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I'M NO HOOSIER!
EVIDENCE OF THE NORTHERN CITIES SHIFT IN
ST. LOUIS, MISSOURI

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JILL CHRISTINE GOODHEART

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of the requirements for the

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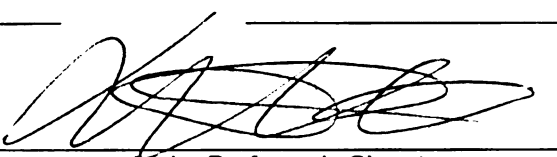

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Date

I'M NO HOOSIER!
EVIDENCE OF THE NORTHERN CITIES SHIFT IN ST. LOUIS, MISSOURI

By

Jill Christine Goodheart

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ABSTRACT

I'M NO HOOSIER!
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By

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According to the Atlas of North American English, the Northern Cities Shift (NCS) is making its way to St. Louis, Missouri. This claim is, however, based on a very limited set of only four speakers. The following thesis, therefore, more fully examines the existence of this speech phenomenon in St. Louis among young speakers there.

To determine the presence (or absence) of the NCS in St. Louis, acoustic analysis was conducted on the speech of 29 young St. Louis residents. Statistical tests were employed to determine the extent of two early stages in the shift: /æ/ raising and /ɑ/ fronting. In addition, two social variables were examined: sex and social class. Results showed that the NCS is likely in the beginning stages in St. Louis, and that upper middle class men and boys are resisting the NCS feature which was exhibited by most informants: /æ/ raising. Surprisingly, however, it is the upper working class men and boys who are leading another early stage in the shift: /ɑ/ fronting.

Why the NCS would be emerging in St. Louis is somewhat puzzling, since it has traditionally been a unique dialect region. However, attitudinal data from these young St. Lousians shows that they reject their local dialect, as well as associations with the state of Missouri. They also reject the nearby Southern dialect region, which they associated with being a *hoosier*, a major insult in the Gateway City. Thus, it appears that these young residents of St. Louis must look elsewhere to find their linguistic identity.

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1.0 Introduction

1.1 Research Questions and Aims

The Northern Cities Shift (hereafter, NCS) has been called the most robust sound change currently going on in the US. While there has been and continues to be extensive work done on the NCS throughout Michigan and Illinois (Callary 1975, Eckert 1989a, Labov 1994, Habick 1993, Herndobler 1993, Ito 1999, Gordon 2000 and 2001, Evans 2003, Jones, 2003), the work done examining its presence in St. Louis, Missouri is quite limited. In fact, St. Louis as a region of linguistic study has been ignored by many, despite claims that it is a unique dialect area in the middle of robust change. There has been nothing published examining the NCS in any great depth in St. Louis, despite the evidence presented in the Atlas of North American English that the NCS is gaining a foothold in the St. Louis area, although not in the rest of the state. This is, however, based on a very limited study of St. Louisians, mostly over the telephone (Labov 2003). As there are a great many sociolinguists who find the NCS to be one of the most significant changes in American dialects in a century, it is of interest to many in the field that we examine just how quickly it is spreading and where it is headed, and perhaps gain some insight into why it is moving to particular regions. In addition, the northeast and southern parts of the US have received much more attention from linguists than most of the "middle" states, so this study will contribute to filling in a gap in our knowledge of Midwestern dialects.

For those unfamiliar with Missouri and its politics, attitudes, and diversity, it may seem as though the state could have linguistic uniformity. In fact, one may even believe something like "Missouri speech" could possibly exist. Missouri, however, has both attitudinal and linguistic diversity. Urban and rural areas cannot agree on concealed

weapons; many Missouri residents eschew the University of Missouri and look outside the state (Iowa, Kansas) for college sports teams to root for, and the two major cities of the state, Kansas City and St. Louis, cannot even agree on the infamous pop/soda controversy.

St. Louis has the largest metro area in the state and is situated on the Missouri/Illinois border. And while suburbs continue to sprawl to the north and west, the city itself tends to be the geographical identifier of its residents (not their particular suburb) when traveling outside the area.

These linguistic, social, and cultural facts bring up many questions regarding the current linguistic practices of the people of St. Louis. Are they content to sound like a St. Louisian? Or do people in the Gateway City instead look outside the state, to cities such as Chicago, for their linguistic identity? Or do they look towards the rest of Missouri or surrounding southern states? Ultimately, is there evidence of the Northern Cities Shift in St. Louis, Missouri which is replacing the receding, but historically unique speech of St. Louis? If so, how advanced is such a shift? Are there any attitudinal factors that would increase the likelihood of such a shift in St. Louis? The following study will focus on evidence of the NCS in young residents of the Gateway City and what regional attitudes may play a role in its adoption. Additionally, the social factors of sex and class will also be examined to determine what role they have in the presence (or absence) of the NCS in St. Louis.

1.2 The Northern Cities Shift

As is well known among sociolinguists, the Northern Cities Shift is an urban sound change observed primarily in the northeastern part of the United States, noted especially in

Rochester, Syracuse, Detroit, Buffalo, Cleveland and Chicago (Labov 2001: 7). Credit as the original "discoverer" of this shift has been given to Fasold, from an unpublished 1969 work. He first described the raising of /æ/ and the fronting of /ɑ/ and /ɔ/ in Detroit (Labov 1994: 178).

These shifted vowels (fronted, raised, etc.) are given relative to an older American English vowel system, such as that described by Peterson and Barney (1952), which has become a baseline for American English vowel studies. Such a system can be seen in Figure 1.1. The NCS has been discussed in comparison to this model. The Peterson and Barney study does not, of course, give us definitive results on exactly how Americans sounded in 1952, as the research was based on a less-than-ideal set of 76 speakers from various parts of the US, and a total number of tokens of only 1520. However, since the use of Peterson and Barney's vowel system is so widespread, it will be used here as the benchmark of pre-shifted vowel systems. Unfortunately, there is a lack of data on older St. Louisians' speech. When comparing language changes in progress, researchers in the past have compared current language use to recordings of much older speakers, such as from the Dictionary of Regional English (DARE). Unfortunately, the only data collected for DARE from St. Louis were from African American speakers. And, as the current study focuses on the speech of European Americans, a comparison would be inconclusive. In addition, Missouri appears to have been neglected in linguistic atlas projects, so there is no data available from such sources on St. Louis speakers. Therefore, it is an unfortunate gap in this study that St. Louis speakers from generations gone by are not examined.[1]

[1] Although there are no European American DARE recordings for St. Louis, it is likely that other recordings of older generations are available for future researchers of the speech of St. Louis. It is possible, for example, that recordings have been made for the purpose of documenting oral histories, story telling, or family histories.

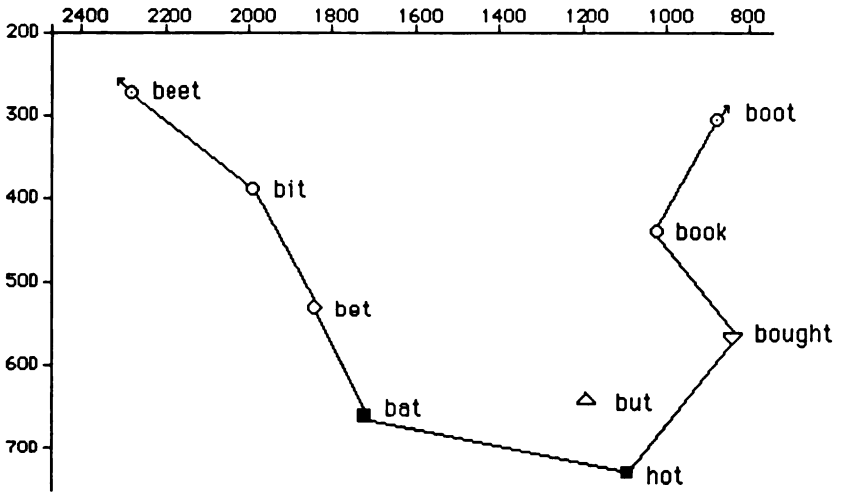

Figure 1.1: a pre-NCS vowel system based on Peterson and Barney (1952); these researchers did not include /o/ or /e/ in their study.

Sociolinguist William Labov (1994: 178, 194) claims the NCS progresses in several continuous and connected steps. He claims the steps are as follows: the raising of /æ/, followed by the fronting of /ɑ/, and the lowering and fronting of /ɔ/. Later steps include /ɪ/ lowering, /ɛ/ backing or lowering, and /ʌ/ backing. The claim of Labov is that the NCS is a chain shift: the space in the vowel system created by the raising of /æ/ "pulls" /ɑ/ to a more fronted position to fill the void. Subsequently, /ɔ/ is "pulled" to a lower and more fronted position to fill the space left by /ɑ/. Figure 1.2 shows a vowel system with arrows indicating the movements of the vowels from pre-shifted to shifted positions:

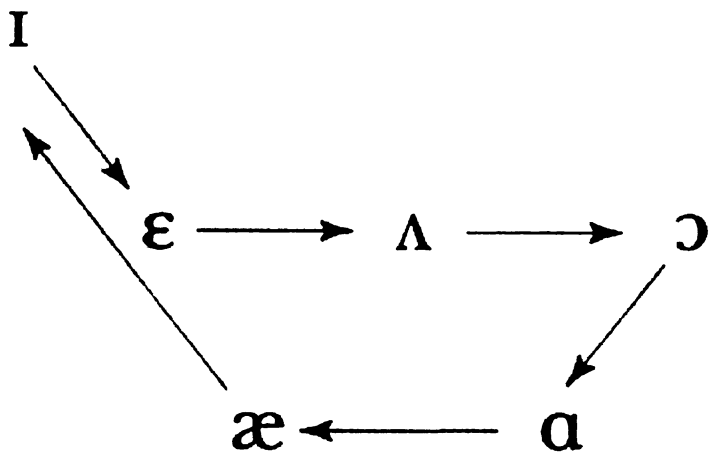

Figure 1.2: The Northern Cities Chain Shift; from Gordon (2001: 197) after Labov 1994.

There have been some hypotheses that the Northern Cities Shift is not, in fact, a chain shift (Gordon 1997, 2001). Matthew Gordon, who makes some of the major arguments against the NCS as a chain shift, does concede that when one of these changes is occurring, it is accompanied by the other phonetic changes as well, despite the fact that he says the "relatedness of the NCS vowels can only be partially confirmed" (Gordon 2001: 196).

Despite this claim, there have been several studies to confirm that, indeed, the raising of /æ/ is a very early step in the NCS (Labov, Yeager, and Steiner 1972, Labov 1994, Eckert 1988, Gordon 2001). There are some claims, however, that the fronting of /ɑ/ actually occurs before the raising and fronting of /æ/; thus, /æ/ is "pushed" by /ɑ/ to its new position (Gordon 2001: 207). Both /ɑ/ fronting and and /æ/ raising are examined in the present study. It is important to note that the raising of /æ/ primarily refers to its onset. In the most advanced speakers, /æ/ usually raises to close to /ɪ/ position with an inglide.

The resulting vowel is something such as /ɪ^{ə}/. Therefore, only the onset will be considered for the purposes of this study.

Interestingly, this speech phenomenon is (and historically has been) on the move. Labov calls it "one of the most vigorous sound changes now in progress in the United States" (1994: 178). His claim is that the NCS began in New York state and made its way westward to urban areas (2001: 7). Callary's research also supports this sound change as an urban one; he found that in Illinois, the larger the community, the more raised /æ/ was in that community (1975). However, there has also been some work done which shows that in the regions where the NCS is most advanced, it is also making its way to less populous areas (Ito 1999, Gordon 2001).

The NCS is a language change in progress that is below the level of consciousness of its speakers. There are several predictions made about such "change from below." One such prediction is that women should lead this change. Much evidence done on NCS has supported this claim, as females tend to lead males in the use of the innovative NCS forms (Fasold 1969, Eckert 1988, 1989a). In fact, Labov claims that "women are very much in the lead" in this particular speech phenomenon (2001: 285).

It is predicted that lower middle class and upper working class speakers are more likely to embrace changes from below. And while class appears to play a role in the NCS phenomenon, evidence is not all on the same page (Fasold 1969, Herndobler 1993, Eckert 1988, 1989a). It appears, however, that middle class and lower middle class individuals, especially women in these groups, tend to lead this change. It is also the case that young people, such as young adults and youth in late adolescence, tend to lead changes from below, and this is borne out in NCS research as well (Labov 2001, Ito 1999).

The vast majority of research done on the NCS has included primarily European Americans (with the exception of Jones 2003 and Gordon 2000). NCS is considered primarily (or, at least, initially) a European American phenomenon. This is borne out by Gordon (2000), who did not find African Americans or Mexican Americans participating in the NCS in a community where the sound change was at the beginning stages. Jones found some evidence of African Americans using NCS features, but her investigation was in a region where the shift is well advanced.

According to Labov (1994: 100), there are certain phonetic environments which promote or favor the raising of /æ/ more than others; for example, before word-final apical nasals (e.g. *man*). He gives the following hierarchy in regards to the manner of articulation of the following phone, starting with the most favorable to /æ/ raising: nasals, voiceless fricatives, voiced stops, voiced fricatives, voiceless stops. He also gives a hierarchy for the following place of articulation: palatal, apical, labial, velar. Certain proceeding consonant clusters, however, such as obstruent + liquid (as in the word *black*), have been shown to retard the process (Labov 1994, Ito 1999, Jones 2003).

1.3 St. Louis

1.3.1 Claims about St. Louis and the NCS

According to work done on the Atlas of North American English, the Northern Cities Shift has begun to make its way to St. Louis (Labov 2003). Of the four St. Louis individuals interviewed by project researchers, three are said to have characteristics of NCS in their speech. It is important to note that the Atlas of North American English is a telephone survey, which is not the optimal environment for collecting speech data. Despite

this small data set, Labov makes the claim that "St. Louis is undergoing a massive shift towards the pattern of the Inland North, including the Northern Cities Shift" (2003). Another claim is that St. Louis is "transitional" in the spreading of the NCS to more southern states and the southern expansion of the Northern Cities Shift (Labov 2003).

1.3.2 St. Louis: linguistically unique from the rest of Missouri historically

Traditionally, dialectologists have viewed most of Missouri as a Midlands dialect area, though the Midlands is often defined by the lack of defining dialect features of those regions which surround them - a kind of transitional area between the north and the south (Labov 2003, Murray 2002, Lance 1974, 2003). Most of the time, as in Donald Lance's dialect map, Missouri is simply divided into North and South Midland. Indeed, Lance called this particular region "ambiguously midland" in 1974 (9-10). And while the dialects of east coast cities such as Philadelphia, New York, and Boston have been studied extensively, many Midlands cities, such as St. Louis, have been largely neglected. From what has been published, it appears that all of Missouri does not fit into the same dialect category. In addition to claims that St. Louis comprises its own unique dialect region and claims of Missouri being a Midland region, there are also pockets of southern speech in Missouri (Labov 2003).

Based primarily on lexicon, and confirmed by an analysis of "pronunciation," Frazer (1979) argued that the western part of Illinois opposite St. Louis, as well as several Missouri counties surrounding the city, comprise a "speech island." In his most recent research, much of which is over two decades old, this pocket of unique speech was aligned in both pronunciation and lexicon with the North and North Midlands, "contrasting sharply with

the region speech of the surrounding area" (Frazer 1979: 186). A rendition of this speech island is given in Figure 1.3:

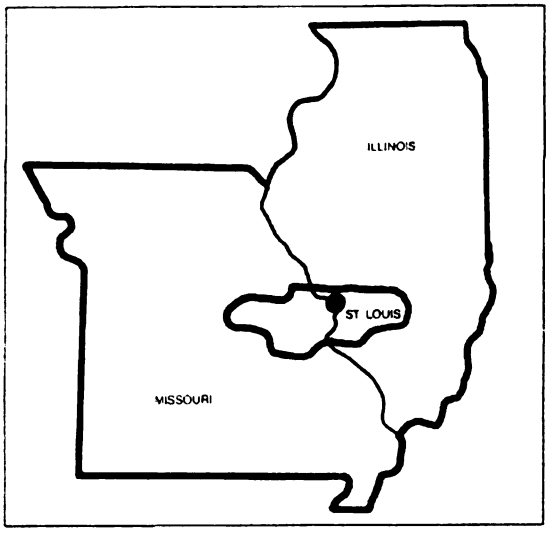

Figure 1.3. Boundaries of the Northern/North Midland speech island surrounding St. Louis. (Murray 1993, based on Frazer 1979: 192n1)

It is also notable, however, that Labov and others assert that, although larger regions of the US are "becoming increasingly differentiated from each other," this does not "apply within the major regions" (2003). Thus, although there is increased diversity from one region to another (such as between the North and the South), speech within those larger regions is becoming more homogenized.

1.3.2.1 Phonology

As anyone would know who has spent much time there, St. Louis has a dialect characteristic which is quite recognizable, as it is often the butt of jokes about the region. In fact, Labov calls this St. Louis' "most distinctive traditional feature" (2003). It is the merger of words such as *cord/card* (to *card*) and *for/far* (to *far*) while *four* remains distinct (Murray 2002). Since two major highways in St. Louis are interstate 40 and state highway

44, a common way of poking fun at this dialect feature is to exaggerate its presence in the word "forty" and (incorrectly) in "four." Due to the fact that this speech phenomenon is highly stigmatized, however, it appears to be receding (Murray 2002, Labov 2003). Regardless, this merger is still recognized by most inhabitants of St. Louis and is "strong enough to act as a defining feature of St. Louis dialect" (Labov 2003). Indeed, every individual interviewed for the purposes of this study was aware of this speech characteristic, even though none exhibited it and few said they knew many young people who spoke this way.

Despite the fact that the *cord/card* merger appears to be dying out, St. Louis' dialect still remains distinct, at least from the rest of the state of Missouri; for example, there is evidence that the widespread *caught/cot* merger is occurring in nearly every part of the state, except St. Louis, which keeps this distinction (Majors 2003, Labov 2003). This is also noteworthy because a resistance to the *caught/cot* merger is a feature of the Northern Cities Shift, as the fronting of /ɑ/ and the fronting and lowering of /ɔ/ are some of the first stages in the shift.

1.3.2.2 "Hoosier"

Another distinct speech characteristic of St. Louis is not a feature of phonology, but is a lexical item: the word *hoosier.* For most Americans familiar with this term, it is usually associated with inhabitants of Indiana, as it is Indiana's nickname: The Hoosier State (Graf 2000). For the most Americans, it carries no derogatory overtone (Seely 2003). For some reason, however, St. Louisians have, in their collective lexicon, a unique definition of *hoosier* which aligns itself with terms such as *hick* or *hillbilly.* The use of this term in St.

Louis has been of interest to researchers for at least a few decades. Crinklaw said in a 1976 article that inhabitants of St. Louis associate *hoosier* with a "displaced country man who moves into a city neighborhood and tears it up" (60). Murray found that his informants associated this term with characteristics such as "lazy, slow moving, derelict, and irresponsible" (1987: 3). Historically, the origin of this term is unclear, though there are dozens of hypotheses. Indiana historian Jeffrey Graf, who has done extensive research on the term, explains some of these accounts:

> Like barnacles, a thick crust of speculation has gathered over the word "Hoosier" to explain the origin of Indiana's nickname. The popular theories, diligently and often sincerely advanced, form a rich, often amusing body of folklore. Those theories include: "Who's here?" as a question to unknown visitors or to the inhabitants of a country cabin; Hussar, from the fiery European mounted troops; "Huzzah!" proclaimed after victory in a fight; Husher, a brawny man, capable of stilling his opponents; Hoosa, an Indian word for corn; Hoose, an English term for a disease of cattle which gives the animals a wild sort of look; and the evergreen "Who's ear?" asked while toeing a torn-off ear lying on the bar room floor the morning after a brawl (2000: 1).

Graf also points out that when *hoosier* originally came into use, it was probably "a term of contempt and opprobrium common in the upland South and used to denote a rustic, a bumpkin, a countryman, a roughneck, a hick or an awkward, uncouth or unskilled fellow" (2000: 1). And despite the fact that this meaning has largely fallen off, he points out that St. Louis is an "important pocket of linguistic resistance" to embracing the current use of the term in Indiana and elsewhere.

Graf points out that *hoosier* in its original sense may be heard infrequently by those familiar with the term. However, it appears to be quite widespread in the Gateway City. In

fact, Murray points out in his 1987 study of *hoosier* that "few epithets in St. Louis carry the pejorative social connotations or the potential for eliciting negative responses that *hoosier* does" (3). In the current study, and all but one of the respondents in the entire corpus of 47 were very familiar with the term, and all associated it negatively. The most common synonyms given were: *hick, hillbilly, white trash, redneck,* and *country person.* In Murray's study, *hoosier* was the insult of choice for white males, though its use for women and African Americans was also robust. He defined St. Louisians' use of *hoosier* with the following analogies:

> If the driver of another car swerves in front of a St. Louisian who is also driving, the person who swerved is a Hoosier. Similarly, if someone attends a social event or even merely appears in public and is inappropriately underdressed, that person is a Hoosier. In short, any person whose behavior is perceived as nonstandard by a St. Louisian in any way is a prime candidate for Hoosier status. (1987: 3).

Murray also found that when he played recordings of speakers from various social classes for his informants, they could accurately distinguish upper and lower class speakers (his labels). Lower class speakers were most often assigned the label *hoosier.* When asked where the *hoosiers* were likely from, respondents claimed they were likely from southern Missouri (Murray 1987). And interestingly, according to the Atlas of North American English, southern Missouri, most notably southwest Missouri and the so-called boot heel, is the only section of the state included in the southern speech region (Labov 2003).

Murray predicted that, despite being "alive and well" in 1987, *hoosier* would soon "die the ignoble death at the hands of Father Time" (1987: 7). However, evidence from popular culture and the current study prove use of the derogatory *hoosier* is still thriving. In addition to the data from the present study which supports this fact, evidence from a less

academic realm also shows *hoosier* is not going to die an "ignoble death" any time soon. For example, MU330, a St. Louis ska band popular in the late 1990s, has a song entitled "Hoosier Love" on their 1993 album, which contained lyrics such as: "We don't need no high school/No high school! I don't want to go/We'll have kids at 17/Gettin' laid at Dairy Queen/Hoosier love, Hoosier love, southside city Hoosier love." Such lyrics indicate that the image of a *hoosier* as a working class, less educated person with low morals is still a salient one for listeners of the song. In addition, Mike Seely, a columnist for St. Louis' weekly paper *The Riverfront Times*, has written about the term as recently as 2003. Moreover, a short film by two St. Louisians entitled *Hoosiers Are From Mars* addresses the St. Louis *hoosier*. In this film, *hoosiers* drive beat-up pickup trucks, date ugly women (or are ugly women themselves), and wear mullets (the short on top, long in the back hairstyle often the object of much ridicule). In the opening clip of the film, a *hoosier* is defined: "St. Louisians agree that hoosier is a noun but use the term negatively to describe individuals a step above white trash" (Henroid and Shah).

1.3.3 Linguistic Influences on St. Louis[3]

Historically, St. Louis has had diverse linguistic input from the immigrants and migrants who settled in and near the city in the mid and late 19th century. During this time, St. Louis saw a large growth in population from individuals moving to the Gateway

[3] It should be noted that this examination into immigration and migration to St. Louis focuses primarily on Europeans and European Americans. This is not to say there was a lack of African American presence in St. Louis. However, despite the city being aligned with the union cause against southern secession and slavery, there was not a large population of African Americans just before the Civil War, at which time African Americans comprised just two percent of the population (Kamphoefner 2003: 89). And after the Civil War, the number of African Americans in the state as a whole dropped even further, as many former slaves left Missouri to find work elsewhere (Holland 2003: 68). Much like the rest of the country, there was enforced and de facto segregation in St. Louis between whites and blacks for decades. Indeed, the largest number of African Americans who live in the St. Louis metropolitan area today live in the nearly all-black community of East St. Louis, Illinois which lies across the Mississippi River from St. Louis, Missouri. Thus, any linguistic influences African Americans have historically had on the speech of St. Louis is unclear.

City, primarily from other countries, including England, Ireland, Switzerland, Alsace, the Austro-Hungarian Empire, Germany, various Slavic countries, and Canada. In fact, by the 1850s, the majority of St. Louisians had been born abroad (Kamphoefner 2003).

The earliest European settlers in St. Louis were largely French and Irish immigrants, initially bringing with them linguistic influences, including the introduction of numerous French creoles. According to some dialectologists, however, these groups did not leave a lasting impact on the speech of St. Louis (Frazer 1979). The most significant group of immigrants was from Germany, who began to arrive around 1830; their immigration to St. Louis increased at a rapid rate throughout the mid-19th century. Germans, who were concentrated primarily in the north and south sides of St. Louis, had considerable linguistic and cultural influence on St. Louis (Marckwardt 1980, Lance 1993). By the time fighting during the Civil War broke out in the United States, there were ten languages spoken in St. Louis, the predominant one being German, which was taught in schools and was nearly part of the cultural mainstream (Kamphoefner 2003). Most likely, direct influence of German linguistic heritage in St. Louis is evident most strongly in certain lexical items, although there has been some evidence that some phonological features from German were not so quick to die out (Marckwardt 1980, Lance 1993). However, according to Frazer (1979), the most dramatic influence of the German immigrants was not their use of the German language features, but their embracing of a more "Yankee" style of speech, not the speech of any Southerners they encountered. Frazer's claim is that North and North Midland speech was most likely the preferred speech variety due to the fact that "Yankee" settlers to the St. Louis region "regarded themselves as representatives of a superior culture, and their prejudice extended to language as well" who viewed individuals

from the South Midlands as "their linguistic inferiors" (1979: 188-189). And indeed, the majority of school teachers in St. Louis were not of Southern heritage, and most likely spoke a dialect that Frazer calls the "prestige model" of more northern speech (1979: 190-192). He even claims that Germans living in the rural areas surrounding St. Louis "did not feel comfortable with [their Southern] neighbors as cultural or linguistic models," and thus adopted a more "Yankee" style of speech (Frazer 1979: 190).

During and after the Civil War, immigration to St. Louis steadily declined, much to the dismay of its inhabitants there. In fact, losing population growth to Chicago by the turn of the 20th century gave St. Louis what one historian called an "inferiority complex" (Meyer 1963: 501). Indeed, St. Louis has never seen immigration like it saw in the 19th century; even when other large immigration waves came to the US, they "largely bypassed St. Louis" (Kamphoefner 2003: 97).

In addition to immigration from foreign lands, St. Louisians saw a migration from their fellow countrymen during the mid-19th century. At this time, large numbers of both northern and southern Americans migrated to St. Louis, impacting the speech of the Gateway City. The largest number of migrants coming to the state of Missouri and western Illinois came from southern states; the majority of them came from Kentucky, Tennessee, and Virginia (Kamphoefner 2003, Frazer 1979). However, by 1860, most migrants coming to St. Louis were from "Yankee" states: New York, Pennsylvania, Ohio, and Illinois (Kamphoefner 2003: 89). In fact, as one Missouri historian explains, "in terms of its population, St. Louis remained a Northern city in a Southern state" (Kamphoefner 2003: 89). This was indeed the case for most residents during the Civil War, as most St. Lousians aligned themselves with the union cause, including a vast majority of German

immigrants and German Americans (Kamphoefner 2003: 85).

According to Frazer, there was also an interesting class split based on these regional differences in the city of St. Louis and surrounding areas: Northerners tended to be more educated and live in the urban areas, while Southerners tended to have less education and live in the more rural surrounding communities (1993, 1979: 188-192). Migrants from the North also tended to have more political and economic power than those from southern states (Frazer 1993: 63-64).

As has been noted, southern speech is generally a stigmatized dialect in the United States (Preston 1993). This general tendency is the case in St. Louis as well, as discussed in Frazer 1979 and Murray 1993. Murray claims that St. Louisians are aware of "more correct" or "more standard" language use, especially with younger informants (1993: 129). Although this data was collected in 1986, the tendency appears for the trend to continue. In addition, there also seems to be a desire in St. Louis not to sound like a *hoosier.*

1.3.4 St. Louis Becoming 'Northern'?

In addition to evidence regarding the uniqueness of St. Louis' dialect region, and influences of the early preference for "Yankee" speech, it has also been suggested for decades that St. Louis continues to align itself dialectically with northern dialect areas. Thomas Murray, who has done some extensive data collection on St. Louis speech, though not the NCS specifically, has also made a claim that the speech of St. Louis is becoming more "northern" with each generation. And while Murray initially worries that "one could easily surmise that the language of St. Louis is a hopeless amalgam of Northern, Southern, and North and South Midlands speech traits," he also claims that patterns towards

"northernness" are evident (Murray 1993: 129). Based on his collection of data from 1986, which included an examination of lexicon, syntax, and phonology, Murray concludes that St. Louis aligns itself with Northern and North Midland dialect regions, more so than Southern or South Midlands. In a more recent study, where he compares his older data with another collection from the 21st century, St. Louisians are moving to an even more Northern dialect. He says that both "culturally and psychosocially, the Northern/North Midland standard seems to be growing more robust, further displacing that of the South/South Midlands" in St. Louis (Murray 2002: 349). In the youngest generation of speakers from his newest data collection, all of the linguistic factors he examined have become more "northern," most robustly in "pronunciation" (Murray 2002).

