. All could be considered middle class. They were soon to graduate college students at the University of Minnesota, professionals, retired professionals, and business owners. All self-identified as African American, and all were aware of and able to produce AAE.

### **2.1.2 African American Talker Selection**

Not every AA living, born, or raised in the state of Minnesota qualified as representative of Minnesotan AAE speakers for the purposes of this experiment. From interviews, it became clear that many blacks don't have deep roots in the state. Many have parents who only recently, in the last 30 years, moved to Minnesota. Many are themselves transplants from other cities with large AA populations, including Chicago and Detroit. This lead to the first requirement for talkers in the study: They were all

born and raised in Minnesota by Minnesotan mothers. In only one case was a talker's father not also from Minnesota, but from neighboring Wisconsin.

Additionally, they all had to self-identify as AA. Traditionally, one black parent or ancestor has been enough for a person to be considered AA. This is colloquially known as the one-drop rule, codified in U.S. Law as in Virginia's 1924 Racial Integrity Act. While much of the US AA community seems to continue to have this understanding, there seems to be a sizable percentage of Bi-Racial (AA/EA) people who self-identify not as AA but as Bi-Racial. Mixed heritage is a normal part of AA life and lineage. Bi-Racial people who self-identified as black were permitted to provide samples. The long established link between self-identification and speech in other areas of sociolinguistics made the use of samples from self-identifying Bi-Racials questionable for a study on the perception of the language of AAs. Since self-identifying Bi-Racial people don't consider themselves to be exclusively AA, and since Minnesotan AAE is not well understood, AAE usage by Bi-Racials and others self-identifying as 'mixed' seems an interesting topic for another study. Also, sampling Bi-Racials, a non-AA category, would open up sampling to other groups that may claim ability in AAE, perhaps EAs, Hmong, Somalis, or the Ojibwa, all of which are major ethnic groups in Minnesota. While claims of AAE proficiency in non-AA groups could be valid, self-identifying AAs who speak AAE have a greater likelihood of authenticity. Along that logic, no self-identified Bi-Racial American's samples were used in the study. Finally, any history of speech, hearing, or other known impediments instantly disqualified talkers.

### **2.1.3 Minnesotan English Talkers**

Non-AA talker's speech samples, recorded as stimuli for a speech perception experiment by Benjamin Munson several years ago, offered a wealth of speech samples. These talkers were required to use the local Minnesotan dialect in their speech samples. They had no history of speech, language, or hearing disorders. Many of the audio files contained the phonetic contrasts I mentioned above, and many of the same words were elicited from African American talkers in my study. These words included "snow", "row", "blow", "smoke", "bag", "rag", "zag", "leg", "roots", and "mule", among others and included 5 female and 5 male speakers. These samples were necessary to provide an already better understood anchor dialect for listeners to encounter along with the AAE samples.

## ***2.2 Location of Recording***

Talkers were recorded in quiet comfortable settings such as, offices, their homes, backrooms of barbershops, and library rooms. The goal was to record natural speech in an informal dialect. Such a requirement makes soundproof booths in laboratories unlikely places for non-linguists to let down their linguistic guard.

## ***2.3 Fieldwork***

### **2.3.1 Establishing Credibility**

AAE is a stigmatized colloquial dialect. In order to establish my credibility, it was critical that I speak the very measured form of MAE I use in professional settings during the initial recruitment process. This is the form I use when I don't expect my

audience to be familiar with my other dialects. Whether the talker had the ability to code-switch or not, the idea of an AA researcher in linguistics not being able to speak the language of academia would be ill-received, especially in the AA community.

### **2.3.2 Getting Natural Samples**

Generally, sociolinguists face several hurdles to getting reliable data. In observation of context-based naturally occurring speech, researchers face what is known as the observer's paradox, in which the observed may act differently due to being observed. Even though this study's talkers were using scripts, they were being asked to speak in a stigmatized dialect while being recorded. This could also cause self-consciousness and cause them to alter their speech. A tactic employed for mitigating the issue involved code-switching on the part of the researcher in the run up to the recording sessions. During the pre-recording conversation, the researcher performed a graduated code-switch, initially using some AAE specific words, then altering phonology, and finally changing syntax to a dialect of AAE. This was done while discussing the recording process, reminding the talker to try to be as natural as possible, and simultaneously allowing common AA cultural references during conversation. This gradual switch to AAE offered a signal, less overt than simply asking the talkers to speak AAE even in the presence of the recording device. They were, however, explicitly asked to speak AAE as well. Those interested in the details of how code-switching is thought to work are encouraged to read Debose (1992). The researcher's dominant AAE models in childhood were from the Chicago area; however, he was raised in the South. The

paucity of research in the area of AAE variation means the regional make up of his AAE cannot yet be finely determined.

## ***2.4 Elicitation***

Talkers were given two passages, each about two paragraphs in length, containing, among others, words with the /æ/-->/eɪ/ and /oʊ/ -->/o/ pattern commonly described in the speech of MNE speakers. Examples include the words ‘bag’, and ‘snow’ (See Appendix). They were given two word lists of 20 words, some containing those vowels, some not having them at all.

Talkers read each passage and each word list at least three times. Responding to direct questions, they told the researcher which recordings they felt most confident about. Single word samples were constructed from the recordings using Praat, a free scientific software package for phonetic research (Boersma and Weenink, 2007). In total, there were forty words on four word lists and two paragraphs containing words with the previously mentioned vowel sounds. Praat software was used to segment the words to be used in the experiment. Between recordings, talkers were encouraged to internalize the passages and imagine speaking to a close AA friend or relative.

## ***2.5 Stimuli Selection***

Appendix A shows the selections the talkers were asked to read. Each selection had multiple instances of the vowels under consideration. Each selection was read four or five times to allow the talker to get familiar with it while imaging they were speaking to an AAE speaking African American close friend or family member. Selections were chosen for the study based on the following:

1. sound quality
2. the researcher's intuition for the beginning and ending of words read in succession
3. relative ease of isolation
4. Relative clarity of the sample as compared to other isolated samples.

In an example, the frication of the /s/ in flowers blended into the /g/ of grow in 'flowers grow' for one of the talker's readings (see appendix); the most isolatable and perceivable instance of the word 'grow' was selected over other more blended, less perceivable samples.

The choice of individual words sampled for the experiment combined the talkers' own judgments of their level of comfort when reading the passage during recording with the researcher's assessment of surrounding phonological patterns in the words before and after the word sampled. Words from a recording deemed acceptable by the talker if surrounded by words that seemed overly stressed, not sounding remotely like the speech profile ascertained for the talker prior to recording or in other recordings, were not included among the final experiment samples chosen.

