

“AW MAN!”: THE EFFECT OF HOMETOWN
AFFILIATION ON NCS SHIFTING IN
HOLLAND, MICHIGAN

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Abstract

There is a wealth of literature in sociolinguistics that explores the connection between group affiliation and linguistic behavior (cf. Labov 1962; Eckert 2000; Fix 2010; Hachimi 2012). Much of this past research largely focuses on the differences between two groups: members who affiliate toward A and against B match their linguistic behavior to that of A and avoid features used by B. It's well-documented that individuals accommodate their language to match groups that they affiliate themselves toward. There is very little work done, however, on the effects of solely negative affiliation. Does negative affiliation away from a particular group affect linguistic practices in the same way that positive affiliations have been shown to?

This study is an exploration of the effects of negative affiliation. It examines a single Community of Practice of high school boys from Holland, Michigan. Amongst this group of ten, there are very polarized attitudes toward Holland, and very limited outside contact with other cities. This study investigates their speech to see if an affiliation against Holland combined with the lack of a target dialect is enough to motivate linguistic change.

Michigan participates in the Northern Cities Shift (NCS), which is a vowel shift in progress. Most of the participants relate a partial awareness of the NCS. As one of my participants puts it, "I got made fun of for how I say '*'Aw man!*'" Their polarized affiliation, lack of outside contact, and partial awareness of the NCS provides a unique opportunity to study the effects of negative affiliation on both salient and non-salient features of the NCS.

Keywords: Language and identity; Language and affiliation; Northern Cities Shift; Community of Practice; Michigan; Adolescent speech

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Table of Contents

Abstract.....	i
Acknowledgements	ii
Table of Contents.....	iii
List of Tables.....	vi
List of Figures.....	vii
Labeling Conventions.....	viii
1. Introduction.....	1
2. Previous Literature and Key Concepts.....	3
2.1 Language and Identity.....	3
2.2 Modifying Linguistic Behavior.....	3
2.3 Orders of Indexicality	5
2.4 Diametrically Oppositional Affiliation.....	6
2.5 My Research Aims	7
3. Northern Cities Shift	9
3.1 Location.....	9
3.2 Shift.....	10
3.2.1 Ordering of /ae/, /o/, /oh/	11
3.2.2 Ordering of /i/, /e/, /uh/	12
3.2.3 Directionality of /i/ and /e/	13
3.2.4 Shift in Progress.....	14
3.3 Origin and Spread	15
3.4 NCS as a Big City Phenomenon.....	16
3.4.1 Jocks and Burnouts	17
3.4.2 Ito and Preston.....	17
3.4.3 Gordon 2001.....	18
3.5 Summary.....	19
4. Holland, Michigan.....	20
4.1 Polarized Attitudes.....	21
4.2 Holland in the Inland North.....	24
4.3 Limited Outside Contact	25
4.4 Summary	26
5. Methods.....	28
5.1 Participants	28
5.1.1 Location.....	28
5.1.2 Age.....	28
5.1.3 Community of Practice.....	29

5.1.4 Gender	31
5.1.5 Socio-economic Status.....	32
5.1.6 Ethnicity.....	32
5.1.7 Attitudes.....	33
5.1.8 My Participants' Perception of the NCS.....	35
5.2 Interview	38
5.2.1 Participants.....	38
5.2.2 Equipment	39
5.2.3 Content.....	39
5.3 Analysis.....	39
5.3.1 Acoustic vs. Impressionistic.....	39
5.3.2 FAVE.....	40
5.3.3 Transcription.....	40
5.3.4 Plotnik and R	41
5.3.5 Statistical Tests.....	41
5.3.6 Time Frame	42
5.4 Summary.....	43
6. Results.....	44
6.1 Results of /ae/.....	44
6.2 Results of /o/	47
6.3 Results of /oh/.....	48
6.4 Results of /e/.....	49
6.5 Results of /i/	51
6.6 Results of /uh/	52
6.7 Results for Additional Social Delineations.....	54
6.8 Summary	55
7. Discussion.....	56
7.1 Vowel Shifting.....	56
7.1.1 /ae/.....	56
7.1.2 /o/ and /e/.....	57
7.2 Style Shifting.....	58
7.3 Further Research.....	59
7.4 Summary	59
8. Conclusion.....	60
References.....	61
Appendices	I
Appendix A. Plots of Phonological Conditioning.....	I
1. /ae/.....	I
2. /o/	III
3. /oh/.....	V
4. /e/.....	VII
5. /i/	IX
6. /uh/	XI
7. P-Values for Phonological Factors	XIII

Appendix B. Consent Form.....	XIV
Appendix C. Vowel Plots by Speaker.....	XV
1. Brian	XV
2. Blake.....	XV
3. Caleb.....	XVI
4. Garrett.....	XVI
5. Josh	XVII
6. Keith.....	XVII
7. Kurt.....	XVIII
8. Mark.....	XVIII
9. Paul.....	XIX
10. Tanner.....	XIX

List of Tables

5.1.7 Affiliation Scores and Lacrosse Membership.....	34
6.1 P-Values for /ae/	44
6.2 P-Values for /o/.....	47
6.3 P-Values for /oh/	48
6.4 P-Values for /e/.....	50
6.5 P-Values for /i/.....	51
6.6 P-Values for /uh/.....	53
6.7.1 P-Values for Lacrosse and Drugs: /ae/, /o/, /oh/	54
6.7.2 P-Values for Lacrosse and Drugs: /e/, /i/, uh/.....	54

List of Figures

2.5.1 Different Affiliations	7
2.5.2 Effects of Different Affiliations	7
2.5.3 Different Affiliation Toward a Single Community.....	8
3.1 The North and the Inland North	9
3.2 Northern Cities Shift	10
3.2.1 Ordering of /ae/, /o/, /oh/.....	12
3.2.2 Ordering of the NCS.....	13
3.2.4 S-Curve of Linguistic Change.....	15
4. Map of Michigan	20
4.2 Holland in the Inland North	25
5.1.3 Sociometric Diagram of CofP.....	31
6.1 Mean /ae/ values by speaker	45
6.2 Mean /o/ values by speaker	47
6.3 Mean /oh/ values by speaker	49
6.4 Mean /e/ values by speaker	50
6.5 Mean /i/ values by speaker.....	52
6.6 Mean /uh/ values by speaker	53

Labeling Conventions

For the sake of typographical ease and in the spirit of keeping with the conventions of the literature on the Northern Cities Shift, this study primarily uses Labov's (1991, 1994) labeling system. These notations are shown below in Table i, along with their corresponding IPA symbols and an example word.

Table i. Labovian Vowel Labels

Labovian Label	IPA	Sample Word
/ae/	/æ/	bat
/o/	/ɑ /	bot
/oh/	/ɔ /	bought
/e/	/ɛ /	bet
/i/	/ɪ /	bit
/uh/	/ʌ /	but

Also, it should be noted that in transcript excerpts, @ is used to denote a single syllable of laughter. @@@ represents three consecutive laughter syllables. Also in the transcript excerpts (...) represents a pause in the conversation

1. Introduction

There is abundant work in the sociolinguistics field on the relationship between language and affiliation. Individuals daily use linguistic variation to index their affiliation toward one group and against another (cf. Eckert 2000; Labov 1973; Zhang 2001). They also may avoid certain linguistic features that belong to a group they don't want to be affiliated with (cf. Bucholtz 1999). That affiliation motivates linguistic behavior is a well-documented phenomenon in sociolinguistics. However, this documentation commonly investigates affiliation between two (or occasionally more) diametrically opposed groups. Individuals can choose to affiliate themselves with one and against the other, and use their language practices to show that affiliation. Importantly, these individuals have access to both groups, which means they have access to linguistic practices that they might want to propagate or avoid.

Despite the wealth of literature on language and affiliation, there is a gap in this literature when it comes to negative affiliation that is unattached to a positive affiliation. In other words, individuals who feel negatively about the group they find themselves a part of but do not have a specific other group towards which to shift their language practices. Does a negative affiliation, unattached to a target group, affect linguistic practices like a positive affiliation has been shown to?

To begin to answer this question, this study investigates the speech of a single Community of Practice of adolescent boys in Holland, Michigan. Participants share many of the same social factors, but differ strongly in their affiliation toward Holland. Importantly, their network ties are fairly insular, staying within Holland and its surrounding rural areas, which limits their access to a target group outside of Holland. This study aims to investigate whether a negative affiliation toward Holland, without a target group to affiliate toward, is enough to cause linguistic variation. Because Holland is located in the Inland North, the variables under consideration are the six vowels affected by the Northern Cities Shift: /ae/, /o/, /oh/, /e/, /i/, and /uh/. This study provides an acoustic analysis of the effects of hometown affiliation on these six variables.

Chapter 2 lays out important previous research in language and affiliation in further detail. It also introduces key concepts that play a major role in the design and analysis of this study, as well as spells out the main research goals of this study. Chapter 3 serves as an

introduction to the Northern Cities Shift, which is the language shift in the middle of which Holland is situated. Chapter 4 provides a description of the relevant aspects of Holland, Michigan. Chapter 5 breaks down the methodology of this study. It details choosing participants, collecting data, and finally the methods used to analyze the data. Chapter 6 provides the results of statistical tests run on the data as well as analysis of those results. Chapter 7 provides a discussion of the theoretical impact of the analyses as well as recommendations for further research. Finally, Chapter 8 provides some concluding remarks.

2. Previous Research and Key Concepts

2.1 Language and Identity

Personal identity and its connection to language variation has been a key factor in sociolinguistics from Labov's pioneering study in Martha's Vineyard (1963) through to current research today (cf. Lawson 2011; Delforge 2012; Hachimi 2012).

The inherent difficulty in investigating identity and language is that personal identity is neither stable nor single-faceted. We "wear our identities lightly, and change them according to circumstances" (McCrone 1992:195): different circumstances bring out different primary identities. Additionally, social group identity can be fluid and change from year to year (cf. Lawson 2011; Moore 2003), particularly for adolescents, the age group under investigation in this study. The complexity of personal identity is necessarily difficult to contend with within a quantitative paradigm.

One way to address this complexity is through the Community of Practice paradigm (Eckert 2000), which allows for the fluidity of connections and multiple identities, and will be discussed in further detail in 5.4 below. A second way to address it is to frame identity in terms of the more linear concept of affiliation. While identity is multifaceted and interwoven, affiliation can be quantified on a spectrum of *positive* to *negative*. Since affiliation toward or against particular groups is a major factor in determining identity, this connection does not seem unreasonable.

Because affiliation is such an important aspect of identity, major works on language and identity can easily be reframed in terms of affiliation: islanders on Martha's Vineyard use /ay/ and /oy/ centralization to show their affiliation toward the island (Labov 1963); peasant girls use Hungarian or German to show their affiliation toward or against a peasant lifestyle (Gal 1978); Anabaptist communities use German or English to show their affiliation toward or against a more progressive theology (Johnson-Weiner 2002). These studies show participants modifying their linguistic practices based on the group affiliations that they claim.

2.2 Modifying Linguistic Behavior

Le Page and Tabouret-Keller claim that individuals create and use patterns of linguistic

behavior in order to identify themselves or distinguish themselves from others (1985:191). The ability to modify linguistic behavior, according to Le Page and Tabouret-Keller, relies on the following requirements:

1. We can **identify** the groups
2. We have both adequate **access** to these groups and the ability to analyze their patterns
3. The **motivation** to join these groups is sufficiently powerful, and is either reinforced or reversed by feedback from the groups
4. We have the **ability** to modify our behavior.

(from Le Page and Tabouret-Keller 1985:182, emphasis mine)

This model fits clearly with the studies mentioned above. In each case, there are two groups that are identifiable. Participants have access to both groups. They have motivation to join the groups and finally, they have the ability to do so. All of these things result in a modification of linguistic behavior.

A crucial question comes in, however, with the second half of 2: the ability to analyze their patterns. Some linguistic change is below the level of consciousness (Labov 1972), and therefore participants would not be able to consciously identify differences. However, even if differences are below the level of consciousness, participants with sufficient access to both groups are still able to adopt the practices of the group they affiliate themselves with (Labov 1963; Poplack and Tagliamonte 2010; Williams and Kerswill 1999). So while the requirement of *ability to analyze patterns* is difficult to measure by virtue of subconscious recognition being difficult to measure, it's assumed that adequate access to the groups will generally bring about the ability to analyze and adopt their patterns.

It is important to note the difference between the ability to analyze a pattern and the ability to adopt it. Sometimes identification of, access to, and motivation to join the behavior patterns of a particular group results in the ability to adopt those patterns. Sometimes, however, individuals are unable to successfully adopt patterns in their own speech even if they are able to identify and analyze those patterns. Payne (1980) finds this to be true for children of non-Philadelphian parents growing up in Philadelphia; although these kids grow up hearing the complex Philadelphian short /ae/ system and are able to recognize it, they are unable to fully participate in it. Nevertheless, adequate access to a group and motivation to join it generally results in the ability to adopt their linguistic patterns.

2.3 Orders of Indexicality

Changes from below the level of consciousness, or social awareness, are known as *indicators* (Labov 1994:78). Indicators are variables that are not commented on or recognized by native speakers, but still are differentiated based on demographic data such as social or geographic factors. When a variable reaches a level of slight social awareness, it has become a *marker*. Markers are variables that mark a speaker as belonging to a certain group, but are not consciously manipulated by the speaker in casual speech (Labov 1994:78). When a marker becomes the topic of overt social comment and evaluation, it becomes a *stereotype*. Stereotypes carry social meaning that is often negative, and are susceptible to irregular correction and hypercorrection (Labov 2001:196). They may also be exaggerated in metapragmatic discourse about them (Johnstone 2009).

A slight variation on indicators, markers, and stereotypes can be found in Johnstone, Andrus, and Danielson (2006). Johnstone et al. take Silverstein's (2003) concept of orders of indexicality and separates it into three levels, quite similar to Labov (1994). Variation that does not reach the level of awareness constitutes first-order indexicals. It indexes a person's belonging to a certain demographic group, but remains unnoticeable to laypeople. Second-order indexicals can be correlated with Labov's markers; they are noticeable and to a certain extent manipulatable, but not a subject of layperson discourse. Third-order indexicals occur when a second-order indexical becomes enregistered (Agha 2003) as marking a particular group and are perceived as meaningful both among the people who consciously use them and the people who consciously avoid them. Third-order indexicals may be used by insiders as performances of local identity in a way that second or first-order indexicals are not (Johnstone et al. 2006).

Though it is admittedly similar to Labov (1994), Silverstein's orders of indexicality differ in several important ways. Firstly, Labov contends that once a variable has made it to the level of stereotype, it has already completed any shifting it might do. It is essentially at the end of its journey. A third-order indexical, on the other hand, can be susceptible to shifting still. Secondly, the labels that Silverstein (2003) gives his model are clearer: there is a clear progression from first-order to third-order indexicality, and also they are harder to misinterpret, because they are not terms that can also refer to more general phenomena. Additionally, some features that have reached a third-order indexicality are not necessarily viewed negatively by users or non-users. The term third-order indexical is in these cases more accurate, as *stereotype* connotes a negative

evaluation.

For these reasons, it is orders of indexicality that will be used in this study to reference the level of social meaning that the variables under consideration hold. In reference to Le Page and Tabouret-Keller's model of modifying linguistic behavior, it's important to note that first-order indexicals still can be analyzed and appropriated by individuals even if they don't realize that those variables exist and even when they don't index social meaning.

2.4 Diametrically Oppositional Affiliation

Affiliation is, by nature, oppositional. People can either be affiliated toward or against something, and often place their affiliation towards one group and against a diametric "other" group. Braber and Butterfint (2008) find Glaswegians claiming an affiliation toward Glasgow and against Edinburgh, a choice that has a significant impact on their avoidance of certain features of Standard Scottish English. Fix (2010) finds white women using AAVE features in direct correlation to their positive or negative affiliation with the black women in their neighborhood: the more they affiliate with black women, the more AAVE features they use. Dodsworth (2005) finds residents of Worthington, OH using /l/-vocalization in direct correlation to their affiliation with or against the encroaching city of Columbus.

In all of these cases, affiliation has a strong effect on language variation. Identifying strongly with one group motivates one's linguistic practices to shift toward that group's linguistic practices. Since people "contrast themselves with what they feel is different to them" (Rose 1995:92), having a diametrically opposed group provides even more motivation to accommodate toward the first group. This is particularly true when the oppositional group has different linguistic and other behavioral practices that can be identified and intentionally avoided. Labov (1963) finds the strongest /ay/ and /ow/ raisers to be islanders who have left Martha's Vineyard and later returned. These participants who have experienced other dialects can use diphthong raising to specifically index their non-mainland identity. This interplay between positive affiliation towards one group and negative affiliation against another has been shown time and again to have a significant effect on language (cf. Stuart-Smith et al. 2007; Labov 1963; Bailey 1991).

2.5 My Research Aims

In all of the cases mentioned above, speakers have a target dialect towards which they can accommodate. In fact, Le Page and Tabouret-Keller's model of modifying linguistic behavior depends on the existence of a target dialect, as depicted in Figure 2.5.1 below. Speakers, depicted by dots and situated in the middle of Community A and Community B, choose either A or B to identify with. The arrows depict their positive affiliation toward and negative affiliation away from a given community. As shown in Figure 2.5.2, these diametrically oppositional affiliations cause speakers to shift linguistic behavior to more closely match that of the speech community they affiliate themselves toward.

Figure 2.5.1 Different Affiliations

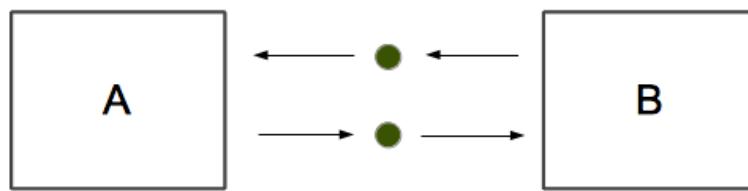
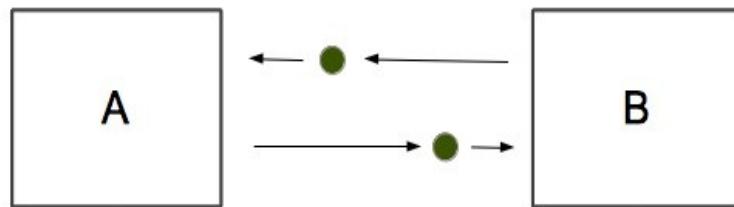
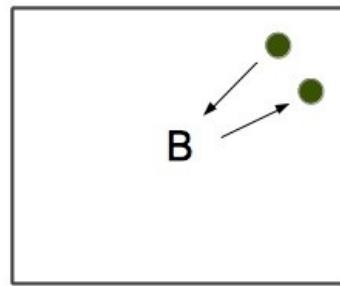


Figure 2.5.2 Effects of Different Affiliations



However, group affiliation is not always this clear cut. Sometimes a negative affiliation toward one's own group does not coincide with a positive affiliation toward a different specific target group. My primary research goal in this study is to investigate such a scenario, as depicted in Figure 2.5.3.

Figure 2.5.3 Different Affiliation Toward a Single Community



In Figure 2.5.3, both speakers live within the same insular speech community, but have different levels of affiliation with that community. The motivating question of this study is whether these different levels of affiliation can affect linguistic production when there is not a clear target speech community to affiliate towards. The primary questions that I aim to explore are the following:

1. Without a specific speech community to act as a target dialect, how does modification of linguistic behavior proceed?
2. Is a negative affiliation, with no specific target dialect, enough to motivate linguistic change?
3. If so, what sort of effect does affiliation have on linguistic behavior?

In addition to these questions, I also aim to situate my research within the existing literature. The specific speech community that I am investigating is in Holland, Michigan. This places my participants within the realm of the Northern Cities Shift, about which a growing number of studies have been done. With this in mind, my secondary research goals are the following:

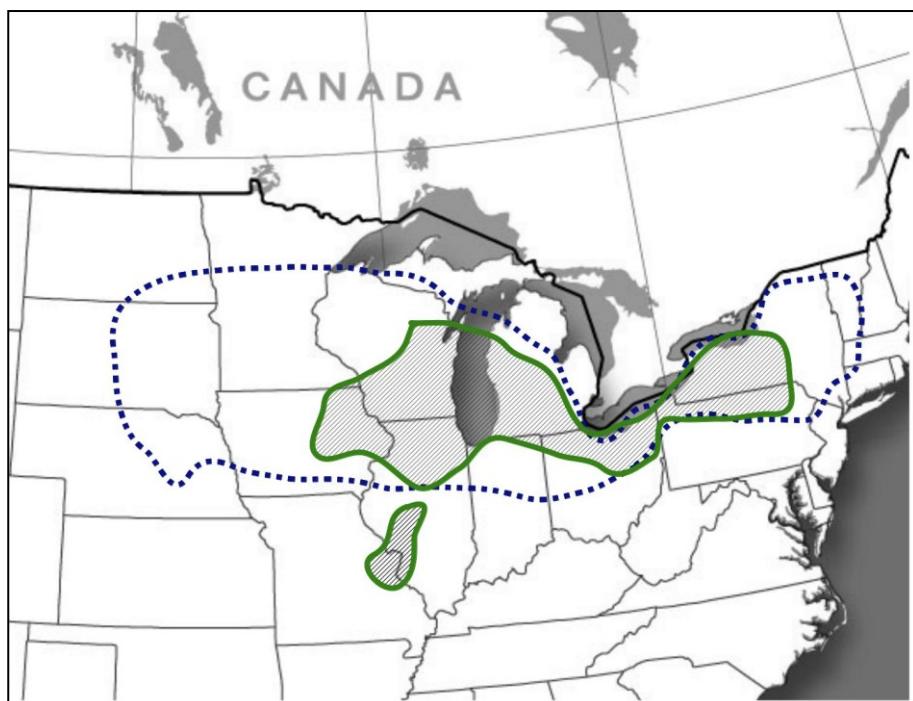
4. Contribute to the existing literature about the Northern Cities Shift
5. Add to the limited data about small city participation in the Northern Cities Shift

3. Northern Cities Shift

3.1 Location

The Northern Cities Shift (hereafter NCS) is a chain shift affecting the phonological system of short vowels in the Inland North. The Inland North is an area of the United States around the Great Lakes which is defined by its active participation in the aforementioned NCS.