According to Labov, Ash, and Boberg, St. Louis "has long been recognized as a center of Northern linguistic influence" (1997). In fact, based on a very small number of informants, Labov claims St. Louis is undergoing a "massive shift towards the pattern of the Inland North, including the Northern Cities Shift" (2003). Here Labov also claims that the embracing of the NCS in St. Louis differentiates it from the surrounding Midland area. This continues to keep St. Louis distinct from other areas of Missouri.

1.4 Summary

In addition to giving the background on the speech phenomenon examined in the present study, this chapter has shown how St. Louis is historically a unique dialect region, based on both phonology and lexicon. It has also provided a historical reference for the speech of the region as well as given an update on the allegedly increasing "northern" speech exhibited by the inhabitants of St. Louis.

The following chapters will explain how data was collected, analyzed, and interpreted in an attempt to address the question of whether the NCS is making its way further south to St. Louis.

2.0 Methodology

2.1 Respondents

Since it has only recently been documented that the NCS may be making its way to St. Louis, it is likely that the speakers of this new dialect will be young individuals. Therefore, this study focused on young St. Louisians, ages 15-26. Two social factors were used to further examine the social embedding of the Northern Cities Shift if evidence of its presence is found: sex and social status. Attitudes about St. Louis, American English dialects, and Missouri were also examined. The data examined in this study are taken from a larger set of collected data. A total of 47 individuals were interviewed during November of 2003 and January of 2004. From this data set, 29 will be examined in the current study. Informants were excluded from acoustic analysis because they have lived for several years outside of St. Louis, are currently attending college in another city, live in Illinois, or because their social class was difficult to determine. Those respondents who were chosen for acoustic analysis are distributed nearly evenly with respect to three social classes (upper working class, lower middle class, and upper middle class) and both sexes. The distribution of informants is summarized in Figure 2.1. As is clear from the figure, five informants were sampled for each cell except for upper working class males.

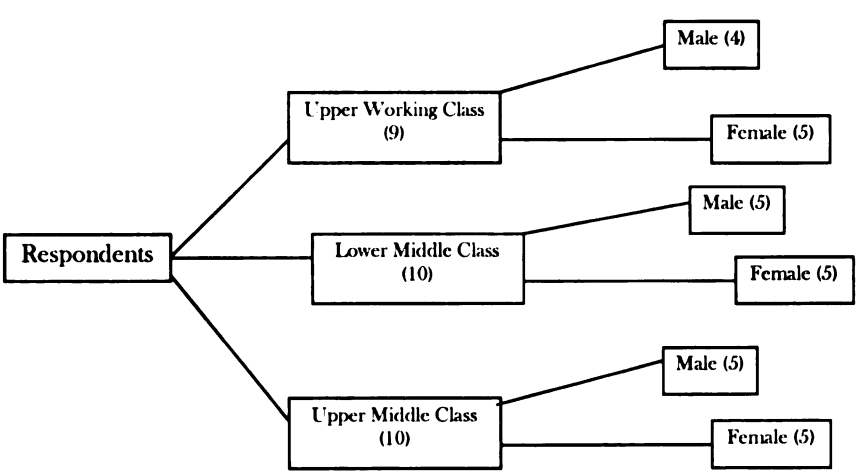

Figure 2.1: Overview of Sample Design (Total N=29)

In addition to the variable demographic information of social class and sex, and the static demographic of age, informants were selected based on their status as St. Louis natives and their ethnicity. All respondents in this study are natives of the St. Louis area or moved there as young children.[3] The vast majority of respondents' parents were also born in St. Louis. And as the NCS is historically a European American phenomenon, all respondents grew up in European American families and communities.[4]

2.2 Data Collection

Young speakers from various neighborhoods in the St. Louis, Missouri metropolitan area were interviewed in order to determine the existence of the Northern Cities Shift. By its inhabitants, St. Louis is divided into two major areas: the city and the county. Oddly, St. Louis city proper withdrew from St. Louis county in 1875 (Meyer 1963: 425). Therefore, residents of St. Louis are quite aware of the boundaries between the city of St. Louis and the county of St. Louis. These two regions, of course, have many smaller divisions. For example, "north county" and "south county" are working and lower middle class areas, while "west county" is much more affluent. East St. Louis lies across the Mississippi in Illinois; it is its own incorporated city and is primarily an African American working class city. In addition, there are some suburbs of St. Louis, Missouri which lie across the river in Illinois, but are not part of East St. Louis.

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[3] Two of the 29 respondents were not born in St. Louis: one was adopted, one moved to St. Louis during elementary school.

[4] All respondents but one were European American; the one exception is a Korean-American respondent who was born in Korea, but adopted by European American parents as an infant. He grew up in a European American family, neighborhood, and church.

The quantitative data for this study was gathered from inhabitants of St. Louis city, north county, south county, west county, and Fenton (which lies in both "south county" and Jefferson county, just south of St. Louis county); attitudinal data was gathered from inhabitants of these areas as well as some of the Illinois suburbs. All such areas are considered part of the St. Louis metro area. The basic regions and neighborhoods of St. Louis can be seen in the following map (Figure 2.2):

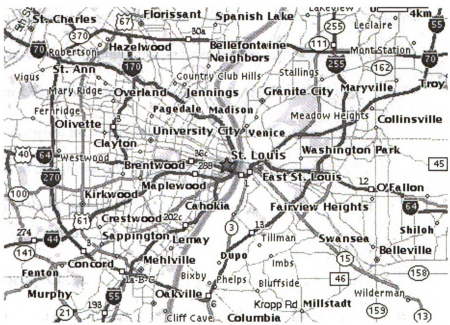


Figure 2.2: Map of the St. Louis, Missouri area

Informants were contacted in a variety of ways, primarily through the "friend of a friend" method described in Milroy (1980) and Milroy and Gordon (2003). In addition, some respondents were approached, usually by the researcher, and simply asked if they would like to take part in a linguistic study. Interviews were conducted at individuals' homes or the homes of friends, a high school, a bowling alley, and respondents' workplaces (including fire stations, a construction site, an elementary school, and a university).

workplaces (including fire stations, a construction site, an elementary school, and a university).

Respondents were first interviewed in order to obtain demographic information which was used to determine social class (e.g. occupation and education of individual or parents). Questions were also asked in order to elicit the informant's attitudes about the city of St. Louis (in comparison to other large cites, to the rest of the state, etc.), *hoosiers* and *hoosier* speech, and their future plans. In addition, informants read a word list and a reading passage. The word list, which consisted of 105 words presented to individuals on flashcards, predominantly contained words with the vowels of the first three steps of the Northern Cities Shift: /æ/, /ɑ/, and /ɔ/. Other vowels and diphthongs were also elicited through the word list and reading passage. Data on vowels not involved in the shift were collected so that the targeted NCS vowels could be examined with regard to their relative position in the respondent's entire vowel space.

2.3 Social Class

One of the two demographic variables examined for the purposes of this study was social status. Three social class groups were examined: upper working, lower middle, and upper middle. Class was determined based on Warner's Index of Social Characteristics (1960). In his research, Warner determined which economic and social factors are most indicative of an individual's social class in the United States. This model has been used by various linguistic researchers in determining social status (Ito 1999, Evans 2003, Jones 2003). Therefore, the individuals in this study were assigned a social class index based on their occupation, type of dwelling, education, and reputation of neighborhood. If the

respondent was a high school or undergraduate student or a non-working spouse, the characteristics of the main wage earner in their household were used. Each of these categories was given a scale of 1-7, then the categories were weighted, and finally they were added together to determine social status. See Appendix A for a full explanation and breakdown of social class features and categories.

2.4 Data Analysis

According to Labov, chain shifts, such as the NCS, require acoustic analysis to be adequately detected (2003). Therefore, the first stage in data analysis for this study involved extracting the first (F1) and second (F2) formant frequencies of the respondents' vowels. This was done through computerized linear predictive coding (LPC) analysis on the word list data. For the most part, the word list provided enough data for a robust analysis, though a few tokens were taken from the reading passage to supplement data for some individuals. It has been shown that there is no stylistic variation for the NCS in controlled speech such as word lists, as it is below the level of consciousness and not stigmatized (Ash 1999).

The LPC analysis was performed using the computer program Praat (version 4.1.23), designed by Paul Boersma and David Weenink of the Institute of Phonetic Sciences at the University of Amsterdam for the purposes of speech analysis. The spectrogram of each vowel was examined in order to extract the vowel frequency scores. Such a spectrogram can be seen in Figure 2.3. The vowels' formant frequencies were extracted at the onset of the steady state of each vowel.

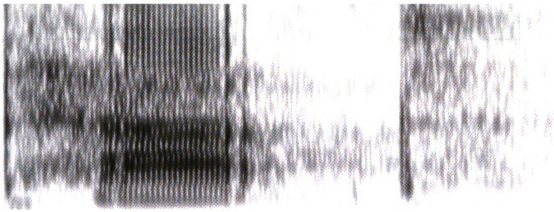


Figure 2.3: An example of a spectrogram: this is the word pat *as said by Laura. The lower of the two dark bands is the first formant frequency (F1) and the higher is the second formant frequency (F2).*

The formant frequencies were recorded and next inputted into PLOTNIK (version 7.0). This vowel system analysis program was designed by William Labov at the University of Pennsylvania and allows the researcher to visualize informants' vowel spaces by plotting individual vowel tokens. Samples of vowel plots are given in Figure 2.4 and 2.5:

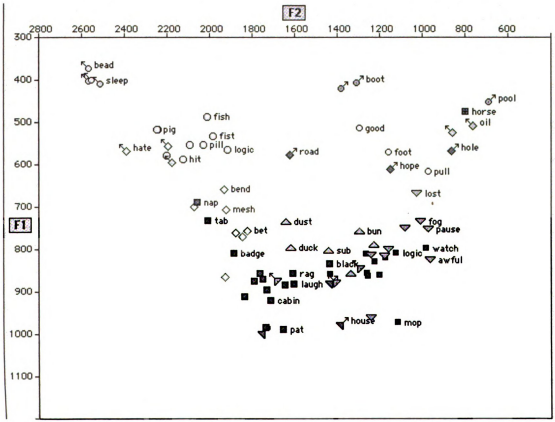


Figure 2.4. Laura's vowels (individual tokens) as plotted in PLOTNIK.

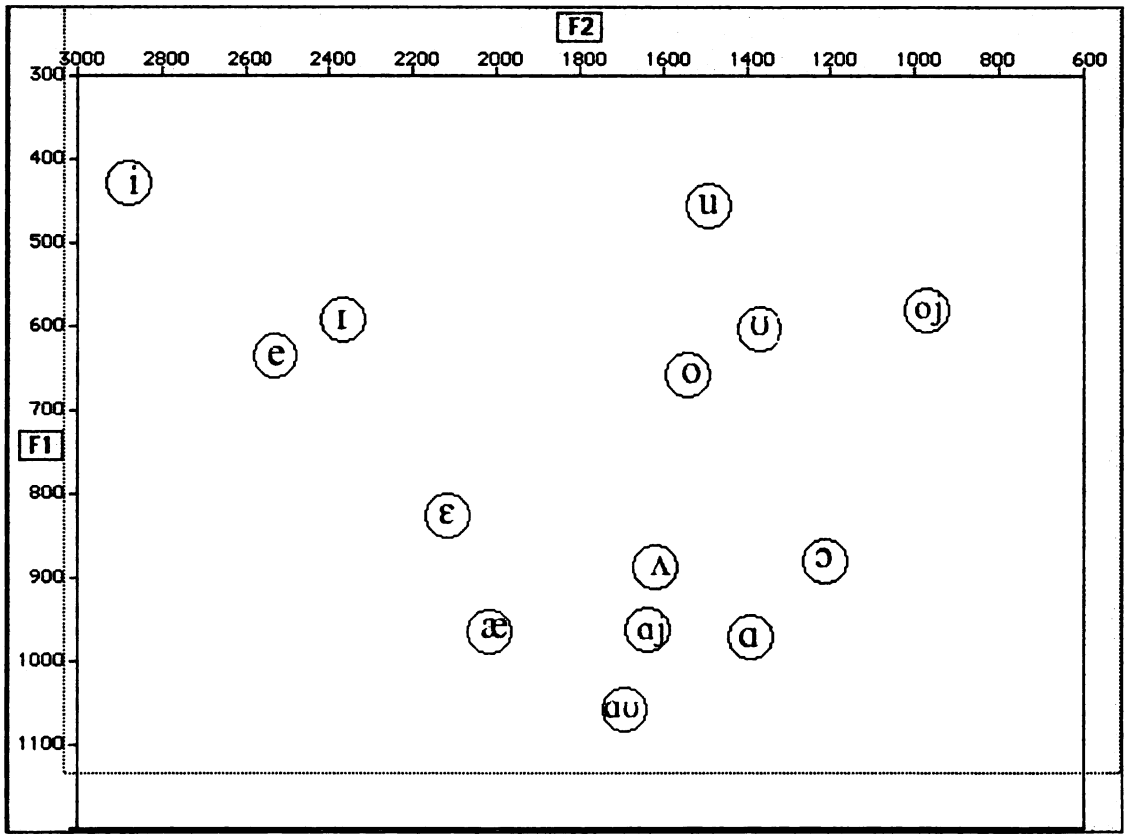


Figure 2.5. Laura's vowels (mean) as plotted in PLOTNIK

In the figures above, F1 and F2 frequencies of Laura's vowels are superimposed on a traditional vowel chart. The F1 frequencies are associated with the height of the tongue in vowel production; the lower the frequency, the higher the tongue is raised when the vowel is produced. The F2 frequencies are associated with the front-back dimension. The higher the frequency, the more front the vowel is produced in the mouth of the speaker.

The mean scores of the speakers' vowel systems were then plotted, creating a map for each respondent's vowel system. (See Appendix E for vowel plots of all respondents). As detecting whether an individual is a speaker of the NCS cannot be done simply by eyeballing the vowel system of the speaker, an index system was used in the current study to determine any divergence from a non-shifted vowel system. Such an index system

"allows for the quantification of the position of each vowel relative to other vowels in the individual's system" (Evans 2003). Therefore, discrete differences are observable, which are not necessarily seen when simply examining vowel formant data or even individual vowel plots. This kind of assignment of index scores requires comparing a stable vowel to a vowel which may have shifted. The vowels chosen for this study were /ɛ/ as in *bet*, and /ʌ/ as in *but*; the movement of these vowels occurs in a later stage of the NCS. And, as this speech phenomenon is presumably a recent arrival in St. Louis, it is likely that /ɛ/ and /ʌ/ remain stable. Thus, the data from acoustic analysis of respondents' /æ/ and /ɑ/ vowels were examined statistically relative to other vowels in the system using the objective statistical measure of a t-test. The raising of /æ/ was determined via a comparison of the F1 of /æ/ to the F1 of /ɛ/. The fronting of /ɑ/ was determined by comparing the F2 of /ɑ/ to the F2 of /ʌ/. Indices of both raising of /æ/ and fronting of /ɑ/ were determined by the following means, as employed by Ito (1999), Evans (2003), and Jones (2003):

Table 2.1: F1 index of the raising of /æ/

1	/æ/ is significantly lower than /ɛ/
2	/æ/ is not significantly different from /ɛ/
3	/æ/ is significantly higher than /ɛ/, but closer to /ɛ/ than /ɪ/
4	/æ/ is significantly higher than /ɛ/, and closer to /ɪ/ than /ɛ/
5	/æ/ is not significantly different from /ɪ/

Table 2.2: F2 index of the fronting of /ɑ/

0	/ɑ/ is significantly back of /ʌ/
1	/ɑ/ is not significantly different from /ʌ/
2	/ɑ/ is significantly different from /ʌ/, but closer to /ʌ/ than /ɛ/
3	/ɑ/ is significantly front of /ʌ/ but closer to /ɛ/ than /ʌ/
4	/ɑ/ is not significantly different from /ɛ/

After respondents' vowels were plotted and t-tests run on the /æ/ and /ɑ/ vowels relative to /ɛ/ and /ʌ/, F1 and F2 values were normalized, also via PLOTNIK, which includes a system for such a task, developed by Neary (1977). Normalization allows researchers to compare the vowel formant data across speakers, regardless of vocal tract size (Evans and Preston 2001). Social and linguistic factors were analyzed statistically via t-tests, analysis of variance (ANOVAs), and/or regressions. Such tests were run on SYSTAT for Macintosh. Data from these statistical tests were also compared to the index scores on prenormalized data from PLOTNIK in terms of social factors. In addition, normalized data for /ɑ/ fronting was also subjected to a measurement proposed by Labov (see Section 3.4).

2.5 Summary

This chapter explained the methods used in the present study, which includes how respondents were approached to be a part of the study, how their social class was determined, how data was elicited, and how the collected data was analyzed to determine participation in the NCS. The following chapters will discuss both the qualitative and quantitative results of the research described.

3.0 Results

Chapter 3 examines the extent to which St. Louis respondents are exhibiting features of the Northern Cities Shift. Although there are as many as six vowels involved in this shift, only the raising of /æ/ and fronting of /ɑ/ will be treated in the present study, as they are considered to be the earliest stages in the shift (Labov 1994, Gordon 2001). These NCS features were examined statistically in terms of social factors; the linguistic factors of /æ/ raising of the present study were also compared to findings from previous researchers.

3.1 /æ/ raising

When examining the indices resulting from t-tests comparing the F1 of /æ/ versus the F1 of /ɛ/ of individuals' pre-normalized vowel plots, one sees there is a general tendency for the young people of St. Louis to raise /æ/. The majority of respondents in the study, 22 out of 29 (75.86%), exhibit /æ/ raising in relation to /ɛ/. And of those respondents with a raised /æ/, two respondents raised /æ/ to the index level of 3, and two raised /æ/ to the index level of 4. Indices for all respondents are given in Table 3.1:

Table 3.1: /æ/ index scores for all subjects

Respondent	/æ/ index score	sex	Class	age
Cassie	4	female	LMC	21
Daisy	2	female	LMC	24
Jackie	2	female	LMC	15
Jennifer	2	female	LMC	15
Kathy	2	female	LMC	16
Anne	3	female	UMC	18
Carrie	2	female	UMC	25
Laura	1	female	UMC	21
Sally	2	female	UMC	23
Sara	2	female	UMC	17
Amanda	3	female	UWC	19
Billie	2	female	UWC	25
Karen	2	female	UWC	19
Maria	4	female	UWC	21
Terri	2	female	UWC	17
Bob	2	male	LMC	24
Craig	2	male	LMC	26
James	2	male	LMC	16
Michael	2	male	LMC	25
Peter	1	male	LMC	22
Aaron	1	male	UMC	22
Jacob	1	male	UMC	25
Luke	2	male	UMC	18
Rex	2	male	UMC	16
Timothy	1	male	UMC	17
Dan	2	male	UWC	26
Nate	1	male	UWC	23
Rob	1	male	UWC	21
William	2	male	UWC	26

Social class abbreviations are as follows: UMC = upper middle class; LMC = lower middle class; UWC = upper working class.

One of the respondents with the most raised /æ/ is Maria, who received a value of 4 for her F1 index score. Her (mean) vowel system is shown below in Figure 3.1:

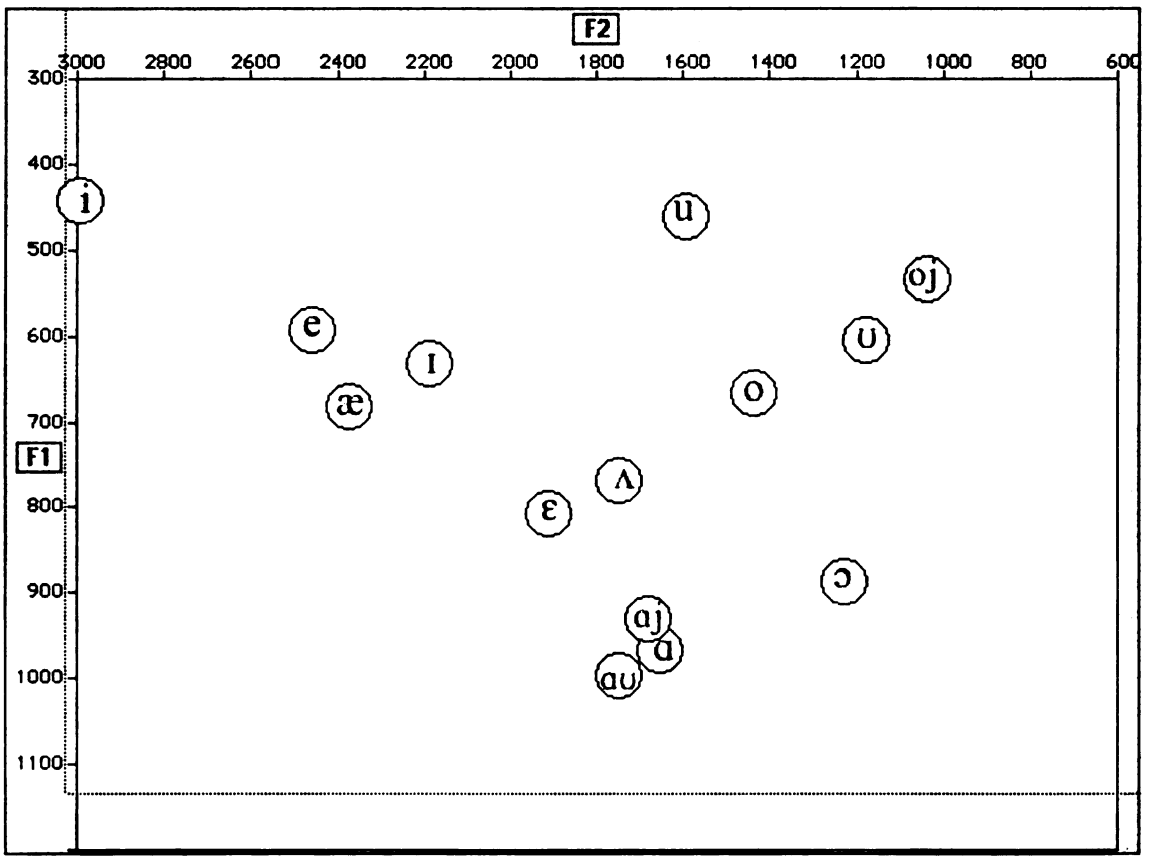


Figure 3.1 The vowel system of Maria, who has an F1 index score of 4.

As you can see, the position of her mean value for /æ/ is over 100 hertz higher than /ɛ/.

Since the majority (18 of 22; 81.82%) of individuals who raised /æ/ in St. Louis, raised to an index level of 2 in relation to /ɛ/, a much more typical /æ/ raiser of the St. Louis respondents is Jackie, who received an index score of 2. In her mean vowel system, there is no significant difference between /æ/ and /ɛ/, as they are practically on top of one another. Jackie's vowel system is shown in Figure 3.2:

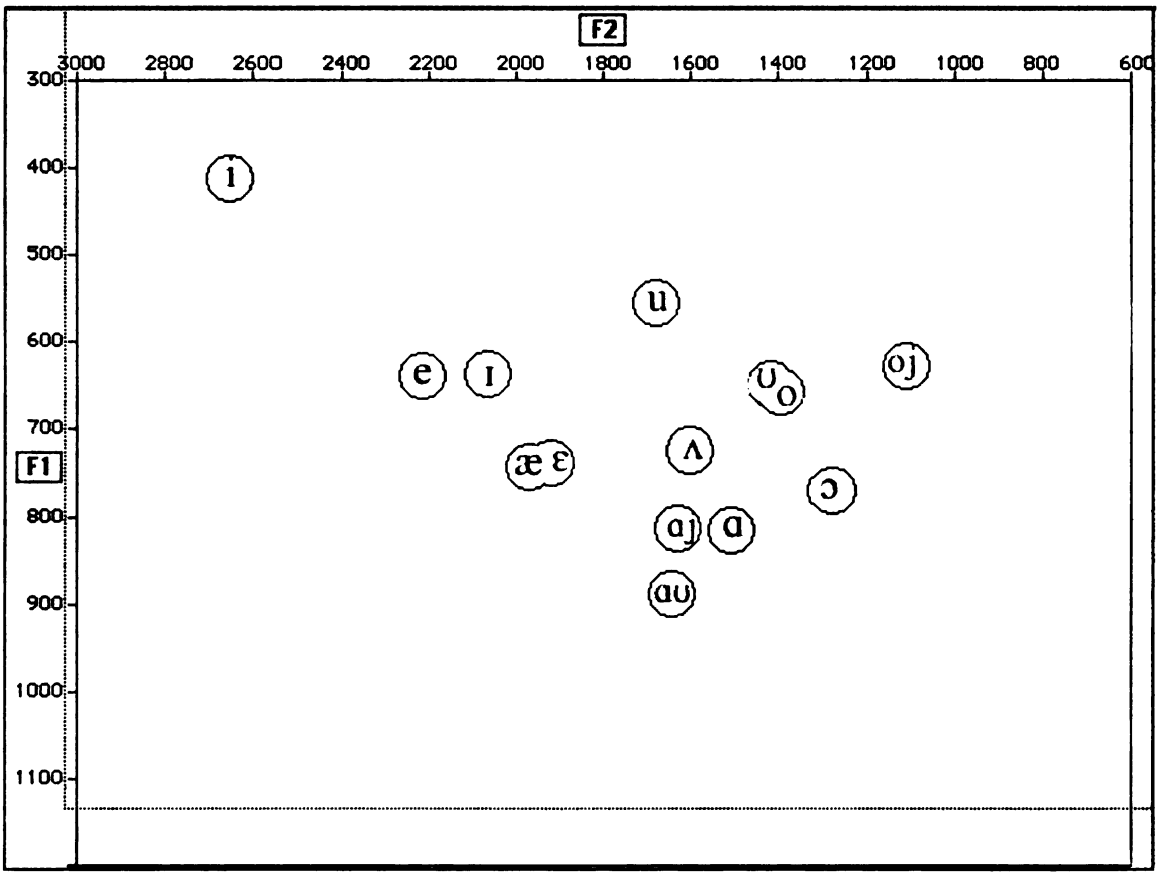


Figure 3.2: Jackie's vowel system; she received a 2 index score for /æ/ raising.

3.2 Social Factors and /æ/ raising

In order to shed some light on the social embedding of /æ/ raising in St. Louis, various social factors were examined statistically. Analysis of variance (ANOVA) tests and t-tests were run on the normalized vowels of informants to determine the effect of these social categories on /æ/ raising. In addition, chi-square calculations were done on the /æ/ raising index scores of respondents.

3.2.1 Sex and /æ/ raising

A t-test run on the normalized F1 values of /æ/ for sex indicated that there was no significant difference between males and females ($p<0.6530$). In fact, the difference between the F1of /æ/ between males and females was less than five hertz in the normalized data. This result is surprising, given the fact that historically women tend to lead linguistic change, including change in the NCS (Labov 1994, Herndobler 1993, Eckert 1989a, Ito 1999, Evans 2003, Gordon 2001, Jones 2003). However, according to Evans and Preston (2001), discrete differences of individuals' vowel systems can be lost in normalized data. In addition, these normalized data only show F1 values of /æ/ in isolation; the data on /æ/ raising is not compared relative to other vowels of the system. Therefore, a t-test was run on each individual's pre-normalized vowel system (as described in Section 2.4), comparing F1 values of /æ/ and /ɛ/. These results show that F1 index scores for /æ/ raising indicate that young women in St. Louis do have a tendency to raise /æ/ in relation to /ɛ/ more so than young men in the Gateway City. In fact, only females scored higher than an index of 2 for /æ/ raising (4 out of 15 total or 26.67% of females received an index score above 2). And only one female received an index score of 1 (only 6.67%), indicating no signs of /æ/ raising in relation to /ɛ/. In contrast, six males received an index score of 1 (42.86% of total males), and no young men scored above an index of 2, which would indicate more advanced /æ/ raising. This data is summarized in Table 3.2 below:

Table 3.2 /æ/ F1 index score by sex

/æ/ F1 index score	females	males
1	1	6
2	10	8
3	2	0
4	2	0

To determine the significance of these results, a chi-square (non-parametric test) was employed. In the comparison of males and females who raised /æ/ to those who did not via this statistical test, the result is significant (chi-square: 5.179, DF=1, $p<0.025$). This result is therefore in keeping with the other work on language change and the NCS that indicates females would be more likely to raise /æ/. Importantly, this phenomenon of women leading change is not unique to the NCS; Labov states that "in most vowel shifts ...women are considerably more advanced than men" (1994: 156). A striking example of this is Cassie and Peter. Cassie has an /æ/ raising index score of 4, and Peter only 1. This is noteworthy because they are brother and sister and only a year apart in age.