## ***2.6 The Listeners***

The listeners in this study were recruited in classes, through the contacts of researchers in the University of Minnesota phonetics lab, and through fliers. There were no specific ethnic self-identification requirements. Listeners did need to self-identify as Minnesotan. They had to have grown up in Minnesota and have parents originally from

Minnesota as well. Listeners included European, East Asian, Hispanic, Native, African descended, and bi/multi-ethnic Americans. No non-native speakers of English participated. No listeners reported histories of speech, language, or hearing impairments. The criteria for listeners were similar to the one for talkers except that they did not have to self-identify as AA. MAE was used around the listeners at all times during direct interactions between the researcher and listeners. This was important because of emerging evidence that just allowing another dialect area to arise in conversation with listeners may be sufficient to influence perceptions of dialects (Drager, 2010). In Solkoff (1972), experimental results have also been shown to be affected by the characteristics or relationship of the researcher to the subject. Even the presence of non-word elements heavily associated with social groups has been shown to have an effect. Given this, it is also valuable to note that only casual mainstream ethnic attire was worn by the researcher when interacting with listeners, usually a sweater vest, long-sleeved collared shirt and pleated pants. No elements of clothing popularly associated with popularly stereotypic African American fashion trends were worn. This understanding influenced interaction with all non-researchers involved in the study leading to Mainstream American English being the sole dialect used with listeners.

Listeners ranged from undergraduate to graduate students at the University of Minnesota. There were also some middle-aged listeners most of whom had completed university education. 18 were 20 years old or under; 16 were 24 years old or younger; 12 were 30 or older.

## ***2.7 Experiment Setup***

Before the experiments, listeners gave demographic information and removed their cellphones to avoid distraction. They also read the instructions for the experiments. The experiments were created using the E-Prime development environment (Schneider, Eschman, and Zuccolotto, 2002). They were run in a soundproof booth. Listeners wore circumaural headphones and had access to a full keyboard to enter their responses.

### **2.7.1 Perception with Visual Cues**

During the experiment with visual cues, listeners saw faces and heard voices simultaneously. They were told that they should imagine that they see this face on the street in the Minneapolis or St. Paul metropolitan areas. They were asked to rate, on a scale of 1 to 9, how likely it is that the voice and the face match. A rating of 1 indicated that the listener thought there was no likelihood that the person pictured could or would have uttered the word heard. A rating of 9 meant absolute certainty that the person could have uttered the word. High ratings by listeners of mismatched voice and face samples of AAs and EAs are consistent with the hypothesis that native Minnesotan AAE speakers share some non-AAE phonological features with MNE speakers. Low ratings for such mismatches indicate that the features tested are not shared in both Minnesotan dialects.

The pictures chosen were a combination of head shots from talkers themselves and freely available pictures of people who would be potentially categorized as European American (EA), East Asian, South Asian, Latin, African American, and Native American. Basic human variation and style factors such as complexion, clothing, and

hair varied among the faces. All of the pictures had a non-professional look to them. Listeners were meant to expect that all of the pictures were taken in Minnesota.

A perfect expected rating of 9 was defined as correctly matching an AA voice sample with an AA face or an EA voice with an EA face. Matches with neither AA nor EA faces were expected to receive a mean score of 5, since no other ethnic groups were represented in the voice samples. Indecisiveness, on the part of listeners, for mismatches of AA and EA voices and faces was expected to generate ratings of 5. A rating of 5 was also expected for indecisiveness in matching non-AA and non-EA faces to sound samples. Given the lack of an actual match between any voice and face samples for non-AA and non-EA groups, a score of 1 for those non-represented groups, could indicate absolute certainty of a mismatch, while scores of 9 were wholly unexpected though possible. The assorted faces category was intended as a distraction for listeners. There were 19 pictures per face category and 19 audio samples per voice category. Each pairing was run twice for a total of 722 trials per match-up. The pairings were randomly presented.

### **2.7.2 Post Experiment Survey**

After the experiment, listeners filled out an exit survey. In it, they were asked to discuss their feelings and interpretation of the experiment. Almost all made clear that they understood early on that their task consisted of distinguishing race on the basis of speech samples. The contents of the post-experiment survey are below:

1. What is your age?
2. How would you describe your ethnic/racial\* background?

3. What is your gender?
4. Where were you raised? Do you think that your hometown has a distinctive, special way of speaking?
5. What languages are you familiar with?
6. What did you think this experiment was designed to explore?
7. Was there anything about the experiment that distracted you?

## **Chapter 3: Analysis and Results**

### ***3.1 Male Faces Data***

The following analyses were conducted in consultation with a statistician from the College of Liberal Arts statistics consulting. In this section, the data extracted for listener responses is presented. References to expected responses are made to demonstrate important tendencies in the data. Interpretation of the data is in section 10. Male and female data are discussed separately due to the well documented occurrence of differences of vernacular usage by males and females. Males typically have greater vernacular usage, so discussion of male and female data is separated to better focus on the ethnic perception issue and avoid confounding matters further by mixing biological sex or gender with that.

#### **3.1.1 Mean Scores**

The listeners' ratings of voice-face pairings were averaged. They are the mean ratings of listeners when confronted with matches and mismatches of the ethnicities represented in the sampled utterances and the faces shown on screen.

Table A, below, contains the means representing the matchup between AA faces and both AA and EA voices.

**Table A: Male Scores of Face-Voice Pairings on a 1-9 scale**

Voice-Face Pairings	Est. Averages	Standard Errors	Mean Face Score
AA Voice-AA Face	6.3	.2629	
AA Voice-EA Face	4.45	.3602	
EA Voice-AA Face	4.29	.4568	
EA Voice-EA Face	6.01	.3565	
AA Face			5.3
EA Face			5.23

Table A shows that the mean score listeners gave, when confronted with an AA voice partnered with an AA face, was a 6.30. On average, listeners gave a score of 4.29 when presented with an EA voice accompanying an AA face. This represents a 2.7 point difference between the expected answer for AA voices matched with AA faces and a 3.29 point difference between the expected answer for the mismatched EA voices and AA faces. The mean score given for all AA faces was 5.3.

The mean score listeners gave, when confronted with an AA voice partnered with an EA face, was a 4.45. On average, listeners gave a score of 6.01 when presented with EA voices accompanying EA faces. This represents a 2.09 point difference between the expected answer for EA voices matched with EA faces and a 3.45 point difference between the expected answer for the mismatched AA voices and EA faces. Again, the

spread between the two mean scores, 1.56 points, is to be noted. The mean score given for all EA faces was 5.23.