Figure 3.1 The North and the Inland North



Adapted from Labov et al. (2006)

The outer, dashed line in Figure 3.1 encircles the North, while the inner solid line separates the Inland North within it. The Inland North has also been shaded. Both areas are characterized by resistance to the fronting of /ow/ in *boat* as well as resistance to the low back merger of /oh/ and /o/, or the *caught/cot* merger (Labov, Ash and Boberg 2006). These two conservative characteristics of the North provide the initial conditions that allow the NCS to take place: /o/ and /oh/ are maintained as distinct phonemes, and the position of /ow/ leaves space for the front vowels in the NCS to shift back, as outlined below in Figure 3.2.

Though the entire North provides the conditions that allow the NCS to happen, it's only within the Inland North that the NCS actually occurs. The Inland North includes most of the large

cities around the Great Lakes and the Erie Canal: Detroit, Cleveland, Gary, Chicago, Milwaukee, Grand Rapids, Rochester, Syracuse and Buffalo. Traditionally, the rural areas between these cities are also considered to be part of the Inland North, though they tend to participate in the NCS to different extents, as will be discussed below in section 3.4. The Inland North also extends down into the St. Louis Corridor.

3.2 Shift

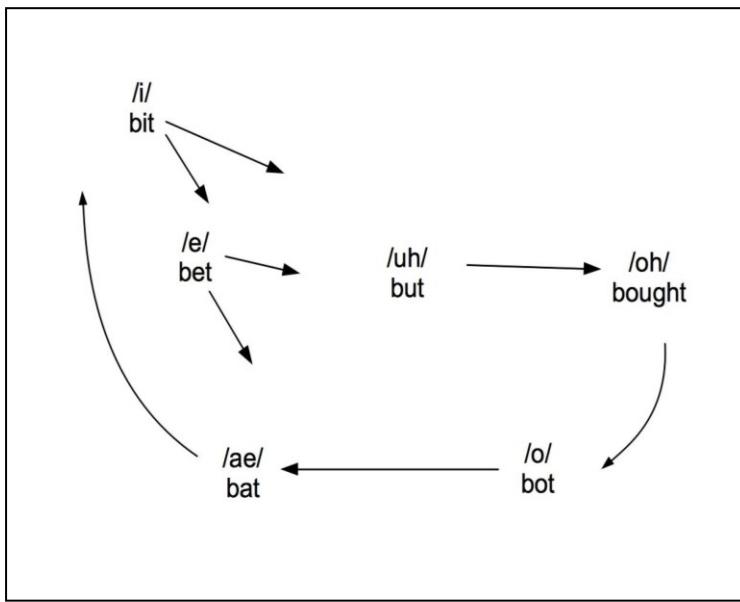


Figure 3.2 Northern Cities Shift

Adapted from Labov et al. 2006

The NCS is a shift involving the following six short vowels: the front vowels /ae/, /i/, and /e/; and back vowels /o/ and /oh/; and the central vowel /uh/. Traditionally, the raising and fronting of /ae/ is considered to be the first step in this chain shift (cf. Fasold 1969, Callary 1975, Eckert 1989), though this assumption has been contested and will be discussed in further detail below. The raising and fronting of /ae/ leaves the low front vowel position open, and /o/ moves forward into empty space. This, in turn, pulls /oh/ lower and slightly more to the front to take the place vacated by /o/. These three changes are followed by the lowering of /i/, the lowering and backing of /e/ (Labov, Yaeger and Steiner 1972), and the backing of the central vowel /uh/ (Eckert 1989), which completes the circular nature of the shift.

3.2.1 Ordering of /ae/ /o/ and /oh/

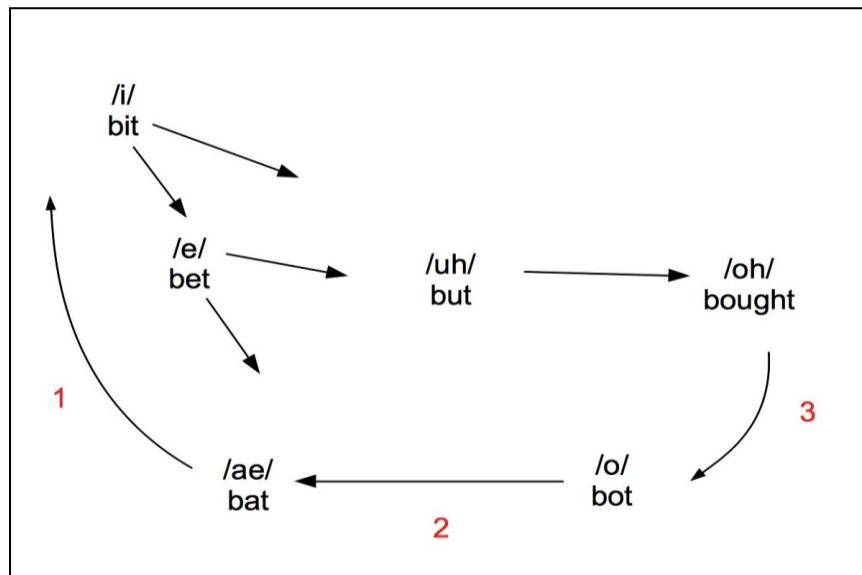
The shifting of /ae/, /o/ and /oh/ are widely accepted as the first three steps in the movement, though the exact ordering is not as clear. Labov et al. (1972) study of Detroit, Rochester, and Buffalo finds the fronting and raising of /ae/ to be the most likely first step in the shift. This conclusion has been supported by multiple subsequent apparent-time studies of the Inland North (cf. Eckert 1991, Herndobler 1977, Ito 1999).

McCarthy's 2011 real-time study of Chicago area speakers throws this assumption into question, however. McCarthy finds evidence for the fronting of /o/ as the first step, followed shortly thereafter by the raising of /ae/ and then later by the lowering of /oh/. Though the majority of apparent-time data contradict McCarthy, it is important to recognize the gravity of a real-time study. Because of the possibility of other factors like age-grading accounting for change in an apparent-time study, it's recommended to accompany apparent-time studies with at least one real-time follow up (Labov 1972: 275). Despite the discrepancy over the exact ordering of /ae/ and /o/, it is nearly universally accepted that these two are the first two steps in the NCS, a belief that is substantiated by the fact that these two vowels are the widely reported as the most salient among my own participants. Since salience and age are typically directly correlated (cite), the salience of /ae/ and /o/ amongst my participants support the claim that these are also the oldest shifts.

Conversely, Gordon (2001:105) proposes /oh/ lowering as the first step. This would categorize the NCS as a push shift instead of the more widely accepted pull shift, as well as upset assumptions about the ordering of the shift. This claim is based on an index that measures the distance from the standard F1 and F2 of the vowel with that of the shifted vowel. Since Gordon finds /oh/ to have shifted the farthest away from a standard american /oh/, he claims this as evidence for /oh/ having shifted first. However, it's an as-yet unsubstantiated assumption that distance of a shift has a direct correlation to age of a shift. Moreover, since language does not necessarily shift at a constant pace or even in constant directions (Labov 1994), it seems a stretch to accept Gordon's claim based on this index.

Although the ordering of these shifts is up for debate, Figure 3.2.1 below shows a working model of the order of the first three shifts. It should be understood that Figure 3.2.1 is tentative, at best, particularly to the ordering of /ae/ and /o/.

Figure 3.2.1 Ordering of /ae/, /o/, /oh/

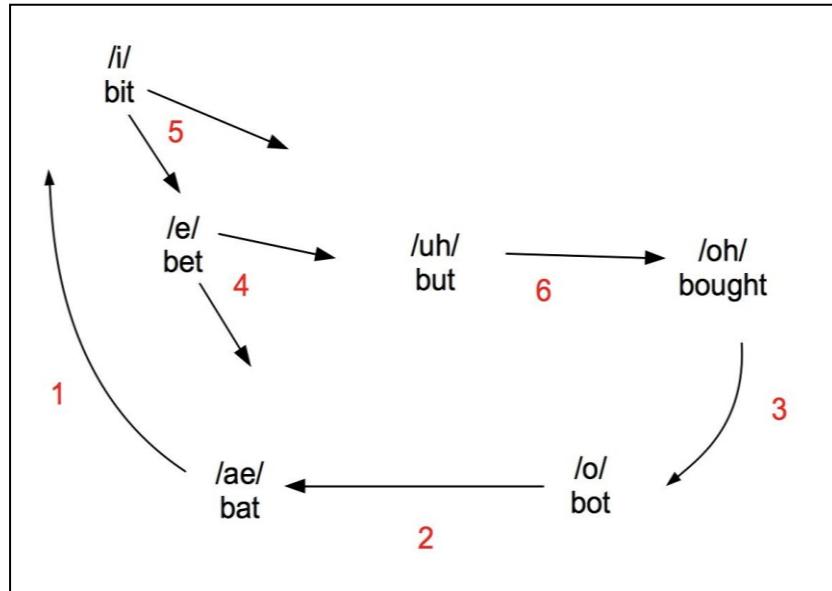


3.2.2 Ordering of /i/, /e/, /uh/

The shifting of these last three vowels are widely accepted to be the final three, though their ordering within that is unclear. Labov (1994) puts the lowering of /i/ first, followed by the lowering and backing of /e/ and finally by the backing of /uh/ as the last step, though he admits that the ordering is unclear (1994:195). His 1996 proposal instead puts them in the order of /e/, /uh/, /i/, while Gordon (2001) puts them in the order of /e/, /i/, /uh/. Since much of the early work in the NCS focuses on /ae/ or just /ae/ and /o/, there isn't enough data for a real-time look at the ordering of these vowels, and there is extremely limited work done on apparent-time ordering of these vowels (cf. Gordon 2001, Ito 1999). More age-stratified research is necessary in order to suss out the ordering of these final three vowels.

Again, while the exact ordering is not clear, a tentative ordering for the entire shift is laid out in Figure 3.2.2 below.

Figure 3.2.2 Ordering of the NCS



3.2.3 Directionality of /i/ and /e/

Initially, it was assumed that both /i/ and /e/ were shifting down and back uniformly throughout the Inland North. However, Eckert (2000), building from Callary (1975) and Fasold (1969), proposes that these vowels are shifting slightly differently in Detroit and Chicago. She proposes that in Chicago, /i/ and /e/ are lowered before they are backed while in Detroit they are backed before they are lowered. The proposition is that though both /i/ and /e/ become both lowered and backed in both cities, the different processes that get them there has created a Chicago-style NCS shift and a slightly different Detroit-style NCS shift. This proposal is questioned in Gordon (2001), which claims that Eckert draws this conclusion incorrectly from data in the Wolfram, Shuy and Riley corpus (Gordon 2001:37).

Though Labov et al. (1972) finds /e/ to be lowering in Chicago, Labov (1994) finds the lowering rule to be replaced by a backing rule, a revision which would support Eckert's claim about differences in the directionality of the Chicago shift and the Detroit shift. Gordon claims that both lowering and backing are available as rules in Chicago and Detroit, but may have different sociolinguistic patterns, based on location (Gordon 2001:16).

Likewise, /i/ was initially said to only be lowering (Labov 1994), but recent revisitations of the NCS data from Shuy, Wolfram, and Riley have shown /i/ to also be centralizing toward

/uh/ (Gordon 2001:17; Labov 1997). The question of whether /i/ lowered or backed first has not been addressed.

3.2.4 Shift in Progress

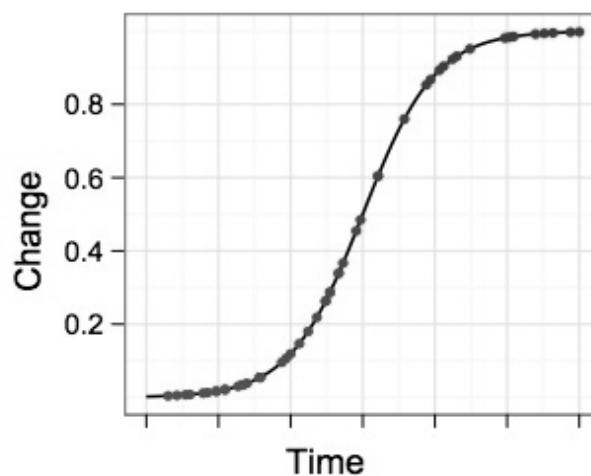
The NCS is generally referred to as a shift in progress (Labov 1972; Eckert 2000; Ito 1999), though this is a term that has also occasionally been contested in the literature. Labov (1994:195) separates the NCS into three different stages as follows:

1. Near completion
/ae/ raising
2. Midrange shifts
/o/ fronting
/oh/ lowering
3. New and vigorous changes
/i/ lowering and backing
/e/ lowering and backing
/uh/ backing

(Labov 1994:195)

According to this account, the NCS is a change in progress as a whole phonological shift, but has reached completion or near completion in /ae/ raising and is only vigorously changing in the final three shifts.

Figure 3.2.4 S-Curve of Linguistic Change



From Fruehwald (2011:2)

Language change typically follows an S-curve pattern of change (Kroch 1989; Labov 1994), moving slowly in the incipient stages, more rapidly in the middle, and slowing down again near the completion of the change (See Figure 3.2.4). With the S-curve model in mind, Labov (1994)'s categorization places /i/, /e/, and /uh/ in the middle of the S-curve, /o/ and /oh/ near the top of it, and /ae/ almost at the end of the top of the curve. Fruehwald (2011) points out that while many types of language change such as syntactic or morphological change occur through categorical variation, that is, speakers choosing either the old or the new form, phonetic change occurs on a continuum. In phonetic change, speakers may choose a variant along any part of the continuum between the old variant and the fully shifted variant. As the NCS is such a shift, the vowels can be expected to shift along a continuum from conservative forms to fully shifted forms. While this continuum can be found across all six variables, it is to be expected that more variation would be found in the new and vigorous changes, since they are changing at a faster rate. There is a fairly large gap in the data covering these final three shifts, as much of the NCS literature focuses on /ae/, /o/, and /uh/. This study aims, among other things, to address this gap.

In terms of shifting, Gordon 2001 controversially proposes that the NCS could more of a coincidence than an organized shift in vowel phonology. He points out that the three shifts in the bottom half of the NCS and the three in the top half can easily be disassociated since they seem to be motivated partially by a push chain and partially by a pull chain, and even that the lowering of /oh/ could be a separate phenomenon altogether (Gordon 2001:217). He also points out that the vowels involved in the NCS, particularly /e/ and /ae/, have a rich history of shifting in English, a history which he claims supports the idea that the shifts are happening independently of each other (Gordon 2001:215). Although these suppositions are worth mentioning, the amount of evidence to their contrary is substantial, and therefore this paper will proceed under the assumption that the NCS is in fact an organized shift in phonology, however complicated that shift might be.

3.3 Origin and Spread

The NCS was first noted in Fasold 1969, which documents the shifting of /ae/, /o/, and /oh/ in Detroit speech. This first study was followed soon after by Labov, Yeager and Steiner (1972), which begins to document the range and ordering of the shift. Labov et al. (1972) find the shift of these three vowels to be prevalent as far as Buffalo to the East and Chicago to the West,

and found /ae/ raising to be the most probable first shift, though some discrepancy about this ordering has been noted (cf. Gordon 2001, McCarthy 2011). Callary (1975) examines /ae/ raising in 18 first-year college women from the Chicago area and finds that the size of the city of their origin was directly correlated with the height of their /ae/. In other words, the bigger the city, the more advanced they were in the NCS. Callary's findings were instrumental in framing the way that the NCS is understood as a shift: it has since been considered a primarily big-city phenomenon. This big-city aspect of the NCS will be revisited in 4.4 below.

In terms of the spread of the NCS, initial attempts to match Trudgill's (1974) well attested gravity model with data from the NCS studies didn't fit very well (Chambers and Trudgill 1980). The gravity model proposes that linguistic change spreads in a predictable way from a central point in the largest city out toward the next largest cities, with the influence of one city being proportional to the relative size of the city and inversely proportional to the distance between them (Labov 2003). Problematically for the gravity model, the NCS appears to have started almost simultaneously in urban centers throughout the Inland North sometime in the nineteenth century, with no clear central point. A more generalized cascade model, in which change spreads from large cities outward to the next largest cities, but without a clear central point, seems to fit the pattern of the NCS more accurately (Labov 2003), though it doesn't satisfy questions about the origin of the shift. Why did the same vowels begin to shift across such a wide geographic area at the same time and in the same direction?

While this is undoubtedly an important question, it is certainly beyond the scope of this study. Worth a brief mention, however, is Van Herk (2008), which claims that the NCS was initiated as a linguistic form of white flight. He argues that white speakers began to shift their vowels away from the phonology of African American Vernacular English (AAVE) as a way to further differentiate themselves from the AAVE speakers who were moving into big cities in the North. For further discussion on this theory, see Van Herk (2008).

3.4 NCS as a Big City Phenomenon

As mentioned above, the NCS has long been characterized as an urban phenomenon (Labov 1994:178; Labov 2006; Callary 1975), that is more strongly advanced in the largest cities and in its infancy in smaller towns. Since it's a relatively recent shift that is still largely in a rapid state of change, the NCS can serve as a vehicle for studying more particular aspects of language change.

3.4.1 Jocks and Burnouts

Eckert's (1989) study of social categories in a Detroit suburban high school is a benchmark in NCS literature. Her three year ethnographic study provides a detailed look into the lives of high schoolers, their social categories, and their ensuing linguistic practices. She focuses specifically on the two main and opposing groups in the high school: Jocks, who align themselves with the values of the school administration and are set apart by their high participation in extracurricular activities; and Burnouts, who reject the culture of their high school and align themselves more with the urban culture of neighboring Detroit. Eckert finds that group affiliation toward either the Jocks or the Burnouts is a significant predictor of NCS advancement, with the Burnouts leading in NCS shifting over the Jocks.

Eckert finds group affiliation to be the most significant predictor of participation in the NCS, particularly with the newer features of the NCS, suggesting that kids use /e/ and /uh/ backing to indicate their group affiliation. Importantly, although kids in the Burnout category tend to come from working-class backgrounds and kids in the Jock category tend to come from middle-class backgrounds, Eckert pointedly suggests that group affiliation is a more motivating factor than the classic sociolinguistic variable of socio-economic class (Eckert 1989). It's also important to note that although kids in Belten High use raised or backed variables to indicate their group affiliation, Eckert maintains that these shifts are changes from below the level of consciousness. This would make /e/ and /uh/ backing indicators (Labov 1972), or first-order indexicality markers (Silverstein 2003), of group affiliation, but unsusceptible to self-correction or enhancement since they are below the level of consciousness.

A final important note to reiterate is that Belten High is a Detroit suburb; Belten High kids have regular access to Detroit social interactions and Detroit forms of these vowels (Eckert 1991). Even if these more NCS advanced vowels stay below the level of consciousness, regular access to this speech community gives her participants the ability to consciously or subconsciously emulate aspects of urban culture, including their speech.

3.4.2 Ito and Preston

Though Eckert's pivotal work (1989, 2000) begins investigate the NCS as it spreads outwards toward smaller communities, she still focuses on communities that are near one of the

epicenters of the NCS and participants who have a reasonably strong access to that epicenter. Much of the literature on the NCS through the late 1990s focus on the NCS as an urban development, but don't document the extent to which smaller communities between urban centers participate in the NCS.

Ito and Preston (1998) and Ito (1999) start to close this gap by looking at participation in the NCS in rural towns in mid-Michigan. Ito (1999) focuses specifically on towns with a population less than 3,500. With the assumption that the NCS is in its "infancy" (Ito 1999:39) in these towns and therefore will only exhibit the oldest shifts, Ito focuses on /ae/ raising in these towns. She reports that although /ae/ is beginning to be raised, it averages around 700 hz in these towns, far from the highly raised variants in Detroit or Chicago that check in around 450 hz.