3.2.2 Social class and /æ/ raising

In contrast with the data on sex, an ANOVA statistical test did indicate a significant difference between the three social status groups of upper working class, lower middle class, and upper middle class ($p<0.00005$) for /æ/ raising when examining normalized F1 values. Because there are three groups examined here, a Tukey post hoc analysis was also run to see if the three social class groups were statistically different from one another individually. And, in fact, all three groups are significantly different from one another

($p<0.0417$ for UWC versus LMC, $p<0.00005$ for UWC versus UMC, $p<0.0209$ for LMC versus UMC). This is not surprising, given that the F1 hertz values for social class are nearly equidistant apart, going from lowest to highest social class. Mean F1 values in hertz are given for the normalized data in Table 3.3:

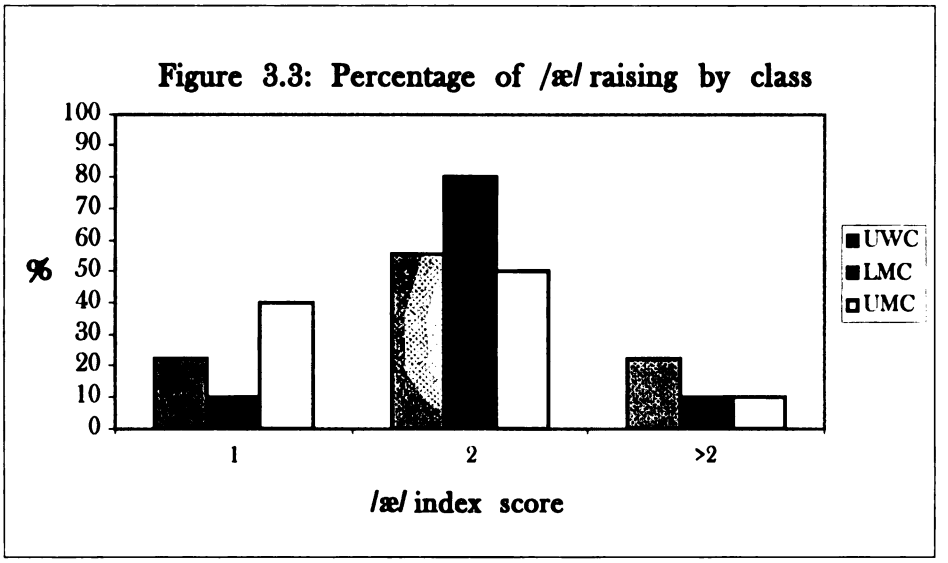
Table 3.3: Normalized F1 values of /æ/ by social class

UWC	681.11 hz
LMC	700.14 hz
UMC	720.61 hz

From this data, a conclusion could be made that lower social status indicates a more raised /æ/ for individuals. And though not as evenly distributed as the ANOVA findings, /æ/ raising index scores appear to correlate with the ANOVA findings. From Table 3.4 below, it appears that fewer upper middle class respondents raise /æ/. In fact, only 60% of upper middle class individuals raise /æ/, compared to the lower middle class (90% of whom are /æ/ raisers) and the upper working class (77.78% of whom are /æ/ raisers). In addition, of those individuals who raise beyond the index level of 2, half of these are upper working class individuals, while the lower middle class and upper middle class have only one respondent each who raised above this level. Raw values for index scores can be seen in Table 3.4. The percentages of these values are represented graphically in Figure 3.4.

Table 3.4: F1 index scores of /æ/ by class

F1 Index Score	UWC	LMC	UMC
1	2	1	4
2	5	8	5
3	1	0	1
4	1	1	0



As the NCS has been dubbed a change from below (Labov 1994), it makes sense that working class and lower middle class individuals would exhibit more evidence of /æ/ raising than the upper middle class. Although previous NCS data has not come to a unified conclusion on leaders of change and social status, what has been shown is that there is a tendency for upper middle class individuals to be lagging behind those individuals from lower classes (Fasold 1969, Herndobler 1993, Eckert 1988, 1989a). Therefore, if St. Louis /æ/ raising is indeed caused by the NCS, most likely lower status speakers and women would lead the change there.

It is also worth noting that there may be some explanation as to why at least one of the upper working class individuals is not raising /æ/ like the rest of his social status group. Both of these respondents are males, who would be more likely to resist such a shift, but there may be a more nuanced explanation for Rob's lack of /æ/ raising. Like the rest of the sample, Rob is European American; however, through the interview, it became clear that he aligns himself much more with the African American community in St. Louis. This was evident not only in the topics he discussed during the interview, but also through his speech, which included features of African American Vernacular English (such as habitual *be*, copula deletion, and various AAVE lexical items). An excerpt from his interview appears below in which he is discussing his brother and his brother's manner of speaking (see transcription conventions in Appendix G):

R: yeah, he come in here. He's, uh, he's (pause) I'm not gonna say he's a - you ever heard of a wigger?
J: yeah
R: OK. He's kinda - he's ghetto, but hoosier
J: yeah
R: He's (unintelligible). I'm the same way, but I'm more - I'm not gonna say I'm higher class, but I'm more proper.
J: yeah, you're less hoosier (laughs)
R: You know, I talk a little more proper. I mean, you wouldn't could tell by the way I dress, but I'm more - kinda - 'cause I graduated from high school and he didn't, you know? And I went with a lot of black people. I learned the slang and the country talk, you know. That's all slang is.
J: yeah
R: country talk.

And since the NCS is a speech phenomenon more likely to be exhibited by European Americans, it is understandable that an individual who aligns himself outside the European

American community would not exhibit NCS features, especially since this speech phenomenon is most likely new to the area.

3.2.3 Sex & class interaction and /æ/ raising

Statistically, there are possible interactions between social factors that may help shed light on the speech phenomenon at hand. Therefore, an ANOVA statistical test and Tukey post hoc analysis were run on normalized F1 /æ/ values to determine if there was any interaction between sex and social class. And it turns out that there is a significant interaction between social status and sex ($p<0.0059$), even though sex was not significant in the normalized t-tests on F1 of /æ/. When sex and class were examined together, the only group that was significantly different from any other social group was upper middle class males, who were significantly different from every other social category[5]. The comparative results in hertz are graphed in Figure 3.5 below. Upper middle class males exhibit far less /æ/ raising than any other social group, regardless of sex or class:

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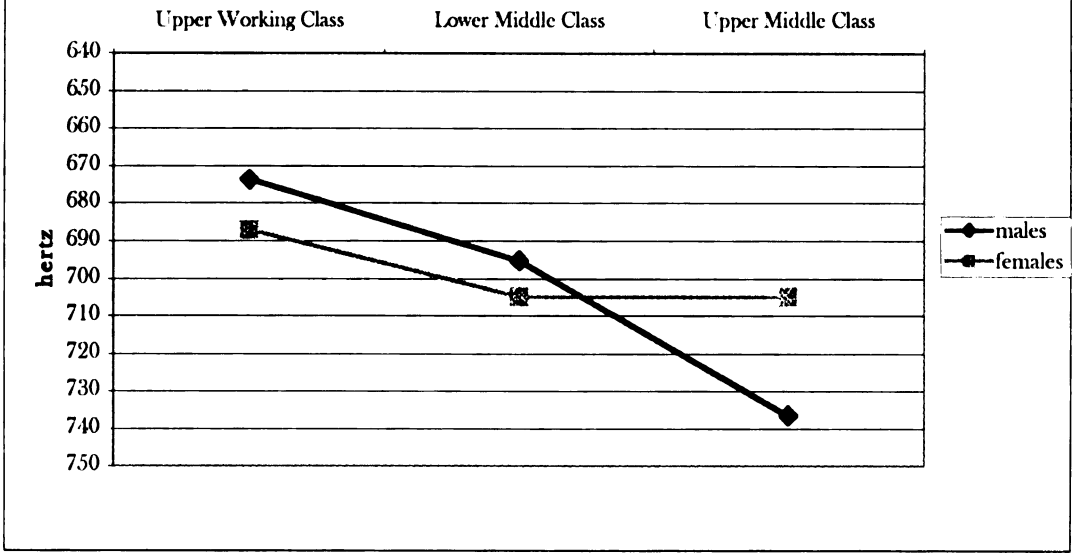
[5] A Tukey post-hoc analysis determined that UMC males were significantly different from other groups as per the following probabilities: versus UWC females $p<0.0001$, versus LMC females $p<0.0395$, versus UMC females $p<0.0428$, versus UWC males $p<0.00005$, versus LMC males $p<0.0021$.

Figure 3.5: Normalized F1 of /æ/ values for sex & class



This is also apparent from the t-tests run on individuals' pre-normalized vowel spaces. Notice in Table 3.5 below that it is the upper middle class males who have the most instances of individuals with an /æ/ raising score of 1, indicating no evidence of raising:

Table 3.5: /æ/ raising index scores for sex and class

	UWC males	UWC females	LMC males	LMC females	UMC males	UMC females
1	2	0	1	0	**3**	1
2	2	3	4	4	**2**	3
3	0	1	0	0	**0**	1
4	0	1	0	1	**0**	0

Again, given what we know about the NCS and language changes in general, especially changes from below, it stands to reason that upper middle class males would be the least likely to raise /æ/.

3.2.4 Age and /æ/ raising

Although age was not the primary focus of the present study, there is still a range of 11 years (15 year-olds - 26 year-olds) among the informants. Therefore, a regression analysis was run on the normalized vowel system in order to determine if there were any age effects on the data. Age, however, is not significant in this population in terms of /æ/ raising.

3.3 Linguistic factors and /æ/ raising

The following and preceding segments were examined in this study to determine which environments promoted and inhibited the raising of /æ/ in these young St. Louisians. Adjacent phones were coded in PLOTNIK for following manner, following place, following voicedness, and preceding segment. The coding was done for the normalized vowels of all 29 respondents. Following place and manner were recoded in SYSTAT to include ± voice. Analysis on adjacent segments has been done extensively by sociolinguists investigating the NCS (Labov 1994, Ito 1999, Evans 2003, Jones 2003). A comparison was made of the results of the present study and those of previous research. Although all researchers' findings are not identical, they illustrate a tendency for certain features to promote and inhibit /æ/ raising. And the results for adjacent phones in this study do not stray too far from the previous research. The comparative data on the influence of following manner of articulation is illustrated in Table 3.6 below:

Table 3.6: Influence of following manner of articulation on /æ/ raising across studies

most promoting are the farthest left, most inhibiting are farthest right

Detroit Labov (1994)	nasal	VL fricative	V stop	V fricative	VL stop
Rural Mid-Michigan Ito (1999)	nasal	V fricative V stop	VL fricative	VL fricative VL stop	
Ypsilanti Appalachian Evans (2003)	nasal	V affricate V stop V fricative lateral	VL stop VL fricative		
African Americans in Lansing, MI Jones (2003)	nasal	V stop	V fricative	VL fricative	VL stop
St. Louis	nasal	V affricate V stop V fricative	VL stop VL fricative	lateral	

It can be seen that all researchers found following nasals to be the most promoting of /æ/ raising. This is the most striking example of agreement of the influence of adjacent phones on /æ/ raising. In addition, the overall results for the promotion of /æ/ raising in the present study are roughly in keeping with Ito (1999), Evans (2003), and Jones (2003), with the exception of laterals, though only Evans (2003) included laterals in her investigation. And, with the exception of Labov (1994), all researchers found voiced fricatives, affricates (if included), and stops promote /æ/ raising, which is in keeping with the findings of the current study.

The picture for both following place and preceding phone is a bit murkier. The comparative results of following place are given in Table 3.7 below:

Table 3.7: Influence of following place of articulation on /æ/ raising across studies

most promoting are the farthest left, most inhibiting are farthest right

Detroit Labov (1994)	palatal	apical	labial velar	
Rural Mid-Michigan Ito (1999)	no significant results			
Ypsilanti Appalachian Evans (2003)	V labial	V velar V apical V labiodental VL interdental V palatal VL labial VL palatal VL labiodental	VL apical VL velar	
African Americans in Lansing, MI Jones (2003)	no significant results			
St. Louis	V labial	V apical V velar V palatal	VL interdental VL palatal VL labial	V labio-dental VL apical VL velar VL labiodental

Clearly following place of articulation is not nearly as salient a feature in influencing the raising of /æ/ as manner of articulation, as two researchers presented here found no statistical difference with regard to following place, and for those studies which found significant results, there is often significance only between large groups. But while the evidence presented here is at first somewhat inconsistent, tendencies across studies can be observed. First, it is likely that the reason the results of the Labov (1994) study are inconsistent with the Ypsilanti Appalachian and St. Louis speakers is that Labov did not include voicing in his investigation. This is important because a primary tendency for both the St. Louis and Ypsilanti speakers is that they are more likely to raise /æ/ when the following phone is voiced. The most salient finding between the St. Louis and Appalachian speakers is that they both show voiced labials to promote /æ/ raising

significantly more than other feature pairs. This distinction is lost in the Labov data since voicing was not included.

Results for preceding segment are also somewhat inconsistent between studies, but again, there appear to be some general tendencies.

Table 3.8: Influence of preceding segment on /æ/ raising across studies

most promoting are the farthest left, most inhibiting are farthest right

Detroit Labov (1994)	notes obst + liquid inhibits raising			
Rural Mid-Michigan Ito (1999)	apical velar	obst + liquid	liquid	labial
Ypsilanti Appalachian Evans (2003)	velar	velar apical palatal labial nasal apical	liquid obst. + liquid nasal labial	
African Americans in Lansing, MI Jones (2003)	No significant results, but notes obst + liquid inhibits raising			
St. Louis	liquid nasal palatal	velar	/w/ labial apical obst + liquid	

As can be seen in Table 3.8, Ito (1999) and Evans (2003), are the only two studies, besides the present study, to have found significant results; they both showed that preceding velars have a promoting effect on /æ/ raising. This supports the assertions of Stevens (1998) that velar phones either in following or preceding position tend to lower the F1of /æ/ (573). However, this was not the result for the St. Louis speakers, who show a tendency to raise when preceded by a liquid, nasal, and palatal more than velars. A possible explanation for this is that there is a small number of tokens for both velars and nasals in the St. Louis study (29 and 27 respectively, which is roughly one token per speaker). A more consistent

finding is that the preceding segment obstruent + liquid inhibits raising. With the exception of the rural mid-Michigan group, there is a consensus on this cluster among these studies, even those that did not find much statistical significance with regard to preceding phone.

Though seemingly muddled at first glance, this compiled evidence shows that, for the most part, there are tendencies as to how adjacent segments will affect /æ/ raising. Clearly in terms of acoustic properties, however, manner of articulation is the most influential. Such effects, therefore, look as if they are based on physiological acoustic facts and universal phonetic laws, not variation from one speech community to another.

3.4 /ɑ/ fronting

The fronting of /ɑ/ within the speech of young St. Louisians was examined for a variety of reasons. The first of these is that, despite the fact that there is disagreement as to whether /ɑ/ fronting happens before or after /æ/ raising, /ɑ/ fronting is, by all accounts, one of the early stages in the shift (Labov 1994, Gordon 2001). In addition, a region-specific baseline for the vowel system of St. Louis speakers was unable to be established. And, unlike many other recent studies on the NCS (Ito 1999, Evans 2003, Gordon 2001, Jones 2003), the present study does not explore accommodation to a local norm, as St. Louis historically has a unique dialect. Thus, an examination of /ɑ/ fronting is done in order to determine if the /æ/ raising in St. Louis is indeed due to the NCS. /ɑ/ fronting was examined by the same means as /æ/ raising; that is, through an index of pre-normalized vowel systems (as described in section 2.4) and through statistical tests such as ANOVAs

and t-tests on the normalized vowels of all respondents. The overall results of the /ɑ/ fronting index (juxtaposed next to the /æ/ raising index) can be seen in Table 3.9:

Table 3.9: /ɑ/ fronting results for all subjects

Respondent	/æ/ index	/ɑ/ index	sex	class	age
Cassie	4	0	female	LMC	21
Daisy	2	1	female	LMC	24
Jackie	2	0	female	LMC	15
Jennifer	2	1	female	LMC	15
Kathy	2	1	female	LMC	16
Anne	3	1	female	UMC	18
Carrie	2	0	female	UMC	25
Laura	1	1	female	UMC	21
Sally	2	1	female	UMC	23
Sara	2	1	female	UMC	17
Amanda	3	1	female	UWC	19
Billie	2	1	female	UWC	25
Karen	2	1	female	UWC	19
Maria	4	1	female	UWC	21
Terri	2	1	female	UWC	17
Bob	2	1	male	LMC	24
Craig	2	1	male	LMC	26
James	2	1	male	LMC	16
Michael	2	1	male	LMC	25
Peter	1	1	male	LMC	22
Aaron	1	0	male	UMC	22
Jacob	1	1	male	UMC	25
Luke	2	1	male	UMC	18
Rex	2	0	male	UMC	16
Timothy	1	1	male	UMC	17
Dan	2	1	male	UWC	26
Nate	1	1	male	UWC	23
Rob	1	1	male	UWC	21
William	2	1	male	UWC	26

It appears from this table that /ɑ/ fronting is not occurring to a large extent within the vernacular of young St. Louisians, since none of the informants fronted /ɑ/ beyond the

level of 1, and five respondents actually have /ɑ/ in back of /ʌ/. This result is quite curious given the fact that /ɑ/ fronting is supposed to occur so early in the NCS. This, combined with the fact that four respondents have an /æ/ raising score over 2, suggests that perhaps if these respondents are indeed participating in the NCS, they may actually have a backed /ʌ/, making the index values somewhat inconclusive, although /ʌ/ backing is a very late move in the shift, one we would not expect to encounter in St. Louis. Nevertheless, an additional criterion for /ɑ/ fronting that Labov (2003) lays out was employed. His claim is that in a normalized vowel system, /ɑ/ is fronted if the F2 of /ɑ/ is less than 375 hertz back of /ɛ/. Therefore, such measurements were made on all respondents. By this gauge, seven respondents are shown to have a fronted /ɑ/. The data from this test is summarized in Table 3.10:

Table 3.10: /ɑ/ fronting individuals (via the Labovian measure for normalized vowel systems)

Respondent	/æ/ index	/ɑ/ index	hertz /ɑ/ is back of /ɛ/	Sex	class	age
Anne	3	1	359	Female	UMC	18
Cassie	4	1	281	female	LMC	21
Dan	2	1	312	male	UWC	26
Luke	2	1	332	male	UMC	18
Maria	4	1	343	female	UWC	21
Nate	1	1	295	male	UWC	23
Peter	1	1	341	male	LMC	22

Of the four respondents with an /æ/ index score over 2, three have evidence of /ɑ/ fronting via the Labovian standard. And two respondents with an /æ/ index score of 2 also

showed evidence of /ɑ/ fronting. Interestingly, however, two of the individuals who showed evidence of /ɑ/ fronting show no signs of /æ/ raising, including Nate, who has one of the smallest distances between /ɑ/ and /ɛ/. Figures 3.5 and 3.6 show the mean vowel plots of the two respondents with the most fronted /ɑ/, Cassie and Nate respectively. It is noteworthy that Cassie has a very raised /æ/, with an index score of 4, while Nate does not raise /æ/, as his index score is only 1.

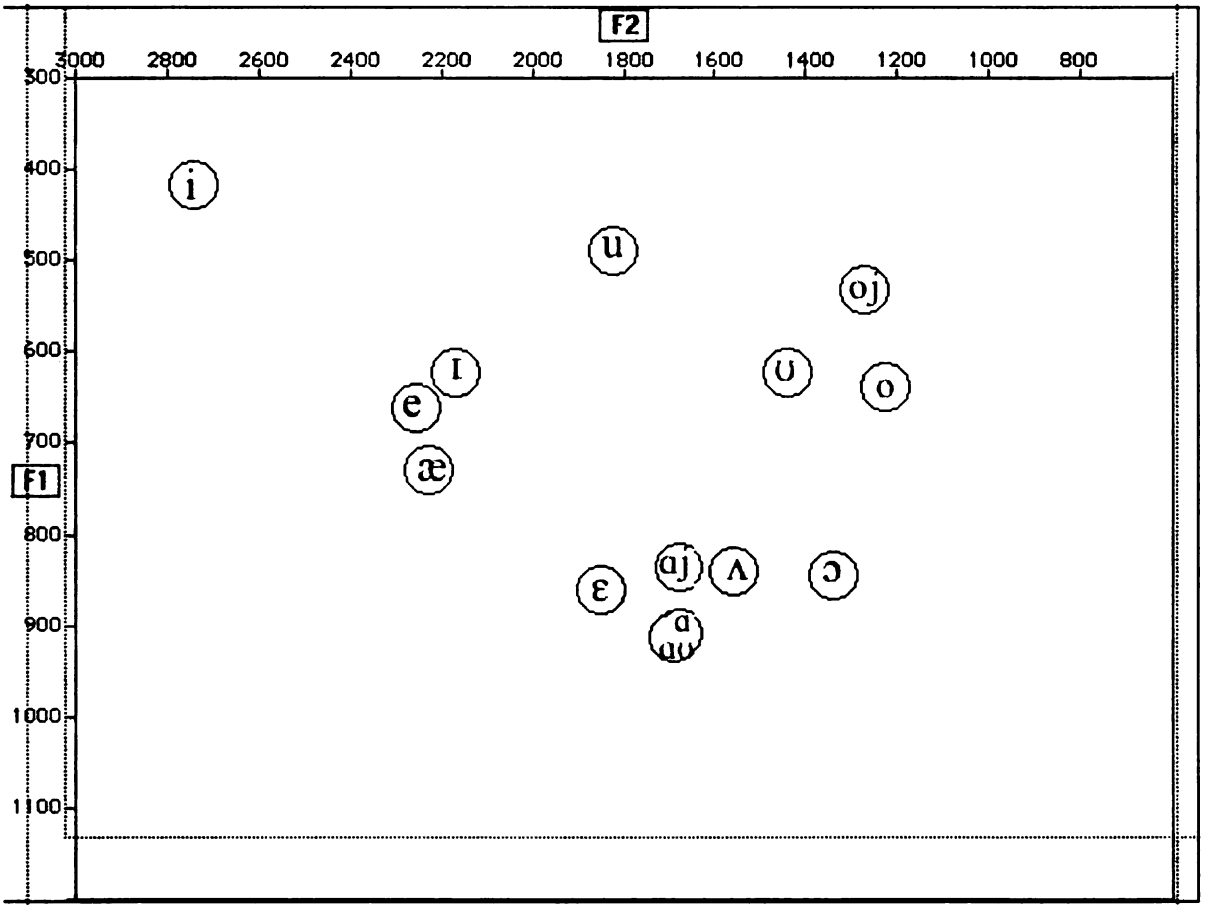


Figure 3.5: Cassie's pre-normalized vowel system; she has both a raised /æ/ and a fronted /ɑ/.

In Cassie's vowel system, /æ/ is significantly more raised than /ɛ/. It is also clear that /ɑ/ is approaching /ɛ/. Nate's vowel system, on the other hand, shows that his /æ/ is lower than

his /ɛ/. Despite this, he has a fronted /ɑ/ in relation to /ɛ/. Such inconsistencies will be discussed in detail in section 3.6. Nate's vowel system can be seen in Figure 3.6 below:

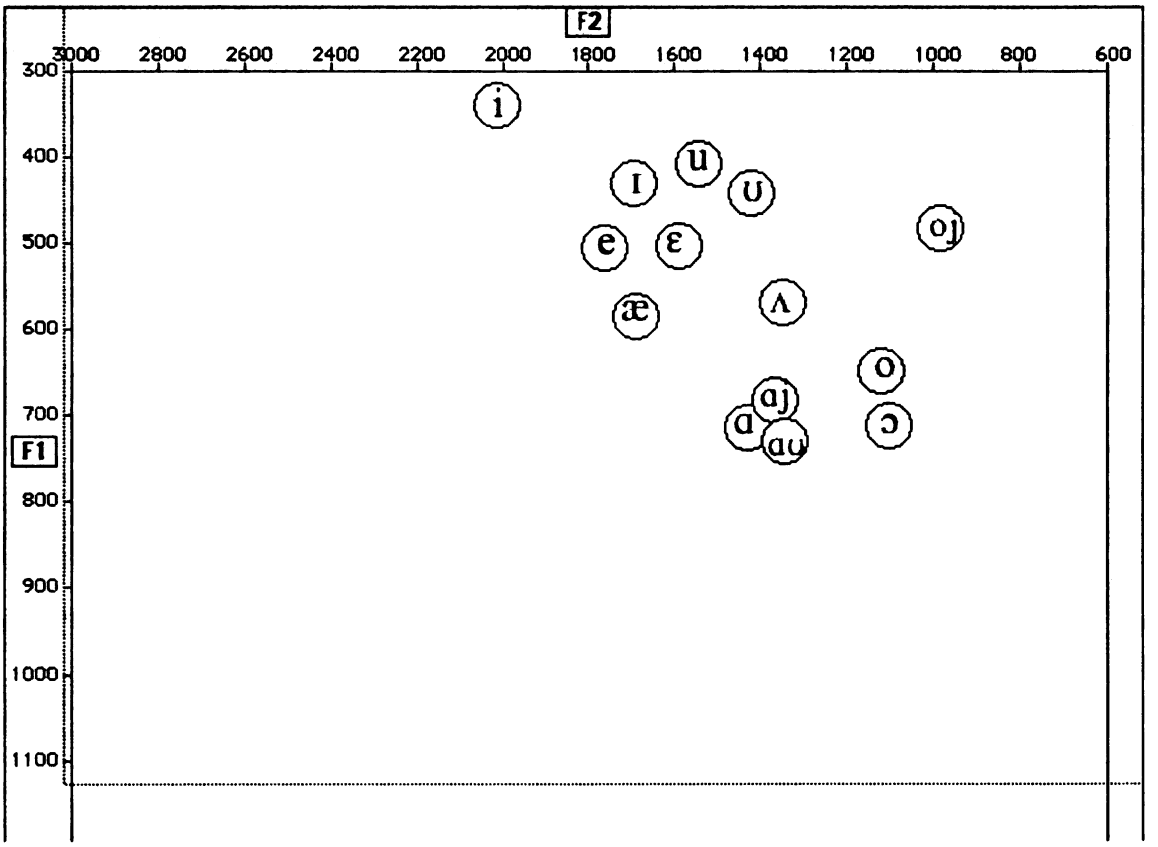


Figure 3.6: Nate's pre-normalized vowel system; he has a fronted /ɑ/, but a non-raised /æ/.

3.5 Social factors and /ɑ/ fronting

In order to get a more complete picture of who is fronting /ɑ/ in St. Louis, social class and sex were examined statistically with regards to this feature. Once again, ANOVAs and t-tests were run on all the normalized vowels of respondents. Chi-square calculations were also employed where relevant.

3.5.1 Sex and /ɑ/ fronting

The distribution of /ɑ/ for sex, using the Labovian determination, is quite even. Four males and three females fronted /ɑ/ in this population. Therefore, it is not surprising that, according to a chi-square calculation on this variable, sex was found to be insignificant ($p<1$, chi-square: 0.2905, DF=1) in /ɑ/ fronting. In addition to this test, however, another means of determining the significance of sex was also employed. ANOVA tests were run on the F2 of the normalized vowel systems of all respondents. Results of this test show that the /ɑ/s of male respondents are significantly more fronted than those of females ($p<0.00005$). In addition, four out of five of the respondents who received an index score of 0 for /ɑ/ fronting were female. This result is surprising for two reasons: 1- it is contrary to the findings of the chi-square on the Labovian standard, and 2- women tend to lead linguistic change, including the NCS. Comparing the siblings Cassie and Peter is again interesting. Remember that Cassie had an /æ/ raising index value of 4, while her brother only received a 1, indicating he showed no evidence of /æ/ raising. Yet, according to the Labovian standard, both siblings show evidence of /ɑ/ fronting, though Cassie's /ɑ/ is more fronted than Peter's. Because of this curious finding on sex, social status and sex were examined together to see if there are any interactions between these two social categories. This will be discussed in section 3.5.3.

3.5.2 Social class /ɑ/ fronting

As is evident from Table 3.11, the higher the social status, the less likely an individual will have a fronted /ɑ/. Of the seven respondents who fronted /ɑ/, three of these were upper working class individuals (21.43% of total UWC), while two were lower middle class (13.33% of total LMC) and two upper middle class (13.33% of total UMC). While this finding is not robust, it does show a tendency for upper working class individuals to front /ɑ/. This was confirmed by ANOVAs on the normalized vowels, which found class to be significant ($p<0.0013$).