### 3.1.2 More Than Average Results

Mean scores alone are not enough to give certainty to the results. Another method using a linear mixed model on the responses with voice-race and face-race was put together with their interaction as fixed effects. The subject and picture/audio combination were set as random effects with a different variance for each voice-race/face-race combination. Additionally, there was testing for differences between the voice-race/face-race combinations using Turkey's HSD test.

Below are the pairwise differences between the four race combinations.

**Table B: Male Data Pairwise Differences**

Four Race Combinations	Estimated Mean Differences	Std. Error of the Differences	P-Value
AA voice-EA face and AA voice-AA face	-1.8995	0.3315	< 1e-04
EA voice-AA face and AA voice-AA face	-2.095	0.4319	< 1e-04
EA voice-EA face and AA voice-AA face	-0.2494	0.3055	0.841282
EA voice-AA face and AA voice-EA face	-0.1954	0.3417	0.937961
EA voice-EA face and	1.6502	0.3538	< 1e-04

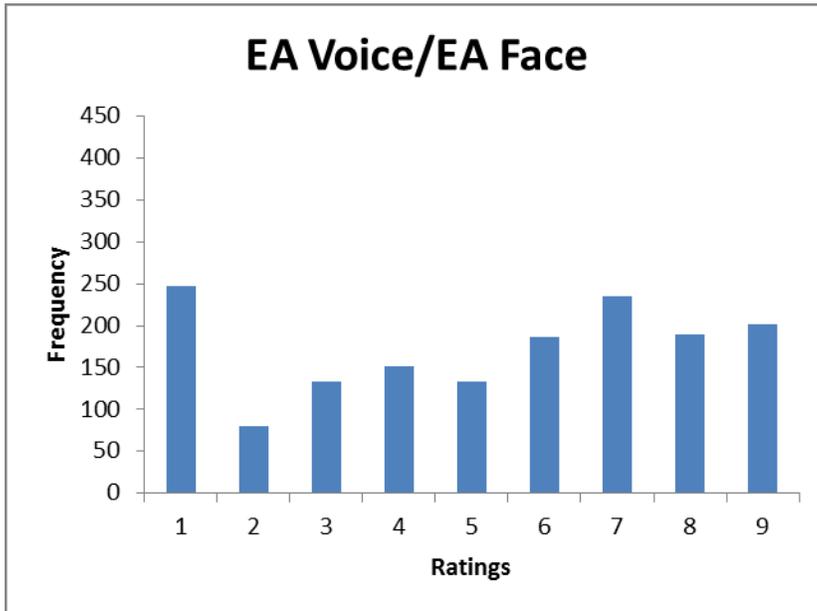
AA voice-EA face			
EA voice-EA face and EA voice-AA face	1.8456	0.4486	0.000209

In the table above, the differences between the means of matches and mismatches is wide and significant. The differences between the means of matching groups are small and not very significant.

### 3.1.3 Ratings Distribution

Another way of examining the responses can come from looking at the distribution of responses given for the six possible combinations of three face categories and two voice categories. The histograms in this section depict the relative frequency for the combination a rating received. They are oriented towards the expected ratings discussed in the methods section. A rating of 9 is expected in matching face and voice categories. A rating of 1 is expected in AA/EA mixes or vice versa. Consider Figure 1 below.

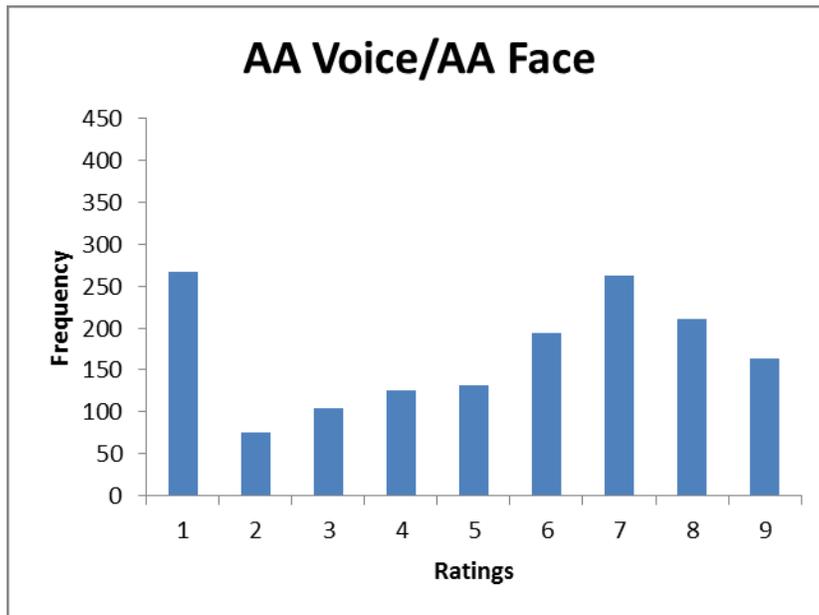
**Figure 1: EA Voice/EA Face**



In figure 1, we see that of the 1558 responses roughly 200 gave the expected rating, 9. But a slightly greater number of responses were on the opposite end of the scale, 8 points lower. Overall, however, the bulk of the responses are on the right side, with the slope of responses decreasing as the ratings go lower than the expected rating.

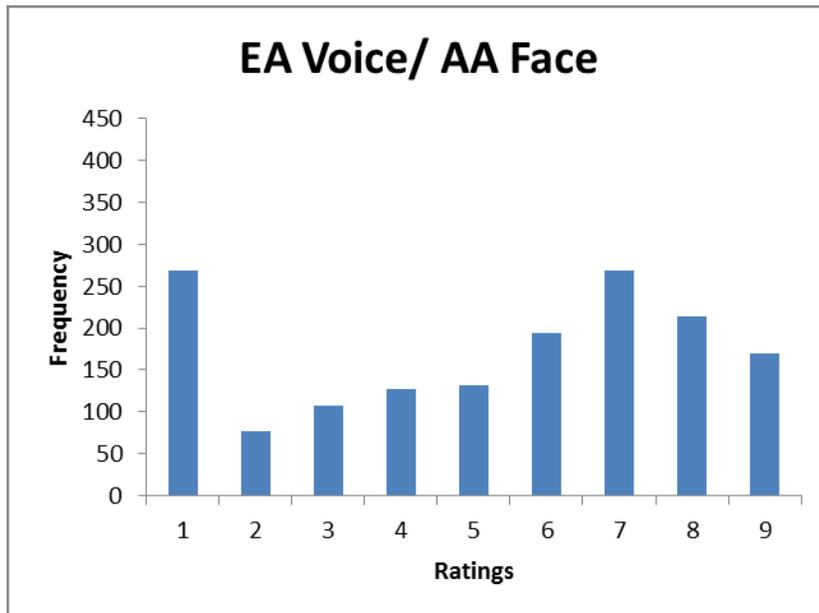
Figure 2, below, shows proportionate ratings given when confronted with the combination of another matching pair as in figure 1, this time with AA voices and faces.