Just as Eckert finds participants using the NCS to different degrees to indicate their affiliation toward a Jock or Burnout culture, Ito finds participants using the NCS differently in proportion to their "local identity." In other words, participants who identified strongly with the small town they were from used the most conservative forms of the NCS vowels while participants whose orientation were more outward looking used more progressive forms. Like Eckert, Ito also finds NCS shifts to be changes from below the level of consciousness.

Ito (1999) and Ito and Preston (1998) show how the NCS is spreading slowly into rural areas in between the large urban epicenters. Their work supports the concept of the NCS as a big city phenomenon, while also showing that local identity is an important factor in adopting or avoiding language shift.

3.4.3 Gordon 2001

Gordon's (2001) study of two small communities in Michigan has already been referenced above, largely for his unconventional suggestions about the NCS. It's also an important addition to the discussion on the NCS in small towns; he focuses on two small towns, Chelsea and Paw Paw, that are located on opposite sides of Michigan and are both located along a major highway. Gordon chooses these two communities with the assumption that Chelsea's limited urban influences would come from Detroit and Paw Paw's from Chicago, though in practice he finds Paw Paw residents to have little to no contact with Chicago (Gordon 2001:51).

Gordon finds, somewhat surprisingly, the speakers from Paw Paw to have more advanced NCS vowels. Though he does not sample for socio-economic class in his methodology, he proposes somewhat hesitantly that this could be due to the more working-class status of the

UP:12/09/2012-07:47:10 WM:12/09/2012-07:48:56 M:LG981-7-FY A:11a1 R:1100311 C:775B6C3F689BB2E6F87BEC6DFF73207E2F4B750B

residents of Paw Paw. This suggests that advanced NCS vowels index a working-class identity as well as or instead of a big city identity, though more research would be needed in order to substantiate this claim. Gordon finds that the factor of hometown is the most statistically significant predictor of NCS advancement, which is somewhat unsurprising since people tend to speak like the communities they are a part of.

Though Gordon does not sample for participants' affiliation toward or against their hometown, his research is still relevant to my own, as it helps give a fuller view of the geographic spread and advancement of the NCS in Michigan.

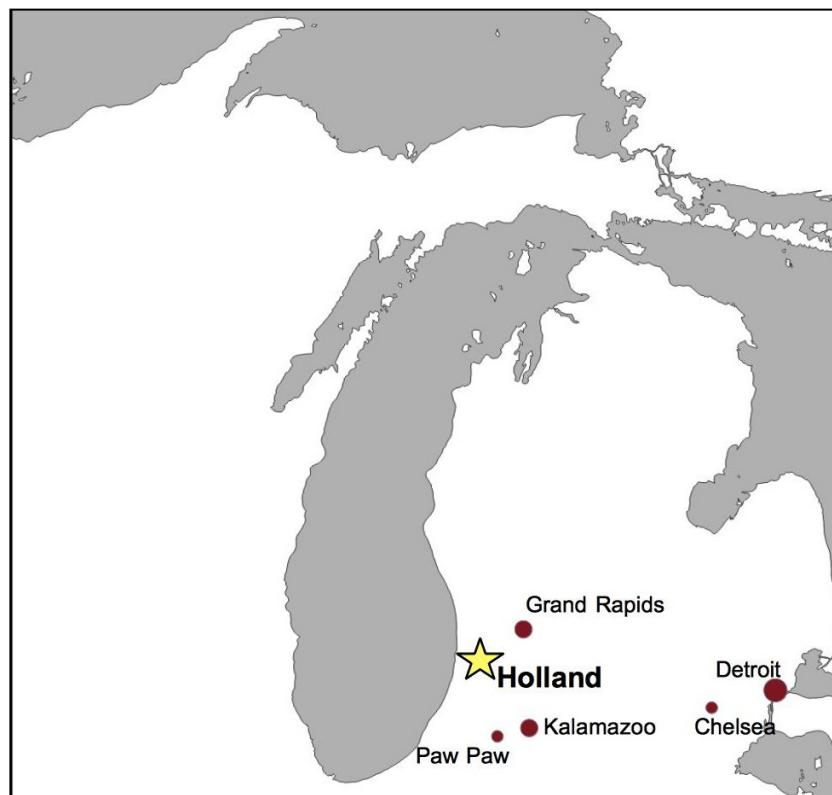
3.5 Summary

In this section, I presented an introduction to the Northern Cities Shift (NCS), including its location, movement, possible ordering, directionality, and status as a big-city phenomenon. I also discussed some of the pivotal studies concerning the NCS, particularly as they relate to its spread into smaller cities like the one under investigation in this study.

4. Holland, MI

The participants for this study were all natives of Holland, which is a small city of 33,000 on the west coast of Michigan. Figure 4 below depicts a map of Michigan, with Holland depicted by a star. Also included in Figure 4 are Grand Rapids, Kalamazoo, Detroit, Paw Paw, and Chelsea, since these are communities that feature prominently in NCS literature regarding Michigan.

Figure 4. Map of Michigan



Holland is particularly well-suited to answering the research questions under investigation, for three main reasons: the polarized attitudes its younger residents have toward the city, its location within the heart of the Inland North, and the limited contact that its residents have with other speech communities.

4.1 Polarized Attitudes

During the course of collecting data for this study, I collected attitude data from twenty-four high schoolers from Holland. Only three respondents out of these twenty-five reported mid-range attitudes toward Holland; the other twenty-one either reported very strong positive attitudes toward Holland or extremely negative attitudes toward Holland. Methods for determining these attitudes are laid out in detail in 4.3 below. When asked for the reasons behind their attitudes, respondents regularly cited a combination of Holland's small size and its religious and political conservatism.

Participant information will be given in further detail in 5.1 below. However, as inhabitant affiliation is an essential reason for choosing Holland as a place to study, it is relevant to quote their attitudes toward the city as part of the current description of Holland.

Some of my respondents see the combination of small size and conservatism as a positive aspect of Holland:

Extract 4.1.1

- 1 Garrett: I'd definitely want to move back here
 2 Like with a family move t-
 3 back to a place like Holland.
 4 I feel like it's a good place to raise kids.
 5 It was a good place to grow up.
 6 There's a lot to do.
 7 Close to the lake, I don't know.
 8 I like it.

Extract 4.1.2

- 1 Betsy: What do you like best about Holland?
 2 Kurt: I just like that it's really close to a lot of different things.
 3 Like it's really close to the beach.
 4 (...)
 5 And the downtown is really nice.
 6 And it's not too big
 7 But it's not too small, where you know everyone
 8 but you still know most people.
 9 (...)
 10 I like it here
 11 Enough to want to go to college here. So.

Extract 4.1.3

- 1 Tracy It's a beautiful town
 2 It's got the beach

3 A nice college
 4 Nice people
 5 You know I feel really safe.

Extract 4.1.4

1 Betsy: What don't you like about big cities?
 2 Blake: Traffic
 3 And just like everyone's focused on getting somewhere
 4 I don't know it's just like more chaotic and rushed
 5 Kyle: I feel like it'd be really loud and -
 6 Blake: It just gets a hassle kind of.
 7 With all the people.

Extract 4.1.5

1 Blake: I saw like a Michigan map
 2 with different regions circled with names
 3 And one was like
 4 the Christian freaks or whatever
 5 It was like "the Bible freaks" or whatever
 6 Like just like a really Christian area.
 7 That's what a lot of people think of West Michigan as though.
 8 Betsy: Do you think that's accurate?
 9 Blake: Well there's a lot of churches around.

These participants cite Holland as a safe place (Extract 4.1.3:5), a good place to grow up and raise kids (Extract 4.1.1:4-5), and a place where people know each other (Extract 4.1.2:8). Blake, in Extract 4.1.5, also goes on to identify Christianity as one of the main reasons for Holland being safe and full of "nice people". Blake and Kyle also contrast Holland specifically with big cities, which they don't like because big cities are "chaotic and rushed" (Extract 4.1.4:4) and full of too many people (Extract 4.1.4:7). These extracts highlight a common thread among participants who feel positively toward Holland: its small size and conservative culture make it a good place to live.

For some of my other respondents, however, these very characteristics cause them to feel strongly negative toward the city.

Extract 4.1.5

1 Brooke: It was going around that me and my boyfriend were having sex
 2 and everything.
 3 And I was like "We didn't, but go ahead. Think what you want."
 4 Yeah. It wasn't very good.
 5 My mom was getting mad
 6 'cause like she heard it
 7 and she was like "Did you?"

8 And she was like busy yelling at me
 9 And I was like, "Believe me, I didn't."
 10 It was just frustrating cause nobody believed me @@@@.
 11 Betsy:
 12 Brooke:
 13 It got back to your mom?
 14 Mhm. My mom hears everything.
 15 It's kinda weird.
 16 Betsy:
 17 How?
 18 Brooke:
 19 Kinda creepy.
 20 Betsy:
 21 Like, literally. How does that get back to your mom?
 22 Brooke:
 23 I don't know. Somebody must have told their mom.
 24 (...)
 25 We have really close family friends.
 26 Like a lot of them
 27 So they're all kinda watching what we do
 28 I got a lot of eyes on me. So.
 29 I don't like it either.

Extract 4.1.6

1 Mark:
 2 I kinda feel like the teachers stereotype like
 3 us partiers too a little bit.
 4 Betsy:
 5 Compared to like, the other goody-goodies.
 6 Oh really?
 7 Mark:
 8 Oh, 'cause word gets around to them too?
 9 Tanner:
 10 'Cause they can kinda tell
 11 And word gets to them, yeah.
 12 'Cause like one of our buddies got a DUI and
 All the teachers know.
 13 (...)
 14 'Cause a couple of his teachers
 talked to him about it.

Extract 4.1.7

1 Cole:
 2 Yeah but your mom's from conservative Holland, Michigan.
 3 What she thinks is slutty here
 Is just average everywhere else.

These three extracts highlight a common complaint about Holland amongst respondents with a negative attitude toward the city: its small size and conservative values mean that certain events and behaviors are gossiped about. The fact that people in the city have dense network ties (following Milroy 1980), which is itself a result of Holland being a small city, means that these gossip-worthy events are made even more gossip-worthy by virtue of being perpetrated by acquaintances. The conservative culture of the city means that many behaviors are frowned upon; even behaviors that might be considered normal in other places. Extract 4.1.5 highlights the trouble that one participant got into just based on the thought of her having sex with her boyfriend. Extract 4.1.7 highlights that something that might be considered bad in Holland, in

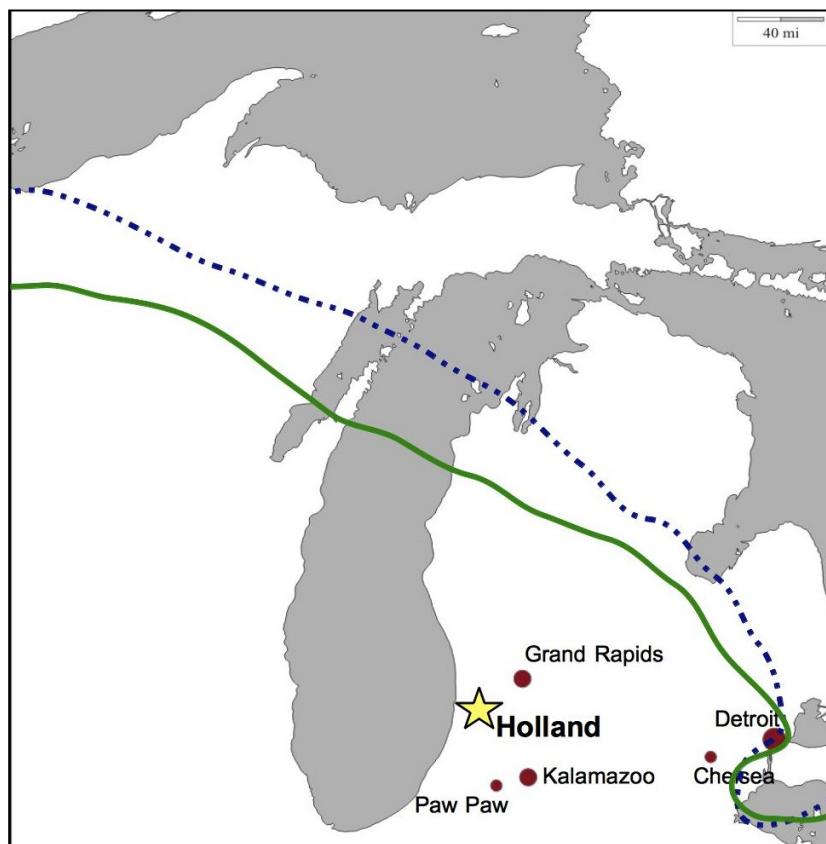
this case a mid-thigh length dress, is considered normal in other places. The small size of the city means that "bad behavior" can be gossiped about and tied to individuals. For some of my participants, these negative aspects of living in a small, conservative city like Holland strongly outweigh the positive.

Because of Holland's small size and conservative culture, it inspires polarized attitudes toward it from its high school aged residents. The strong division of attitudes makes this a good speech community by which to investigate the effects of negative affiliation.

4.2 Holland in the Inland North

The second reason that Holland is well-suited to answering the research questions under investigation is its geographic location. Holland lies directly in the heart of the Inland North, which is characterized by active participation in the Northern Cities Shift. Figure 4.2 depicts Holland situated within the Inland North (below the solid line) and the broader North (below the dotted line).

Figure 4.2 Holland in the Inland North



As part of the Inland North, inhabitants of Holland would be expected to participate in the NCS. As noted above in Section 3, the NCS has been shown to exist in large cities thirty miles to the east of Holland and forty-five miles to the southeast of Holland: Grand Rapids and Kalamazoo (Labov, Ash and Boberg 2006). It also has been examined in Paw Paw, a small town forty-five miles to the south of Holland (Gordon 2001). It is to be expected that some degree of NCS shifting can also be found in Holland.

This is convenient for two reasons. Firstly, my research will be able to contribute to the existing literature about the NCS and expand our understanding of it. Secondly, the NCS gives me six relevant variables to investigate. Since Callary (1975), these variables have been associated with big cities. This association makes the NCS even more relevant to my study, as Holland's small size is often cited as a reason for polar affiliations.

As noted above, my participants have a skewed conception of the NCS, identifying a raised /ae/ and fronted /o/ as indexicals of West Michigan or even Holland and not identifying /oh/, /e/, /i/ or /uh/ as indexicals of anything. Their partial recognition of the NCS and their skewed understanding of its associations make the NCS an excellent vehicle for studying the research questions under investigation. It will be possible to investigate the effects of affiliation on their explicit vowel associations (/ae/ and /o/) as well as the effects on vowels below the level of consciousness (/oh/, /e/, /i/ and /uh/).

4.3 Limited Outside Contact

Holland is also well-suited because of the limited outside contact that inhabitants have with other communities. My primary research question is on the effects of negative affiliation with no target affiliation, so it is important to find a speech community that does not have extensive access to another speech community. In Eckert (1989), Burnouts had regular access to Detroit and therefore to Detroit vowels. Following Le Page and Tabouret-Keller (1985), this regular access and positive motivation to emulate the speech behavior of Detroit allows the Burnouts to modify their own linguistic behavior accordingly and participate in the NCS to a higher degree than their Jock counterparts.

In contrast to Eckert (1989), my participants do not have regular access to another speech community.

Extract 4.3.1

- 1 Betsy: Have you spent a lot of time in a bigger city?
 2 Blake: Well what do you mean by a lot of time?
 3 Like I've been to Chicago a couple times.
 4 Betsy: Okay
 5 Blake: Like on a class trip and stuff.

Many of my participants have been to Chicago only a handful of times in their life, likely not enough exposure to constitute the "regular access" that Le Page and Tabouret-Keller (1985) identify as a prerequisite for modifying linguistic behavior. Gordon (2001) finds a similar lack of contact between his Paw Paw respondents and Chicago.

The only big city that my participants have occasional access to is Grand Rapids. Grand Rapids has been shown (Labov et al. 2006) to participate in the NCS, and could thus be a potential way for my participants to access more advanced NCS vowels. However, I found that my participants even have limited access to Grand Rapids. Several recount attending concerts or festivals in Grand Rapids, but even these occur at most three times a year. Clothes shopping and moviegoing both happen at RiverTown Crossings Mall, which is located in Grandville, between Holland and Grand Rapids.

Importantly, most of my participants don't have contacts who live in Grand Rapids; their friendship network consists of people from Holland or the neighboring smaller towns of Zeeland, West Olive, Hamilton, and Dorr. Nine of my participants have parents that were both born and raised in Holland or one of these smaller communities, and for the most part extended families that stay in these areas. The only exception to this is Keith, whose parents were both born and raised in Grand Rapids, and who still has extended family in Grand Rapids. His friendship network thus extends into Grand Rapids, since he occasionally hangs out with his cousins.

The insularity of Holland means that participants with a negative affiliation toward Holland are unlikely to have enough access to other communities to modify their linguistic behavior towards a target "other" community. Any differences in the variables examined can reasonably be ascribed to the effects of their anti-Holland affiliation.

4.4 Summary

In this section I provided a brief introduction to the small city of Holland, Michigan as described by my participants. I highlighted that Holland is a good location to study the effects of negative affiliation for three reasons: its inhabitants have polarized attitudes toward the city, they

have limited contact with potential target speech communities, and its location in the heart of the Inland North provides six automatic variables to examine while also allowing this study to contribute to a larger corpus about the Northern Cities Shift.

5. Methods

This section presents the methodology used to find participants and collect and analyze data from them.

5.1 Participants

In order to investigate the effects of hometown affiliation on language, it was necessary to collect data from an appropriate pool of participants. Although I collected data from twenty-four high school aged participants, this study focuses on a subset of ten of these participants who shared several important characteristics, which are broken down below.

5.1.1 Location

Perhaps self-explanatory, it was important to use participants who were from Holland, Michigan. All ten boys were born and raised within a fifteen mile radius of Holland, Michigan. Partially because of the insular culture of the city, these boys also have parents who were born and raised in Holland, Michigan. This is moderately important, as the dialects of parents from out of town have been found to have an effect on their children's language as well (cf. Payne 1980). The only exception to this is Keith, who was himself born and raised in Holland but whose parents were both raised in the slightly larger city of Grand Rapids, which is located thirty miles east of Holland.

5.1.2 Age

Age was a particularly important factor in deciding which participants to include in this study. Because the research questions under investigation depend on a representative sample of "pro-Holland" and "anti-Holland" participants, it was important to interview participants who were not quite old enough to have left home yet. Individuals who have moved out of their parents' houses and are living on their own have more agency in their location; staunchly anti-Holland participants would presumably have left the city and therefore it would be an unrepresentative sample to interview over-18s who have decided to stay in Holland.

However, it was also important to bear in mind that children tend to accept their parents'

cultural ideologies until they are old enough to be exposed to new ideas and think about these new ideas critically. Since all of these boys were raised in Holland, it seems a fair assumption to think their parents feel positively about the city. In order to investigate the effects of negative affiliation, it was important to sample participants who were old enough to have their own individual evaluation of the town.

These two important stipulations: young enough to still live with their parents but old enough to have their own opinions create a fairly small window of appropriate ages to sample. The ages of the participants for this study range from sixteen to eighteen, all living with their parents or one of their parents in Holland.

5.1.3 Community of Practice

The most important social factor for the kids in this study, however, is that they all belong to the same Community of Practice. The Community of Practice paradigm was developed by Lave and Wenger (1991) who use Community of Practice as the basis of a social theory of learning.. The Community of Practice, or CofP, is “an aggregate of people who come together around mutual engagement in an endeavor” (Eckert and McConnell-Ginet 1998:464). This mutual engagement can focus around a well-defined endeavor, such as members of a ballet troupe coming together to practice and perform. It can also focus around a less-defined endeavor, such as a group of friends coming together to hang out. Coming together to engage in an endeavor results in in-group behaviors, which becomes their shared repertoire (Wenger 2000). The shared repertoire can consist of everything from clothing choice to mannerisms to linguistic jargon and everything in between. It's simultaneously the group that defines the shared repertoire through continual engagement and propagation of it, as well as the shared repertoire that defines the group and membership in it. Out of this reciprocal definition, CofP and language practices are often correlated and then reinforced as mutual characteristics of each other.

Because of this interrelationship, different CofP membership is often a significant factor in linguistic differences: Jocks speak differently than Burnouts (Eckert 1989); Neds speak differently than Schoolies (Lawson 2011); Nerd girls speak differently than non-nerd girls (Bucholtz 1999). Language, as a part of an active negotiation of identity, becomes part of the defining features of a CofP, and CofP membership becomes a predictive factor of linguistic behavior. For this reason, it was important for me to control for CofP membership. I wanted linguistic differences to be as attributable to affiliation differences as possible.

However, it is important to note that social groupings are rarely simple enough to be easily delimited or codified. High school friendship groups in particular tend to be fluid, with members shifting towards the center or the periphery of one group or transferring completely into another group (cf. Lawson 2011; Eckert 2000; Moore 2003). This is certainly the case with my own participants, as highlighted in Extract 5.1.3 below:

Extract 5.1.3

- 1 Garrett: It's mostly what I like to call "teenage girl fights"
 2 There's a lot of talkin' behind each others' backs.
 3 If people have problems with each other.
 4 Betsy: Just girls? Or guys and girls?
 5 Garrett: Guys too.
 6 Guys, hardcore.
 7 That's kind of how
 8 Like, I did my fair share of it
 9 in my whole like
 10 me fading from my old friend group.
 11 That's how a lot of it went down.