Table 3.11:
Normalized F2 values of /ɑ/ by social class

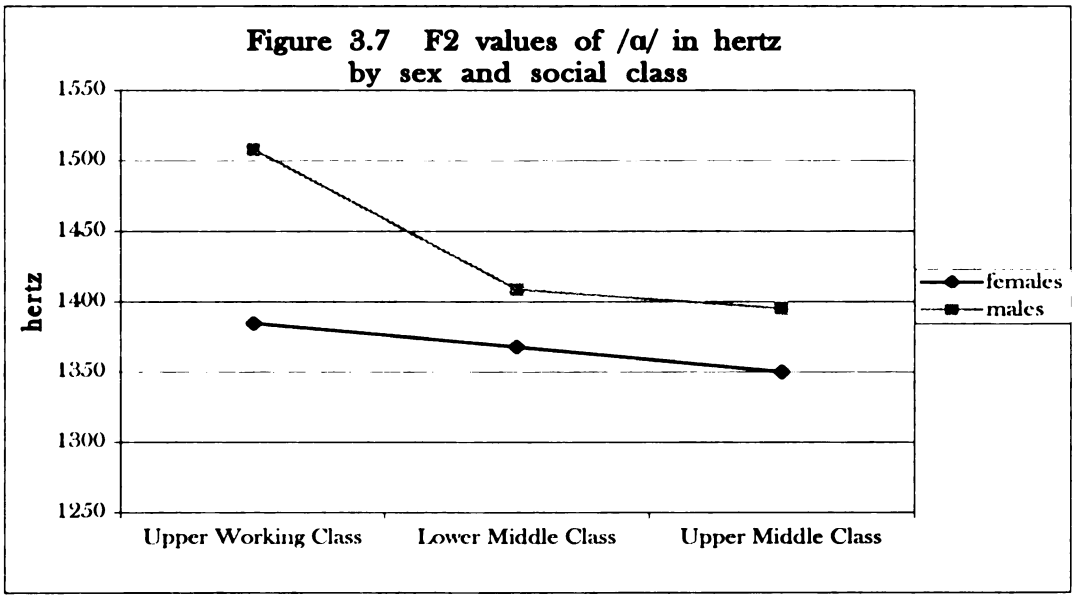
social class	F2 of /ɑ/
UWC	1440 hz
LMC	1388 hz
UMC	1374 hz

In keeping with the data from the Labovian measure of /ɑ/ fronting, the upper working class is significantly different from both the lower middle class ($p<0.0172$) and the upper middle class ($p<0.0013$), yet the two middle class groups are not significantly different from one another ($p<0.7035$). Thus, as was the case with /æ/ raising, it appears the working class individuals are leading the change with /ɑ/ fronting. Interactions between social class and sex are examined in the next section.

3.5.3 Sex & social class interactions and /ɑ/ fronting

Because more than one variable was considered in this study, possible statistical interactions were explored. An ANOVA statistical test was run on both sex and social class. The result was significant ($p<0.0424$). Strikingly, the only group that was statistically different from any other group was upper working class males.[6] Indeed, two of the three working class individuals who fronted /ɑ/ according to the Labovian measure of /ɑ/ relative to /ɛ/ are male. This difference, based on the normalized data, is graphed in hertz in Figure 3.7 below:

Figure 3.7 F2 values of /ɑ/ in hertz by sex and social class



As the NCS is a change from below, and as upper working class individuals were leading /æ/ raising, it is not surprising that it is the upper working class respondents who show evidence of /ɑ/ fronting. This also helps explain the discrepancy between the chi-square results on the Labovian measure and the ANOVA results on the normalized data. It is,

[6] Results of the ANOVA for UWC males are as follows: versus UWC females $p<0.0001$, versus LMC females $p<0.00005$, versus UMC females $p<0.00005$, versus LMC males $p<0.0029$, versus UMC males $p<0.0003$).

however, unexpected that the male respondents would be fronting /ɑ/ so much more than the respondents in other social categories, as men tend to lag behind in the NCS.

3.6 Discussion

Examination of the results of the speech of young people of St. Louis, shows support for Labov's claim that the NCS is making its way to the Gateway City. There is evidence of both early stages in the shift that were examined for the purposes of this study: /æ/ raising and /ɑ/ fronting. The results, however, are not always consistent with previous research done on the NCS. This sub-section explains some of these inconsistencies and attempts to account for them.

3.6.1 Inconsistencies with regard to social factors

Many of the findings in this study are consistent with previous research done on the NCS. There is, however, some evidence gleaned from these St. Louis informants that is not consistent with the previous NCS research.

While previous research on social status groups and the NCS has not entirely reached consensus, there does appear to be a tendency for lower middle class and/or upper working class individuals to exhibit NCS features first (Herndobler 1993, Labov 2001, Ito 1999). This is usually the case with a change from below such as the NCS. The current study is consistent with these previous findings, as individuals in the upper working class lead /ɑ/ fronting and upper middle class respondents are resisting /æ/ raising.

The vast majority of sociolinguistic research shows that women have the tendency to lead linguistic change, and work on the NCS has shown this tendency as well (Labov

1994, Herndobler 1993, Eckert 1989a, Ito 1999, Evans 2003, Gordon 2001, Jones 2003). Thus, it comes to no surprise that females in St. Louis are leading /æ/ raising, possibly the earliest stage of the shift, and that it is a male group (upper middle class) that is the most resistant to the change. There are many hypotheses as to why women lead such linguistic change. Trudgill (1972) makes claims that women seek overt prestige; that is, align themselves with the standard, in linguistic practice. Eckert (1989b) points out that women are often powerless socially, and thus must use "linguistic capital" in order to assert their identities. And Herndobler (1993) suggests that women are the cultural bearers in society, and this is played out linguistically. Whatever the reason, this phenomenon of women's use of innovative forms has been shown time and time again with regard to the NCS.

It is for this reason, then, that it is so surprising that more men exhibit /ɑ/ fronting than women in the present study. Evidence that females are behind males in /ɑ/ fronting is seen through both the ANOVAs and by Labovian standard (where 20% of women front /ɑ/ versus 29% of men).

3.6.2 Inconsistencies with regard to linguistic factors

Results regarding linguistic factors are almost more puzzling than the social factor results. The young speakers in St. Louis who exhibit NCS features are not exhibiting them in the same systematic way Labov (1994) and others have suggested. For example, two of the seven respondents who show evidence of /ɑ/ fronting received an index value of only 1 for /æ/ raising, indicating a lack of /æ/ raising. This initially seems to support Gordon's (2001) proposal that /ɑ/ shifts before /æ/. However, all but one of the five informants who

received an index score of 0 for /ɑ/ fronting (meaning /ɑ/ is back of /ʌ/) also received an index score for /æ/ raising of 2 or 3, indicating some degree of raising. Thus, for these individuals, /æ/ raising occurs before /ɑ/ fronting. So, can we say /æ/ is the first stage when /ɑ/ fronting precedes /æ/ raising for some individuals? Can we say that /ɑ/ fronting occurs first when several /æ/ raisers do not front /ɑ/? Indeed, the man with the frontest /ɑ/, Nate, shows no signs of raising /æ/. Thus, it is difficult to conclude whether /æ/ drags /ɑ/ in the chain shift, or that /ɑ/ pushes /æ/.

3.6.3 Possible explanation for inconsistencies

While there may not be a completely clear-cut reason as to why such social and linguistic inconsistencies exist for the St. Louis population, an explanation may lie in the fact that there are several differences between the St. Louis population and those examined in the most recent NCS research. Probably the most significant difference is that, unlike European Americans in rural mid-Michigan (Gordon 2001, Ito 1999), Ypsilanti Appalachians (Evans 2003), and African Americans in Lansing (Jones 2003), the NCS is making its way to the mouths of St. Louis for reasons other than accommodation to a local norm. These other studies examined the extent to which individuals outside of the NCS speech community (that is, outside the urban, European American community) altered their speech to accommodate the speech norms of the larger community surrounding them. In the case of Ypsilanti Appalachians and African Americans in Lansing, the populations studied were at least geographically embedded in an area where the NCS is very advanced. In the case of rural mid-Michigan, the respondents were in close proximity

to a more urban community where the NCS has a strong foothold. Thus, the NCS is simply spreading from these more urban communities to smaller ones nearby. On the other hand, St. Louis is an urban community which is historically a distinct dialect region. And the informants studied here, as they are European Americans who are native to St. Louis, would not be at the fringe of the NCS community if the sound change were well established. St. Louis lacks close proximity to major NCS territory, and therefore has limited daily contact with a community with advanced NCS speakers. For these reasons, it may be the case that this new speech phenomenon in St. Louis is not embedding itself the same way socially as in those communities which are in closer proximity to NCS territory.

3.7 Summary

For the population studied here, two early stages of the NCS were examined, /æ/ raising and /ɑ/ fronting, to determine the presence of this language change in St. Louis. From the various statistical tests, it appears that to some extent young residents of the Gateway City are embracing this new language change. For the most part, the means in which this is occurring is consistent with changes from below: females lead /æ/ raising, upper middle class males are resisting /æ/ raising, and the upper working class is leading /ɑ/ fronting. In addition, the results on adjacent segments which either promote or inhibit /æ/ raising are quite consistent with previous research on the NCS. Because speakers in St. Louis are not simply accommodating to a community norm, however, there are some inconsistencies with other findings on the NCS. Men lead /ɑ/ fronting, and the linguistic factors do not appear to be playing out the same systematically across speakers. Despite

these inconsistencies, the general tendency for these speakers to exhibit features of the NCS allows us to draw the conclusion that, in keeping with Labov's claim, St. Louis may be losing some of its distinctive dialect features as the NCS makes its way down Highway 55 from Chicago to St. Louis.

4.0 Language Attitudes

Although there is quite a bit of evidence that St. Louis has traditionally been a unique dialect region, the evidence presented here shows that a widespread language change from outside the community, the Northern Cities Shift, is making its way to the Gateway City. Why would a city with distinguishable linguistic features essentially give up its dialect for a less distinct one? Why would St. Louisians align with more distant urban areas than cities equally close or closer to their hometown? Evidence has shown that even with changes from below, identity and attitude are reflected in language use. For example, in her NCS studies in suburban Detroit, Eckert (1988, 1989a) showed that the social identities and attitudes of the Jocks and Burnouts she interviewed affected their linguistic practice. Ito (1999) and Gordon (2001) also showed that negative attitudes about people from NCS territory inhibited its adoption in certain rural communities. Therefore, data collected on the language attitudes of young St. Louis residents should give some insight into the intrusion of the NCS into St. Louis. These attitudes will be explored in this chapter. In addition to the 29 respondents whose speech was subjected to acoustic analysis, 14 other individuals' attitudes were included in this portion of the study.[7]

4.1 The local dialect

As stated in section 1.3.2.1, none of the respondents in this study exhibited the *cord/card* merger, which is the most recognizable phonological feature of the St. Louis

[7] Of the original corpus of 47 respondents, four were not included in the present study because they were not European American, were over the age of 26, or had moved to St. Louis as young adults.

area[8]. The vast majority recognized this as a stigmatized feature, and several said they knew older people, like their parents, grandparents, or teachers, who exhibited the feature. Only a handful of respondents, however, said they knew any young people who had the *cord/card* merger. And in all of these cases the respondent claimed to only know perhaps one or two people who said the word *forty* as /fɑrti/. Of all the individuals who recognized this dialect feature, none had positive things to say about it. When I mentioned this feature to Jackie, a lower middle class 15-year-old, her immediate response was "Oooo, I hate that." She noted that some of her friends' parents speak this way. When asked if she and her peers spoke much differently from their parents, she responded as follows:

Ja: yeah (whispers). (laughs) Especially my friends' parents. They'll say /fɑrtifɑr/ and /wɑrʃ/, and uuugh, it drives me crazy. My mother says /wɑrʃ/, uuugh. (laughs), so annoying.
J: And, you guys, none of you say those things?
Ja: Well, some of my friends do, but, I don't know. I'm the one who corrects everyone (laughs). I'm a big loser (laughs).

Jackie clearly shows contempt for the historical dialect of St. Louis, to the point that when she does hear one of her friends using its features, she "corrects" them by pointing it out.

A couple of respondents said they thought this dialect feature was "hoosier," others said it was a "mispronunciation," was indicative of less education, or simply "doesn't sound as nice." Kammi, an upper working class 17-year-old, even said it was "dorkish." Many individuals said they thought this feature was on the decline because of improvements in education, traveling and being exposed to non-local people, or that they were taught to "say

[8] It should be noted that a few individuals mentioned a supposed local feature of African American Vernacular English which has been popularized by the rap star Nelly, where *here* is pronounced /hɑr/, *there* is pronounced /ðɑr/ and so on.

it correctly" when they were in school. When I asked Carrie, an upper working class 24-year-old, if she thought the young people of St. Louis spoke differently from their parents, she said she thought her dialect was different because of who her friends are:

> It's probably, too, who I hang around with, like most of the people I hang around with are, like educated, um, people with, like, white collar jobs, or whatever, so I don't know if it's just like from college or being exposed to people from different areas? or, you know, perhaps people my age who are in more, like, blue collar jobs perhaps still have the same speech patterns.

Carrie also pointed out that her mother uses these traditional dialect features, and Carrie feels no qualms about telling her mother to "correct" her speech. In addition, Carrie herself said "every once in a while I'll slip and say, say it, like O-R words like A-R. And so, I have to sto-, so I mean it's not like it's totally, like, disappeared." She did not, however, exhibit any such features during the course of our interview.

Like Carrie, Sally, another upper middle class 24-year-old, thought that younger people do not exhibit this feature because they know it is stigmatized and consciously try to avoid it:

S: I know I don't say /fartifar/, but um I me- I've heard a couple older people say that, but I don't hear as many younger people saying it.
J: Right
S: Probably because they're so aware of it now.
J: Right, right. They don't want to be made fun of.
[ ]
S: They CHOOSE not to say it that way, 'cause they think about it when they're gonna say it, like, oh, I can't say it like /fartifar/ or everybody's gonna think I'm stupid, so-
J: think I'm a hoosier
S: Exactly (laughs)

When asked about the *cord/card* merger, many young people, like Jackie, also discussed the intrusive /r/ sometimes heard in *wash* in the local dialect (though it should be noted this is a feature of other dialects as well, particularly nearby North and South Midland areas). Of those interviewed, only Kammi exhibited this feature, though she recognized that this pronunciation was "wrong." Others, like William, a 26-year-old upper working class man, said they "used" to include the intrusive /r/ *wash*, but eventually realized it was something of a mispronunciation:

J: But you don't say /**farti**/, you sa:::y?
W: /**forti**/ ... yeah, and don't, you know, uh, I did use to say /**wɑrʃ**/, but I fixed it myself, I started-
J: I know one of my friends from Indiana, he quickly-
W: Well, someone pointed it out that it's not co-, pronounced, there's no "r," you know, and you look at in spelling, you're like, yeah, it's /**wɑʃ**/ (laughs). You know?

It has been asserted (Labov 2003, Murray 2002) that the unique phonological features of the St. Louis dialect are regressing. This must in part be due to the fact that so many young people in St. Louis have such negative associations with it, as nearly all of the young people interviewed for this study who were familiar with these features showed disdain for the local dialect.

4.2 St. Louis vs. Missouri

There was a wide range of opinions on the city[9] of St. Louis itself. Many of the St. Louisians who were under 21 found the area "boring" or thought that going to downtown

[9] For the purposes here, "city" refers to metropolitan area, not the city of St. Louis proper. This clarification is made because St. Louis residents have a very clear distinction of the "city" versus the "county." See Section 2.2 for full discussion.

was undesirable, though some thought it was a "great" city for sports and other activities. Of the respondents in their 20's, opinions on the city were even more mixed. Some said St. Louis was lacking in arts and culture, was "not that happening," or lacked diversity. On the other hand, others said they were "proud" to be from St. Louis, that good schools were available, it was an "important" city, or there was a lot to do. Despite these disagreements, there was more of a consensus on the difference between the St. Louis area and the rest of the state. Obviously, the majority of Missouri, in terms of land mass, is not urban; this contrast between urban and rural appeared to be a very salient one to many of the respondents, not just in terms of lifestyle, but also language and values, as can be seen from the views of Laura, a 21 year-old upper middle class woman:

L: I think there's a pretty major difference. I mean, you can, I kind of group St. Louis and Kansas City together, um, it's just the fact that it's, uh, any kind of metropolis. I mean, and then you go down to the Springfie:::lds and cities like that that are almost just like giant groups of suburbs.
J: yeah.
L: And then after that it's just completely rural, and once you get down south, kind of backwards.
J: What to you mean by backwards?
L: Like, um, I don't kno-, real-, um, I mean, that's where a lot of fundamentalists live, and things like that, that's kind of back in the woods, and um, I, I took a bunch of sociology classes, and any time you talk about major hate groups, they always almost have a base in the Ozarks, which is kind of scary. So, I mean, you get farther down into that kind of fundamentalist, backwards thinking.

Laura was not alone in her thinking that "rural" had a negative connotation, though other respondents were a bit less specific in their reasons why. I asked individuals what they would say if they were on vacation far from home and someone asked them where they were from: St. Louis or Missouri. All but one respondent said St. Louis, though a handful included both city and state. The one individual who said he says "Missouri" also said he

used to say "St. Louis" when he went to Florida on vacation, but was surprised when people did not know where his hometown was located.

When the other respondents were asked why they said the name of their city, the majority of responses were something to the effect that they did not think "Missouri" gave the same impression as "St. Louis" (though some people said "St. Louis" was just more specific), such as Rex, a 16-year-old upper working class boy:

R: Like some people might think of Missouri as being hoosier-ish, maybe, I mean, I don't really know, so, 'cause some part of Missouri are really hoosier-ish
J: OK. Which parts? Do you know?
R: Like small cities, like Lestervi:::lle
J: Lesterville? I've never even heard of Lesterville.
R: yeah, see.
J: Do you think the people are different? Do you think the people are hoosier-ish?
R: Like in Lesterville?
J: yeah. Or just wherever.
R: yeah, well, yeah, they are (pause) different
J: You think the people in the city, or in the metro area, are more-
R: more (pause) I don't know what the word is. Mo::re, less hoosier-ish maybe? I don't know, more cultured? I don't really know what the word is.

Upper middle class Sam, 21, said he thought St. Louis is "too cultured" for other parts of the Show-me state, and the city is "more refined" and "sophisticated" than the rest of Missouri. This negative opinion was not specific to the upper middle class, however. Cassie, a lower middle class 21-year-old, thought the rest of Missouri sounded like "hoosierville" and conjured up images of farming which she did not want to associate with. A man from the upper working class, 21-year-old Rob mentioned in Chapter 3, said he liked to be associated specifically with St. Louis because "you gotta represent" and the rest of the state was too "hoosier." Amanda, a 19-year-old from the upper working class,

thought the rest of Missouri sounded "too country." Maria, an upper working class 21-year-old, said she thought that telling someone she is from Missouri would be "totally different" from saying she is from St. Louis because the rest of the state is "just like farmland." Fifteen-year-old Kathy from the lower middle class simply thought Missouri gave the "wrong impression" of the way she lived:

K: I don't know, they always get the wrong impression when you say Missouri (laughs)
J: What impression do you think they get?
K: Well, like a lot of my friends have said they like, they ask them if they like wear sho:::::es, I don't-
J: (laughs)
K: (laughs) like we live on farms or something? I don't know.

William, the upper working class 26-year-old mentioned earlier, thought the rest of Missouri is too rural and Republican for his tastes. He has relatives in the rural areas of Missouri, and he said he thought "people out in the rural areas are different" because "they go more about just gut reaction than actually thinking things through, but maybe that's just my bias towards a lot of their views, 'cause I don't feel the same way they do." Political beliefs and values were brought up by several other respondents as well. Three individuals mentioned a proposition on concealed weapons, which was voted on by the state a few years prior (and despite the fact that it was narrowly voted down, the legislature had recently passed a bill making the carrying of concealed weapons in the state legal). For the most part, according to these St. Louisians, the rural areas all voted for the concealed weapons proposition, while residents of urban areas voted it down. All three respondents said they were against the bill.

Although they were never asked specifically about language differences within the state, a few respondents said one of the major differences between St. Louis and the rest of Missouri was that people in other parts of Missouri spoke differently than residents of the city. Craig, a 26-year-old lower middle class man, gave the following account of St. Louis and the speech surrounding it:

C: Well, it's like, if you leave, I think if you leave pretty much (pause) maybe like a 90-mile radius, umm, say if you're starting with, uh, directly west and go half a circle all the way to the east, anywhere down south you can DEFinitely tell, like there's, uh, HUGE accents that come in, you can hear 'em. North, I don't really hear anything until like Chicago, like an accent, but (pause) I think that, uh, like in Cincinnati, or in Kansas, or anywhere in the middle of the country, I think people kind of talk normal. If you go out to the east, you got like a thi-, you know, New York accent kinda, you got, or, New England kinda accent. South of the southwest had their California kinda talk, I guess. I think-

J: valley girl?

C: Right, and the north there's more like the:::: Fargo or, you know, North Dakota, kinda Canada-sounding stuff. I think people here are pretty much just normal.

Despite the fact that Craig thinks people from "the middle of the country" talk "normal," he still said he thought residents in southern Missouri had "southern accents." Interestingly, Sam, mentioned above, also gave a distance in miles to where these southern accents are first heard; his estimation (100 miles) was only ten miles different from Craig's (90 miles). He was interviewed here with his mother Lorraine:

S: You can see that, you can hear the change in, in I guess it'd be dialect, as you go further south. 100 miles south of St. Louis people talk completely different than they do here. And it's just a different way of thinking down there too. It's, I don't know, more farming, more agriculture, things like that. It's not so much hustle and bustle of the city.

J: When you say people's dialect change, you think, are you saying, like, you say you go 100 miles further south, you think it's like the southern features? Is that what you're saying? Like-

S: Yeah, they'll pick up a lot more of a draw[l], and I don't know, we noticed that a lot when we're- My sister went to Old Miss and on the way to drop her off you would notice-

L: I'd go to Sikeston, Missouri, which is about halfway between Memphis and St. Louis, and you'd get that, that (imitating southern dialect features) twang would come out, that, that drawl. And it wasn't that nice southern, in Memphis it's a very southern, soft accent, but when you get to the boot heel it becomes a very nasal, (imitating southern features) kinda they don't sound real intelligent, you know.

Again, this opinion is not unique to the middle class, as Nate, an upper working class 23-year-old, also commented on the speech of other areas of the Show-me State. I asked Nate if he thought the people in the rest of Missouri were similar or different from residents of St. Louis.

N: Hmmm, uh, probably, both. Like, there's a lot of, you know, people are similar, people are pretty similar, I guess, but yeah, pretty much. It seems, except, more populated here.

J: Right, right. So you think people are pretty much just the same.

N: Uh, except when you get further south, and people start talking with that hick, you know, twang.

J: (laughs) yeah

N: I mean, not even that far south, either, so you know, like maybe when you get down to like Farmington and stuff. So, yeah, you don't gotta go too far and people talk totally different.

Nate could not manage to peg down any difference between St. Louis residents and people from the rest of the state except for their linguistic practice. In fact, it is the only difference he could come up with. However, it is clear from the use of the term "hick" that he does not feel as though the way these Southern Missourians speak is desirable, and we can

gather from his description of the "hick" dialect as "twang" that it likely has southern features.

The consensus from these residents is that they do not necessarily want to be associated with the rest of Missouri. They equate "Missouri" with ruralness and farmland, which means a lack of sophistication and culture; it is therefore something they do not want to be a part of. From the few individuals who discuss the dialect features of "other" Missourians, we can gather that simply traveling a few dozen miles south of St. Louis will put them in an undesirable dialect region.

4.3 Hoosiers

As mentioned in section 1.3.2.2, one of the most widely used derogatory terms in St. Louis is *hoosier*. From the data collected here, it seems that this insult, which is completely separate from the term for residents of Indiana, is usually a noun, but can also be an adjective (as in, "that's so *hoosier*"). It may also take the adjectival form *hoosier-ish* or *hoosier-y*, or be truncated in noun form to *hooz* (pronounced /huz/). All but one of the respondents in this study knew very specifically what a St. Louis *hoosier* was when asked to describe the term. The one person, 15-year-old Tamara, who did not have a mental image of *hoosier* still said she knew it was something you called someone you do not like.

A few informants mentioned that they knew *hoosier* was a term used in Indiana, but they were clear this was not the definition they meant when they used the word. In fact, three of the respondents had recently gone together to see a concert in Indianapolis, and it was the first time any of these young people (who are all in their 20's) had ever heard *hoosier* used outside of the derogatory St. Louis meaning (and all three mentioned this

experience independently of one another during their interviews). They all said they were shocked by the fact that *hoosier* was so embraced in Indiana. After this encounter Sam still indicated that that the Indiana definition is not the most common one:

> What's interesting is when I was in Indianapolis to see the Flaming Lips, we were waiting outside to go in, and people were, you know, we brought up the fact that they were hoosiers, and they were proud of that fact. And I don't think they realized it had a negative connotation everywhere else BUT Indiana.

Rex, who was mentioned above, was not aware this was a region-specific term; he was quite surprised that I had not learned this meaning of *hoosier* until I met a group of St. Louisians in college. A handful of informants, including Rex, used *hoosier* during the interview to describe certain areas of the city or other parts of the state before I ever asked them about the term.

So, what is a *hoosier*? For some it was hard to describe, and it seemed the only words to describe *hoosier* were "just hoosier!" or "you know, hoosier-y." Others enthusiastically gave detailed descriptions of the *hoosier* lifestyle, *hoosier* haircuts, and *hoosier* speech. It seems there has not been much evolution of the term in the last few decades. Many of the informants in this study gave definitions of *hoosier* that roughly matched Crinklaw's 1976 definition of a "displaced country man who moves into a city neighborhood and tears it up" (60). In addition, many respondents gave definitions that were similar to those of Murray's 1987 informants who said that *hoosiers* were "lazy, slow moving, derelict, and irresponsible" (3). It is impossible to say, however, that either one of these definitions fully describes the St. Louis *hoosier*. The young St. Louis respondents in this study put *hoosiers* into roughly two camps: "rednecks" (or "hicks") and "white trash,"

though most people were not satisfied with any of these terms. This difficulty can be seen in Carrie's description below:

> It's, like, I think, like, uh, a no-, or, uh, a non-local term would be probably like a (pause) not a hick, but like a, like, you don't have to be like a country bumpkin to be a hoosier, but you have to have a certain, like, um, it's easier if you have like someone in mind that you can point out as an example (laughs), but it's sort of, you know, anyone who-, I think like a, maybe like a redneck, kind o:f, it's not exactly the same thing as a redneck, but that would be a more, like, less local term, I guess for it.

Despite this difficulty in describing what *hoosier* means exactly, Carrie showed great affection for the term; she said it made her "so happy" to be able to use it because "it's such a good term too, it's so descriptive of, like, what you mean."

The two camps of thought – "redneck" and "white trash" – basically boil down to whether *hoosiers* reside (or originated from) "the country" and can therefore fall into the "redneck" camp, or if they are lower class city dwellers, and therefore fall into the "white trash" camp.

Jackie said she and her friends considered *hoosiers* to be "people who are, like, from the country, wear overalls and talk funny." She said she could not imagine *hoosiers* in the city. Rex had a similar reaction; he also said *hoosiers* wear overalls, and that they live in a trailer in small towns. When asked if such a thing as an "urban *hoosier*" could possibly exist, he said he could not "see that happening." Even within these two categories, however, the term is a bit slippery, as many respondents who initially said *hoosiers* were "rednecks," "hicks," or "country bumpkins" also said hoosiers could reside in the city. Elly, a 24-year-old lower middle class woman, initially said a *hoosier* is a "slobby, country, redneck," but when asked if a *hoosier* necessarily lives in the country, she said:

No, no, definitely, like, I would call someone who's just, like, and this is a bad term to use, but white tra::sh. I would call them a hoosier, like, and they could be from anywhere. They don't have to be a bumpkin to be a hoosier.

Some of the St. Louis informants who said they felt *hoosiers* could be urban dwellers painted very specific pictures of what *hoosiers* are like (these individuals also usually dubbed hoosiers as "trashy" or "white trash," though some were hesitant to use this somewhat racially charged phrase). Such descriptions usually included trailer parks, cars up on blocks in the front yard, drinking lowbrow beer, and sporting the mullet hairstyle. For example, when I asked Nate if he knew what a hoosier was, he responded as follows:

J: Can you tell me what a hoosier is?
N: Oh, hell, yeah. Hoosier is somebody who, uh, basically it just means, uh, somebody who, uh, is just kind of a slob kind of person, you know, drinks cheap, cheapest beer, smokes the cheapest cigarettes, goes home with the fattest girl from the bar and brags about it, don't even care, you know.

Billie, a 25-year-old upper working class woman, enthusiastically and quite descriptively spoke about *hoosiers*:

J: This is a word that I didn't, like it's sort of localized to St. Louis, that I didn't know until I met St. Louis people, and that's "hoosier"
B: Oh my-
J: Can you tell me what a hoosier is?
B: -GO::D. There are hoosiers everywhere (laughs). Um, like, people that, you drive by a house and you see four broken down ca::rs in their front yard, um, that's a hoosier. Um, they just don't care what they LOOK like or- (pause) mullets. You know what a mullet is?
J: yeah
B: [Bob's] big on mullets, talkin' about mullets, uh, that's a hoosier.

J: That's a hoosier thing.
B: They just don't care. And, it's like, there's nothing wrong with not carin', but they just leave stuff everywhere, you know, I mean, you could drive down the street and see somebody's house.

Billie, like many other St. Lousians who said they thought *hoosiers* could be city dwellers, also gave specific locations in the area of St. Louis with high *hoosier* populations, such as south city, "north county," and various areas of "south county": LeMay, Affton, Fenton, and Maplewood. The conclusion several informants reached, however, was similar to Maria's, who said *hoosiers* are "everywhere," as she distinguished between urban *hoosiers* and "country" *hoosiers.*

Regardless of location, however, many informants agreed that *hoosiers* are "messy," "dirty," "nasty," or "un-kept" (sic), or that they just "don't care" about their property or possessions. Several people mentioned that *hoosiers* are often less educated than non-*hoosiers*, though just as many informants said that having a poor education was not a prerequisite to *hoosier*-ness. For example, Rob said that "it's just how you act. You could be the smartest man in the world and be dirty and hoosier." For more examples of similar attitudes, see Appendix F.