**Figure 2: AA Voice/AA Face**



The distribution in figure 2 shows nearly equal ratings on either polar end of the scale, but the expected rating had slightly more; it is again grouped on the right side. Note that in figure 1, the expected rating, 9, was actually less than the polar opposite unexpected rating.

**Figure 3: EA Voice/AA Face**



For the pairing of EA voices with AA faces in figure 3, listeners gave a relatively large portion of their responses to the expected rating, 1, but there is a steady rise in responses further up towards 9. The listeners appear to have felt the black faces could match the white voices the more they go towards 1 on the chart.

**Figure 4: AA Voice/ EA Face**

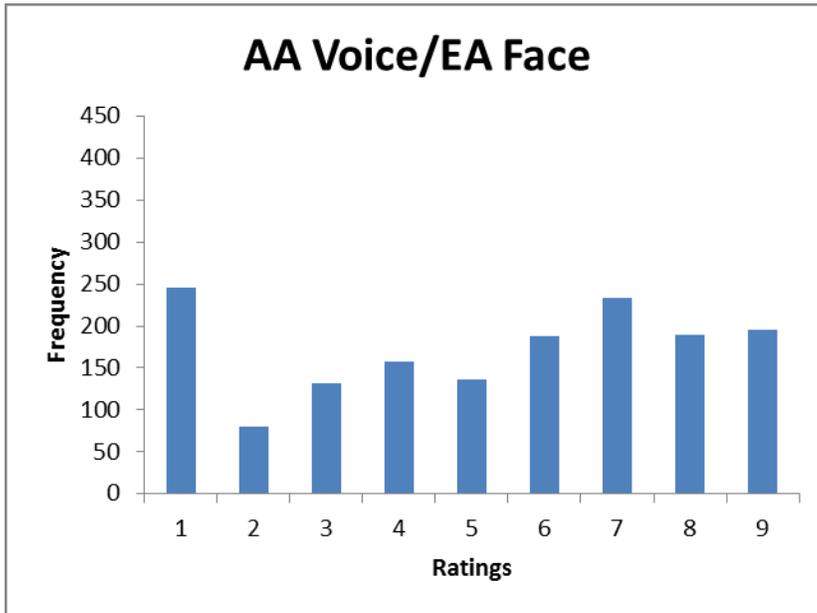


Figure 3, similarly to figure 4 above, shows that a large number of listeners gave the expected rating, a 1, for the mismatch of an AA voice with an EA face. However, the slope is in the opposite direction of the expected rating, steadily increasing from ratings of 2 up to 9.

### ***3.2 Female Faces Data***

In this section, the data extracted for listener responses is presented. References to expected responses are made to demonstrate important tendencies in the data.

### 3.2.1 Mean Scores

The listener's ratings of voice-face pairings were averaged. They are the mean ratings of listeners when confronted with matches and mismatches of the ethnicities represented in the sampled utterances and the faces shown on screen.

Table C, below, contains the means representing the matchup between AA faces and both AA and EA voices.

**Table C: Female Scores of Face-Voice Pairings on a 1-9 scale**

Voice-Face Pairings	Est. Averages	Standard Errors	Mean Face Score
AA Voice-AA Face	5.346	.2386	
AA Voice-EA Face	4.7	4.7013	
EA Voice-AA Face	4.986	.3264	
EA Voice-EA Face	5.79	.2812	
AA Face			5.166
EA Face			5.245

Table C shows that the mean score listeners gave, when confronted with an AA voice partnered with an AA face, was a 5.346. On average, listeners gave a score of 4.986 when presented with an EA voice accompanying an AA face. This represents a 3.64 point difference between the expected answer for AA voices matched with AA faces and a 3.986 point difference between the expected answer for the mismatched EA voices and AA faces. Quite interesting is the .36 point difference in mean scores in favor of the AA voices. The mean score given for all AA faces was 5.166.

The means for EA faces are shown when presented together with AA and EA voices.

The table shows that the mean score listeners gave, when confronted with an AA voice partnered with an EA face, was a 4.7. On average, listeners gave a score of 5.79 when presented with EA voices accompanying EA faces. This represents a 4.79 point difference between the expected answer for EA voices matched with EA faces and a 4.3 point difference between the expected answer for the mismatched AA voices and EA faces. Again, the spread between the two mean scores, 1.09 points, is to be noted. The mean score given for all EA faces was 5.245.

### 3.2.2 More Than Average Results

Mean scores alone are not enough to give certainty to the results. Another method using a linear mixed model on the responses with voice-race and face-race was put together with their interaction as fixed effects. The subject and picture/audio combination were set as random effects with a different variance for each voice-race/face-race combination. Additionally, there was testing for differences between the voice-race/face-race combinations using Turkey's HSD test.

Below are the pairwise differences between the four race combinations.

**Table E: Female Data Pairwise Differences**

Four Race Combinations	Estimated Means Differences	Std. Error of the Differences	P-Value
AA voice-EA face and AA voice-AA face	-0.6447	.3077	0.15257
EA voice-AA face and	-0.3592	.3276	0.68853

AA voice-AA face			
EA voice-EA face and AA voice-AA face	0.4513	.3124	0.46755
EA voice-AA face and AA voice-EA face	0.2855	.3521	0.84738
EA voice-EA face and AA voice-EA face	1.0961	.3135	0.00257
EA voice-EA face and EA voice-AA face	0.8105	.2737	0.0158