Most individuals are members of multiple CofPs, and this membership is often more central in some CofPs and more peripheral in others. Members of a single CofP can also be members in other, sometimes overlapping and sometimes conflicting, CofPs. For example, Mark, Tanner, Blake and Josh are members of the friendship CofP but also members of the varsity lacrosse team, which is comprised of more members outside of the friendship CofP.

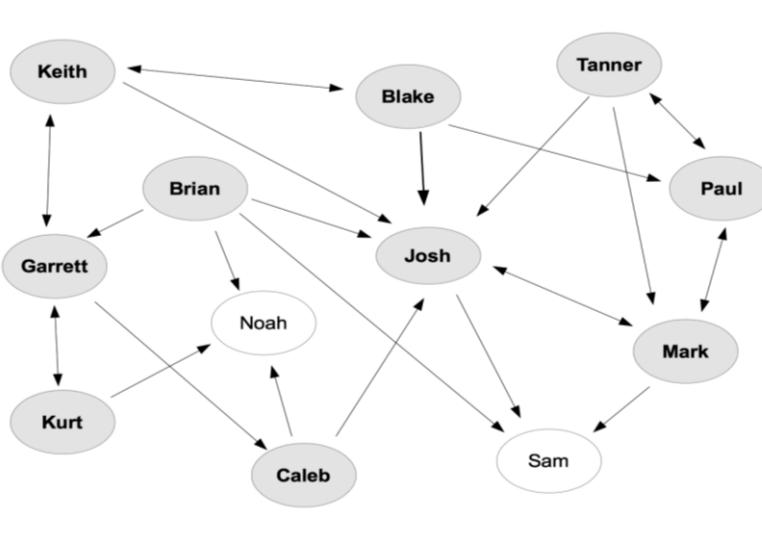
The CofP framework allows for the often messy social groupings of participants while also giving a concrete way to delineate the speech community. While the friendship CofP is considered the primary CofP for my participants, my analysis also includes two sub-groups within that CoP: lacrosse members and a group of boys who occasionally smoke cigarettes or marijuana.

To determine the makeup of this particular CofP, sociometric data was collected as part of the interview process, with the results shown below in Figure 5.1.3. Following the example of Labov (1973), each participant in this study was asked to name their close friends. The arrows directed away from a participant's name indicates the boys that he identified as his close friends; arrows directed toward a name indicate which individuals named him as one of their close friends. Mutual namings are indicated with a double sided arrow.

Although data was collected from twenty-four participants, it was determined that only

ten of these fit into the CofP under examination. These ten are boys who regularly hang out with each other and who would invite each other to any parties that they might have. Also included in Figure 5.1.3 are the names of two individuals who belong to the CofP under investigation but who for various reasons were not available to participate in the study. Though data was not collected from them, they are fairly central to the CofP and so have been included in Figure 5.1.3, within the white circles.

Figure 5.1.3 Sociometric Diagram of CofP



Although not every participant named each other as close friends, all ten still belong to the same CofP. Casual hang outs may consist of smaller permutations of several friends from the group; for example, a subset of four of these participants regularly get together and smoke cigarettes or marijuana. However, all ten are normally invited if a party or a similar larger event is planned, and a casual hang out consisting of all ten participants is not unusual.

5.1.4. Gender

All ten participants chosen for close examination in this study are male. This was an important factor to control for, as gender is often a significant factor in sociolinguistic variation in general (cf. Labov 1972; Horvath 1985; Trudgill 1974) and in NCS shifting in particular (Eckert 2000; Ito 1999; Gordon 2001). Although there is a corresponding CofP of high school girls that often are invited to the same parties that my participants also attend, the girls are not included as part of the study. Since this study is designed to investigate the effects of affiliation,

gender was controlled for and all of the participants investigated in this study are male.

5.1.5. Socio-economic Status

Socio-economic status is also typically a significant factor in sociolinguistic studies (cf. Trudgill 1974; Macaulay 1976; Labov et al. 2006). Different indices of socio-economic status have varying degrees of universal applicability. In different communities, the relationship between occupation type and income level are not translatable. For example, a plumber may be considered working-class or blue-collar in one community based on the type of work done, but be considered upper-middle class in another community based on income brought home. Socio-economic status is a combination of objective and subjective factors, which can be difficult to delineate without an understanding of the speech community under investigation.

Holland is generally stratified by income level more than by level of education or type of occupation. This is a difficult topic to gather data about, because income is not a socially acceptable topic of conversation, and because high schoolers often don't even know their parents' incomes. Socio-economic status was determined by participants' descriptions of their houses and neighborhoods as well as by their enrollment in Holland Christian High School. All ten participants in this study come from a middle class or upper-middle class background and attend Holland Christian. Tuition at Holland Christian costs \$6940 per student per year; families have to be able to afford tuition in order to send their children there. Though fine differences exist between the participants, they all fall under a broad category of middle-class. Because all the members of this CofP attend the private high school, socio-economic status is a controlled variable.

5.1.6. Ethnicity

Ethnicity is an additional social factor that traditionally has an impact on linguistic behavior (cf. Milroy 1980; Knack 1991; Laferriere 1979).

This social factor was entirely incidentally controlled for. Though minority groups do exist in Holland, the majority of the city is of European American descent. According to the 2010 city census, 68.9% of Holland's population was non-Hispanic white, 22.7% Latino, 3.6% black, and 3.4% "other". Holland Christian's student body is even more dominantly European-American, with 96% of the student body identifying as non-Hispanic white. This statistic carries

on over to the CofP in this study, with all ten boys checking in as non-Hispanic white. Perhaps unsurprising in a city called "Holland," all of the participants in this study are actually of Dutch-American descent, all 4th or 5th generation.

5.1.7 Attitudes

Within this seemingly homogenous group, however, there is an essential difference between participants: their affiliation toward or against Holland. Affiliation was determined by a number of tactics. The interview was framed as a look into "what it's like to be a high schooler in Holland." This almost always immediately prompted participants to talk about what is good and what is bad about being a teenager in Holland. This framing also allowed me to follow further channels of conversation that would bring up attitudes toward Holland. Participants were also asked about their perceptions of Holland, stereotypes of Holland, and how well they felt they fit into the culture of Holland.

In addition to asking for their experiences growing up in Holland, I also asked participants about their plans for the future. All ten boys are planning to continue their education; the locations of the colleges or universities they applied to or are planning to apply to tend to be indicative of their attitude toward Holland and West Michigan. Holland has several colleges located nearby: Hope College, downtown Holland; Grand Valley University and Davenport University both located within twenty miles of the center of Holland; and Calvin College, Aquinas College, Western Michigan University, and Grand Rapids Community College located in nearby Grand Rapids. Since many participants had not decided yet on a college to go to, their applications were spread across several colleges. Regardless of having chosen a college or not, participants' application choices were indicative of their attitude toward Holland: applying to Hope and several other nearby schools indicates a positive affiliation toward the area, while applying exclusively to universities far away in places like New York or Chicago indicates a fairly negative affiliation toward the area. Participants were also asked for the reasons for applying to certain schools. Most often these reasons included a desire to stay near home or a desire to venture far from Holland. Less frequently, they included the strengths of a particular program or university. Participants' answers, specifically when they included pro-Holland or anti-Holland sentiments, were considered in the determination of their affiliation.

Finally, participants were asked to quantitatively rate their own affiliation toward Holland on a scale of one to ten. They were told that one represented "Oh my gosh I love it here and never

ever want to leave," while ten represented "I hate it here and want to get out now and never come back." Despite the hyperbolic nature of these values, a surprising number of participants placed themselves either very low (1.5 - 2.5) or very high (8 - 10) on the scale. That such a strong divide exists among members of the same CofP is interesting as well as convenient for my primary research questions.

Table 5.1.7 below provides affiliation scores by speaker, as well as a break down of their participation on the Lacrosse team.

Table 5.1.7 Affiliation Scores and Lacrosse Membership

	Affiliation Score	Lacrosse Team
Josh	10	yes
Mark	8	yes
Tanner	8.5	no
Paul	8	yes
Garrett	2	no
Kurt	1.5	no
Caleb	1	no
Keith	6	no
Blake	2	yes
Brian	5 or 6	no

Brian poses a slight problem in the data. He initially placed himself at a 5 on the scale, but returned later to place himself at a 6. This would categorize him with Keith in the Middle-Negative category. However, it is highly likely that Brian was particularly susceptible to interviewer accommodation: his family attends the same church that my own family does, so he knew who I was prior to conducting the study. Furthermore, he knew that I had moved out of Holland and had no plans to return. It's likely that his answer to the self-determined score reflects his idea of what I would approve of. In addition to my suspicions about accommodation, his qualitative answers to my questions about Holland as well as the colleges that he is considering applying to suggest that he identifies closely with the city. Following Mendoza-Denton (2008), I

propose using a triangulation of participants' self-identification, other identification, and researcher identification to place them into groups. Using this method of triangulation, I would place Brian into a Middle-Positive category. The problematic nature of Brian's categorization is reflected in the analysis in Section 6.

This slight hiccup aside, the spread of affiliation across these ten participants is excellent. They all share location, age, gender, socio-economic background, ethnicity, and even belong to the same friendship CofP, yet among this seemingly homogenous group we still find polarized affiliations toward Holland. This combination makes this CofP a good opportunity for studying the effects of negative affiliation on language variation. Any significant difference in rates of Northern Cities Shifting in these kids can reasonably be attributed to their affiliation differences. If there is no significant difference, it is a good indication that negative affiliation is not enough to motivate language variation.

5.1.8 My Participants' Perception of the NCS

Although the NCS is generally considered a shift that is below the level of consciousness, my participants relay a basic awareness of two of the variables: /ae/ raising and /o/ fronting.

Extract 3.5.1

- | | | |
|----|--------|-------------------------------------------------|
| 1 | Betsy: | Do you think people in Michigan have an accent? |
| 2 | Brian: | What do you mean an accent? |
| 3 | Betsy: | Like has anyone ever noticed the way you speak? |
| 4 | Brian: | Yeah. |
| 5 | Betsy: | What do they say? |
| 6 | Brian: | @@, "Oh are you from Michigan?" |
| 7 | Kyle: | @@, yeah, "You talk so cute" |
| 8 | Betsy: | @@@ How do they know you're from Michigan? |
| 9 | Brian: | I don't know. |
| 10 | | (...) |
| 11 | | We say "man" and "mom" |
| 12 | | And "Holland" |

The *man* in line 11 is said with a very raised /ae/, and the following *mom* and *Holland* (line 12) with a very fronted /o/. Seven of my ten participants demonstrated a raised and often nasalized /ae/ when asked about a Michigan accent, and five of them mentioned a fronted /o/. As age of a variable is often directly correlated with its salience, this supports a claim that /ae/ raising and /o/ fronting are the oldest variables in the NCS. The emerging salience of these two variables

suggests that these variables are nearing the end of their shifting. Interestingly, however, my participants almost uniformly cited the words *man* and *mom* without citing additional examples of /ae/ or /o/. The only two exceptions are relayed above with Brian and below with Kurt, with *Holland* also cited. It's unclear whether my participants recognize shifted /ae/ and /o/ as part of their phonology or if they identify only a shifted *man* and *mom* as lexical markers of a Michigan accent. With this being said, it would be unlikely for my participants to associate only the /ae/ in *man* as a Michigan accent: /ae/-raising is a feature that is occasionally remarked upon by both Michiganders and outsiders as a "Michigan A".

It is certainly significant that my participants are able to name any examples of the NCS as indexing a Michigan identity. Their recognition of two out of the six NCS vowels provides a unique opportunity to investigate any differences between their use of the salient NCS variables (/ae/ and /o/) and non salient (/i/, /e/, /uh/, and /oh/).

It's also important to note, in terms of my participants' perception of the NCS, that my participants have a very geographically narrow perception of the NCS. All seven that demonstrated a raised /ae/ talked about them as Michigan-specific variables. Though this answer was probably affected by my phrasing of the question by specifically mentioning Michigan, ("Do you think people in Michigan have an accent?") four of my participants went on to correlate a raised /ae/ with West Michigan specifically. In Extracts 3.5.2 and 3.5.3, italicized *man* and *Holland* indicate advanced /ae/ and /o/, respectively.

Extract 3.5.2

- | | | |
|---|--------|----------------------------------------|
| 1 | Josh: | I think we sound normal. But you know. |
| 2 | | Like a West Michigan twang. |
| 3 | | Like "aw <i>man</i> !" |
| 4 | Betsy: | @@@ |
| 5 | Josh: | I got made fun of for that @@@. |

Extract 3.5.3

- | | | |
|---|--------|-------------------------------------------------------|
| 1 | Kurt: | @@@ like we say "The <i>man</i> from <i>Holland</i> " |
| 2 | Betsy: | @@@ |
| 3 | Kurt: | It's like a Holland thing. |

Although the NCS is actually widespread throughout the Inland North, my participants' narrow perception of the shift is extremely relevant for the research questions under investigation in this study. Also, though they have a very narrow understanding of /ae/ as indexing a West

Michigan identity, this does not directly translate into a raised /ae/ as having reached third-order indexicality. None of my participants were able to identify a possible alternative "standard" version of /ae/, and when asked, only five were able to mention a place where people might say *man* differently. Of these five, all of them only identified Georgia as such a place, a response that was probably conditioned by the lacrosse team having just spent Spring Break in Georgia. Their narrow identification of /ae/ as a West Michigan feature combined with their inability to identify an alternative standard /ae/ suggest an incomplete understanding of the NCS: a situation that should produce interesting results.

Because my participants recognize these NCS vowels and associate them with West Michigan, this creates three foreseeable outcomes for my study:

1. Affiliation does not have a significant effect on NCS shifting

This would suggest that my participants do not have access to a target dialect and that negative affiliation without this target dialect is not enough to cause or propagate language change.

2. Affiliation has an effect, and participants with a negative affiliation toward Holland use more conservative NCS variants, since they associate advanced variants with West Michigan

This outcome would contradict past NCS research that finds local loyalty in small towns to correlate with conservative NCS vowels (Ito 1999; Ito and Preston 1998). It would, however, be consistent with my participants' (albeit incorrect) conscious assessment of NCS variants.

3. Affiliation has an effect, and participants with a negative affiliation toward Holland use more advanced NCS variants, even though they consciously associate advanced variants with West Michigan

This outcome would support past NCS research, but contradict participants' own conscious assessment of NCS variants. This would provide an interesting case of conscious evaluation at odds with actual production.

Since only two NCS variables are salient amongst my participants, it's not unlikely that the actual results will consist of a combination of possibility 1 for the non-salient variables and

either 2 or 3 for the salient variables.

5.2 Interview

5.2.1 Participants

Participants were contacted through the friend-of-a-friend approach (Milroy 1980; Cheshire 1982) and interviewed in a location of their choice. This was both to encourage participants to feel comfortable as well as to accommodate for the busy schedules of several of the participants. Most of the interviews took place in the local coffee shop downtown Holland and were done either one-on-one or in pairs.

I received ethical approval from the University of Essex Ethics Board to speak with human participants between the ages of 16 and 18. In addition, I also was certified to speak with minors in the state of Michigan under the Michigan Child Safety Legislation via a Livescan finger print background test. In keeping with the spirit of the Child Safety Legislation, one-to-one interviews were always conducted in a public space. In addition, participants were asked to sign a consent form, which can be found in the Appendix. They were also given explicit permission to opt out of the study at any time.

Worth noting is the fact that Josh and Brian were the most influential in connecting me with additional participants. Interestingly, they are almost opposite in terms of their location within the sociometric diagram: Brian has no arrows pointing back at him despite his four outgoing arrows, while Josh has six arrows pointing back at him and only two outgoing.

5.2.2 Equipment

Interviews were recorded with an M-Audio MicroTrack ii recording device. They were recorded in 24-bit .wav files. Participants were recorded with a lapel omnidirectional microphone so as to capture the best quality sound possible. I had two recording devices, which were able to record up to two participants separately. For the one interview with three participants, I found that one microphone was able to pick up two participants satisfactorily, so I was still able to capture quality sound from all three participants. Once the recording started, the MicroTrack was placed so as to attract the least amount of attention. This was done in order to allow participants to not focus on the recorder and thus facilitate the most natural speech possible.

5.2.3 Content

Interviews consisted of a sociolinguistic interview, following Labov's 1984 Q-GEN-II module method, with Holland-specific modules added in. As noted above, the interview was framed as an investigation into what it was like to be a high schooler in Holland. Interview questions did not follow a set order but rather followed a loosely controlled multi-directional flow. This was to make the interview seem as conversational as possible and elicit the closest to vernacular speech possible. Most of the interviews covered most of the topics laid out in the interview modules. In addition to the attitude data outlined in 5.1.7, a second particular focus was on eliciting narratives from participants. Questions and topics chosen reflect this aim.

5.3. Analysis

5.3.1 Impressionistic vs. Acoustic Analysis of Vowels

Analyzing vowel shifting, particularly of the NCS, has been done both impressionistically and acoustically. Impressionistic vowel analysis has traditionally been far more time effective, as coders didn't have to manually extract vowel formants from each word. The downside of impressionistic coding, however, is that it is by nature less accurate than acoustic analysis. This can be somewhat cushioned by having multiple coders impressionistically code the data, but even professional linguists can disagree on the coding of a token.

Acoustic analysis, on the other hand, is traditionally an arduous process. Each vowel under consideration needs to be individually extracted via Praat and plotted out. Analyzing vowel data for even a single vowel for a single speaker in this way is extremely time-consuming. For my research question, it would be ideal to analyze all six vowels affected by the NCS across all ten speakers. This would allow differences between the salient and non salient features to be analyzed, and would give a far more complete picture of the effect of hometown affiliation on NCS shifting in participants from Holland. Acoustically analyzing all of these vowels manually would be an unrealistic task in terms of time.

5.3.2. FAVE

Fortunately, I was able to use the University of Pennsylvania's Forced Alignment and Vowel Extraction (FAVE) program to extract the vowel formants. This program enabled tokens to be extracted for all six NCS vowels for all ten speakers via computer. FAVE works by first aligning a sound file with its orthographic transcription and producing a Praat text grid of the interview. It then takes the text grid and corresponding sound file, as well as an uploaded Arpabet dictionary for unknown words such as surnames and place names, and automatically extracts the vowel tokens from that data. Arpabet is a phonetic alphabet written entirely in Latin letters, which allows users to phonetically transcribe words without having to go through the long process of IPA transcription. FAVE then produces a Plotnik file of the formant values for all the vowels. From this file, the user can load the vowel data into an analysis program like Plotnik or R, or in my case a combination of the two, and analyze the vowels.

FAVE is extremely accurate in terms of automatic vowel extraction. It allows a large number of tokens to be extracted and analyzed in a relatively short time period, and produces both a Praat text grid of the interview as well as a Plotnik file that allows visualization of participants' entire vowel space. From a Plotnik file with all of the vowels, it's possible to highlight the vowels affected by the NCS and compare these vowels across speakers. Vowel tokens were normalized according to the Lobanov (1971) method.

5.3.3 Transcription

Transcription was done with ELAN, which is a program that allows text to be timestamped with the audio file. This, in turn, allows FAVE to force-align the audio with the text. Transcription protocols followed the guidelines provided by ELAN. Words were transcribed using standard orthography, with the exception of the common phrases *gonna* and *wanna*. Also, g-dropping on *-ing* verbs was marked by *-in'*. Punctuation did not affect ELAN's ability to timestamp the transcription, so punctuation was added at my discretion to increase readability. Outside noises were denoted with {NS}, coughs with {CG}, and laughter with {LG}. For the sake of readability, {LG} has been replaced by @ in the dialogue extracts in this paper. This allows readers to see the number of laughter syllables in the transcription.

Each interview lasted between 45 and 60 minutes. Transcription started around 20 minutes into the interview, by which time participants generally had gotten into a conversational

flow. The specific beginning point for transcription was chosen to coincide with a natural break in conversation; starting a new topic or beginning a story. Between 20 and 40 minutes of speech was transcribed for each participant.

5.3.4 Plotnik and R

Speakers' vowel systems were analyzed in Plotnik, which allows for the researcher to calculate mean values and visualize vowels across the vowel space. It also allows the researcher to listen to extracted sound clips of each vowel point in the plot; clicking on a token will produce a written form of the word as well as a sound clip of it. With Plotnik, the researcher is also able to calculate standard deviations of each vowel, to see how much variability exists for each vowel.

In addition to Plotnik, R was also used for analysis. R is an open source environment for statistical computing. Because it is open source and run on program packages created and shared by its users, R's capabilities for analysis are extensive and still growing. For this study, R was used to create graphs showing compilations of multiple speakers' vowels as well as to run statistical tests.

5.3.5 Statistical Tests

Two different types of statistical tests were run on the data, in several delineations. I ran both a Wilcoxon rank-sum test as well as an ANOVA test, because the affiliation data from my participants can either be delineated into Positive and Negative or into Positive, Middle, and Negative.