4.4 Hoosier speak

The word *hoosier* has a fairly specific, derogatory meaning in St. Louis, and it is not simply another term in the mental dictionary of residents of the Gateway City. Its use is widespread, as can be seen from the popular culture examples in section 1.3.2.2. In addition, several informants for this study, as mentioned above, used *hoosier* before they were asked to discuss it. People, such as Carrie, have great affection for the term, yet

maintain contempt for what it stands for. Due to the widespread use of the term, I chose to examine what attitudes in St. Louis are among young people as to how a *hoosier* speaks.

Only a small number of respondents said there was essentially no difference between *hoosier* speech and non-*hoosier* speech, except for *hoosiers* perhaps being more "loud and obnoxious" than the average person. A slightly larger group of people claimed that *hoosiers* simply have "poor grammar" and use words such as "ain't," which are basically signs of their lack of education. Two individuals said that *hoosiers* might use features of African American Vernacular English in their speech. However, well over half (25 respondents or 59%) of those interviewed described the way *hoosiers* speak as having southern features. Besides simply saying *hoosiers* had a "southern accent" (which many did), descriptions such as "twang," "country," and "draw[l]," which allude to southern speech, were also used. Some of these individuals also claimed *hoosier* speech did not include "proper English," was "slower," or sounded "dumber." Several individuals even imitated *hoosier* speech; all of these individuals included features of American English spoken in southern states such as /aj/ monophthongization. Elly described *hoosier* speech this way:

> They have a bit of a sou::thern thing goin', and I guess when you think of southern, you think of slower, dumber? speech. I guess, 'cause they usually portray southern accents as dumber or whatever, but, yeah.

Linda, a 21-year-old lower middle class woman, said initially that *hoosier* speech was different from her own only because it sounded less educated. However, later in the same explanation, she also claimed *hoosiers* have southern features in their speech, perhaps equating a "southern accent" with lack of education:

L: I think they would speak differently, but that would be based on education, not necessarily accent versus non-accent.
J: Right
L: So, you know, they would use double negatives, a:::nd they would have ALMOST more of like a SOUTHERN accent.
J: uh-huh.
L: Whereas, you know, like, almost- not necessarily like an Atlanta accent, but you know what I'm saying? Like, there's a different twang to it or somethin'.

It has been shown, as mentioned in section 1.3.3, that southern speech is generally a stigmatized dialect, yet there still is some evidence that so-called southern accents have been rated "pleasant" by both northerners and southerners. (Preston 1999). St. Louisians, however, have nothing nice to say about the *hoosier* version of southern speech. It seems that some residents of St. Louis associate this *hoosier* southern dialect with low class individuals. For example, Mark was reluctant to even call *hoosier* speech southern even though this is apparently what he had in mind: "I don't want to say southern sounding, but I guess that would be it. (pause) I guess white trash southern, you know (laughs)." This same disdain for *hoosiers* and their southern speech was repeated throughout my interviews with the young people in St. Louis. For more examples, refer to Appendix F.

4.5 Discussion

The young people of St. Louis apparently have no desire to embrace the traditional linguistic features of their hometown. They find that it sounds uneducated or just plain ugly. They therefore do not look locally for their linguistic identity, and are forced to look elsewhere. From the majority of the respondents' views on the rest of the state, it appears they do not have any desire to look to other parts of Missouri for their linguistic identity.

The rest of Missouri is too rural, too "country," too politically backwards for this urban and more sophisticated population. And, indeed, this is reflected in the fact that some areas of Missouri exhibit southern dialect features. It seems that in the minds of these St. Louisians, backwardness and ruralness may also be reflected in southern speech. This disdain of southern speech is compounded for St. Louisians, as one of their most commonly used insults, *hoosier*, is also indicative of southern speech for many.

Such attitudes may help to shed some light on why the Northern Cities Shift is making its way to St. Louis. The NCS is an urban dialect which cannot be confused with southern speech, a dialect to be avoided. And adopting NCS features distinguishes St. Louis from the rest of the state, which is not exhibiting such features, as discussed in section 1.3.4.

4.6 Concluding Remarks

Despite the limited number of respondents in his telephone survey, William Labov's assertion that the NCS is likely making its way down Highway 55 from Chicago into the mouths of young residents of St. Louis appears to be well-founded, based on the data collected and analyzed here. Since there is some debate over what the first stage in the shift is, both /æ/ raising and /ɑ/ fronting were examined in the present study. Some degree of /æ/ raising was exhibited in 22 of the 29 respondents, according to an index score comparing the relative position of /æ/ to /ɛ/. /ɑ/ fronting was exhibited by fewer respondents - none showed evidence via the /ɑ/ fronting index score, though seven

individuals showed evidence of /ɑ/ fronting via the Labovian measure of /ɑ/ as <37.5 hertz back of /ɛ/.

In terms of social factors, the presence of NCS features was consistent with changes from below for the most part, with the exception of upper working class males exhibiting the most /ɑ/ fronting. There were also several linguistic inconsistencies, such as /æ/ raising happening to an advanced degree in some respondents who showed no /ɑ/ fronting, and some individuals who showed high degrees of /ɑ/ fronting and no signs of /æ/ raising. As this is such a new speech phenomenon in an area lacking close proximity to a region with advanced NCS speakers, it may be the case that the NCS in St. Louis is not embedding itself in the same way socially as in other NCS regions. It will be interesting to see how the social and linguistic factors play out when the shift has a more substantial foothold on the region in a generation or two.

Clearly from the attitudinal data collected here, the local dialect of St. Louis is being rejected, and the southern dialect close by is also heavily stigmatized. Thus, it appears that these young residents of the Gateway City are looking north to find their linguistic identity in an attempt to not sound like a *hoosier*.

APPENDICES

Appendix A: Index of Social Class

based on Warner (1960)

Occupation:	1	lawyers, doctors, engineers, judges, architects, and managers of large businesses
	2	high school teachers, trained nurses, librarians, small business owners, accountants, large farm owners
	3	social workers, elementary school teachers, optometrists, minor officials of business, bank clerks, auto sales, contractors
	4	small business managers, typists, mail clerks, most store clerks, factory foremen, private repairmen (e.g. plumbers)
	5	beauticians, carpenters, plumbers (employed by others), barbers, firemen, bartenders, restaurant cooks, tenant farmers
	6	semi-skilled worker, skilled worker assistants, watchmen, truck drivers, waitpersons (in small restaurants)
	7	heavy laborers, janitors, newspaper delivery, odd job persons, migrant workers
Housing:	1	grand, ostentatious
	2	very good, attractive, roomy, landscaped
	3	good, only slightly larger than utilitarian demands, more conventional and less showy than the first two categories
	4	average, private, one and a half stories, nice lawn, some extra room, small, well-cared-for lawn
	5	fair, just enough room for needs, well kept, but no extras
	6	poor, run-down, often too small for needs, not in shambles or beyond repair
	7	very poor, perhaps not even designed as housing, beyond repair, crowded

Reputation of Neighborhood:	1	very high - the best place to live in the area; known as "well to do"
	2	high - an area with an excellent reputation, low crime, good schools, large houses and yards
	3	above average - not pretentious but a nice, clean, and tidy neighborhood
	4	average, solid working class area; neat, not fancy but a nice place to live
	5	below average, some run-down housing, close to industrial or other undesirable residence areas
	6	low, area regarded as slum
	7	tenement areas; shacks, lean-tos, "squatters" areas

Education:	1	Graduate or professional school
	2	college
	3	high school
	4	some high school
	5	junior high school
	6	elementary school
	7	little or no schooling

Computation: Occupation x4 + Education x3 + Housing x3 + Neighborhood x2

Ratings:	12-17	upper
	18-22	upper-upper middle
	23-24	upper-middle-upper
	25-33	upper middle
	34-37	upper middle-lower-middle
	38-50	lower middle
	51-53	lower middle-upper lower
	54-62	upper lower
	63-66	upper lower-lower lower
	67-69	lower-lower-upper-lower
	70-84	lower lower

High school students and non-working spouses were assigned the same scores as the principal wage earner in their family.

Appendix B: Interview Questions

How long have you lived in St. Louis? How long have your parents, grandparents lived here?

Compared to the rest of the country, what kind of city do you think St. Louis is? Where do you think it fits in the scope of the US?

When you go out of town to somewhere far away like California or Florida, and someone asks you where you're from, do you say St. Louis or Missouri? Why?

When you think about St. Louis compared to the rest of the state, do you think it's very similar to the rest of Missouri? How is it similar/different?

Do you think there's enough for young people to do in St. Louis?

When I went to college I learned this word from my St. Louis friends, and I was wondering if you could explain it to me. Can you tell me what a "hoosier" is? Or, what does the term "hoosier" mean to you?

Where do "hoosiers" live? Can there be such a thing as an "urban hoosier"? Does being a "hoosier" have anything to do with education level? How does a "hoosier" speak?

Do you know this stereotype about how people in St. Louis speak, that they say /fɑrti/ instead of /forti/? Do you know anyone who talks this way? Do you think there's any real difference in the way you speak and the way your parents or other older people speak?

Appendix C: Word List

Vowels in the early stages of the NCS:

/æ/ N=30	labial/labio-dental/ interdental	apical (alveolar)	palatal	velar
voiceless stops	nap, apple, zap	pat, mattress	n/a	rack, black, brag
voiced stops	tab, cabin	dad	badge	rag
voiceless fricatives	bath, laugh, Affton	ask, past	cash, mash	n/a
voiced fricatives	have	has, jazz	n/a	n/a
nasals	gamble, Sam	plant, thank	n/a	gang, banker
liquids	n/a	pal	n/a	n/a

/ɑ/ N=17	labial/labio-dental/ interdental	apical (alveolar)	palatal	velar
voiceless stops	mop, stop	pot	watch	rock, block
voiced stops	Bob	body	logic	n/a
voiceless fricatives	profit	possible	gosh	n/a
voiced fricatives	father	n/a	n/a	n/a
nasals	Tom	John	n/a	n/a
liquids	N/a	car, doll	n/a	n/a

/ɔ/ N=13	labial/labio-dental/ interdental	apical (alveolar)	palatal	velar
voiceless stops	n/a	caught	n/a	chalk
voiced stops	n/a	n/a	n/a	dog, fog
voiceless fricatives	awful, moth	lost	n/a	n/a
voiced fricatives	n/a	pause, closet	n/a	n/a
nasals	n/a	gone	n/a	song
liquids	n/a	horse, tall	n/a	n/a

Vowels in the late stages of the NCS:

/ɛ/: pen, mesh, bet, fed, step, neck, bend (N=7)
/ʌ/: bun, puff, cup, sub, duck, dust (N=6)
/ɪ/: tin, hit, kid, tip, pig, fist, fish, pill (N=8)

Other vowels (N=24):

boot, food, pool, good, foot, pull, hope, hole, road, sleep, peel, meat, bead, the, state, make, bite, night, ride, house, loud, mouse, toy, oil

Total: N=105

Appendix D: Reading Passage

A Bad Day for Ducks

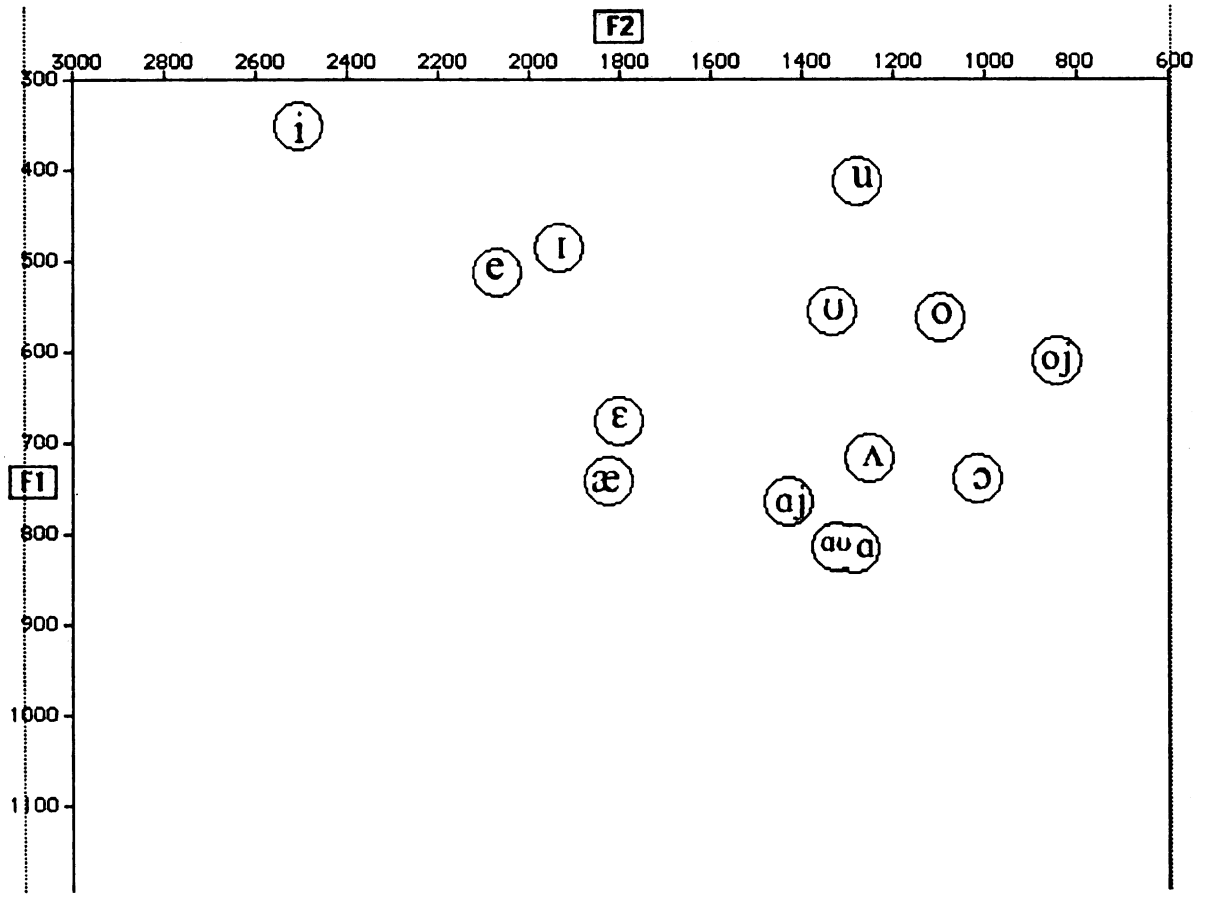
Tom and Bob were supposed to meet at Tom's house. They planned to go to a nearby pond and watch the ducks. While waiting for Bob to get there, Tom picked up around the house. He put the electric fan away for the winter and did the dishes.

He wanted a snack before he left, so he peeled an apple and cut it into slices. He bit into one, but it was awful, probably rotten. He spit it out and tried to rinse his mouth out with hot, black coffee. He poured it into a tin cup, but when he put it to his lips, he spilled it on his hand. His hand puffed up and hurt a lot, so he stuck it under the faucet to make it feel better.

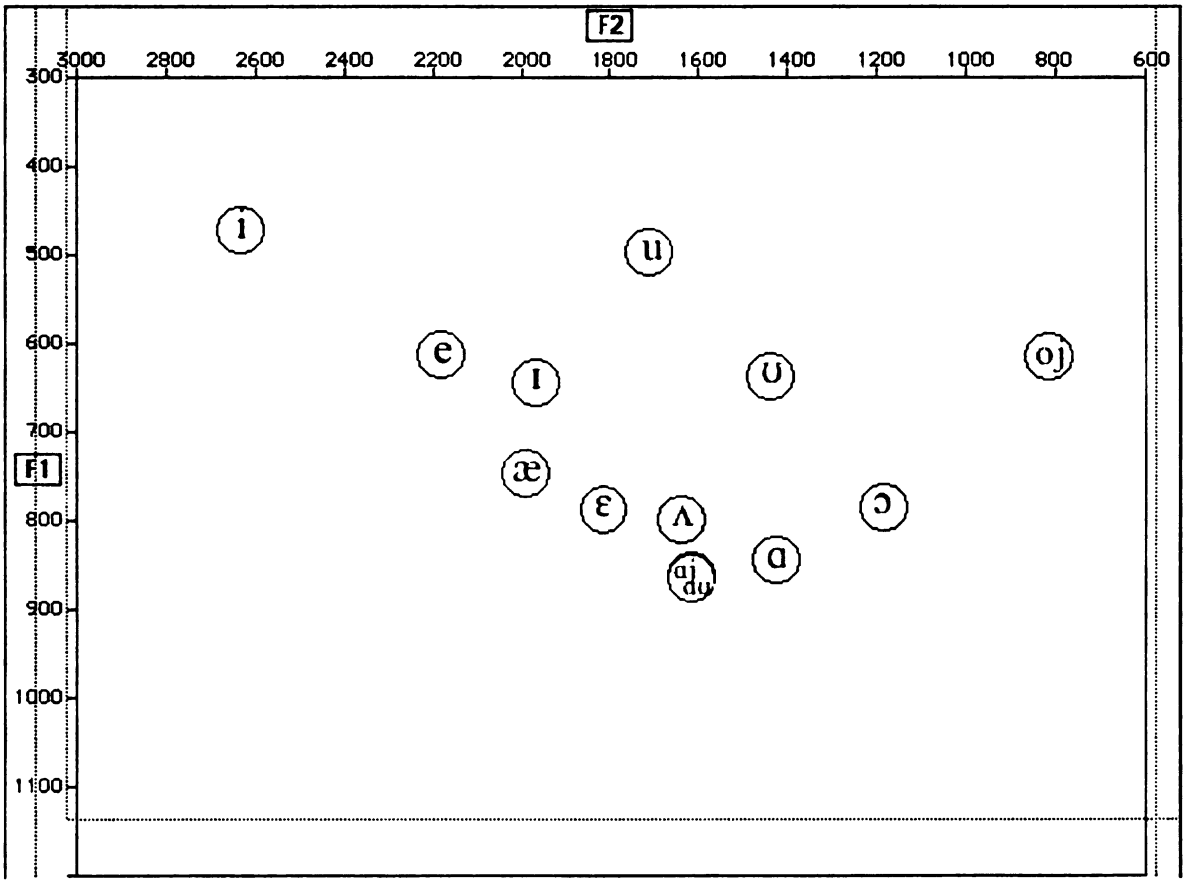
He grabbed a dusty hat out of the closet and shook it, but he couldn't get all the dirt off. He got a cap instead and put a scarf around his neck and put on his socks and boots. There was a big hole in his sock, and Bob was really late. It was already past 2:00. Nothing was working out.

Just then Bob phoned and said he wanted to talk. He told Tom that the flock of ducks had left the pond. A pack of dogs had chased them off. Tom was sad; he had really wanted to see the ducks, but Bob said they could go shoot some pool instead. Tom thought that was a good idea and forgot all about the ducks and his burned hand.

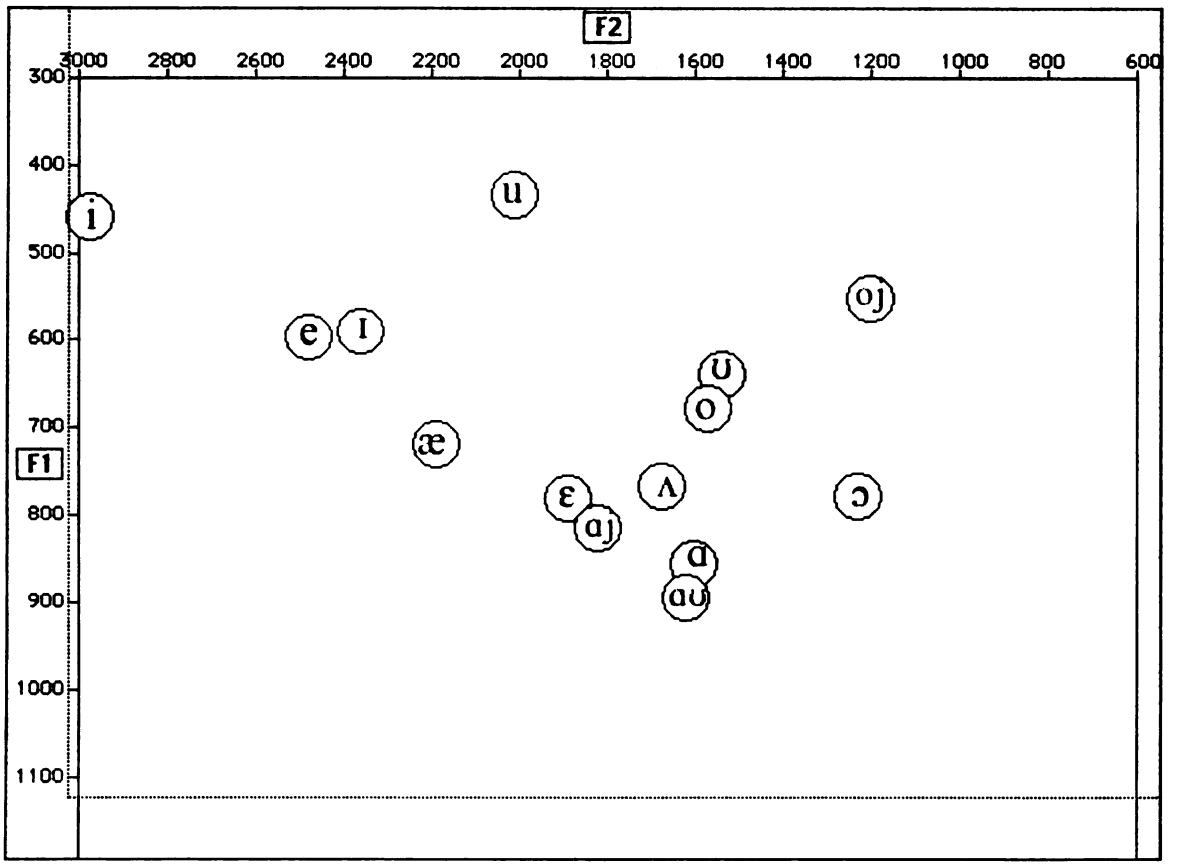
Appendix E:Individual Vowel Plots



Vowels of Aaron, an upper middle class man, age 22
/æ/ raising index score: 1 /ɑ/ fronting index score: 1



Vowels of Amanda, an upper middle class woman, age 19
/æ/ raising index score: 3 /ɑ/ fronting index score: 0



Vowels of Anne, an upper middle class woman, age 18
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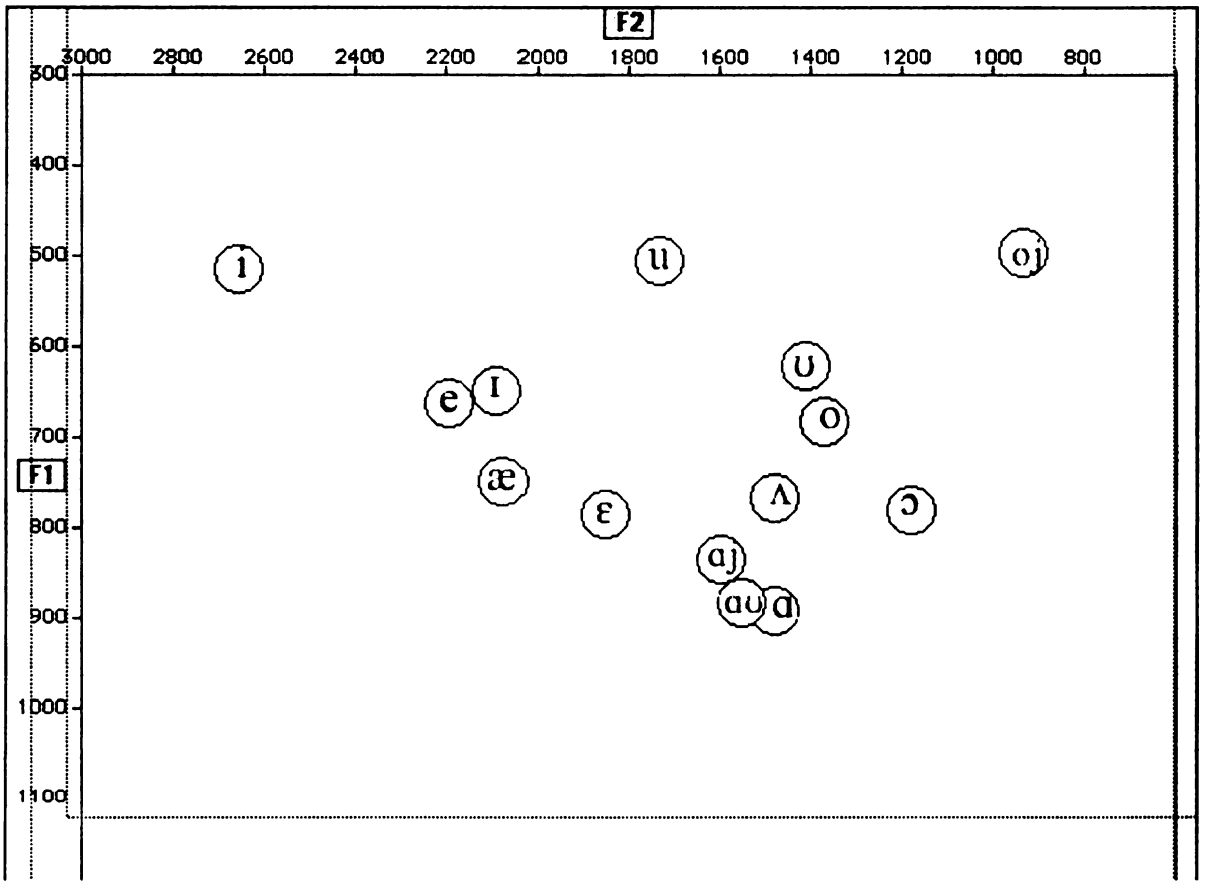

Vowels of Billie, an upper working class woman, age 25
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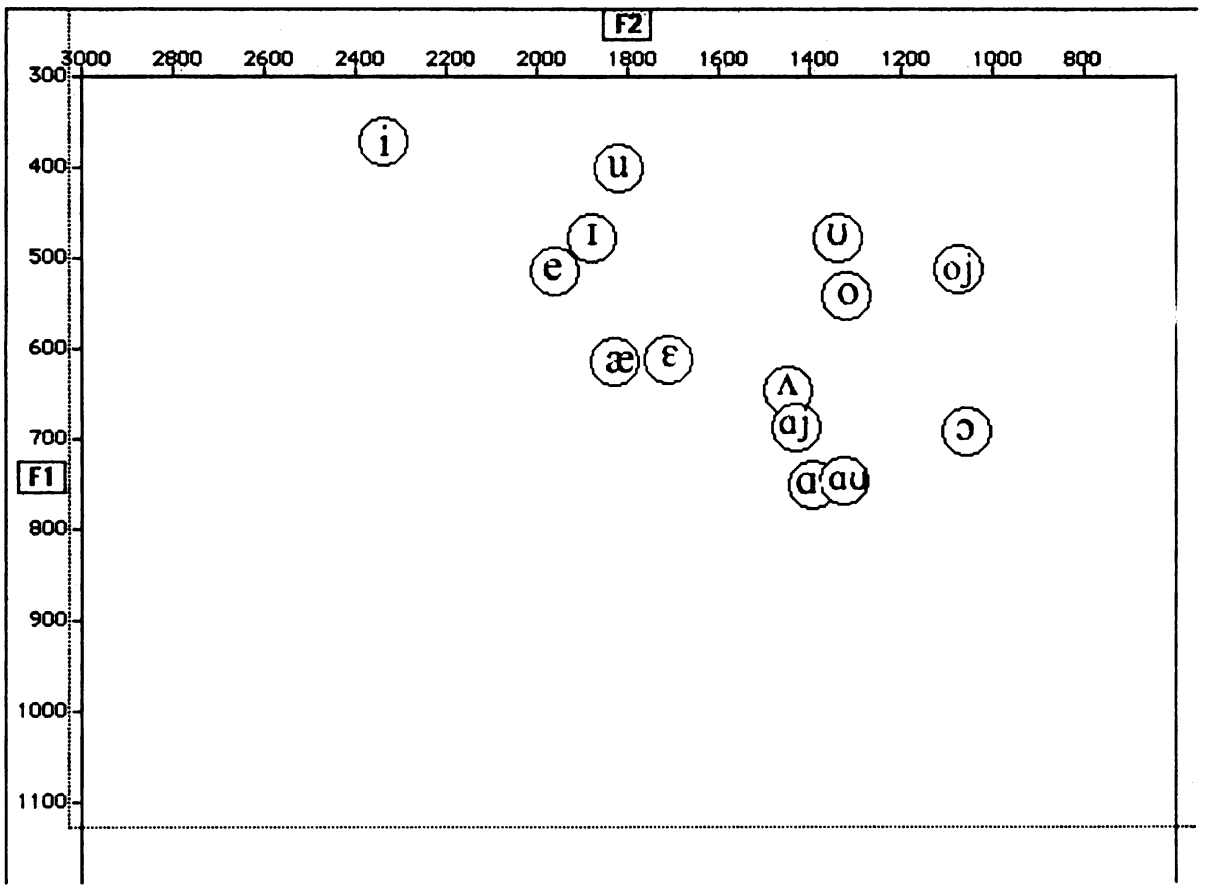