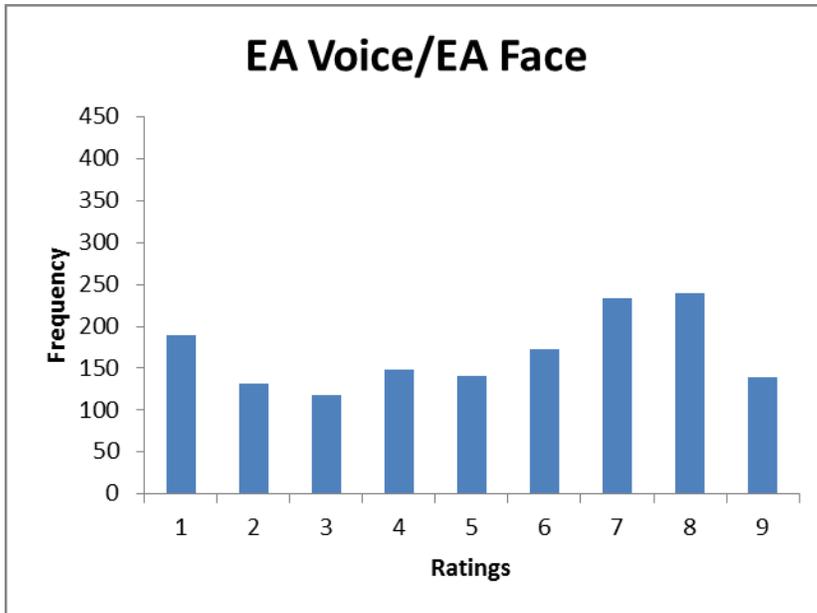
The differences between the standard errors for the combinations are significant in all cases. That means that there is a significant difference between the ranges of scores listeners gave for each combination versus each other combination. For example, matching ratings for combinations of white voices and white faces were higher than those for combinations of white voices and black faces, and this is demonstrated by the difference of standard errors of .2737

### 3.2.3 Ratings Distribution

Another way of examining the responses can come from looking at the distribution of responses given for the six possible combinations of three face categories and two voice categories. The histograms in this section depict the relative frequency for the combination a rating received. They are oriented towards the expected ratings

discussed in the methods section. A rating of 9 is expected in matching face and voice categories. A rating of 1 is expected in AA/EA mixes or vice versa. Consider figure 5 below.

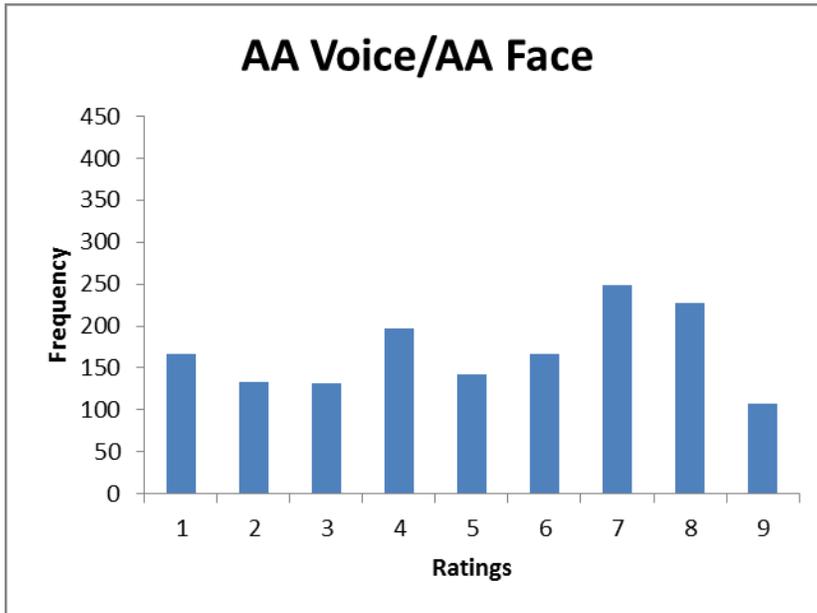
**Figure 5: EA Voice/EA Face**



In figure 5, we see that of the 1536 responses about 140 gave the expected rating, 9. A few hundred responses did move toward ratings indicating mismatch past the mid-way, 5, point. Overall, however, the bulk of the responses are on the right, with the slope of responses decreasing as the ratings go lower than the expected rating.

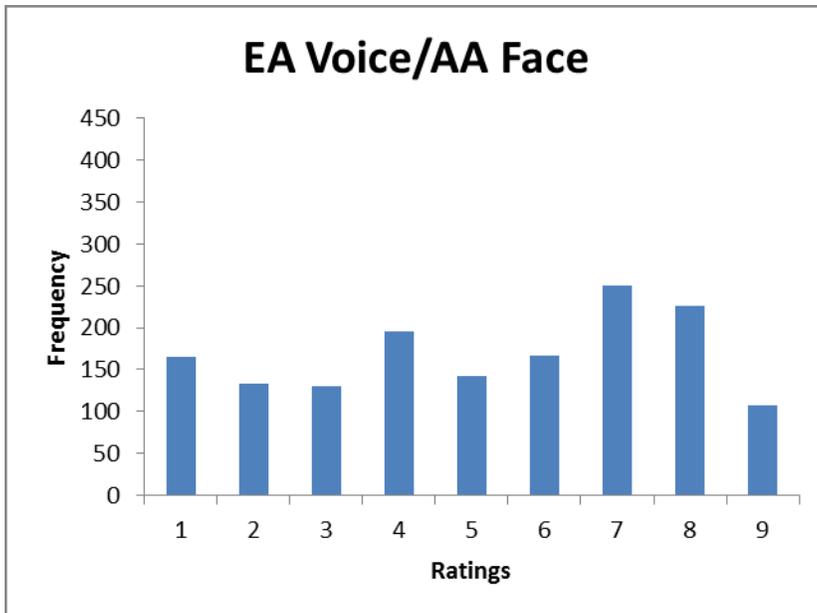
Figure 6, below, shows proportionate ratings given when confronted with the combination of another matching pair as in figure 5, this time with AA voices and faces.

**Figure 6: AA Voice/AA Face**



The distribution in figure 6 shows high ratings on either polar end of the scale, but the expected rating had slightly more; it is again leaning to the right. Note that in figure 5, the expected rating was actually less chosen than the polar opposite unexpected rating.

**Figure 7: EA Voice/AA Face**



For the pairing of EA voices with AA faces, the highest numbers of responses were for 6, 7, and 8. Though there were some high ratings on the other side of the mid-point to indicate there is no match, but the right side of the graph has more.