Though most of the participants affiliated themselves strongly with or strongly against Holland, there are two participants that place their affiliation in the middle. Keith gives himself a 6 on the scale of liking Holland, which puts him just barely in the negative category. Brian, as discussed above in 5.1.7, provides a messy data point. Since he is certainly in the middle category, but questionably on the positive or negative side of the spectrum, I provide the results of multiple Wilcoxon rank-sum tests as well as an ANOVA test.

A Wilcoxon rank-sum test, like a T-test, is a statistical hypothesis test used to test for significance across two data sets. I have opted for a Wilcoxon test in this study because unlike the T-test, a Wilcoxon test is non-parametric: it does not assume normal distribution of data. I provide the results of three different Wilcoxon tests in order to most accurately account for

Brian's hedging. First, I provide one that compares the results of the strongly Positive participants to the strongly Negative, leaving Brian and Keith out of the test altogether. I also provide one that compares the Positive to the Negative, with Keith in the Negative and Brian also included in the Negative. Finally, I provide the results of a Wilcoxon test comparing Positive and Negative with Keith in the Negative and Brian included in the Positive group. The results tables show p-values for Wilcoxon tests run across F1 means by speaker as well as p-values for Wilcoxon tests run across F2 means by speaker.

In addition to Wilcoxon tests, the results of an ANOVA test are also provided. ANOVA, or analysis of variance, tests allow for the comparison of more than two groups. The results of an ANOVA comparing the Positive, the Negative, and the Middle (Brian and Keith) are provided. Again, p-values are provided for both F1 and F2.

Although the primary research goal is to investigate the effects of affiliation on vowel production, I also include the results of Wilcoxon tests across two further social delineations. The first is the lacrosse team: four of my participants are members of the lacrosse team. They spend a good deal of time together during practices and games. The second is a subset of the CofP who occasionally smoke cigarettes or marijuana together. This subset, which I will refer to as Drugs for the sake of easy identification, is not a rigid group. Non smokers are occasionally present during smoking, and hanging out and smoking can happen with any permutation of the subset. Nevertheless, because it represents an important ideological shift away from Holland's norms, I'm including it in the results because it presents a possible influence. In the same way, I'm including the results of the Lacrosse team because the amount of time spent with the team represents a further possible influence.

5.3.6 Time Frame

Although the automatic extraction of tokens allowed for an extensive acoustic analysis, it still took a considerable amount of time. The transcription process alone took place over the space of several months. Transcription was done with ELAN, which allowed transcription text to be time-stamped with the audio file so that FAVE could force-align the audio with the text.

Between needing to learn transcription protocol and the technical aspects of ELAN, Praat, FAVE and Plotnik, and actually having to do the work of transcribing speech and sending it through FAVE, the transcription and extraction process took several months to complete.

I experienced an additional learning curve in learning the statistical software R, which

allowed me to run statistical tests on several different combinations of factors as well as produce graphs that combined speakers' mean formant values.

5.4 Summary

In this section, I highlighted the methodology used to design and carry out the study. I described the methodology used to identify and interview participants as well as the methodology used to analyze my data. I also gave further evidence of my participants' attitudes toward Holland, as well as their incorrect assessment of the Northern Cities Shift.

6. Results

Data are shown below, delimited in several different ways. In addition to the social factor of hometown affiliation, I also include a brief analysis of the sub-groups of Lacrosse and Drugs, shown in 6.7. In addition to these external factors, I also mention of the results of several internal phonological factors, with more detailed results for phonological factors provided in the Appendix. Though phonological conditioning is not the focus of this study, it is still an important aspect of NCS shifting in general. Therefore, since I mean for this study to contribute to the existing literature on the NCS, it is important to include the ways that phonological conditioning affects this shift.

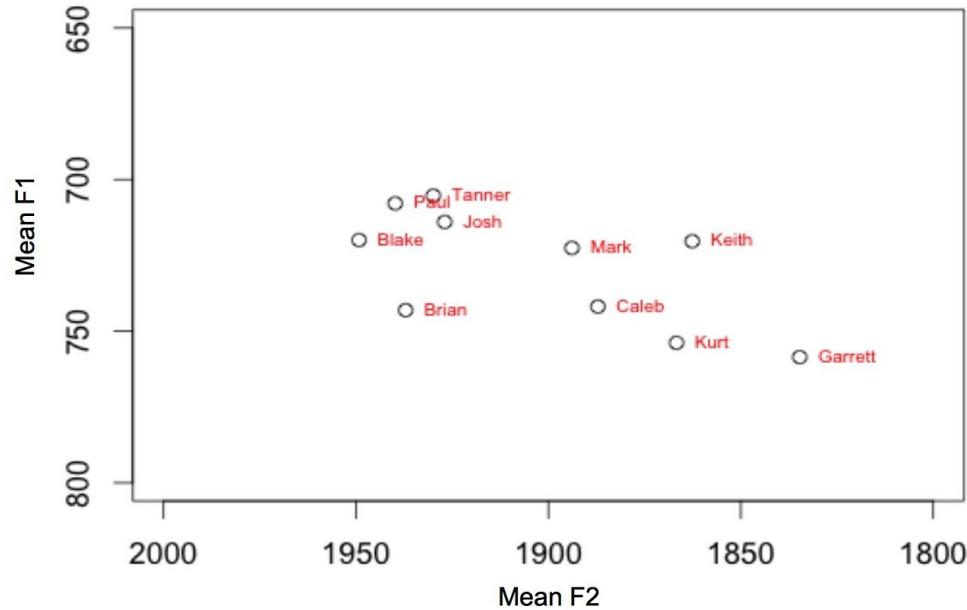
6.1 Results of /ae/

The p-value results of Wilcoxon rank sum tests for social factors are shown below in Table 6.1. Anything lower than $p = 0.05$ is considered statistically significant. Significant values in Table 6.1 are bolded. A plot showing the distribution of mean F1 and F2 scores by speaker are also shown below in Figure 6.1.

Table 6.1 P-Values for /ae/

	/ae/ F1	/ae/ F2
Wilcoxon Test		
Middle group excluded	0.06	0.34
Brian as negative	0.11	0.48
Brian as positive	0.03	0.84
ANOVA Test	0.04	0.44

Figure 6.1 Mean /ae/ values by speaker



The ANOVA test shows a significant difference in the height of /ae/, with $p = .0418$. The Wilcoxon tests show a significant difference when Brian is classed as having a positive affiliation towards Holland ($p = .0318$) and a very close to significant difference with Brian and Keith omitted ($p = .0517$). A Wilcoxon test run with Brian in the negative group showed no significance.

Since /ae/ is generally accepted as the oldest variable and is also clearly the most salient amongst this group of participants, it is the most expected to show significant variation based on affiliation.

The surprising aspect of this finding, however, is the direction of variation. Since my participants identify a raised /ae/ as a West Michigan variant, it would be expected that participants with a negative affiliation toward Holland would be more conservative with their /ae/ raising. In fact, exactly the opposite is true. The five boys with negative affiliations toward Holland are more advanced in their /ae/ raising. If they had not identified /ae/ raising as a local variant, this difference might be expected. The NCS has typically been considered a big-city shift, with larger cities showing more advanced shifts and smaller cities trailing behind. The boys' attitudes toward large cities fit very well with their /ae/ raising: the four boys who feel the most

positive towards a big city also have the highest F1 values for /ae/.

Extract 6.1

- | | | |
|---|--------|--------------------------------------------------------|
| 1 | Betsy: | Do you prefer big cities over Holland? |
| 2 | Josh: | Yeah. |
| 3 | | I'm not sure if it's because of the culture of Holland |
| 4 | | Or it's the size of it |
| 5 | | I like big towns. |
| 6 | Betsy: | Yeah. |
| 7 | Josh: | In general it's |
| 8 | | I -- I really do like the urban settings |
| 9 | | And stuff so. |

The two boys with the most conservative /ae/ values, Garrett and Kurt, both specifically expressed a desire to live "in the country": they consider Holland too large of a city for them. The F1 differences between these two groups support the concept of the NCS being primarily a big-city shift.

However, the participants expressly connected a raised /ae/ as a variant indexing West Michigan identity. This creates an interesting clash in terms of analysis. Their conscious evaluation of /ae/ conflicts with their actual production. Those with a stronger affiliation towards big cities and against Holland produce exactly the variant that they associate with Holland. This suggests that their subconscious evaluation has a stronger effect than their incorrect conscious evaluation.

As far as phonological factors affecting shifting, significant effects were found for the following sound's manner and voicing, as well as the preceding segment for F1 as well as F2. Following place was not found to be significant for either F1 or F2. Plots showing a breakdown of phonological factors affecting /ae/ are included in the appendix.

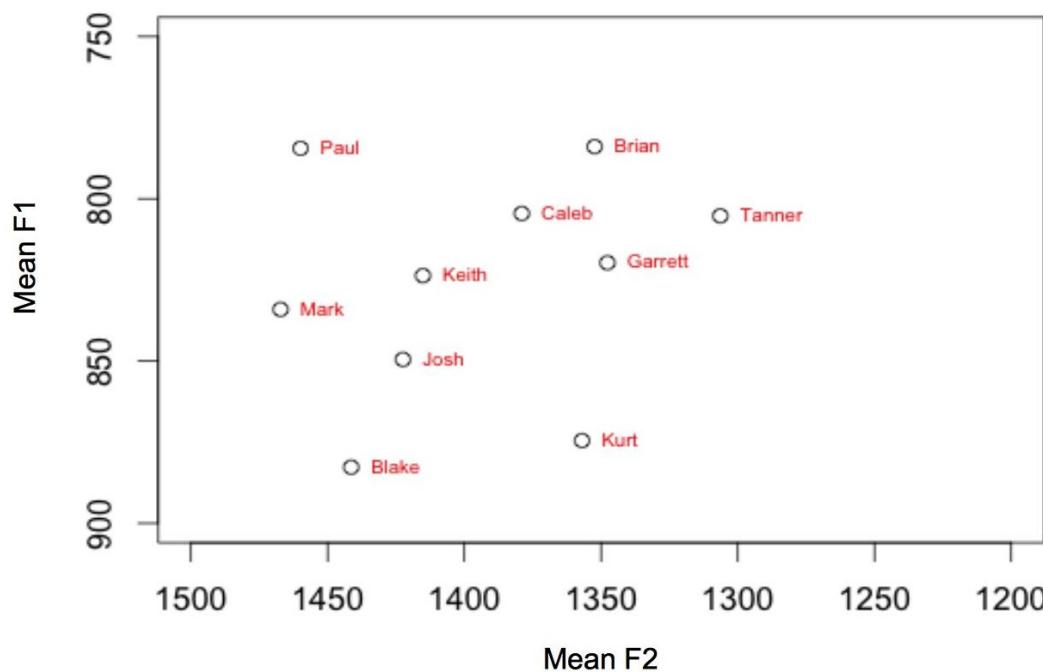
6.2 Results of /o/

The results of Wilcoxon tests and an ANOVA test for the F1 and F2 of /o/ are shown below in Table 6.2, along with a plot of /o/ frequencies by speaker in Figure 6.2.

Table 6.2 P-Values for /o/

	/o/ F1	/o/ F2
Wilcoxon Test		
Middle group excluded	0.49	0.49
Brian as negative	0.35	0.61
Brian as positive	0.88	0.49
ANOVA Test		
	0.35	0.71

Figure 6.2 Mean /o/ values by speaker



Participants' affiliation toward Holland does not prove to have a significant effect on either F1 or F2 of /o/. This is somewhat surprising, since four of my participants identified a fronted /o/ as indexing a West Michigan identity. One explanation could lie in the accepted age difference of the two variables. If Labov's (1994) ordering of the shift is correct, then /o/ fronting is not quite as old as /ae/ raising which might explain why /o/ fronting is not significantly affected by local affiliation.

However, the fact that a fronted /o/ was identified as a local variant cannot be ignored. It is not enough to claim that /o/ fronting is simply not old enough to be identified as a second-order indexical, when it is salient enough for four of my participants to produce it when asked about a local accent. This fact is complicated further with the results of /e/, shown below in 6.4.

A second explanation could be that /o/ fronting is only associated with the lexical item *mom* for my participants, and is not consciously recognized as a full phonological shift yet. Perhaps then, participants don't use a shifted /o/ to index affiliation in words other than *mom*. These possibilities will be revisited in further detail in the Discussion section below in 7.1.1.

Phonological factors with a significant effect on F1 of /o/ include preceding segment, following manner and following place, with following voicing showing no effect. Significant phonological factors affecting F2 of /o/ include following manner and voicing and preceding segment, with following place showing no effect. Plots of the phonological factors affecting /o/ are provided in the Appendix.

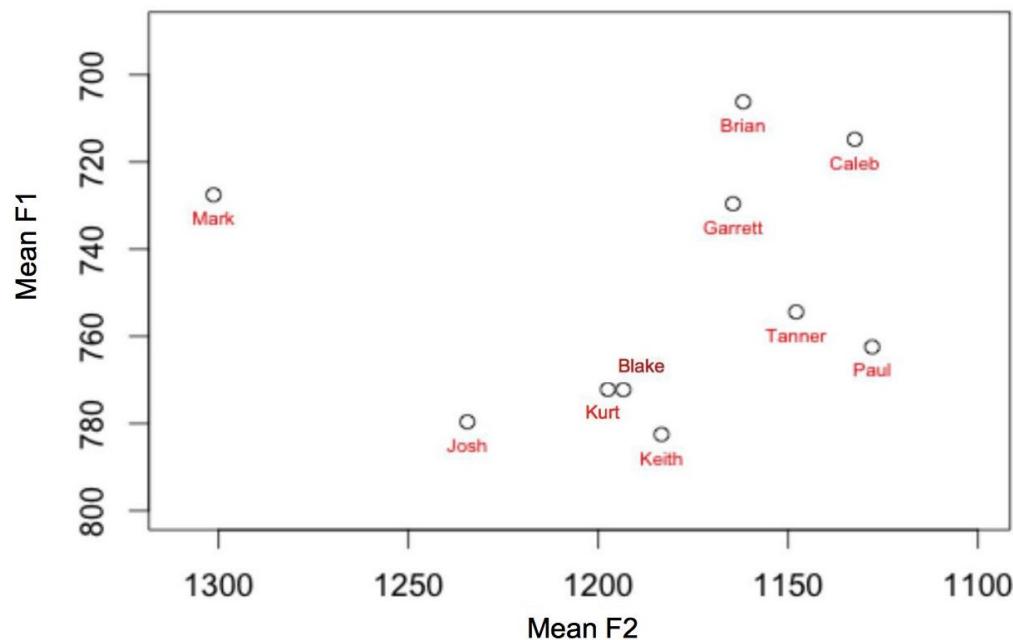
6.3 Results for /oh/

The results for /oh/ are shown below in Table 6.3, with a plot of /oh/ means by speaker are showing in Figure 6.3.

Table 6.3 P-Values for /oh

	/oh/ F1	/oh/ F2
Wilcoxon Test		
Middle group excluded	0.89	0.89
Brian as negative	0.91	0.89
Brian as positive	0.31	0.84
ANOVA Test	0.89	0.71

Figure 6.3 Mean /oh/ by speaker



None of the social factors coded for show a significant effect on the position of /oh/. This is an expected result, both because of the accepted age of /oh/ and its non-salience to my participants.

Phonological factors affecting /oh/ shifting for F1 are preceding segment, following voice and following manner, with following place showing no effect. Internal factors affecting F2 of /oh/ include preceding segment and following manner, with following voice and place having no effect. Plots of internal factors affecting /oh/ are included in the Appendix.

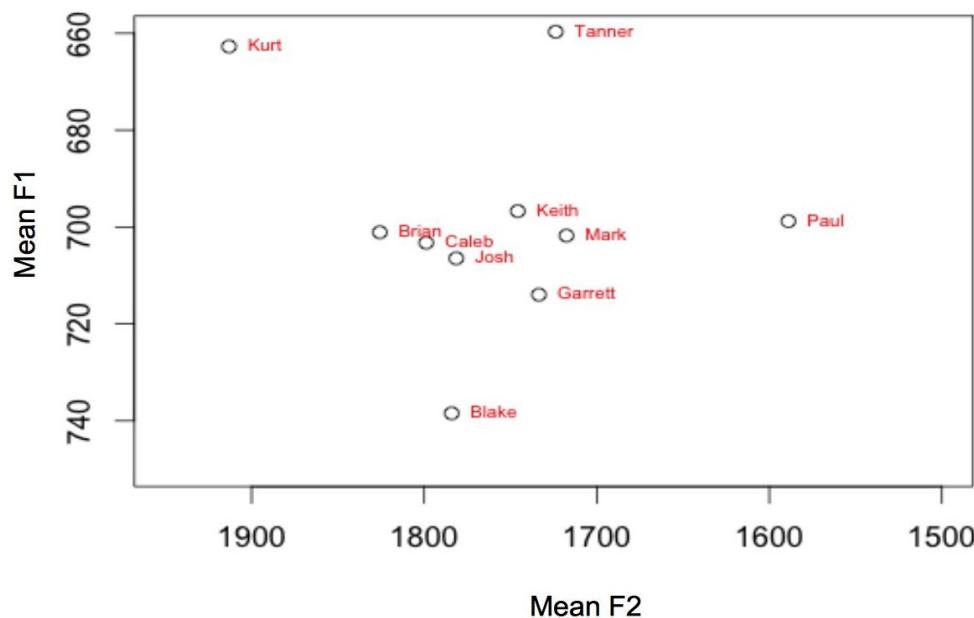
6.4 Results for /e/

The results for /e/ are shown below in Table 6.4, with a plot of /e/ means by speaker are showing in Figure 6.4.

Table 6.4 P-Values for /e/

	/e/ F1	/e/ F2
Wilcoxon Test		
Middle group excluded	0.34	0.06
Brian as negative	0.26	0.17
Brian as positive	0.31	0.03
ANOVA Test	0.77	0.23

Figure 6.4 Mean /e/ by speaker



The Wilcoxon test run with Brian in the positive group shows a significant difference in the backing of /e/, with $p = .0318$. The Wilcoxon test run with Brian and Keith excluded show a near significant difference ($p = .0571$). However, unlike with /ae/, the ANOVA test does not support the results of the Wilcoxon test. This suggests that /e/ backing is not as strong of an indexical as /ae/.

Interestingly, /e/ shifting tends more toward showing a significant difference based on personal affiliation than /o/ shifting does. This is an interesting result, as a backed /e/ was not mentioned as an indexing local identity in the same way that a fronted /o/ was. For a new shift like /e/ to show more significance according to affiliation than an older more salient one like /o/ is unusual. This result will be discussed in further detail in 7.1.1 below.

Phonologically speaking, F1 showed significant differences for preceding segment, following manner and following voice, with following place showing no significance ($p = .3022$). F2 showed significance for preceding segment, following manner and following place, with following voice showing no significance ($p = .9151$). Plots showing the breakdown of these phonological factors and how they promote or inhibit shifting are included in the Appendix.

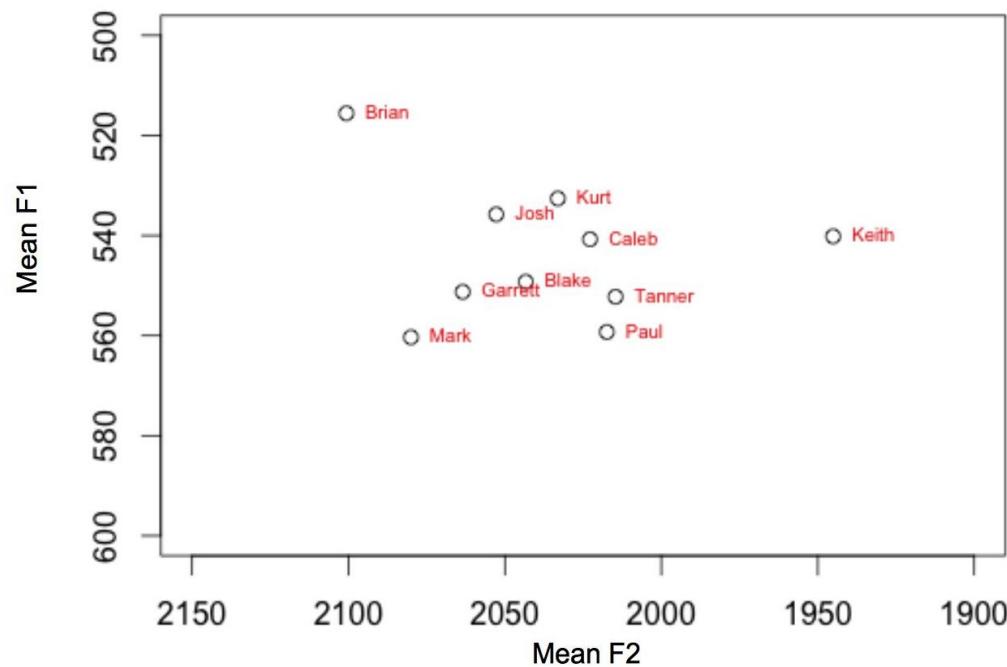
6.5 Results for /i/

The results for /i/ are shown below in Table 6.5, with a plot of /i/ means by speaker are shown in Figure 6.5.