Vowels of Bob, a lower middle class man, age 24
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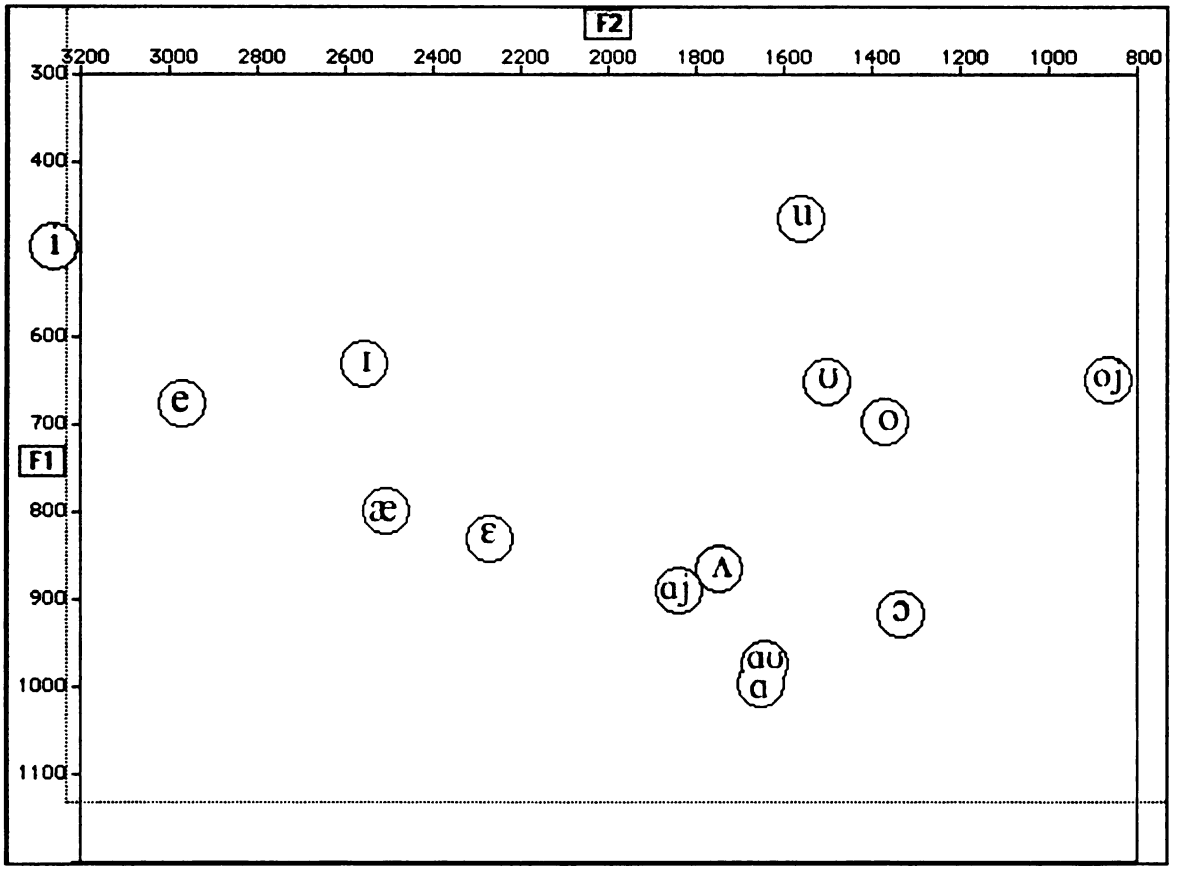

Vowels of Carrie, an upper middle class woman, age 25
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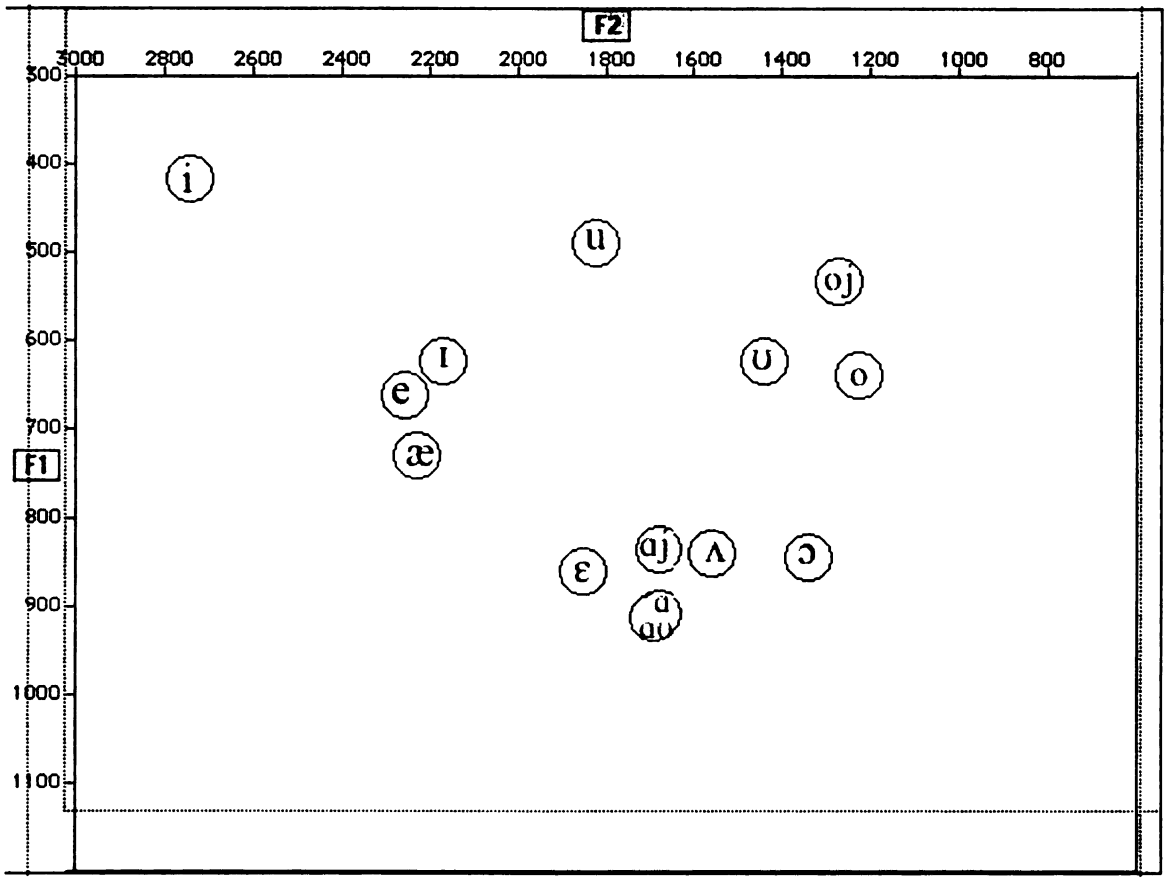

Vowels of Cassie, a lower middle class woman, age 21
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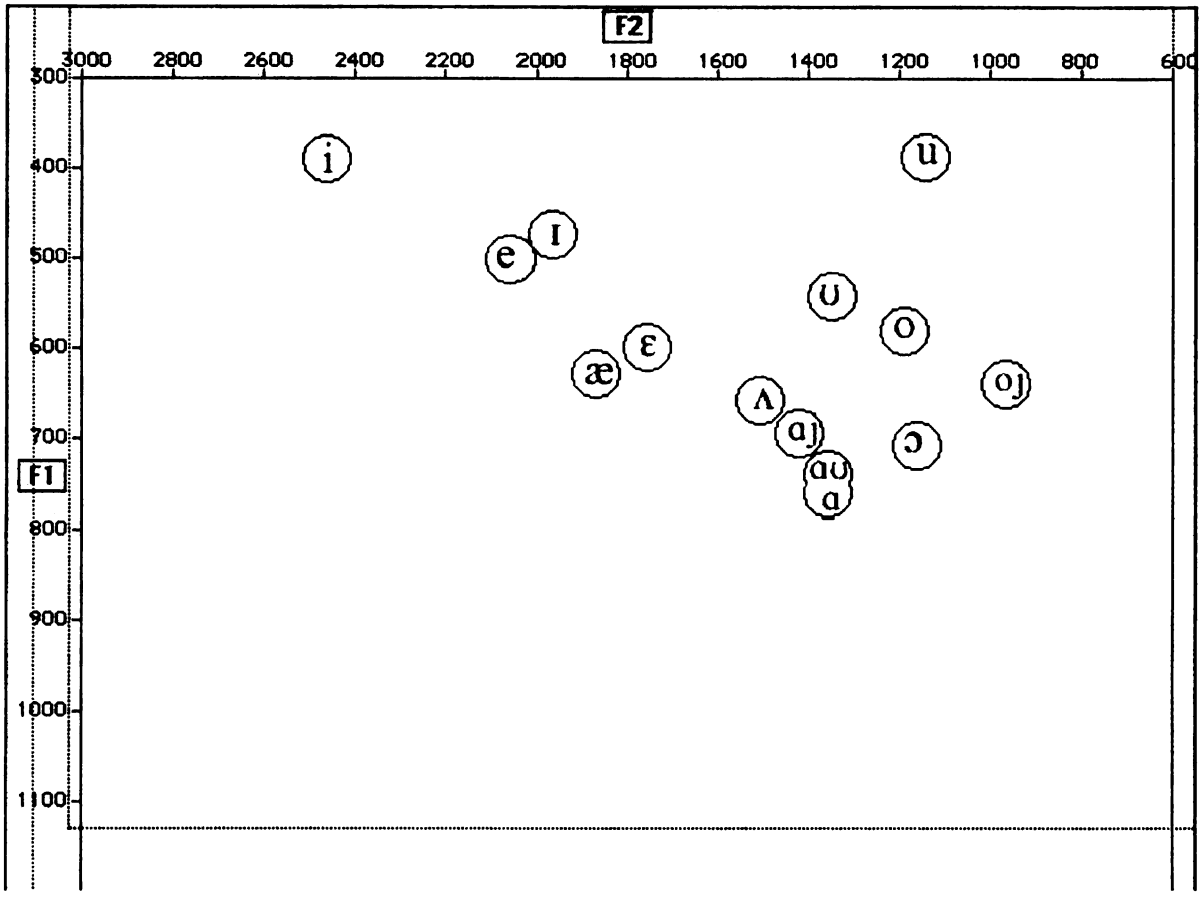

Vowels of Craig, a lower middle class male, age 26
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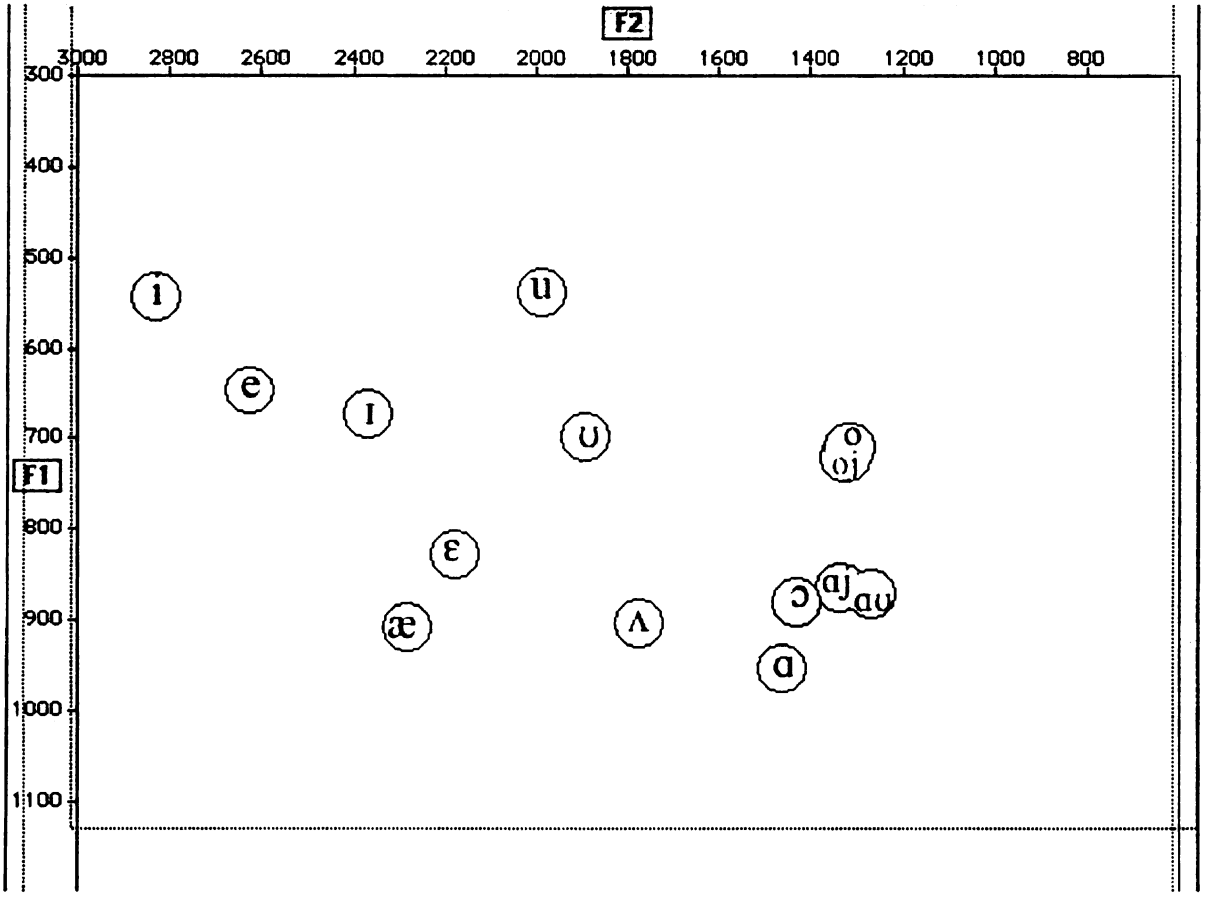

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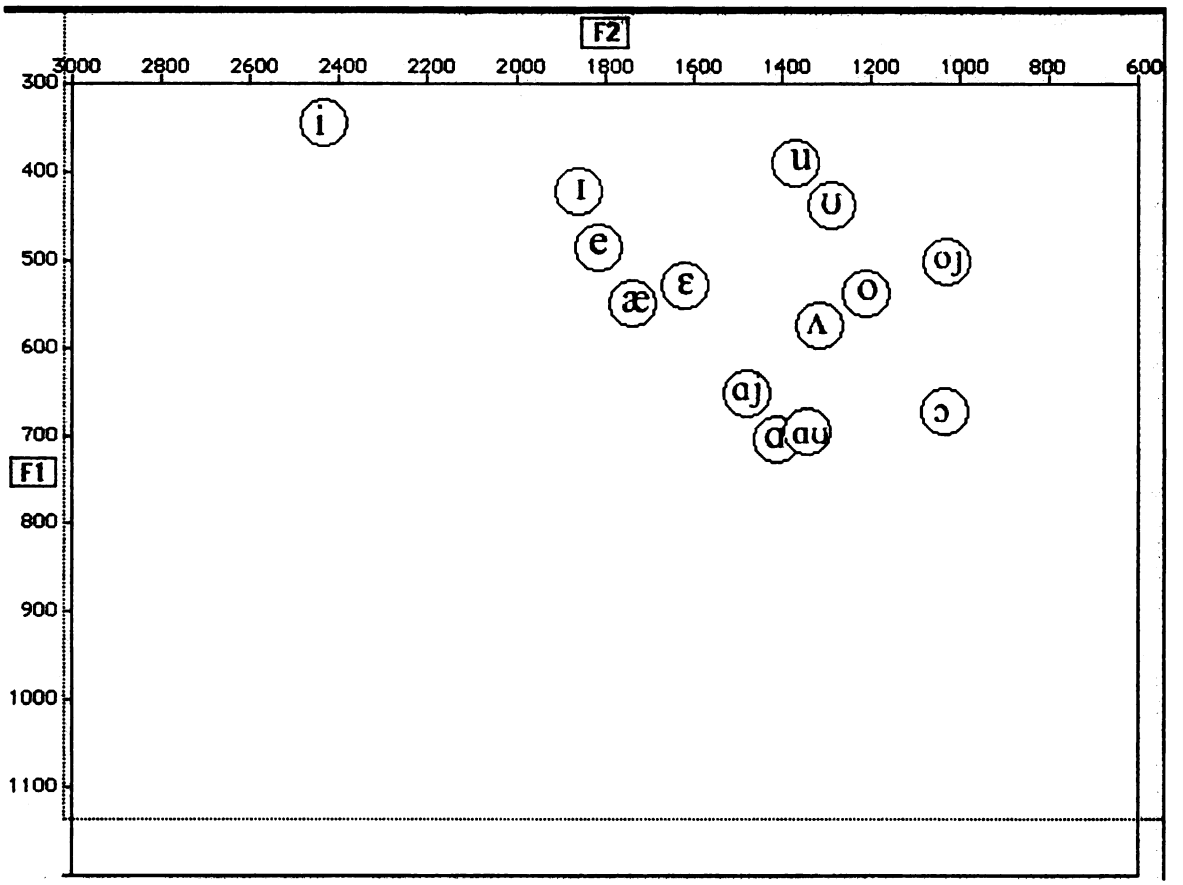

Vowels of Dan, an upper working class man, age 26
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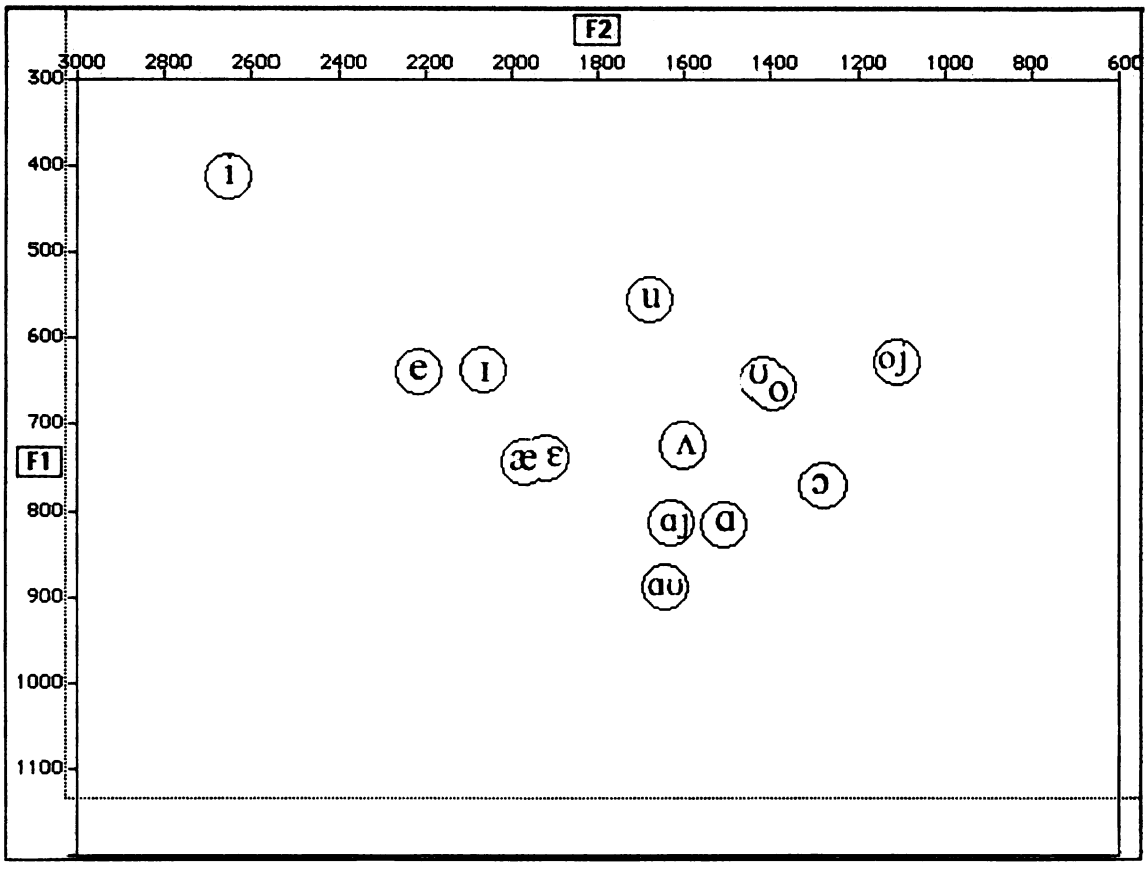

Vowels of Jackie, a lower middle class girl, age 15
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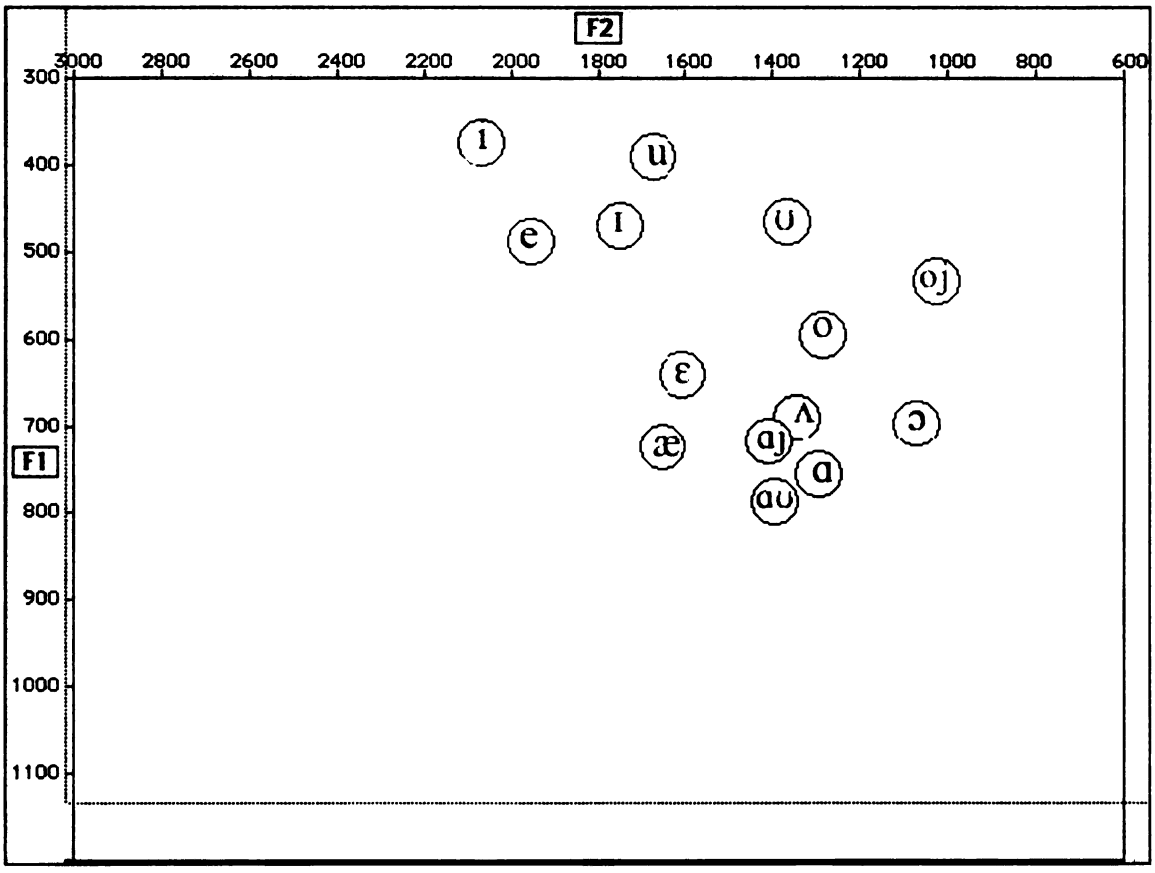

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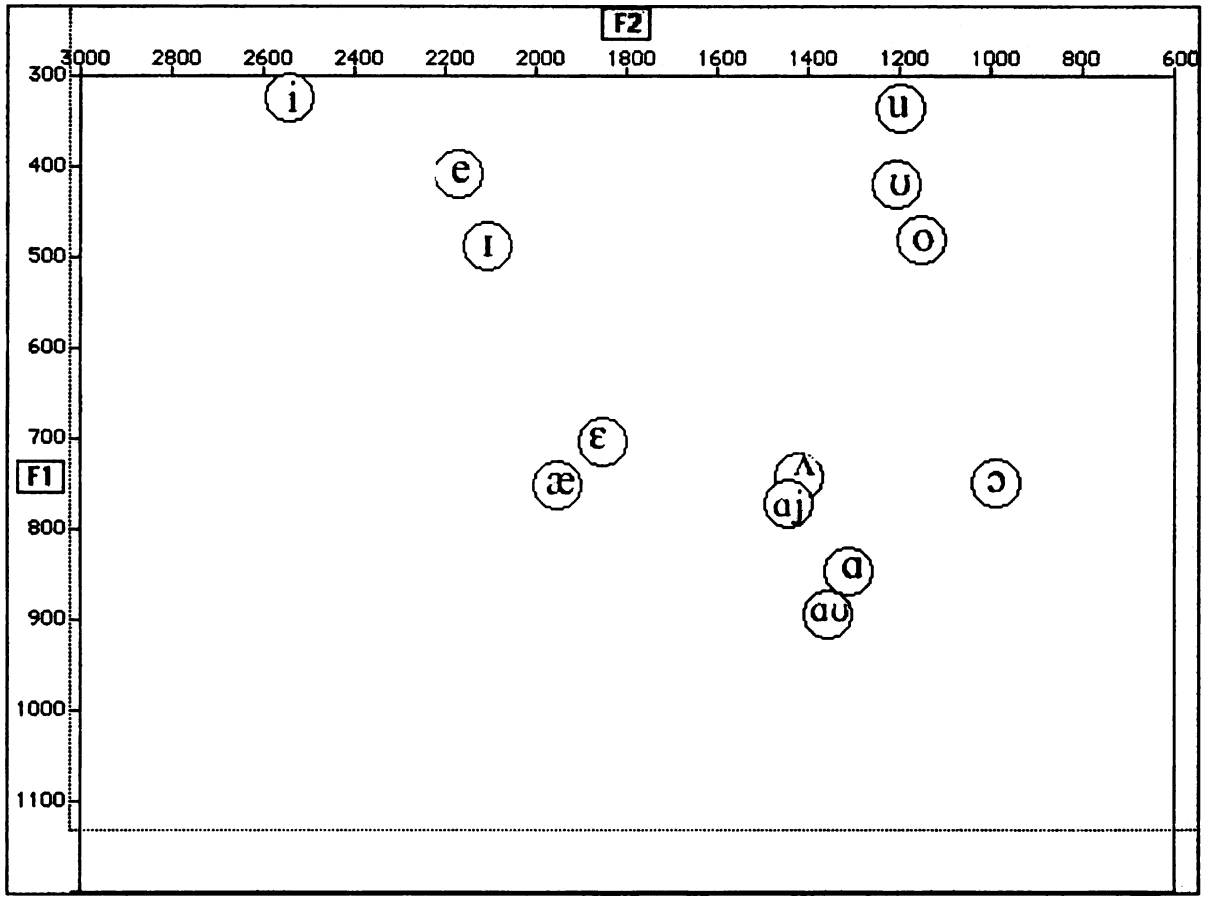

Vowels of James, a lower middle class boy, age 16
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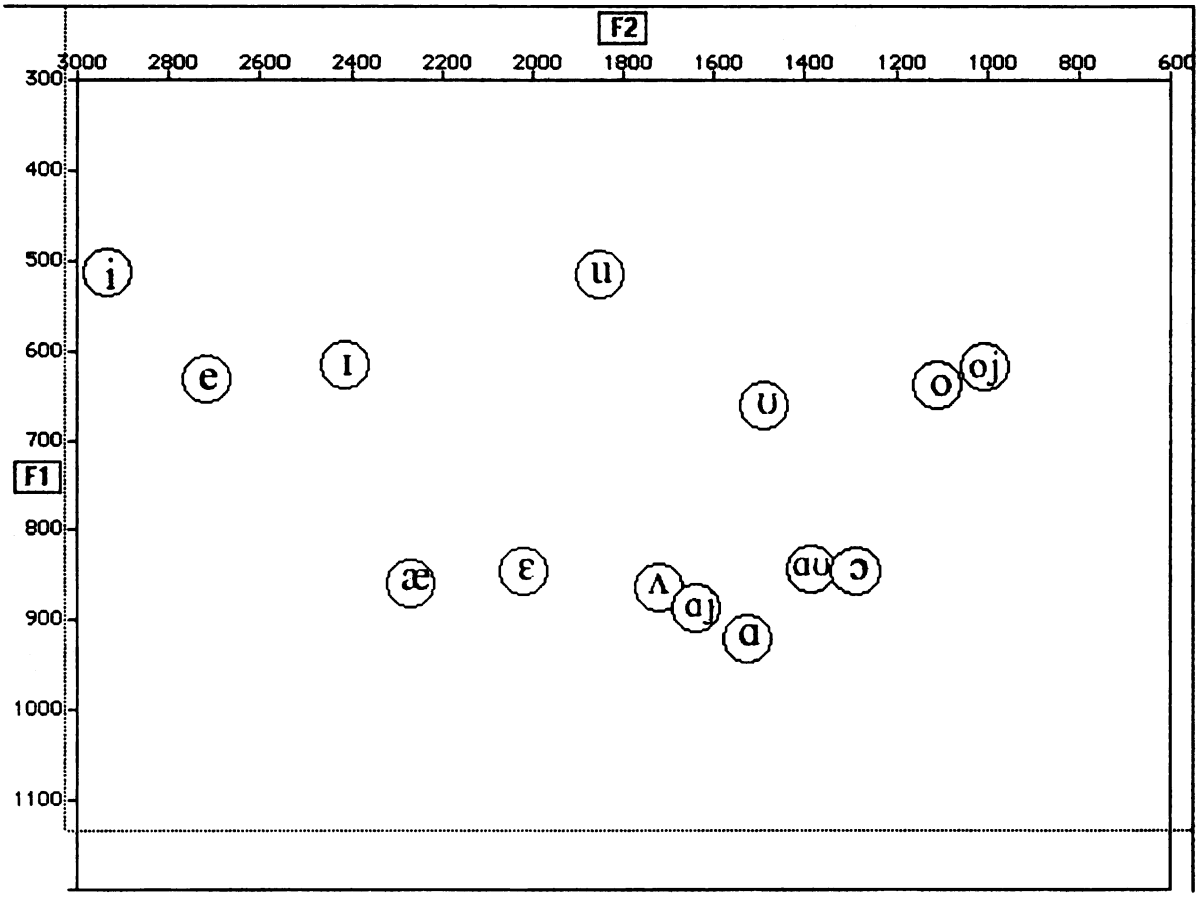