**Figure 8: AA Voice/ EA Face**

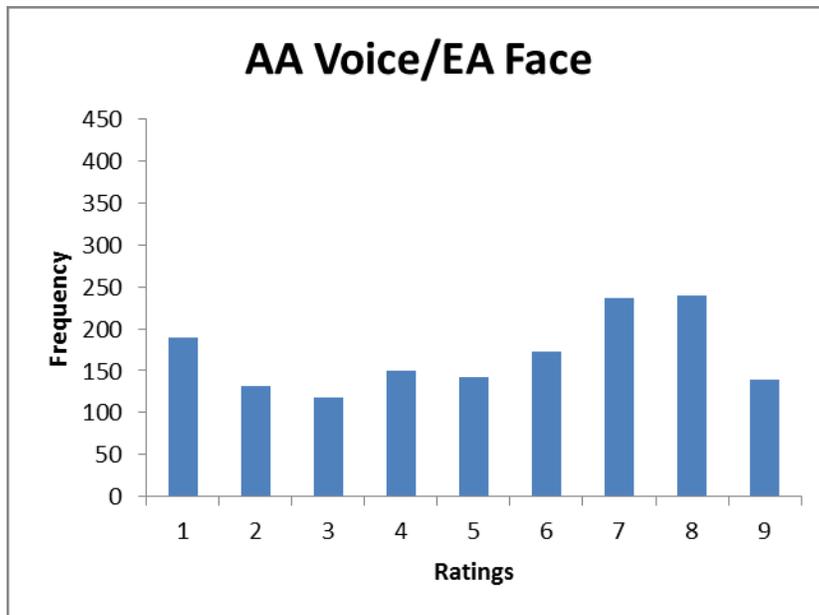


Figure 8 also has a majority of responses clustered between ratings of 4 and 8. Also, similarly to figure 7, 8 shows that a large number of listeners gave the expected rating, a 1, for the mismatch of an AA voice with an EA face.

## **Chapter 4: Discussion and Conclusion**

### ***4.1 Male Discussion***

A large scale, 1-9, leaves results vulnerable to extreme outcomes if listeners only rate using extremes of the scale. A review of response data showed that only one listener did

not use the entire scale, using just the numbers 9,8,7,5 and number 1. Removing that listener's data did not change the pattern of significance.

The mean scores in chapter 3 can be interpreted to answer at least three questions:

- (1) To what degree do Minnesotans detect speech differences among AA and EA men?
- (2) To what degree are Minnesotans correct about their ability to detect those differences?
- (3) What level of certainty do Minnesotans have about their ability to detect those differences?

#### **4.1.1 Difference Detection**

From the exit surveys, it was clear that most listeners instantly considered that the goals of the experiment were to detect ethnic differences in speech. Based on the ratings for both AA and EA voice and face categories, there was a distinct tendency to accurately match speech sample ethnicities with their face category counterparts. This is indicated by the skew of the responses, with most responses on the side of the scale with the expected response.

Classic AAE, as described by Labov, is expected to be distinguishable and well associated with AAs. The ability of Minnesotans to, on average, determine that a sample recorded by an AA matches the AA face category confirms that the AA talkers were in fact AAE speakers, or at least, their speech carried traits conveying their AA identities.

#### **4.1.2 Listener Accuracy**

Listeners were definitely capable, on average, of correctly matching voices with races. However, given a rating scale of 1-9, there was certainly room to provide ratings

closer to the expected ratings. Table A, showed that listeners were off by 2.7 points when matching AA speech samples with AAs. If AAE is as marked, compared to the standard, in Minnesota as one might expect based on decades of research, a score of nearly 3 points from the expected answer of 9, may be noteworthy. Put differently, listeners rated the expected AA voice and face match-ups as just a bit more than 1 step higher than the mid-point. Listeners didn't rate every AA face as one that would certainly speak AAE, and in the real world not every AA speaks AAE. On the other hand, it is also possible that the 9 rating is a response of caution rather than a lack of certainty.

At the same time, they were similarly correct about the non-matching of EA voices with AA faces. They were more than 3 points off from the expected answer of 1; they didn't expect an AA man to speak the speech samples from EAs. Listeners are in aggregate correct in their assessments.

Listeners were also, on average, able to match up voices and faces for EAs. But again, the correctness was just one point above having no opinion at all and still somewhat distant from the expected answer. This is equally true whether the match up involved AA or EA voices with EA faces. Listeners tended to gravitate towards the expected answer but not very decisively.

Given this consistent tendency toward the expected answers, the listeners can be considered to have fairly accurate intuitions about ethnic varieties of English in their region. It also indicates that Minnesotans are sensitive to ethnic variation in their region's English, at least for African American English.

### **4.1.3 Considering Listener Certainty**

Given the low number of extreme ratings, at least on a phonetic/phonological level, Minnesotans are not unanimously certain about ethnic variation in English. Perhaps they're reticent about having opinions on the matter, trying to avoid seeming too categorical via linguistic stereotyping.

## **4.2. Female Discussion**

A large scale, 1-9, leaves results vulnerable to extreme outcomes if listeners only rate using extremes of the scale. A review of response data showed that listeners did use the entire scale.

As with the male data, the mean scores in chapter 3 can be interpreted to answer at least three questions:

- (1) To what degree do Minnesotans detect speech differences among AA and EA women?
- (2) To what degree are Minnesotans correct about their ability to detect those differences?
- (3) What level of certainty do Minnesotans have about their ability to detect those differences?

### **4.2.1 Difference Detection**

Most listeners guessed the goals of the experiment involved the detecting ethnic differences in speech. Based on the ratings for both AA and EA voice and face categories, listeners tended to accurately match audio and visual stimuli according to ethnic pairings. The skew of the responses and their cluster near the expected rating indicates this.

Generally, AAE is expected to be distinguishable from MAE and well associated with AAs. The ability of Minnesotans to, determine and match face race with voice race, in the case of AAs, confirms that the AA talkers were in fact AAE speakers, or minimally, their speech samples carried traits conveying AA identity.

#### **4.2.2 Listener Correctness**

Listeners were definitely capable, on average, of correctly matching voices with races. However, given a rating scale of 1-9, there was certainly room to provide ratings closer to the expected ratings. Table C, showed that listeners were off by 3.7 points when matching AA speech samples with AAs. If AAE is as marked, compared to the standard, in Minnesota as one might expect based on decades of research, a score of nearly 4 points from the highest score, 9, is noteworthy. Put differently, listeners rated the expected AA voice and face match-ups as just  $1/3^{\text{rd}}$  of a step higher than the mid-point.

At the same time, they were similarly correct about the non-matching of EA voices with AA faces. With miss-match median scores of 4.7 and 4.98, both miss-matches were pretty much on top of the neutral answer of 5. They didn't easily differentiate speech from an AA woman or EAs, regardless of whether the face or voice was white or black.

Listeners were also, on average, able to match up voices and faces for EAs. But again, the correctness was between one point and two at best above having no opinion at all and still quite distant from the expected answer. This is equally true whether the match up involved AA or EA voices with EA faces. Listeners tended to gravitate towards the expected answer but not at all decisively.