Table 6.5 P-Values for /i/

	/i/ F1	/i/ F2
Wilcoxon Test		
Middle group excluded	0.2	0.89
Brian as negative	0.76	0.91
Brian as positive	0.22	0.31
ANOVA Test	0.12	0.89

Figure 6.5 Mean /i/ values by speaker



Like with /oh/, none of the social factors show a significant effect on the position of /i/. Again, this is an expected result, because my participants didn't show an awareness of /i/ shifting and because /i/ is widely acknowledged as one of the final three shifts in the NCS.

Phonological factors affecting /i/ shifting for F1 are preceding segment and following manner, with following voice and following place showing no effect. Internal factors affecting F2 of /i/ include preceding segment and following manner, with following voice and place having no effect. Plots of internal factors affecting /i/ are included in the Appendix.

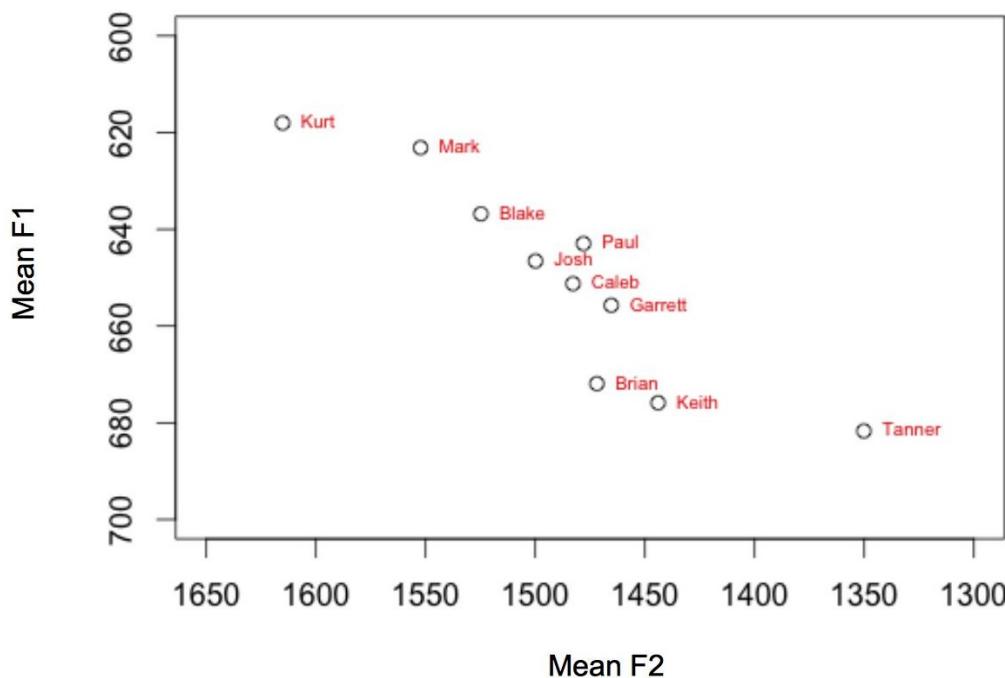
6.6 Results for /uh/

The results for /oh/ are shown below in Table 6.6, with a plot of /uh/ means by speaker are showing in Figure 6.6.

Table 6.6 P-Values for /uh/

	/uh/ F1	/uh/ F2
Wilcoxon Test		
Middle group excluded	0.89	0.69
Brian as negative	0.35	0.35
Brian as positive	0.69	0.55
ANOVA Test		
	0.21	0.51

Figure 6.6 Mean /uh/ values by speaker



Again, none of the social factors show a significant effect on the position of /uh/. Because /uh/ is both non-salient and one of the newest shifts, this is an expected result.

Phonological factors affecting /uh/ shifting for F1 are preceding segment, following manner, following voice and following place. Internal factors affecting F2 of /uh/ include preceding segment, following manner and following place, with following voice having no

effect. Plots of internal factors affecting /uh/ are included in the Appendix.

6.7 Results for Additional Social Delineations

Wilcoxon tests were run for two additional social delineations: Lacrosse and Drugs. The Lacrosse group was an important group to test because of the amount of physical time they spend with the interlocking CofP of Lacrosse members. The Drugs group was important to test because of the stark ideological difference that underage smoking and drug use has to the normal culture of Holland as well as the time they spend together apart from the larger friendship CofP. Somewhat surprisingly, the Drugs group does not correspond directly with the Negative affiliation group. Results across F1 and F2 for all six vowels are shown in Tables 6.7.1 and 6.7.2 below.

Table 6.7.1 P-Values for Lacrosse and Drugs: /ae/, /o/, /oh/

	/ae/ F1	/ae/ F2	/o/ F1	/o/ F2	/oh/ F1	/oh/ F2
Lacrosse	0.17	0.48	0.35	0.01	0.48	0.35
Drugs	0.15	0.15	0.31	0.69	0.55	1.00

Table 6.7.2 P-Values for Lacrosse and Drugs: /e/, /i/, /uh/

	/e/ F1	/e/ F2	/i/ F1	/i/ F2	/uh/ F1	/uh/ F2
Lacrosse	0.26	0.26	0.26	0.61	0.11	0.17
Drugs	0.55	0.22	0.55	0.55	0.84	0.84

Both sub-groups show up as nonsignificant almost the entire way through this system. Because there is no significant difference between any of the vowels for the Drugs delineation, I have not included this label in the Table 5.1.7. It does not prove to be a significant factor, and in the interest of keeping participant confidentiality particularly in regards to a contentious topic, I have opted for keeping this information out of the final study.

The Lacrosse delineation, likewise, shows no significance almost the entire way through the chart. The only exception is in F2 of /o/, which results in $p = 0.0096$. Though this reports a

strong difference between Lacrosse members and non-Lacrosse members, I suspect this is incidental. The Lacrosse factor is not significant for any other feature, and /o/ is not significant for any other factor; these facts suggest that the $p = 0.096$ is incidental in this case.

6.8 Summary

Significant results were found for affiliation in F1 of /ae/, with anti-Holland participants using more advanced, or raised, versions of /ae/. Significant results were also found in F2 of /e/, with anti-Holland participants also using more backed versions of /e/. Surprisingly, /o/ did not show significance according to social factors even though it appears to be a salient variable. /oh/, /i/, and /uh/ did not show significance according to social factors. The discrepancy between direction and salience as well as the discrepancy between salience and significance will be discussed in further detail in 7 below.

7. Discussion

7.1 Vowel Shifting

7.1.1 /ae/

As noted in above in Section 6, affiliation does account for some of the vowel shifting. This is particularly true for the most salient of the vowels, /ae/. A negative affiliation promotes /ae/ raising. This result is compatible with the literature on the NCS, which finds that small-town affiliation prohibits NCS shifting while big-city affiliation promotes it. However, it is incompatible with what my participants report. Their identification of a raised /ae/ as a West Michigan variant would predict lower /ae/ for speakers with an anti-Holland affiliation, but instead speakers with an anti-Holland affiliation produce more raised /ae/. This seemingly backwards result suggests two things:

1. Limited access = adequate access

Although Holland in general and my participants in particular are fairly limited in their contact with larger cities, it seems they do have enough access to subconsciously identify a raised /ae/ as a big-city variant. Holland and the surrounding big cities all participate in the NCS, albeit to a different degree. Perhaps when two speech communities are governed by the same phonological system, it takes only limited contact for individuals to subconsciously identify, analyze, and even adopt the more advanced versions of that same phonological system. One major question concerning the NCS and other geographically widespread changes is how individuals across such a wide area modify their linguistic behavior in the same way. Perhaps such a seemingly impossible degree of conformity can be achieved with very little contact, when speakers are just using different degrees of the same phonological system.

2. Subconscious identification > Conscious identification

My participants' analysis of raised /ae/ as a West Michigan variable conflicts with their production. In production, anti-Holland participants raise more and pro-Holland participants have a more conservative /ae/. This suggests that although my participants have enough access to big-

city advanced versions of the NCS to internalize the more advanced shifts, they don't have enough access to properly recognize them as indexing a big city identity. Interestingly, their conscious evaluation of the variable does not dictate production in a way that might be expected. Instead, it seems that they were able to subconsciously analyze advanced /ae/ as a big-city variant despite their conscious analysis of raised /ae/ as a local variant. If this is the case, it suggests that subconscious analyses have more bearing on production than conscious analyses, when the two conflict.

7.1.2 /o/ and /e/

In addition to these two suggestions laid out above, it's also notable that /o/ failed to show significant shifting according to affiliation despite conscious awareness of it while /e/ backing did show significant shifting according to affiliation despite a *lack* of conscious awareness. This discrepancy could be due to several factors.

The first possibility is that perhaps to my participants, /o/ shifting only is salient in the lexical item *mom* and not as a phonological rule. However, if the conclusions in 8.1.1 are true, then it would be unusual for participants to not be able to subconsciously analyze a variant that is at least partially salient consciously. If limited access to big cities is enough to subconsciously internalize advanced variants of the somewhat salient /ae/, then it should be enough to internalize advanced variants of the somewhat salient /o/.

Alternatively, it is also possible that these variables are shifting at different rates. The combination of different rates of shift with different ages within the NCS and different levels of saliency could result in these unexpected results. In other words, perhaps all of these factors render /o/ less available to be used indexically by my participants than /e/, even though they are consciously aware of /o/ and not consciously aware of /e/.

A third possibility could be that /o/ fronting could be affected by a skewed third-order indexicality of Chicago /o/. Anecdotally, I was once corrected by my father when I told him I was coming back to Holland to study high schoolers, a conversation that went something to the effect of:

- | | | |
|---|--------|-------------------------------------------|
| 1 | Betsy: | I'm doing a study on kids from Holland. |
| 2 | Dad: | You can't. That place doesn't exist. |
| 3 | | You could study kids from Holland though. |

In line 1, *Holland* is pronounced with a backed /o/, but in line 3, my dad responds by

pronouncing *Holland* with a very fronted /o/. He not only corrected me, but went on to make fun of me for sounding like a Chicagoan because of my back /o/. Although this is an incorrect assessment of Chicago speakers' general /o/, it does show an awareness of Chicagoans' pronunciation of *Chicago*. Despite using a fronted /o/ in general, Chicagoans refer to their city as [ipa]; a fact that is salient to many Michiganders. Although I don't have data from my participants that would confirm or deny their awareness of this pronunciation of *Chicago*, it's possible that this one lexical item has overextended into an incorrect third-order indexical Chicago /o/. This would cause additional discrepancy between participants' conscious and subconscious assessment of the NCS. If they associate a fronted /o/ with the small city of Holland and a backed /o/ with the big city of Chicago, these are two conscious assessments that conflict with the actual NCS. If this is the case, then it's notable that even having two incorrect conscious assessments isn't enough to subvert the subconscious assessment NCS system, only enough to confuse it: /o/ is not reversed in its significance but rather just shows up nonsignificant.

A final explanation for this could be that the data pool just wasn't comprehensive enough. It is possible that collecting data from more participants or that collecting more data from the existing participants would result in different patterns of significance.

7.2 Style Shifting

Labov (1994) suggests that NCS speakers consider the advanced forms of the vowels to be "correct," a claim that is substantiated by the fact that when reading from a word list, NCS speakers tend to emphasize the shifted variants. This is unusual in terms of regional dialects; typically a dialect that deviates from General American English (GAmE) will be shifted toward GAmE in careful speech. Preliminary data that I gathered from my participants reading a word list and a short story also show more advanced NCS shifts during careful speech for the variable /ae/. Unfortunately, additional data was not gathered for the other five vowels; this is an area that could benefit from further study.

Preston (2011) finds Michigan speakers producing advanced NCS speech but identifying it as GAmE. This supports Labov's claim that the NCS is a change from below the level of consciousness (Labov 1994) as well as gives a reason for NCS speakers correcting *towards* advanced variants during careful speech instead of away from advanced variants. Identifying advanced NCS variants as "correct" is both unusual and exciting for further study of the sound change.

Style shifting and NCS production is an area ripe for further study. In addition to careful speech, it would also be interesting to investigate emotional speech. This is, admittedly, a difficult style to study in a systematic way, since emotional outbursts tend to be unpredictable in their timing and are also not usually a speech style that participants want recorded. But through personal observations, it seems that emotional speech also promotes NCS shifting, at least in the expletive *fuck*. This has been observed both in angry outbursts ("What the fuck?") as well as emotional speech ("Fuckin' tell me about it."). It would be interesting to investigate the effects of style shifting, from careful to casual to emotional, on all NCS vowels.

7.3 Further Research

In addition to avenues for further research concerning style shifting mentioned above in 7.2, one additional avenue for further research would be to follow up with these same participants in several years' time. I would be interested in seeing how their speech changes or maintains after having experienced more speech communities. It would also be interesting to see if they alter their affiliation toward Holland or their perception of the salient feature of the NCS, and how these factors affect their participation in the NCS in comparison to this initial study.

7.4 Summary

In this section, I returned to some of the surprising findings of this study and discussed possible causes and ramifications of these findings. I also outlined some possibilities for further study in this area.

8. Conclusion

This study initially set out to begin to address how negative affiliation affects linguistic behavior. Specifically, it was meant to investigate a scenario in which participants have a negative affiliation toward their own group but do not have a specific target group toward which to affiliate themselves. To this end, I have investigated the speech of ten high school boys in Holland, Michigan whose polarized affiliations toward their city and lack of outside contact would provide a good platform to study the effects of negative affiliation.

From this study came several surprising results, leading to somewhat surprising conclusions.

It seems, from the discrepancy between my participants' conscious description of a West Michigan accent and their actual production, that subconscious analysis of a linguistic system has the ability to override conscious analysis when the two conflict.

The data also suggest that "adequate access" (Tabouret-Keller 1985) for modifying linguistic behavior can consist of very limited access. In this case, it seems that my participants did not need extensive access to a big city for an accurate subconscious identification of the big-city variants, because they already shared the same phonological system. Perhaps very limited access to an alternative speech community is all that is necessary when both communities already use different degrees of the same system.

This study has yielded some interesting data preliminary data and highlighted multiple directions for further study both of the Northern Cities Shift as well as the motivations and avenues of sound change.

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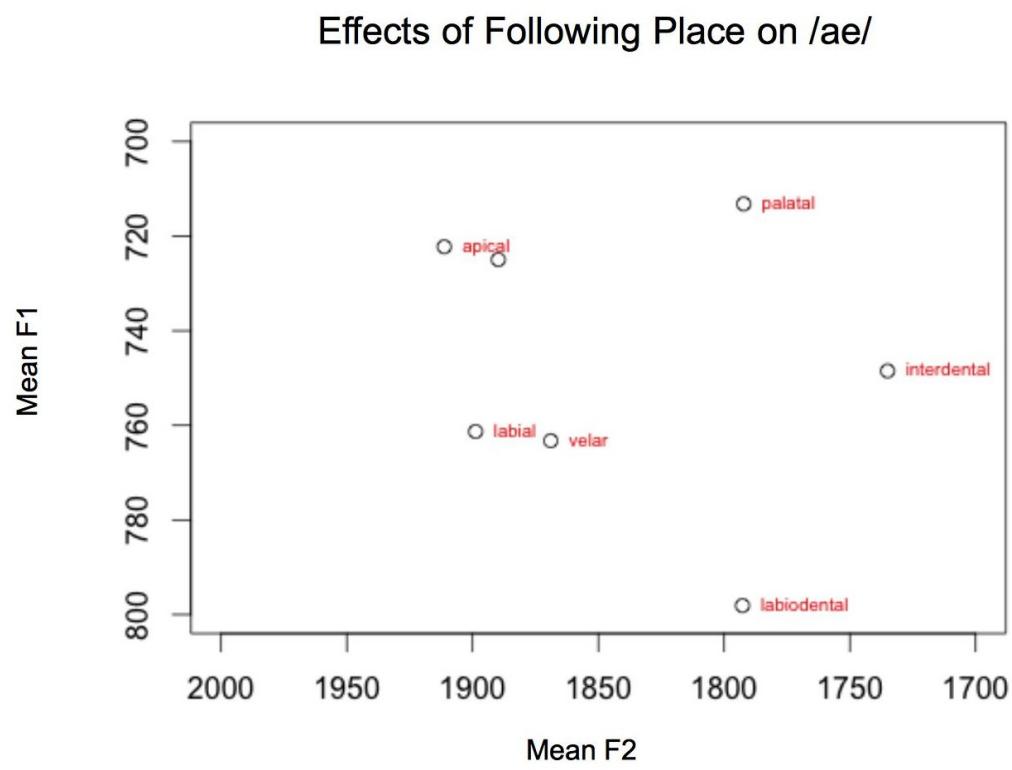
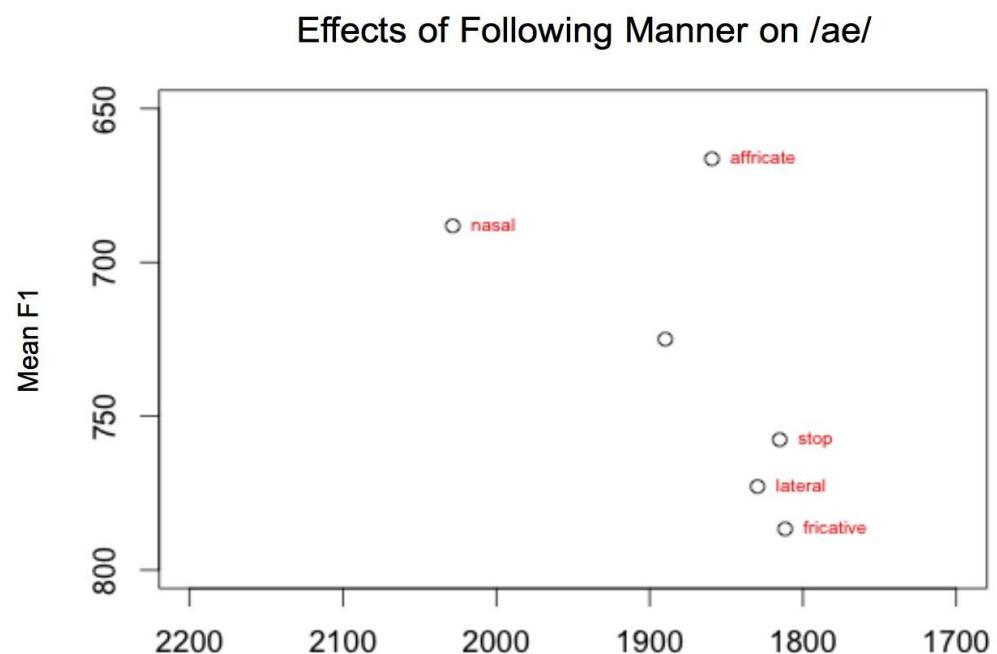
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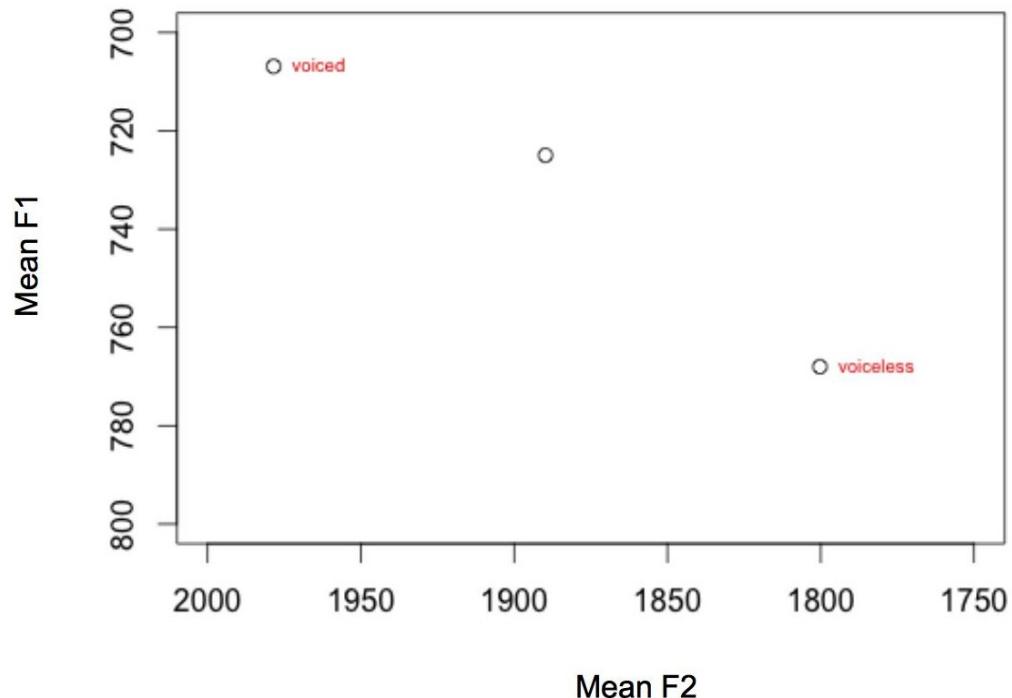
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Appendix A. Plots of Phonological Conditioning