Vowels of Jessica, a lower middle class girl, age 15
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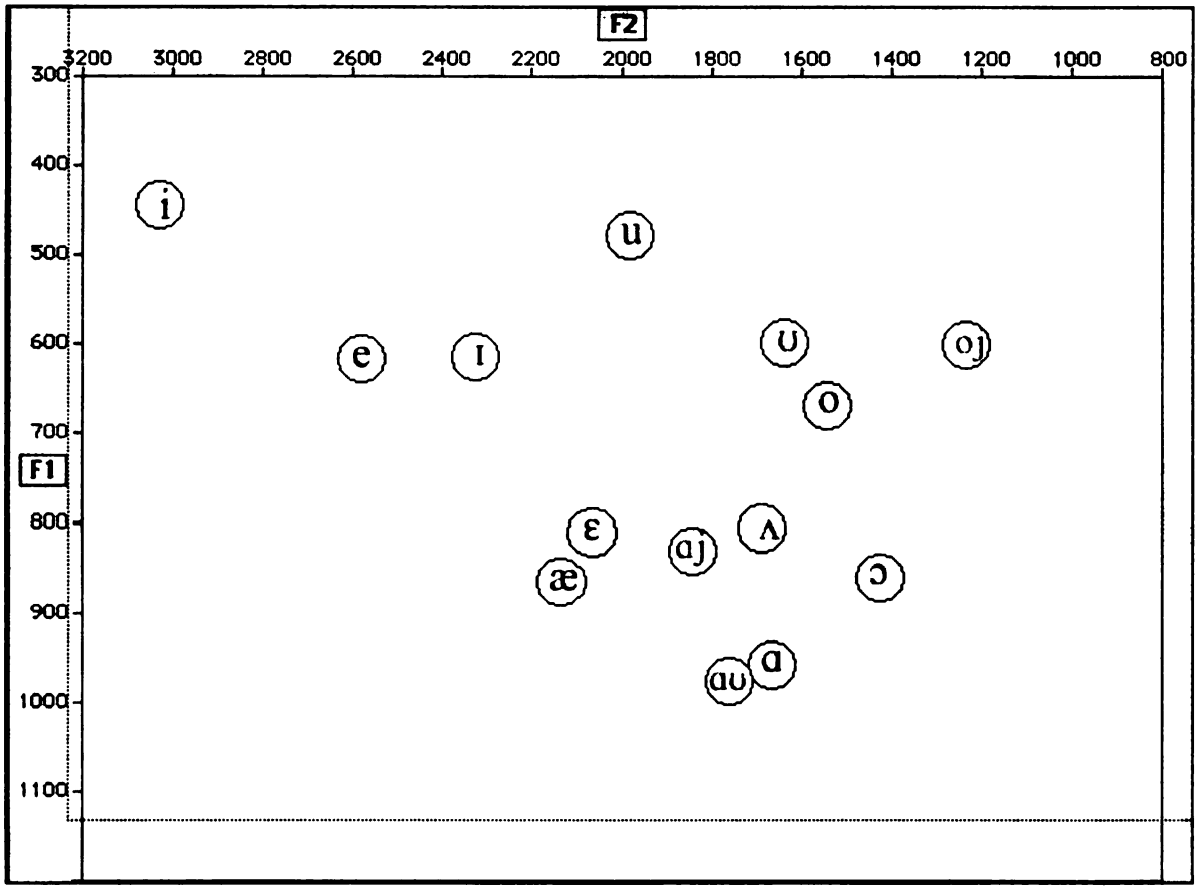

Vowels of Karen, an upper working class woman, age 19
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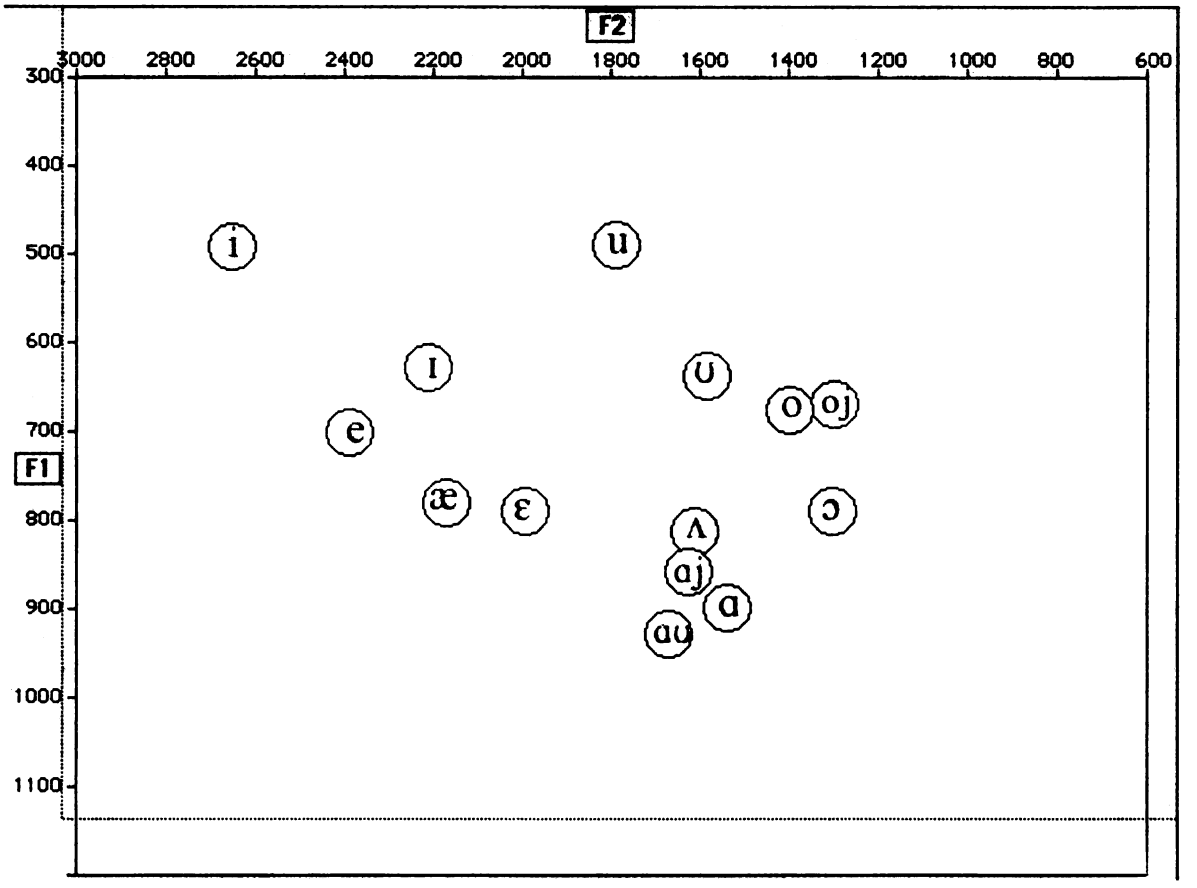

Vowels of Kathy, a lower middle class girl, age 16
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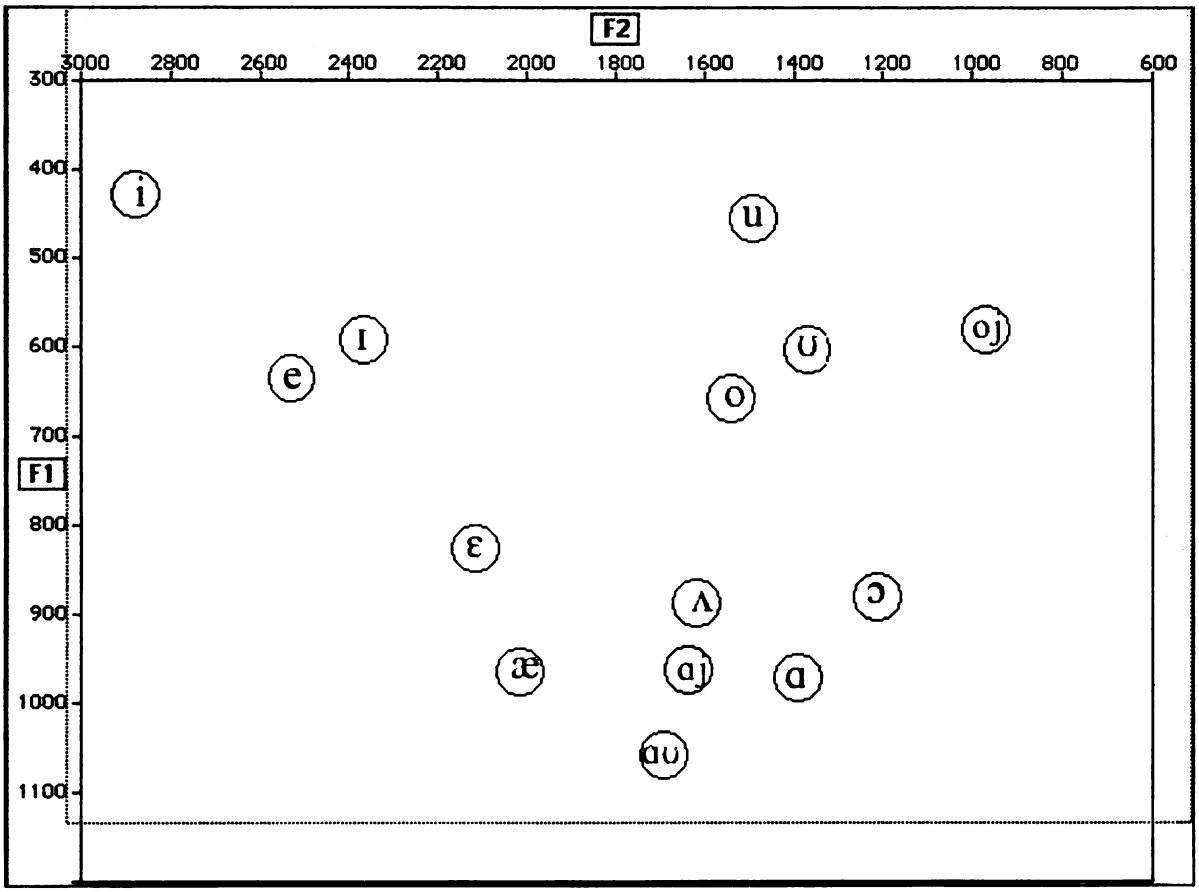

Vowels of Laura, an upper middle class woman, age 21
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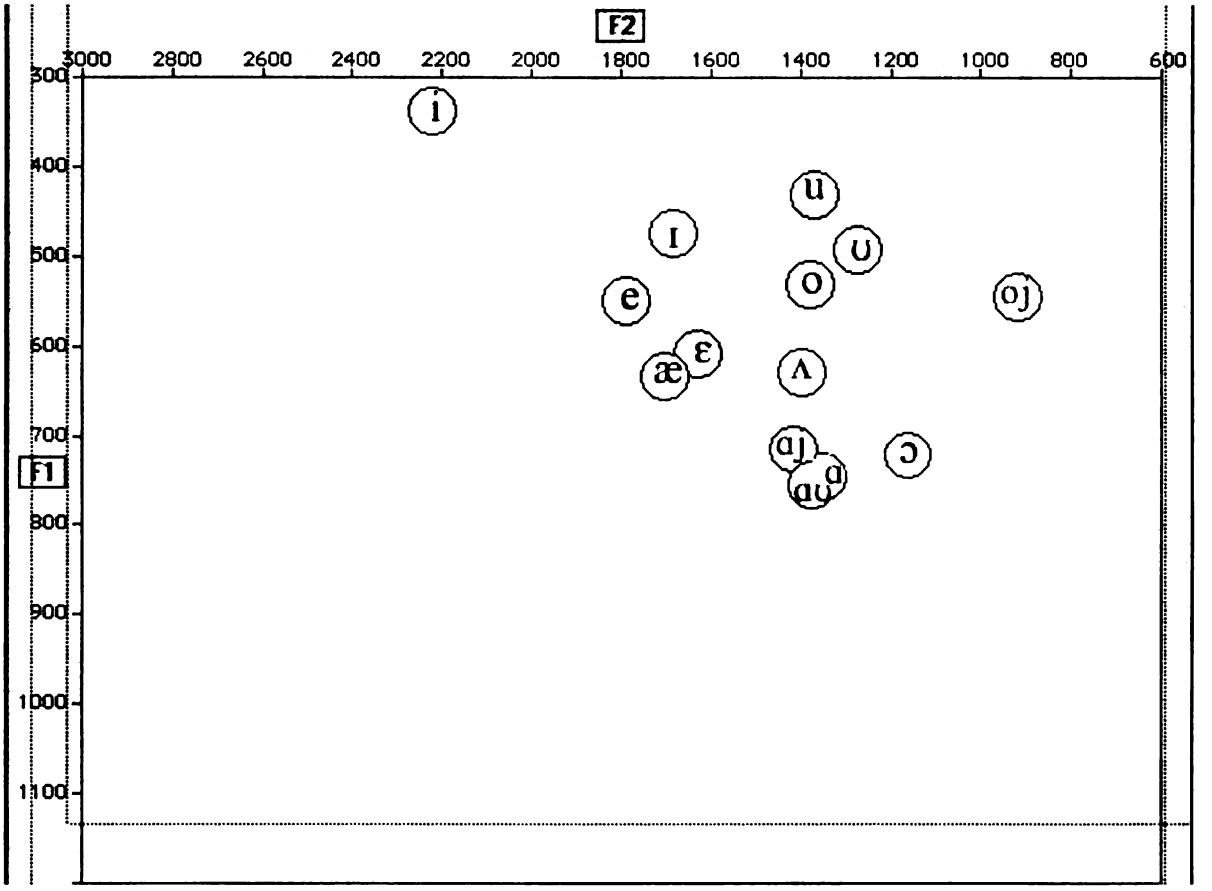

Vowels of Luke, an upper middle class man, age 18
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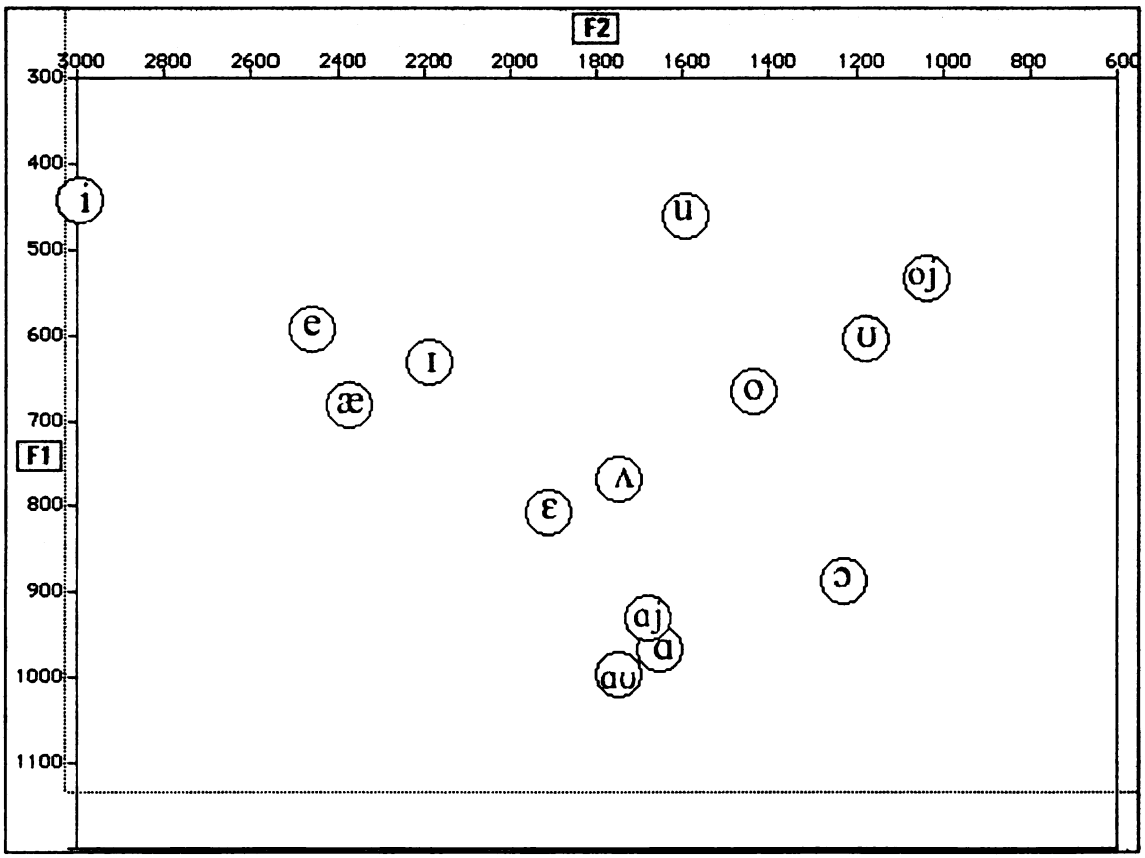

Vowels of Maria, an upper working class woman, age 21
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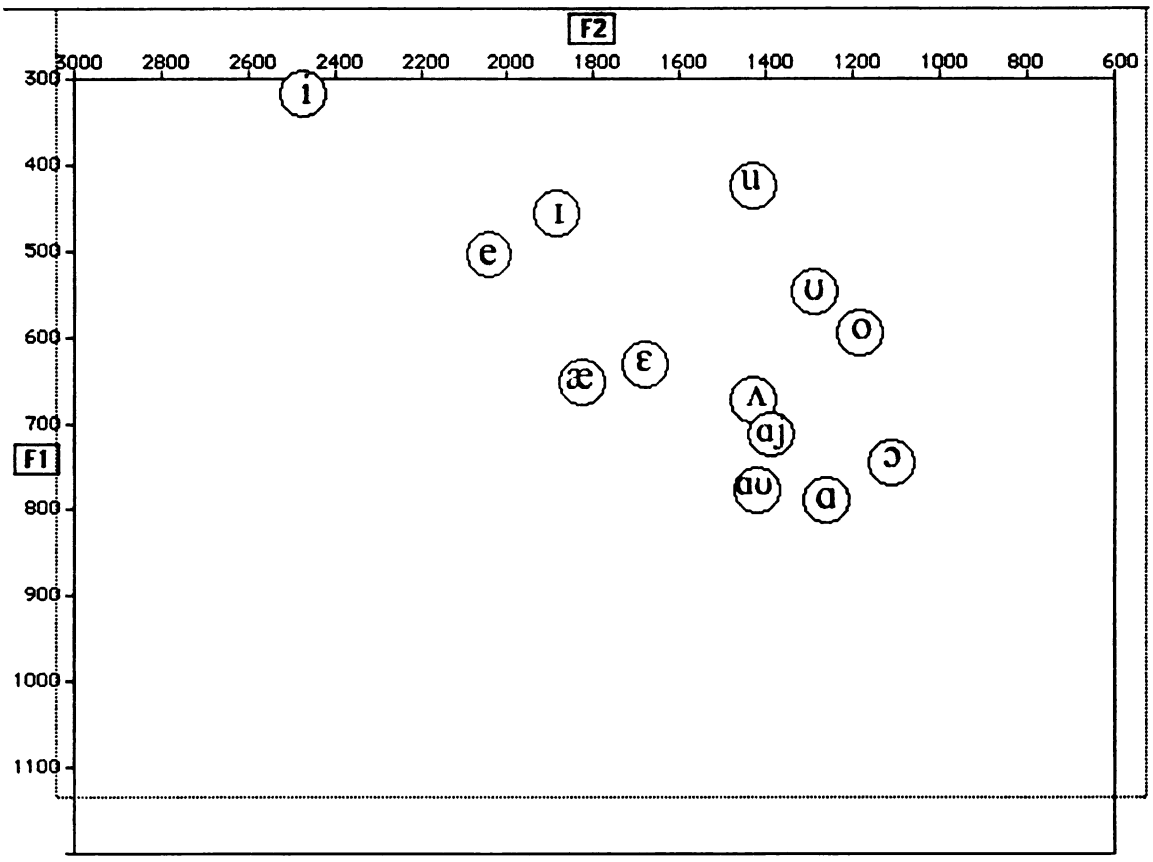
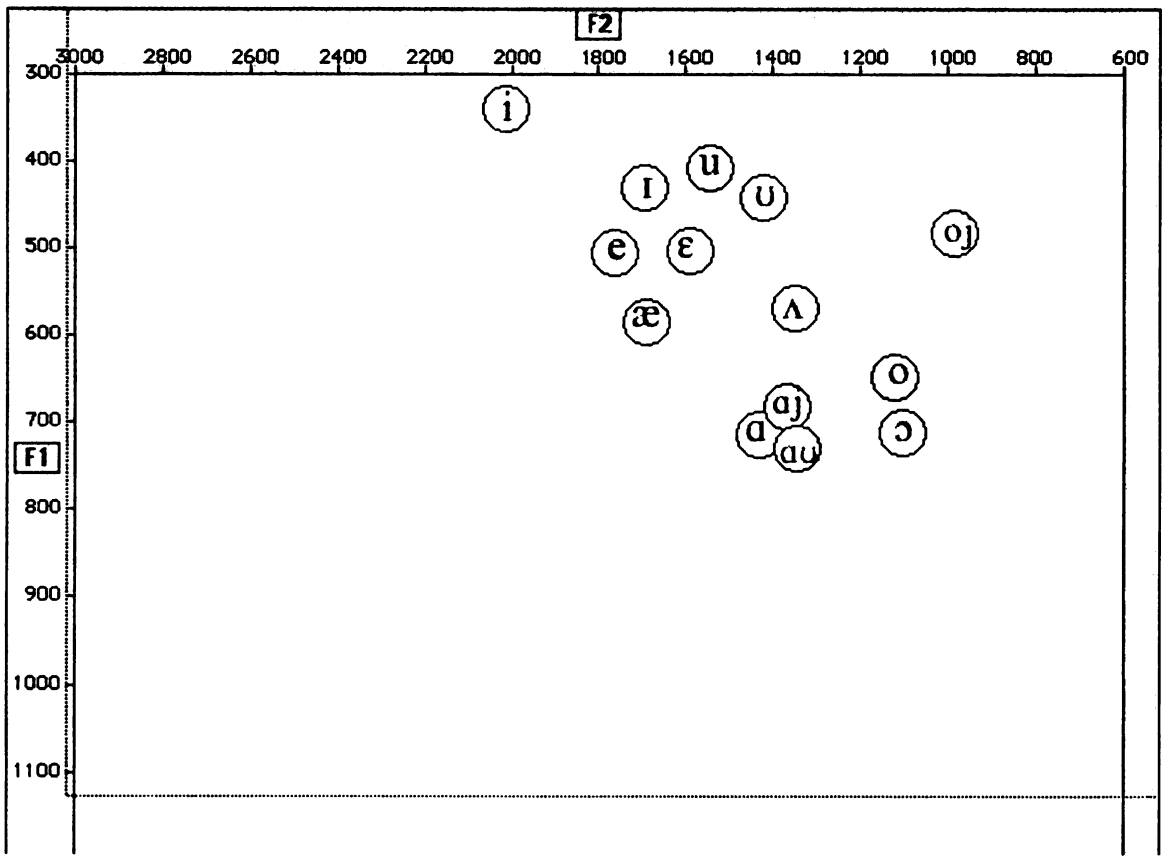
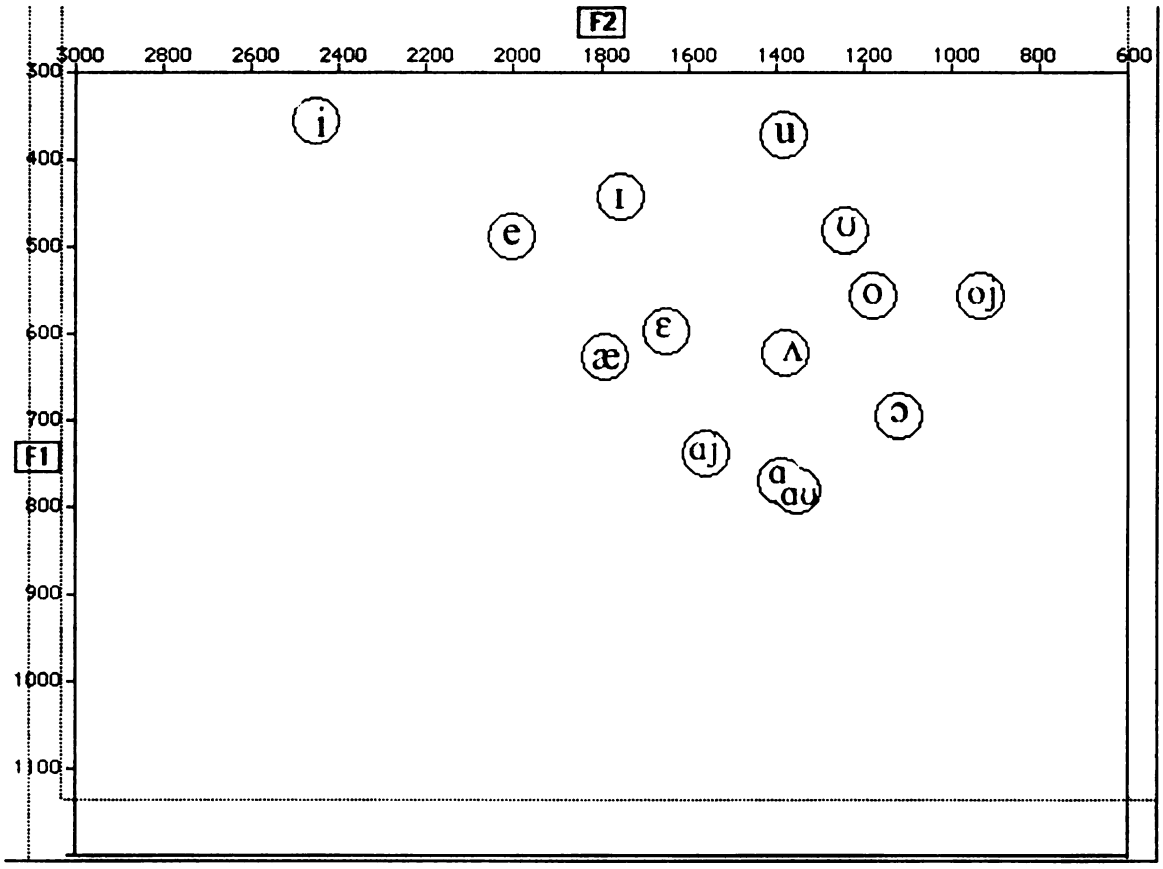