### **4.2.3 Listener Certainty**

The great indication is that at least on a phonetic/phonological level, Minnesotans are not unanimously certain about ethnic variation in English. Perhaps they're reticent about having opinions on the matter. The realization that their responses would be studied by an African American cannot be ruled out as a motivation to try to avoid seeming too categorical via linguistic stereotyping. Measuring distances of the means in the tables above from 5, never yields any number greater than .8 points. Though slight, the greatest listener certainty comes in identifying dialect-race mismatches for AAE, MNE, AAs and EAs.

The histograms demonstrate some very interesting results. The ratings represent the certainty listeners have of an appropriate match between voice and face. Ratings closer to 1 or 9 demonstrate greater certainty; those closer to the middle show less certainty. The majority of ratings on the histograms are in the middle. Given the averages, the listeners really don't seem all that sure of the differences between AA women and EA women in Minnesota.

## ***4.3 Discussion of Combined Data***

### **4.3.1 Bi-Modal Distribution**

Though not as prominent in the perception of women's speech samples as in men's, one thing to really note is that there is a bi-modal distribution evident in the responses. There is a continuous distribution with two peaks. Two peaks appear in every chart for male and female data. Attitude ratings peak on either side of a neutral 5 rating. Also, because the distributions are bi-modal, means are not optimal summaries of the

data. This may represent that the perceptions of the voice samples are one-sided. There may be strong feelings in one direction for those disagreeing with the majority.

#### **4.3.2 Central Results**

The main concern for conducting this study was to better understand the question of whether features of AAE in Minnesota are so assimilate to the regional variety that listeners can't distinguish them. The central finding on this issue is that listeners do not accept mismatches between voices and faces. However, they do tend more that way for male voices than for female voices.

Listeners were more likely to rate actual matches between voices and face ethnicity as matches than they were mismatches for male voices, but not for female ones. Listeners' unwillingness to rate voices produced by European Americans with local Minnesotan features as matches to African American faces suggests that listeners do not believe the local variant of AAE to incorporate Minnesota English features, at least for male speakers. Though ratings were not on the extreme ends of the continuum, 1 and 9, indicating imperfect certainty for the listening listeners, they still correctly identified the mismatches as mismatches. Mean match values for the matches were greater than for non-matches

#### **4.4 Three Main Points**

The data shows three main things:

- (1) A tendency toward accuracy in matching the ethnicities of the speakers.
- (2) A relative lack of certainty in those matches
- (3) A stronger degree of certainty in matching male as opposed to female voices.

#### **4.4.1 Matching Accuracy**

It is expected that pictures of people of African descent would be matched with speech samples from African Americans. There is, after all, a variety named African American English.

#### **4.4.2 Matching Certainty**

Even though there was a tendency toward accuracy in matching ethnicities of voice samples with faces having characteristics of those ethnicities, the ratings were not so starkly on one side or another. That is to say listeners weren't particularly certain for either sex.

#### **4.5 Males**

The data from the experiment is not all together unexpected. There are a number of studies that discuss tendencies of males to use more vernacular features than females (Labov, 1966; Levine and Crocket, 1966; Trudgill, 1972). Specific to phonology, studies going back to the 1950s show black males using more AAE vernacular constructions than females (Fisher, 1958; Wolfram, 1969). Greater use of vernacular features on the part of the males or an association in the minds of listeners that African American males are less likely to sound like EA Minnesotans may be involved. Either way, the findings suggest that African American males are perceived, in Minnesota, to produce the characteristically Minnesotan vowels in the study which are not documented in other AAE varieties.

#### **4.6 Females**

In general, females tend to use more prestigious forms and less vernacular. In extreme cases, they may change their whole codes when the prestige of another language is sufficiently great. In a key example in the literature, Gal (1978) outlines a village where the women change their primary language from Hungarian to German. There are, however, notable exceptions such as young working class Glasgow women who were found to use very vernacular forms (Stuart-Smith, 2007). That data from the perception study in this dissertation indicate that African American females in Minnesota are barely distinguished from their European American counterparts is predictable given the stigma with which AAE is sometimes regarded. The fact that there is some tendency in correctly matching voice and face ethnicities shows that some variations may remain. Interestingly, this indicates that there may be AAE speakers producing Minnesotan vowels not expected in other AAE varieties.

#### **4.7 Summary**

An assumption underlying most work on AAE is that the variety is not subject to regional variation. When addressed, variation is typically explained as assimilation toward or away from mainstream European American varieties like Mainstream American English usually along socio-economic patterns. However, recent studies indicate that AAE may vary by location (Hinton and Pollock, 2000; (Thomas, E. R., 2007). It has been suggested that assimilation comes with increased integration and education and that the opposite comes with segregation. However, Minnesota is a place where African Americans seem to be perceived as relatively likely users of mainstream-regional, not AAE features.

In order to gauge the linguistic picture of African Americans originally from Minnesota, we paired the speech of African Americans and European Americans from Minnesota with pictures of African Americans and European Americans. Evaluating local mainstream Minnesotan ratings of these pairings, we were able to gather data on the perception and certainty of Minnesotans about AAE speech in their home state and get a sense of the phonological variation of this variety of AAE. The findings were in line with earlier reports concerning the ability of listeners to discern ethnicity from speech samples and with reports on relative vernacular usage between the males and females. Regional considerations can be counted alongside socio-economic concerns when describing the evolving picture of AAE and speech perception.

#### ***4.8 Implications for Linguistic Theory***

A common theme in core sociolinguistic theory is the variation that exists in languages across three main dimensions; these are time, space, and the social dimension. The name, African American English, clearly outlines the social dimension in the formation of the dialect, while dialects spoken by EAs have been identified by both region and social groups. The central finding on this issue is that listeners do not accept mismatches between the ethnically related voices and faces of different ethnicities. Attitudes about the speech of different ethnic groups and how similar or different they are from each other was correctly identified; however, the certainty of the listeners was weak.

This study may help us understand other issues relating to the assimilation of features in dialects and languages in the presence of other dialects/languages. The

attitudes toward these varieties can help us infer things about the actual population's integration. Perhaps, one could speculate, it may give a glimpse into cultural integration as well.

This research may be of help in understanding the movement and integration of world populations in an increasingly interconnected world. It can be a starting point for the discussion of what variation exists between the Turks in Germany and the Turks in Turkey. Further, should we find variation there we may identify connections between the variation and the German spoken in the area. Other visible markers from ethnicity would likely need to be employed for example changes in clothing. Listener perceptions or expectations about physical manifestations of social class might also have affected their ratings.

#### **4.9 *Limitations***

A number of limitations are involved in this experiment. The researcher selected and categorized the faces. A test of language attitudes would be strengthened by a confirmation that the ethnic classification matches the expectations of the listeners rating the matches. However, the fact that they did tend to accurately match the faces and voices makes it seem that the classification was satisfactory.