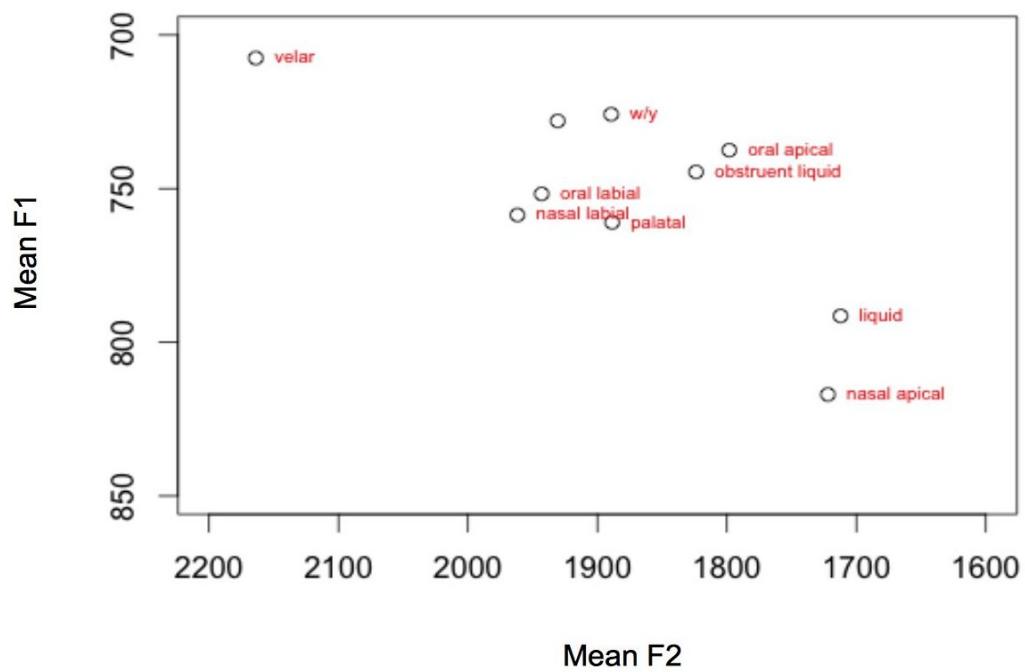
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Effects of Following Voice on /ae/

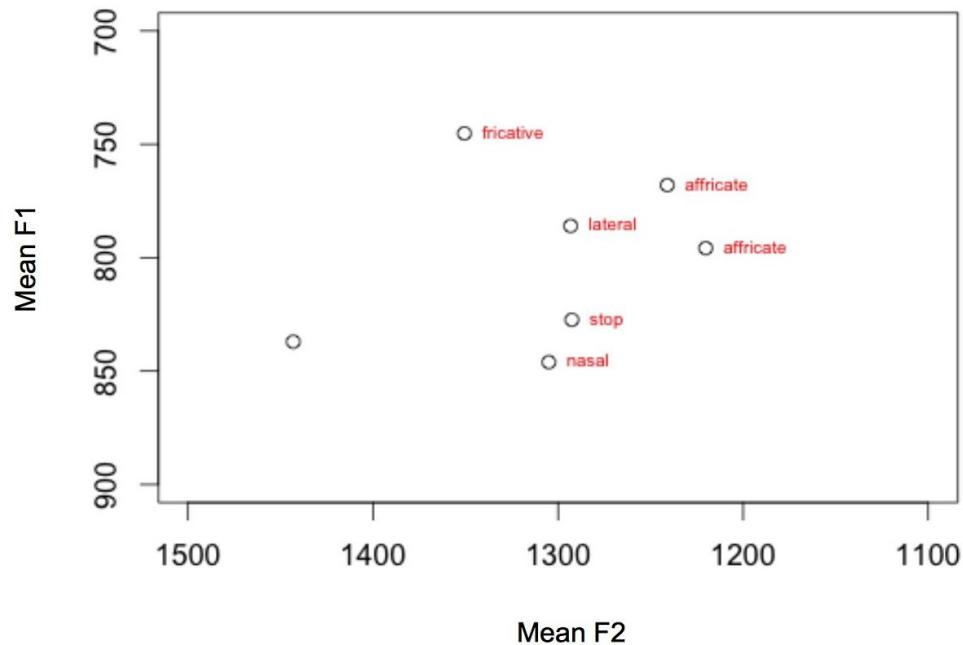


Effects of Preceding Segment on /ae/

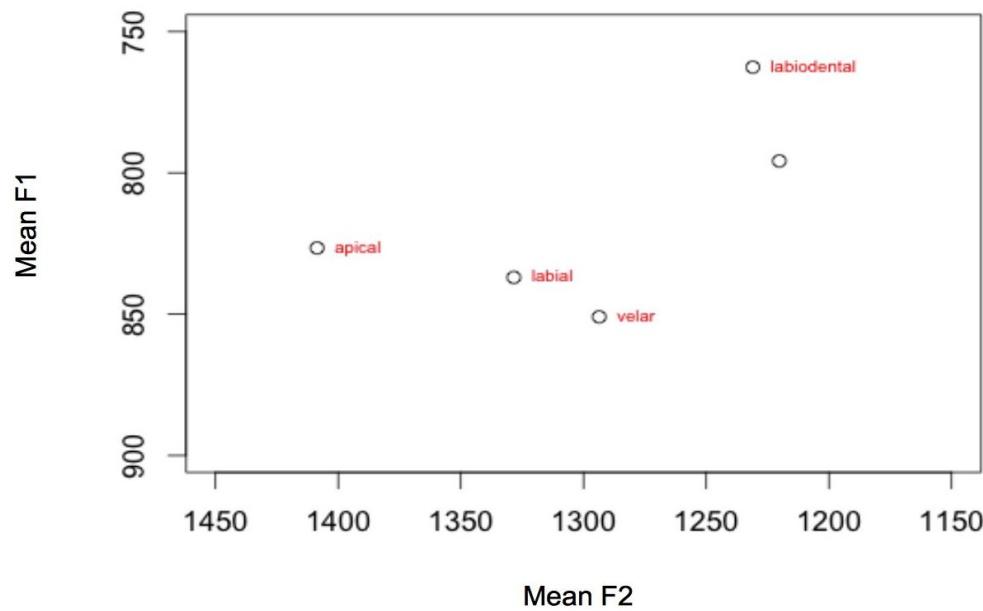


2. Phonological factors affecting /o/

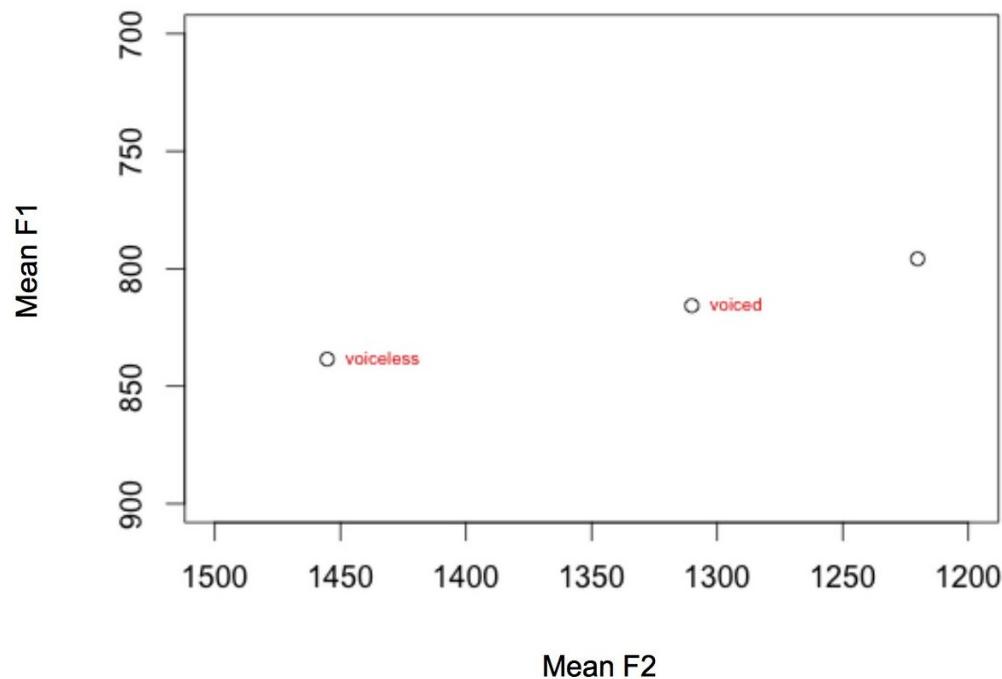
Effects of Following Manner on /o/



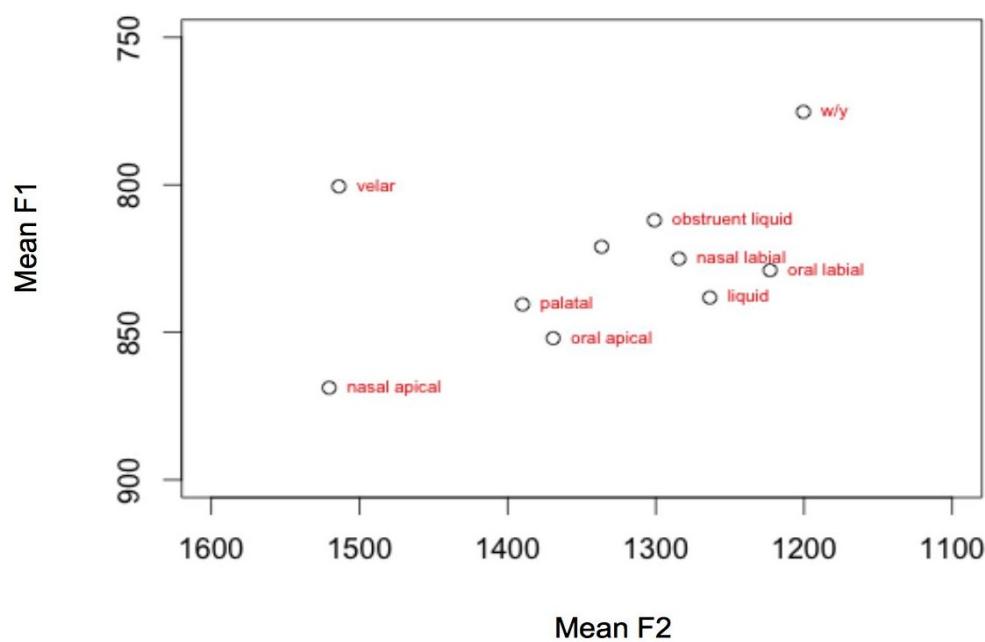
Effects of Following Place on /o/



Effects of Following Voice on /o/



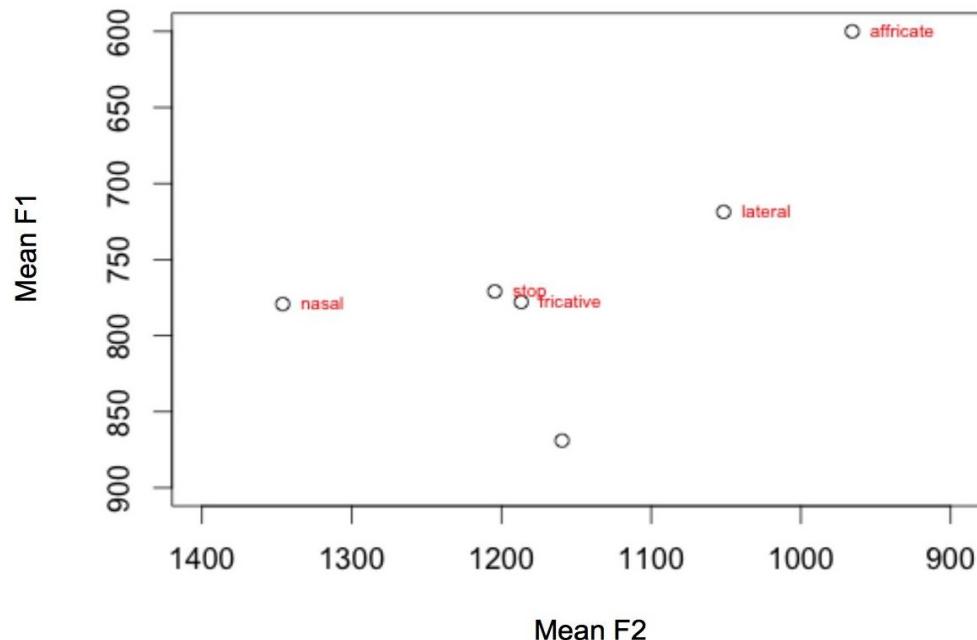
Effects of Preceding Segment on /o/



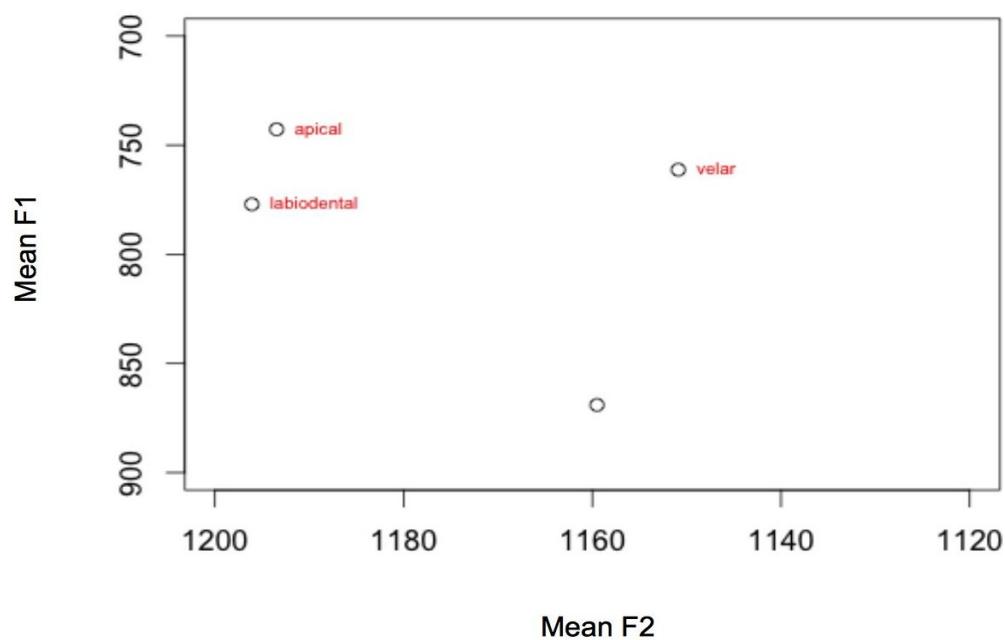
3. Phonological factors affecting /oh/

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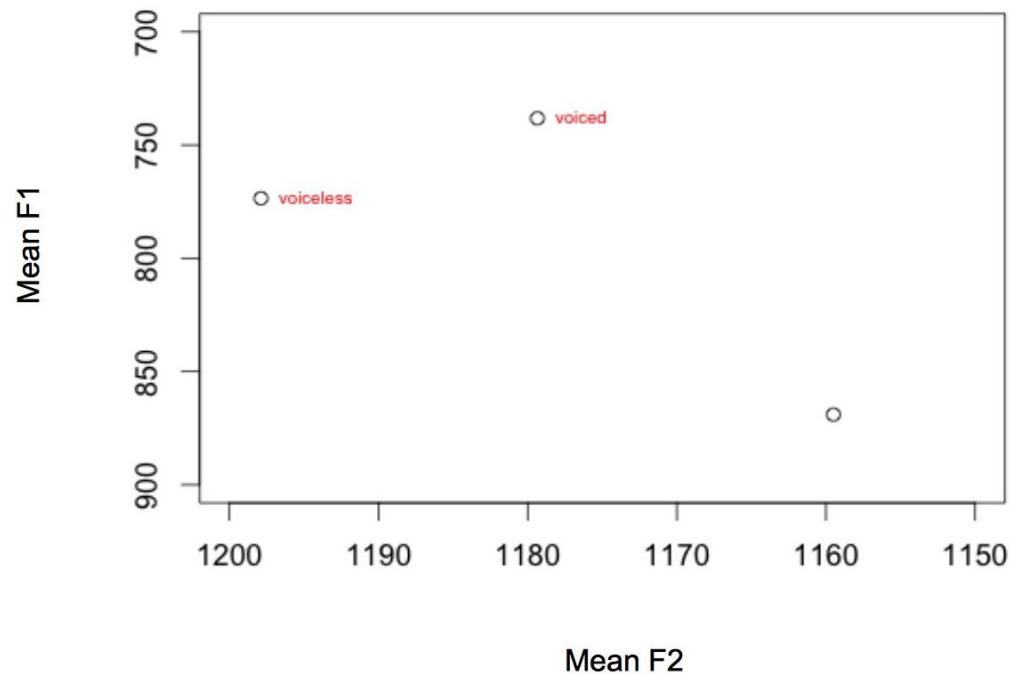
Effects of Following Manner on /oh/