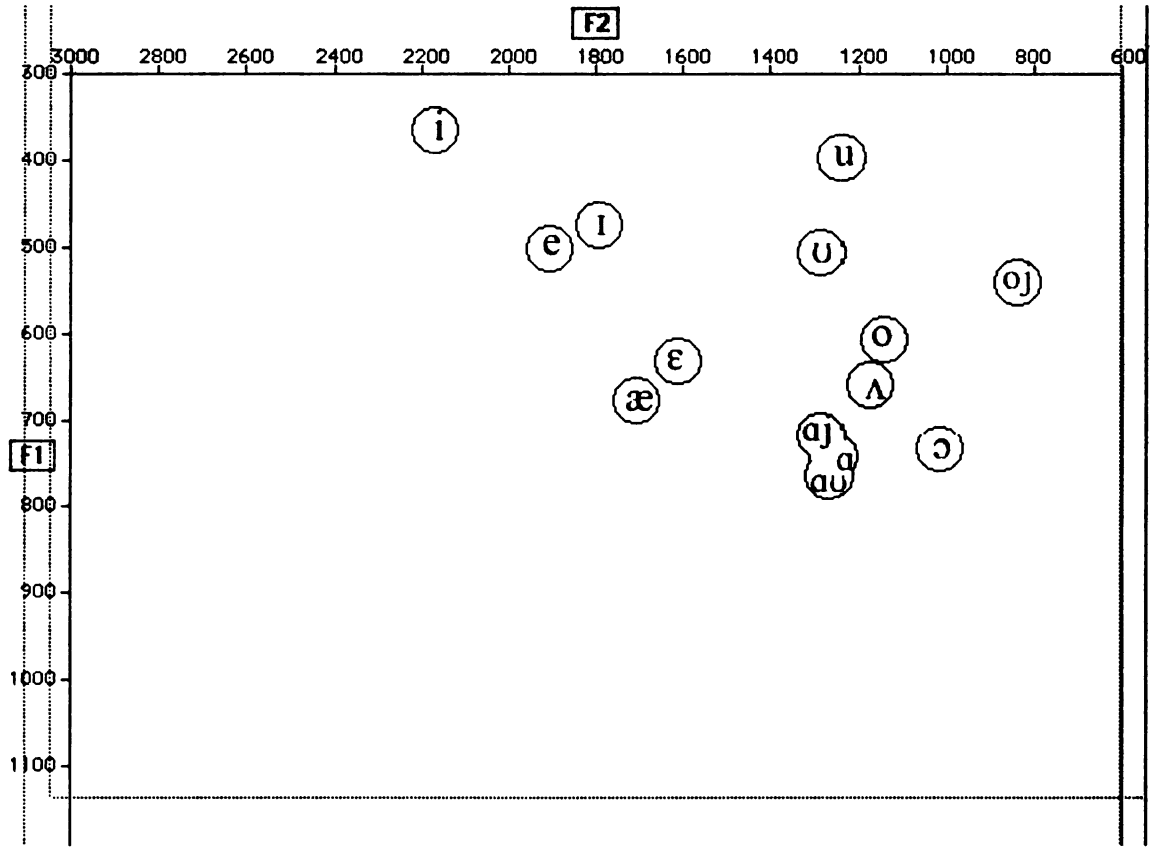
Vowels of Michael, a lower middle class man, age 25
/æ/ raising index score: 2 /ɑ/ fronting index score: 0



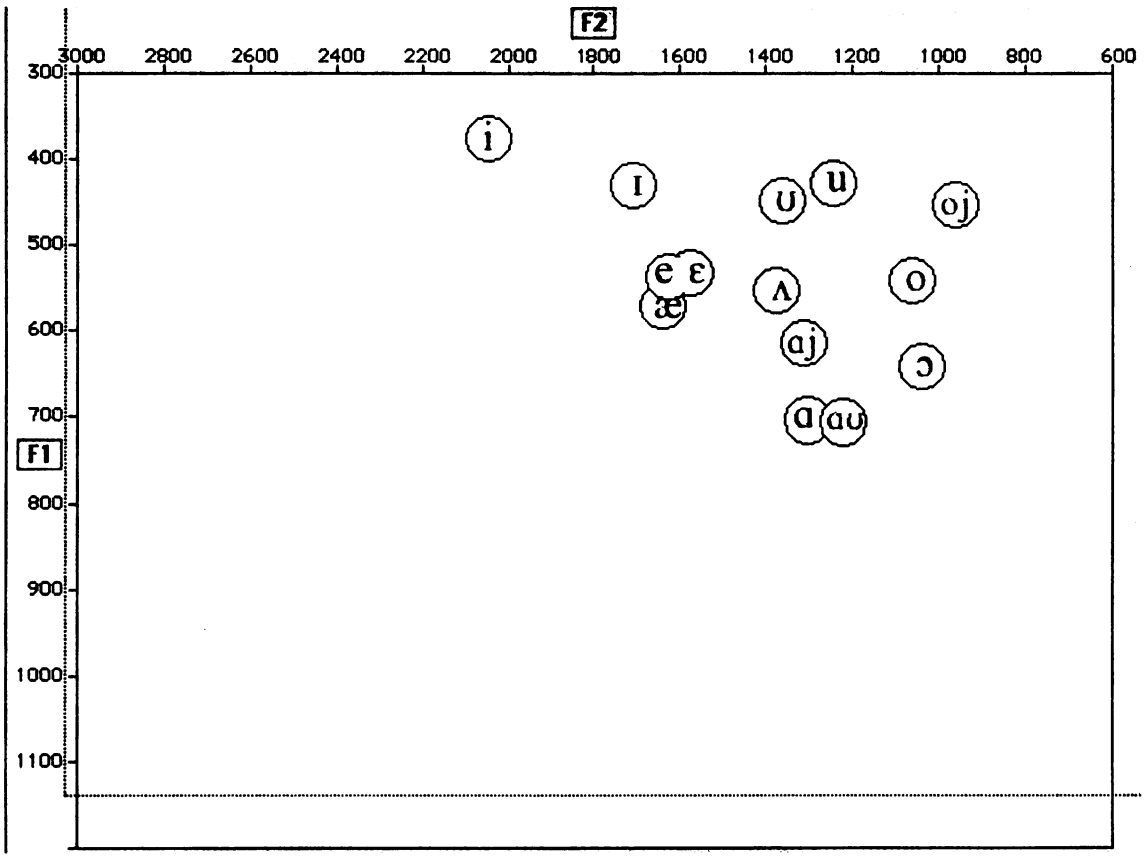
Vowels of Nate, an upper working class man, age 23
/æ/ raising index score: 1 /ɑ/ fronting index score: 1



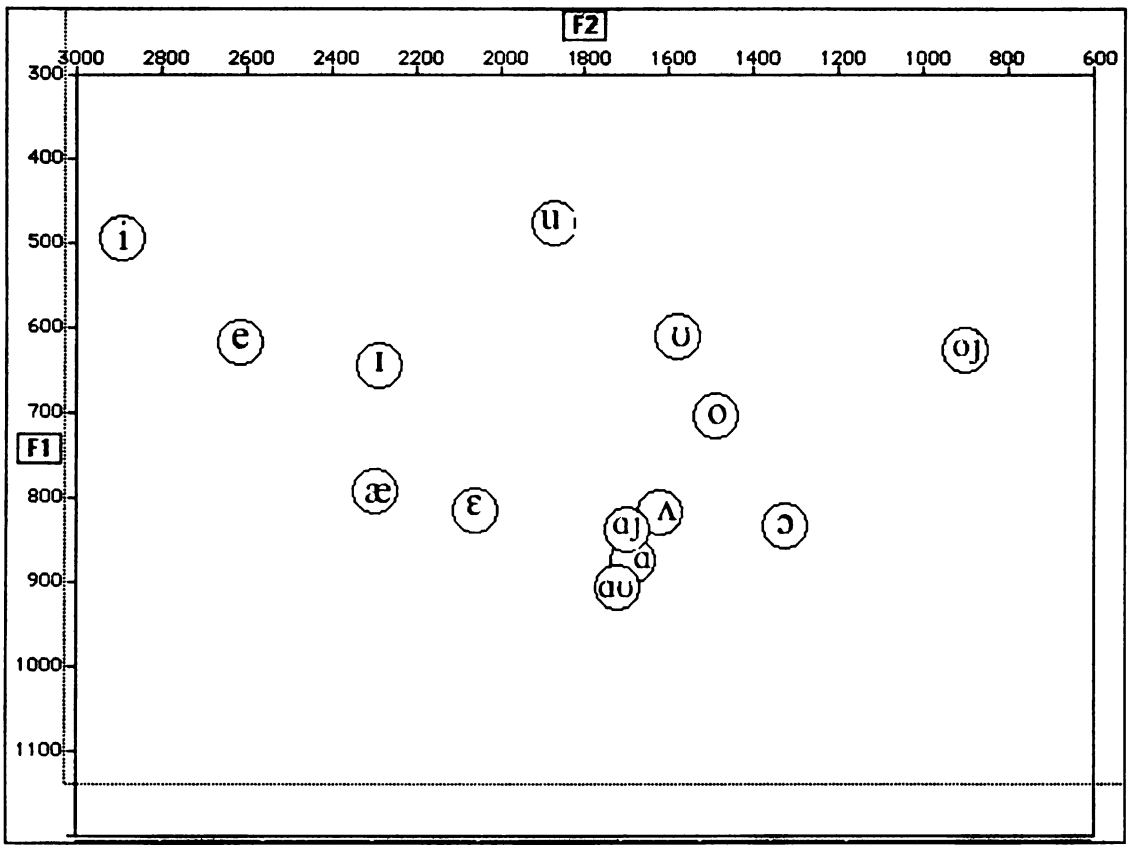
Vowels of Peter, a lower middle class man, age 22
/æ/ raising index score: 1 /ɑ/ fronting index score: 1



Vowels of Rex, an upper middle class boy, age 16
/æ/ raising index score: 2 /ɑ/ fronting index score: 1



Vowels of Rob, an upper working class man, age 21
/æ/ raising index score: 1 /ɑ/ fronting index score: 1



Vowels of Sally, an upper working class woman, age 23
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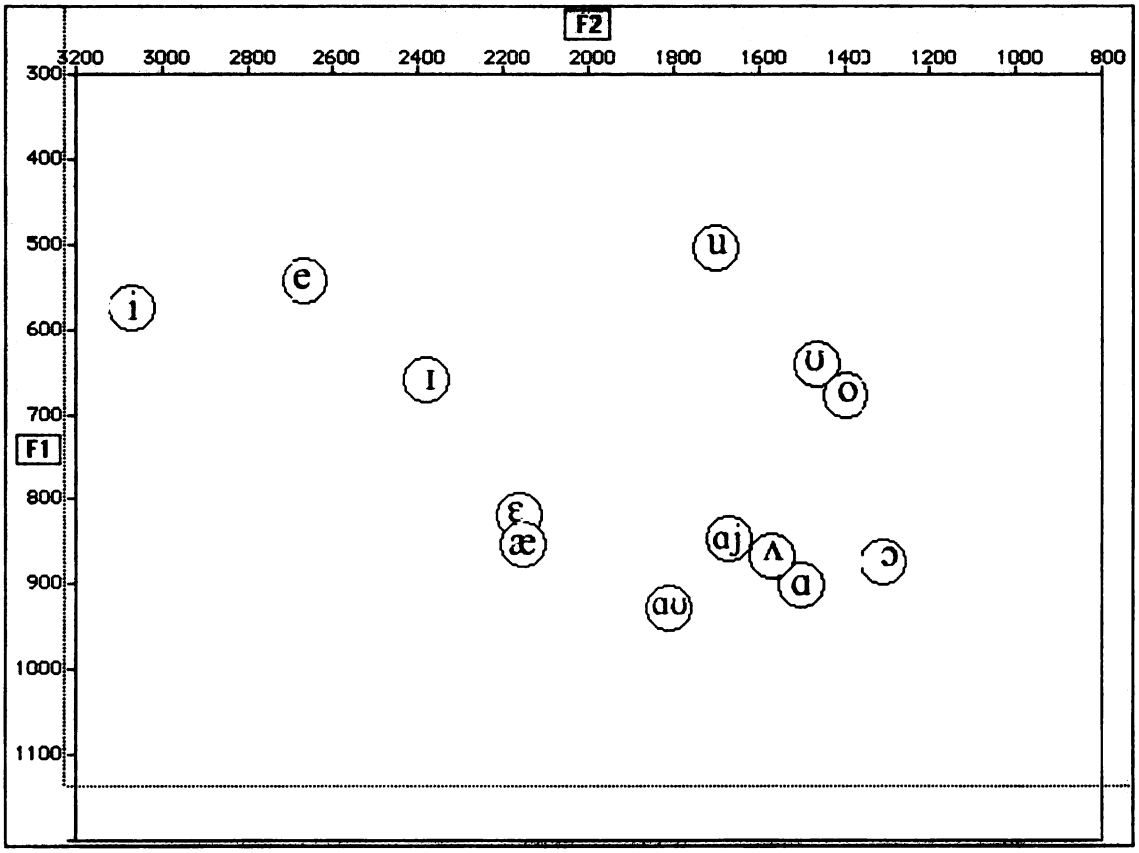
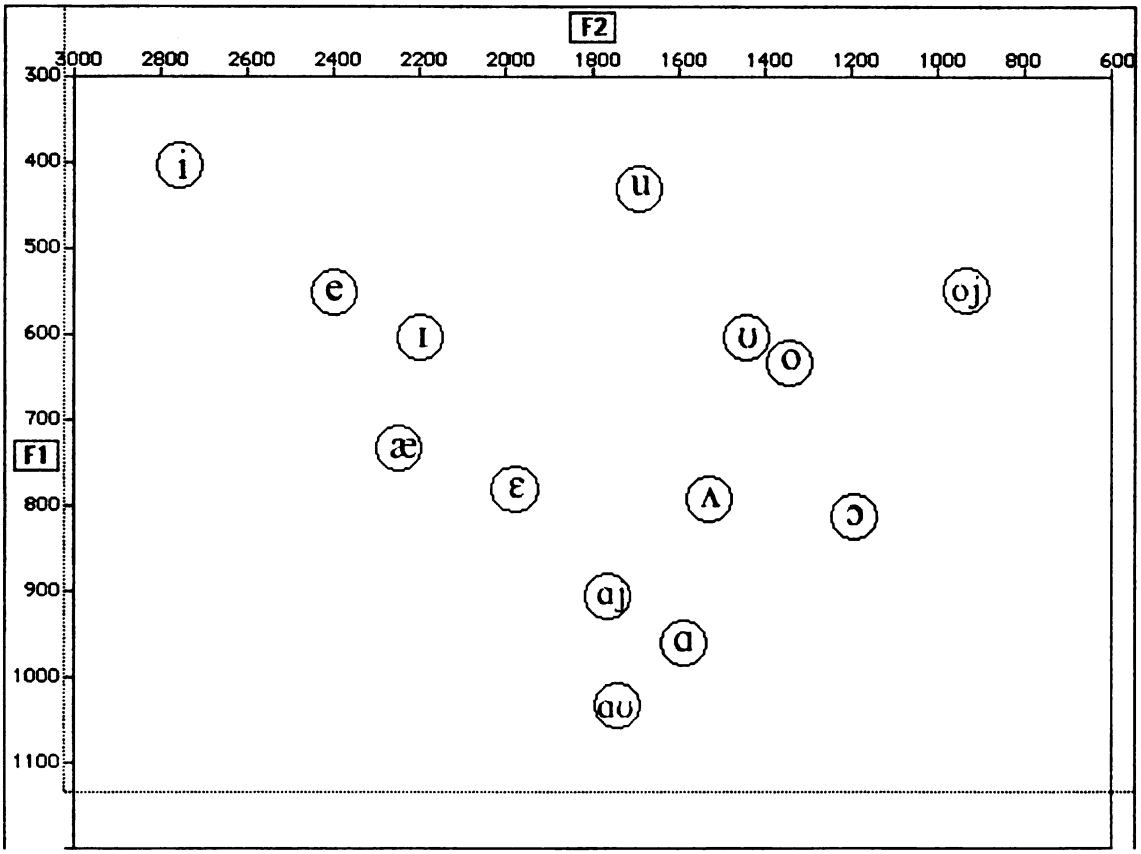


Vowels of Sara, an upper middle class girl, age 17
/æ/ raising index score: 2 /ɑ/ fronting index score: 1



Vowels of Terri, an upper working class girl, age 17
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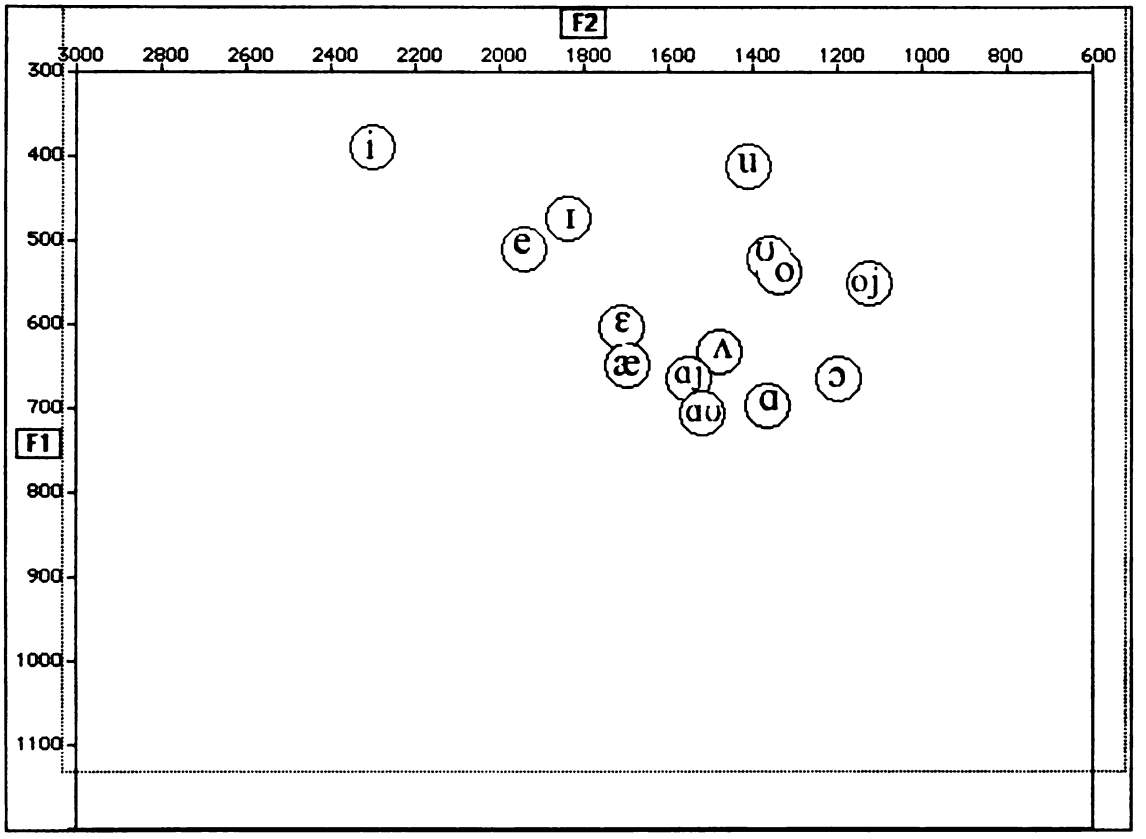

Vowels of Timothy, an upper middle class boy, age 17
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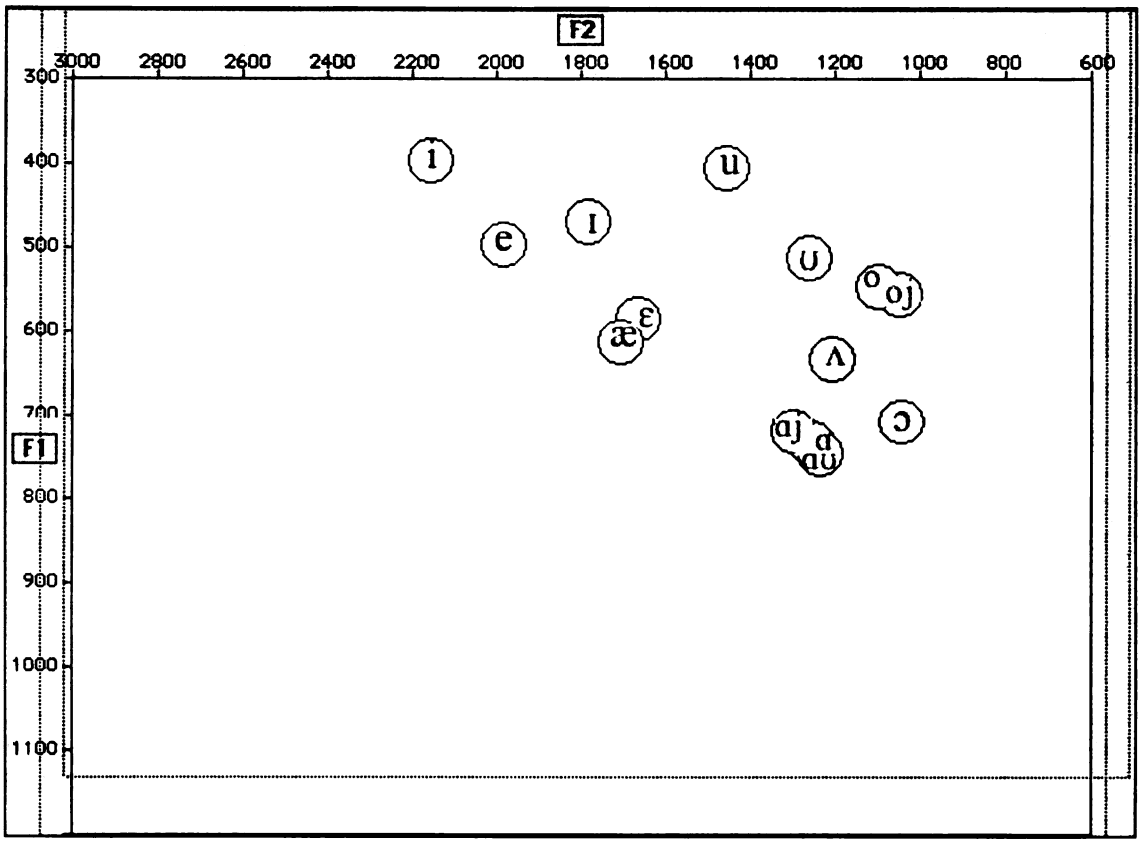

Vowels of William, an upper working class man, age 26
/æ/ raising index score: 2 /ɑ/ fronting index score: 1

Appendix F: Supplemental Attitudinal Data

Some responses to interview questions about *hoosiers:*

From Alan, LMC man, age 22:

> Now, hoosier means you're like a, (pause) like, kind of the same thing as redneck, kind of a country bumpkin kinda guy. Ummm, if you did something very hoosier, it would be say you were at a, (in a mock sophisticated voice) say you were at a fine restaurant eating caviar, and you said (exaggerated stereotype of a working class person) FISH EGGS? It's like that guy in the commercial where he says 'pass the jelly'? (laughs) EXACTly like that. That's the best analogy there is for a hoosier.

From Manny, LMC man, age 23:

> Somebody that dresses scrubby, their hair's all over the place, um, like unshaven, um, just downright smellin' awful.

From Linda, LMC woman, age 21:

> They don't really care what they look like. Their house is trashed, and, you know, they don't drive nice cars, and they don't wear nice clothes.

From Karl, UWC boy, age 17:

> A hoosier "wears scrubby clothes and doesn't give a crap about anything."

From Anne, UWC woman, age 18:

> Oh, they can live in the city, where they're just not taking care of their hou:::se. You walk in, and you feel dirty when you walk outta there.

From Peter, LMC man, age 22:

> Someone who's (pause) dirty, kind of, but not, like, a bum. See, there's a difference between a bum and a hoosier. A hoosier is someone who can help, help it, but they kinda act like a bum, and look like a bum

Also from Peter, LMC man, age 22:

> They wear dirty clothes (laughs) don't have any teeth

From William, UWC, age 26:

> (laughs) That's somebody that don't cut their gra:::ss, they have cars in their ya::rd, they don't bathe very often, uh, they're just un-kept.

From Dan, UWC, age 26:

> Around here, a hoosier would be someone who doesn't take care of themselves or their fa::mily, or their property, for the most part

Also from Dan, UWC, age 26:

> A lot of people, you know, they think, Metallica T-shirts, you know, heavy, hard

rock 'n' roll, five cars in the lawn

From Jamie, LMC woman, age 24

Ja: A hoosier, yeah, would just be, uh, (laughs), can I draw a picture? um, somebody who is (pause), I wanna say redneck, I wanna say, um, trailer park trash, and things like that, but (pause) it's just somebody who doesn't present themselves in a very, like, professional way? or, um, just kind of rough around the edges, umm. Hoosier. Just, they do things that aren't with the norms of society, I guess, like, you know, have eight million cats, or have mullets, or (laughs) I don't know, umm.

J: So, can a hoosier be an urban dweller? or is it like a country person? or can it be either one?

Ja: I think of it more as a country person, but even out in St. Peters, there's many a hoosier out there, so, I mean, I don't know, that's not really the city, but it's not really the country either? Um, I definitely don't associate it with people who live in the city. I mean, it could be, I guess, but most of the time I think it's people who would have to have a lot of land to put refrigerators out on it and stuff like that, you know (laughs) and couches and stuff.

From Sally, UMC woman, age 23

Ok, hoosier, um, you know you're talking your wife-beater shirts, driving your Camero cars, or Firebird I should say. Firebird, or even more hoosier is a truck, a pick up truck that has no back end to it, it's white, it's rusted, um, hoosier I think, you know, you drink Busch beer, uh, wife-beaters, I said that already, but kind of don't-give-a-crap kind of attitude, you know, real white trashy.

Luke, UMC man, age 18

L: Wul, I've always thought a hoosier was like a hick, somebody that lives, like, out in the middle of nowhere, just like typical redneck, like makes everything themselves, does everything, self-reliant, can do whatever they want, but really like country born, strict morals, a real country, country kind of attitude.

J: So, you don't think there can be like an urban hoosier.

L: Well, yeah, there can be, but I don't think I've seen one.

From Jessica, LMC girl, age 15:

Um, well, I don't know, going along with the statement of white trash, I think that it would be, like, one of those peo:::ple who don't exactly have a stable jo:::b type of thing, so I wouldn't think, just stereotypically, I don't think that they would be very well-educated because it seems like well educated people don't have THAT much

problem finding a job? Um, anyway, it just seems like they would be the kinda person who lives in a run down mobile ho::me off on the side of, I don't know, some polluted area or something (laughs), I'm not really sure, that's just the stereotypical hoosier environment.

From Laura, UMC woman, age 21

You can, you can be like white trash with money, and with like Cameros and stuff like that, it's just that kind o::f flashy cheap

From Betsy, LMC woman, age 22

Hoosiers are just like tasteless people, do you know what I mean? just, they're, they're hoosiers. It's kind of like you know it when you see it almost. You know, I wouldn't say if you had like a mullet, you're a hoosier, but it's like, I don't know, you just think of a hoosier as somebody that wouldn't really couldn't take anywhere, do you know what I mean? You kinda have to watch how they act and stuff like that. But I use the term really loosely, do you know what I mean?

Also from Betsy (about her neighbor she claims is a hoosier):

He revs his motorcycle for no known reason, does not take care of his house, does not take care of his ya::rd, his, um, truck is completely up on four blocks, you know, and just, the engine of his car just sat out in his driveway for like six months. Do you know what I mean? yeah, he's a hoosier.

Some responses to the question: 'Does a *hoosier* speak differently than a non-*hoosier*?'

From Alan, LMC man, age 22:

A: I'm thinking, ummm (pause), in a country accent you would suppose, but not one of those smart country accents where they're kinda cu::te. It would sound, uh, are you asking me to perform a hoosier accent?

J: No, no, not unless you want to, but, no I'm not asking you to perform

A: (deeper voice) /**ma** for wil brok **daun** for **tamz** las wik **a** ðiŋk s **tam** t**ʌ** g**ɪ**t **ʌ** nu w**ʌ**n/ (exhibits features of Southern US speech, including four instances of /**a**j/ monophthongization)

From Betsy, LWC woman, age 22:

You know, like the the southern Illinois, like, drawl kind of? you know, kind of, um, I keep wanting to say "like hoosier." (laughs) you know what I mean, like with a Southern acce:::nt and, you know, just tasteless, just kind of like classless kind of thing.

From Aaron, UMC man, age 22:

I mean, a hoosier, uh, I would think is generally the, uh, kind of southern twa::ng type, definitely. I MEAN, I asso- I mean, I think people generally associate hoosiers with the south, and, kinda, I think it's southern, a southern accent, yeah.

From Jessica, LWC girl, age 15:

I think maybe when you're depicting a:: hoosier, you might have a little southern accent or somethi::ng, just not exactly proper Engli:::sh? maybe like slur your wo:::rds type of thing, that's just my perception

From Luke, UMC man, age 18:

Well, a hoosier's just got, like, the southern acce::nt because they haven't been influence by, like, like, I figure they do have a TV, maybe? but, we have TV's, we have radios, and we learned, the way we learned to speak, our way, from our parents, probably they're influenced by TV (unintelligible) how everybody else speaks, and hoosiers just speak how they feel is comfortable, let everything go, don't care, like how it sounds or anything, they just say it, or how bad it grammatically is.

From Dan, UWC man, age 26:

J: Does a hoosier have a different way of speaking, than like a non-hoosier that you know or that you think about right away?

D: Um, can you tell, uh, by the way they talk? Is that what you're asking?

J: yeah

D: Yeah, yeah, I think there's a hoosier twang, like we call it- that's what I call it, hoosier twang, or, I don't know, it's just weird how some people will look and say different words that you can tell hoosier mouth, I don't know.

From Rob, UWC man, age 21:

J: What about the way hoosiers speak, do you think-
R: country
J: yeah? What do you mean by country?
R: like down south country, like, you know, Louisiana kinda country.

Appendix G: Transcription conventions

CAPITAL LETTERS	spoken with emphasis, higher volume
:::	lengthened speech segment
?	rising intonation
[ ]	speaker overlap
(comment)	researcher comment or explanation

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