Another limitation was the choice of pictures. They lacked control for the potential effects of clothing, environment lighting in the still photographs. Effects regarding those elements and how they affect perception of similitude were not taken into account for the study, though the pictures mostly featured people in casual clothing. There was also no gauge for attractiveness. Studying the effects of relative attractiveness

and language attitudes with regard to how the people of varying attractiveness might be expected to sound would be an interesting line of research to explore. This and other photograph effects are a serious concern.

Getting samples by any means required was a significant concern for carrying out this study. Identifying and qualifying AAE speaking talkers was a serious challenge, so making recordings in non-ideal situations limited the potential for the highest quality recordings. However, there was no expectation that minor noise would obscure any of the most important dialect features, especially considering that optimal segments could be removed from multiple readings by the talkers.

Since the pairings of faces and voices was arbitrary, there could very well be mismatches in the physical size of the person pictured and the accompanying speech sample. Given the experiments setup, it wasn't possible to correct for this. It's possible that biases about how a bigger or smaller person should sound could factor into the ratings.

#### ***4.10 Future Research***

Future research can include (1) comparative studies of AAE phonological variation in other parts of the continental United States, (2) comparative studies of AAE phonological variation with regional dialects, and research on other population movements.

Frameworks for understanding cultural integration, similar to the push-pull, assimilation questions about AA culture in the USA, can be used along with linguistic analysis to find deepening integration or lack thereof.

It's also possible to imagine a study of perception variation alongside production variation. What may come from considering correlations between both perception and production of variants is uncertain. It may be interesting since both are subject to change, but studying perception may lend a deeper understanding of pressures that may influence changes in production.

An open question in this study is what effect clothing, skin color, and accessories worn, etc. may have had on listener's ratings concerning probability to match voice samples. Not merely theoretical, but also practical understanding could be derived from results in such a study if, for example, wearing glasses were highly correlated with high match ratings for AA-faces and EA-voices. Such a correlation might expose some bias listeners have concerning such accessories and other factors.

Studying how listeners in a region are likely to categorize ethnicities, via direct survey for example, could be a significant area to explore. It would aid in the development of future experiments on language attitudes due to the mitigation of miscategorization by the researcher in selecting images for the experiment.

The experiment relies on listeners classifying the faces as the researcher did. A separate study to check whether listeners with the same demographic profiles of the listeners in this study would indeed make the same classifications would be an interesting and helpful experiment in future studies like this one. Without that the conclusions drawn from the results of the experiment are more tentative than if such a study had been conducted. Having a classification scheme rather than relying on researcher intuition would certainly improve the replicability of the experiment.

One possible criticism of the conclusions drawn for this experiment could be that instead of AA males having MNE features, it's possible that listeners relied on the relative absence of MNE features in AA male voices. This could potentially lead to the same results. An analysis of production in the talker samples would improve understanding. While finding qualified talkers was a challenge in this study, and in some ways prompted this type of experiment, production analysis could improve understanding.

Further, due to the relative difficulty of finding qualified talkers, one might question the judgments of the listeners. The fact that there are so many migrant AAs and Africans could make listener attitudes unreliable. They're expectations of AA speech could be based on which ever AA population they live near. This was seen as a strength for the experiment, since people not familiar with AAs using MNE features might assume EA ethnicity which would demonstrate the anecdotal variation of AAs using MNE features. However, the listeners expectations could also be affected by the influx populations. Replicating this study in an area with fewer immigrant populations of AAs and Africans would likely mitigate this issue and offer new insights for other regional features as well.

#### ***4.11 Sociolinguistic Assimilation***

For decades, a major question in the field has been whether AAE is assimilating features of Mainstream American English. More broadly, the question has been whether Black America assimilating to Mainstream American culture. Studying language

attitudes in this way can help understanding of this kind of perceived linguistic and cultural assimilation.

This sociophonetic attitudes study has shown a way to avoid grouping AAs as a monolithic culture. It, instead, shows a way to consider the question of where AA language may be assimilating without relying on socio-economic situation as a mediator though that likely plays a significant part. In this dissertation, as is often the case generally, these findings in the area of AAE may have larger implications for other minority language contact scenarios.

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## **Appendix: Elicitation Readings**

### **Part A:**

I was wandering down the street one day when suddenly I saw a little boy zig-zagging down the side walk on a shiny red bike. As I saw him, I seemed to return for a moment to my own childhood. Playing tag with my friends and listening to gags told by Richard Pryor, that I shouldn't have been listening to were probably my favorite past times. Oh, how my mother used to nag me for listening to Pryor and Red Foxx records, but hey they were so funny!

Now, I don't want to brag, but I'd say my life is nowhere near as cool as it used to be. My wife hasn't aged well; OK, she's a hag I'll admit it. My clothes aren't designer, they're more like rags; basically my life's a big drag, a failure. The only tag I play now is phone tag and that's no fun. But there is good news. I just hit the lotto! So I'm packing my bags because I'm off to the Bahamas!

### **Part B:**

The best part of living in Minnesota is the snow. That is, if you like snow, then this is the place for you. I love winter. I can never wait to say good bye Summer and hello snow! And even though I know that it's not for everybody, I still invite all my family up here for Christmas and Thanksgiving in the hopes that they'll cave in and start to love it too. You know, I just love how the moon light glows off of the ice, and my friend Joe and I can go skating or ice fishing. That said when winter ends and spring comes I like to see the flowers grow. But all the same, the seasons seem to base so slow. I wish it were already December, so I could see it snow.

<b>Part C:</b>	<b>Part D:</b>
<b>Tag</b>	<b>Snow</b>
<b>Cooler</b>	<b>Toe</b>
<b>Love</b>	<b>Pop</b>
<b>Bag</b>	<b>Pie</b>
<b>Kate</b>	<b>Baggy</b>
<b>Tools</b>	<b>Foe</b>
<b>Zag</b>	<b>Smooth</b>
<b>Tank</b>	<b>Soda</b>
<b>Printer</b>	<b>Blow</b>
<b>Rag</b>	<b>Lane</b>
<b>Bank</b>	<b>Flower</b>
<b>Lag</b>	<b>Cake</b>
<b>Lane</b>	<b>Row</b>
<b>Roots</b>	<b>Flour</b>
<b>Magpie</b>	<b>Crow</b>
<b>Cow</b>	<b>Bank</b>
<b>Rain</b>	<b>Cow</b>
<b>Shaggy</b>	<b>Crown</b>
<b>Rule</b>	<b>Clown</b>
<b>Baggy</b>	<b>Flow</b>