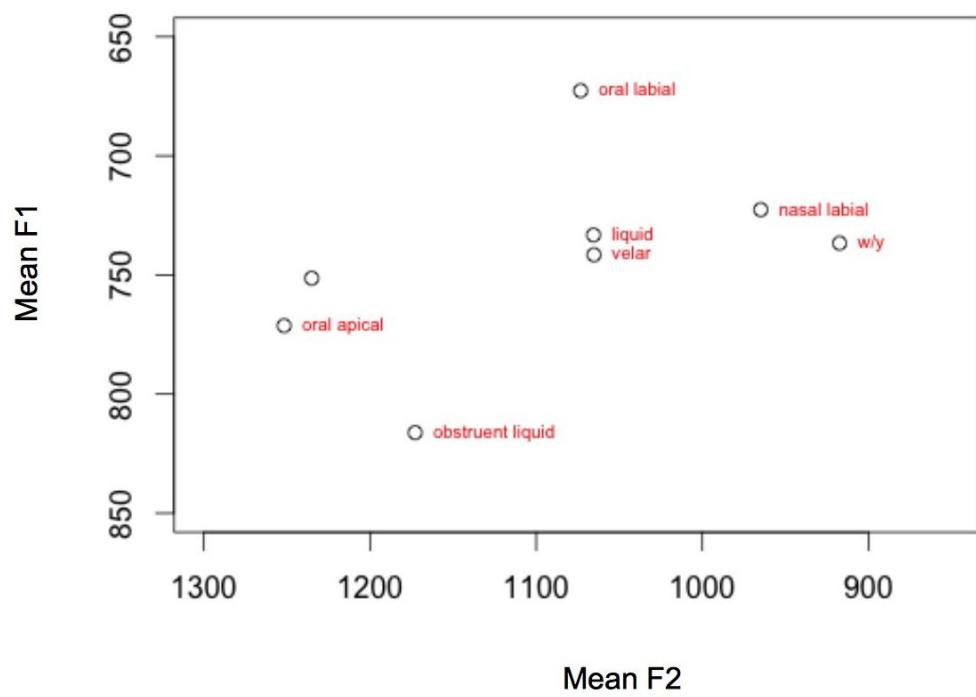
Effects of Following Place on /oh/



Effects of Following Voice on /oh/



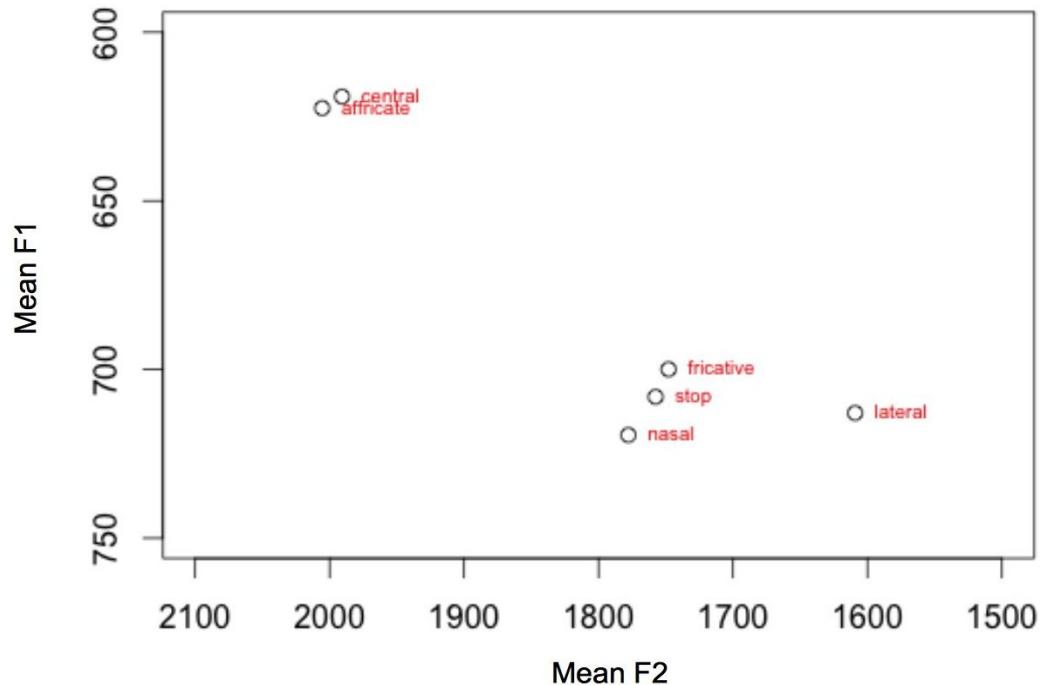
Effects of Preceding Segment on /oh/



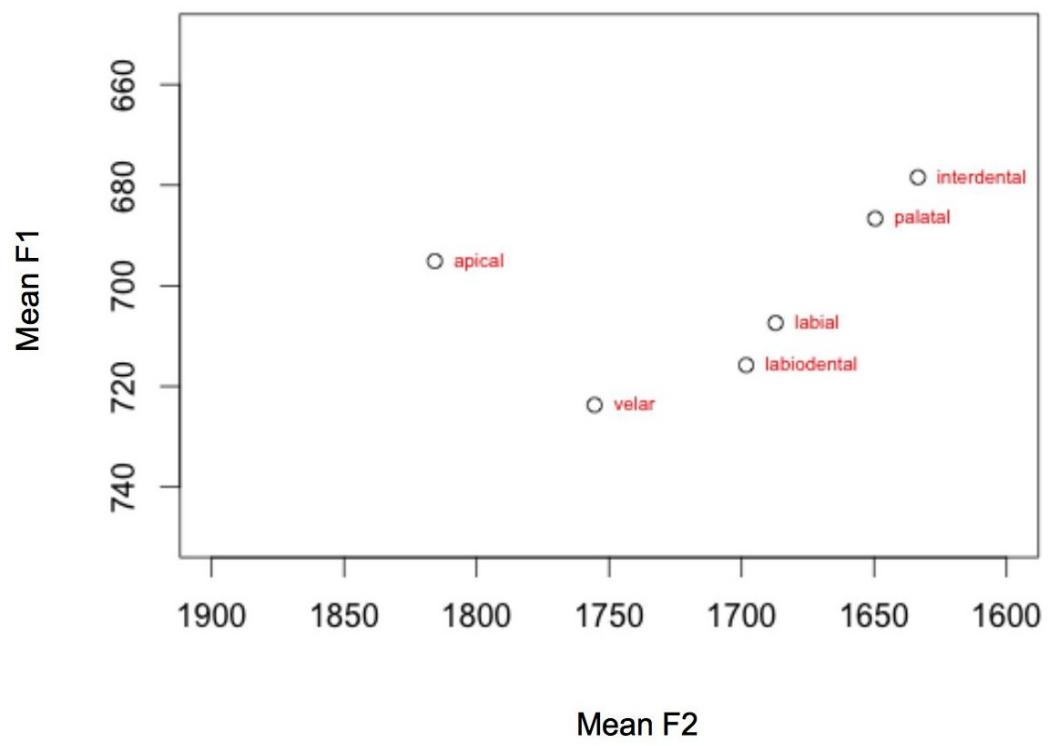
4. Phonological factors affecting /e/

UP:12/09/2012-07:47:10 WM:12/09/2012-07:48:56 M:LG981-7-FY A:11a1 R:1100311 C:775B6C3F689BB2E6F87BEC6DFF73207E2F4B750B

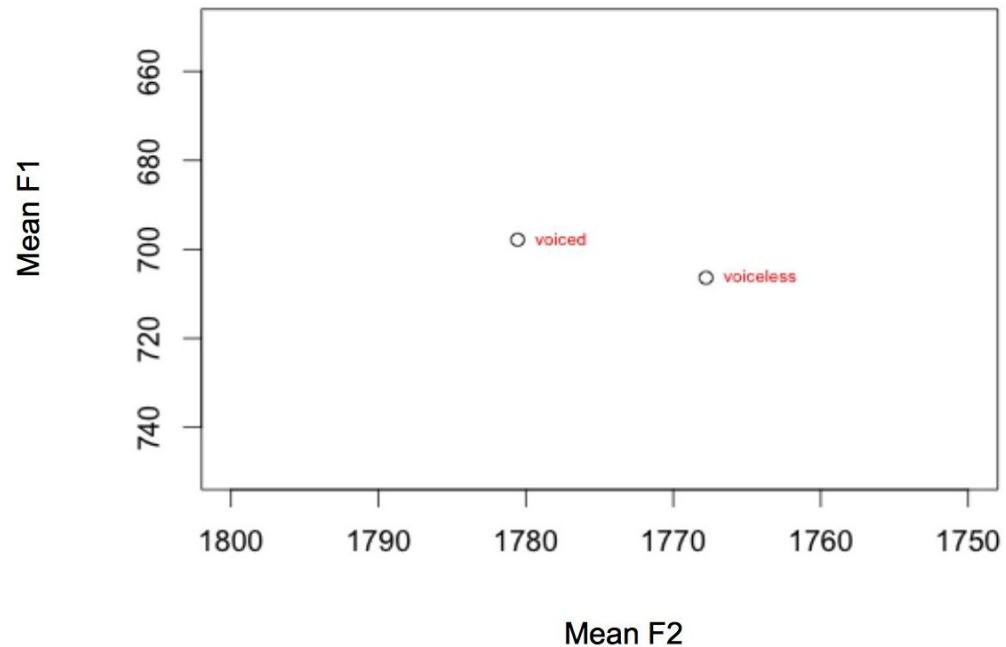
Effects of Following Manner on /e/



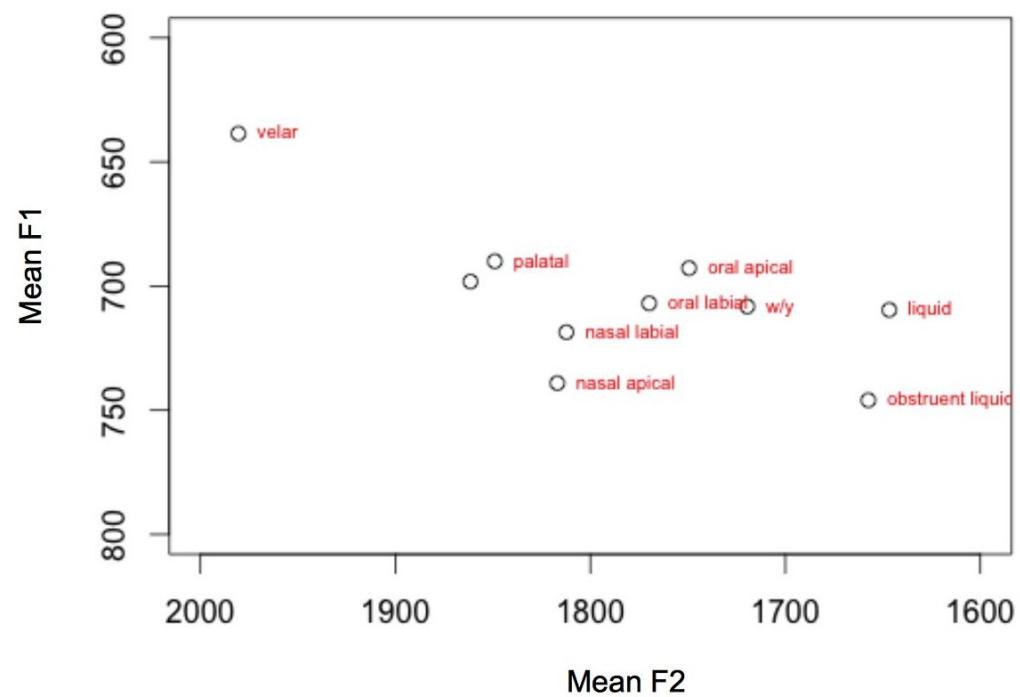
Effects of Following Place on /e/



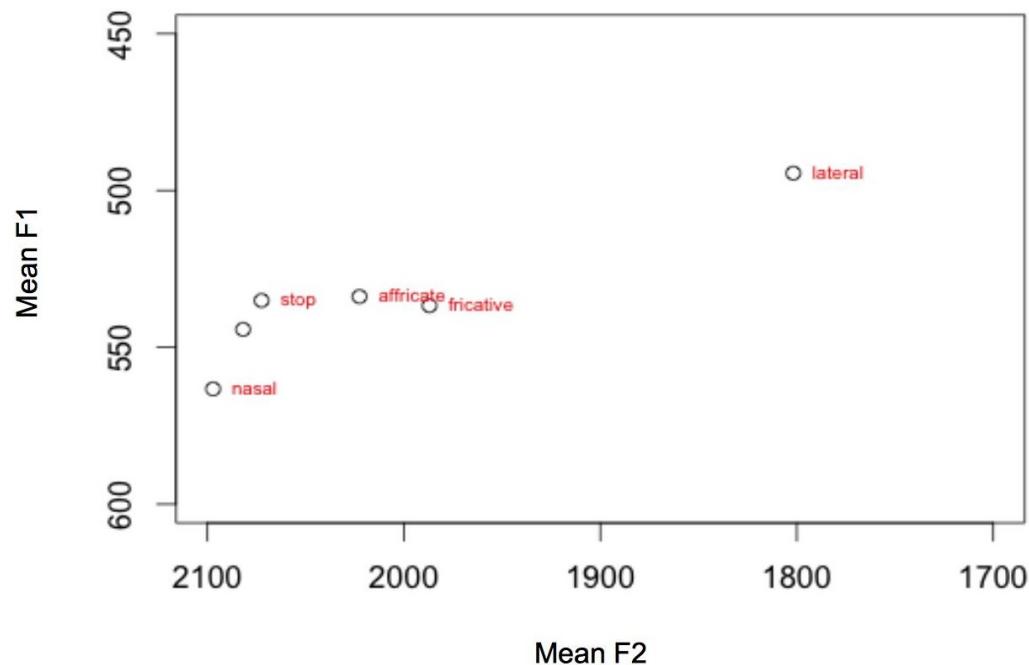
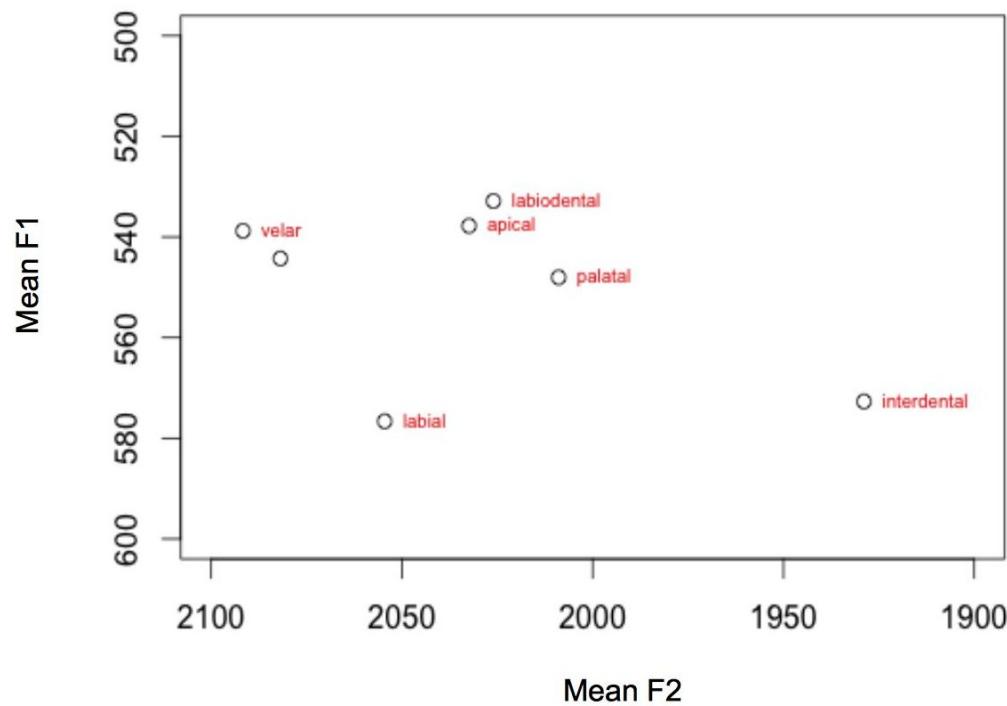
Effects of Following Voice on /e/



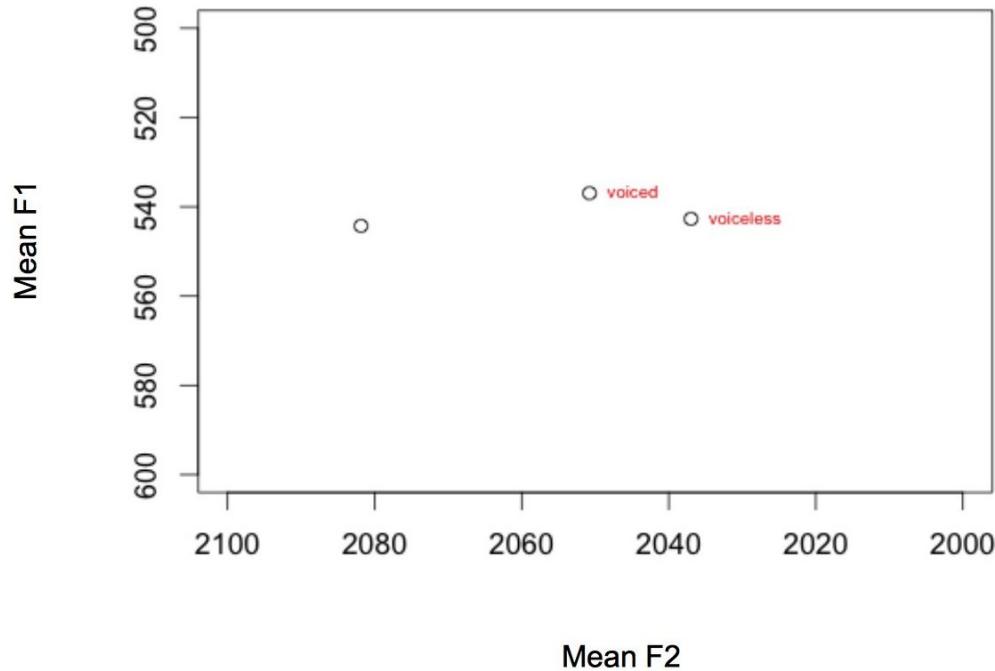
Effects of Preceding Segment on /e/



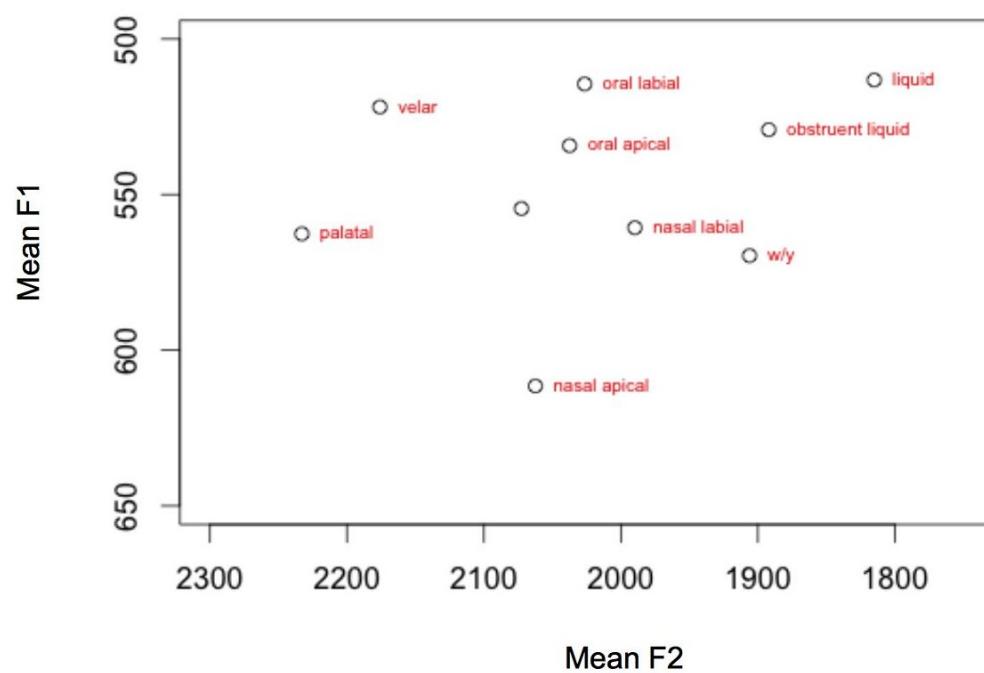
5. Phonological factors affecting /i/

Effects of Following Manner on /i/**Effects of Following Place on /i/**

Effects of Following Voice on /i/

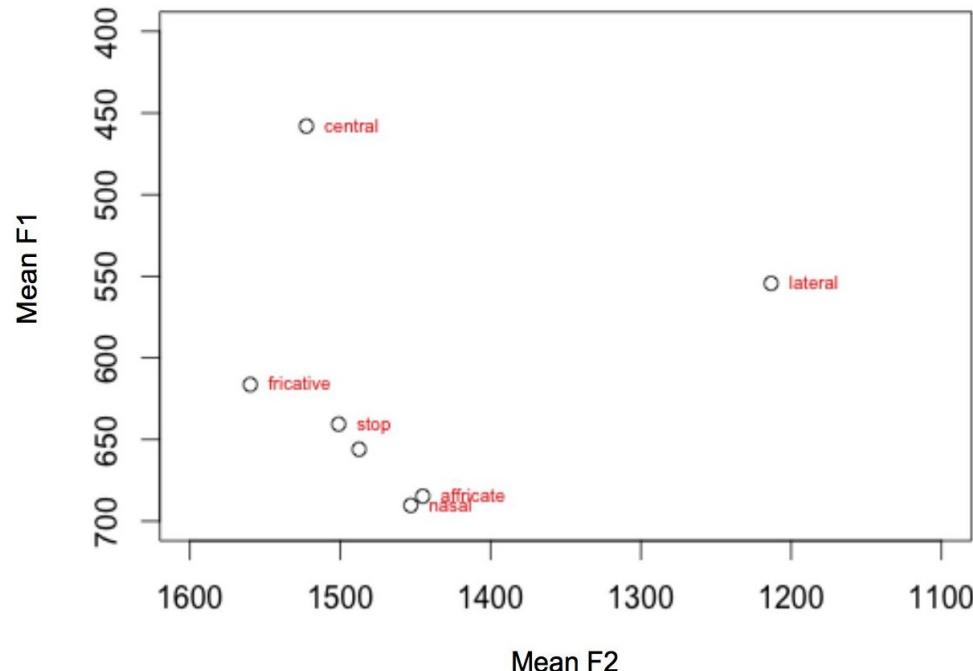


Effects of Preceding Segment on /i/

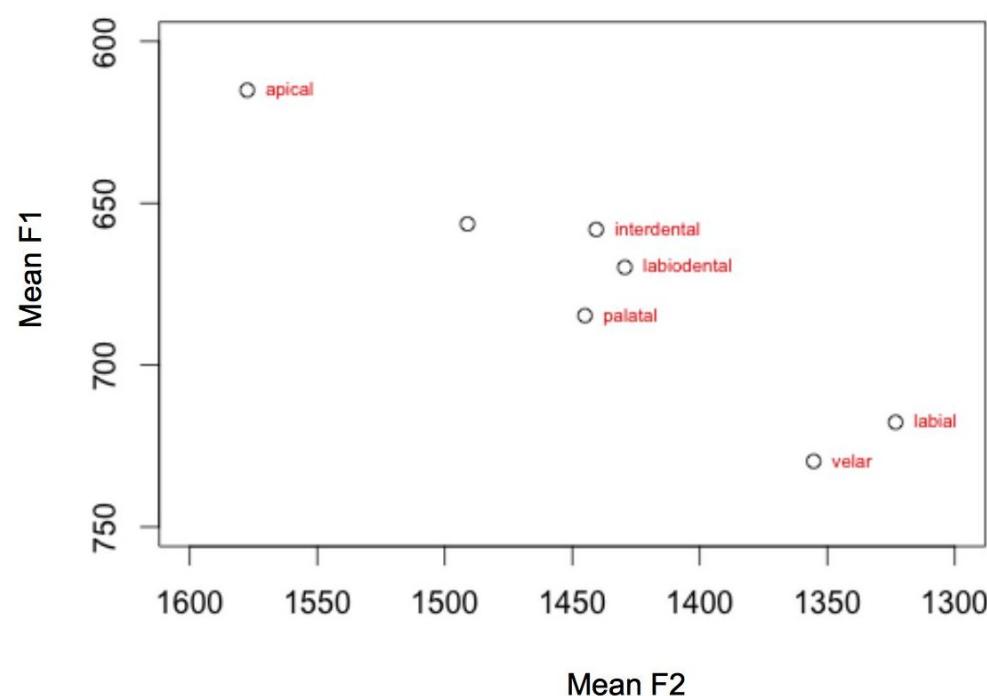


6. Phonological factors affecting /uh/

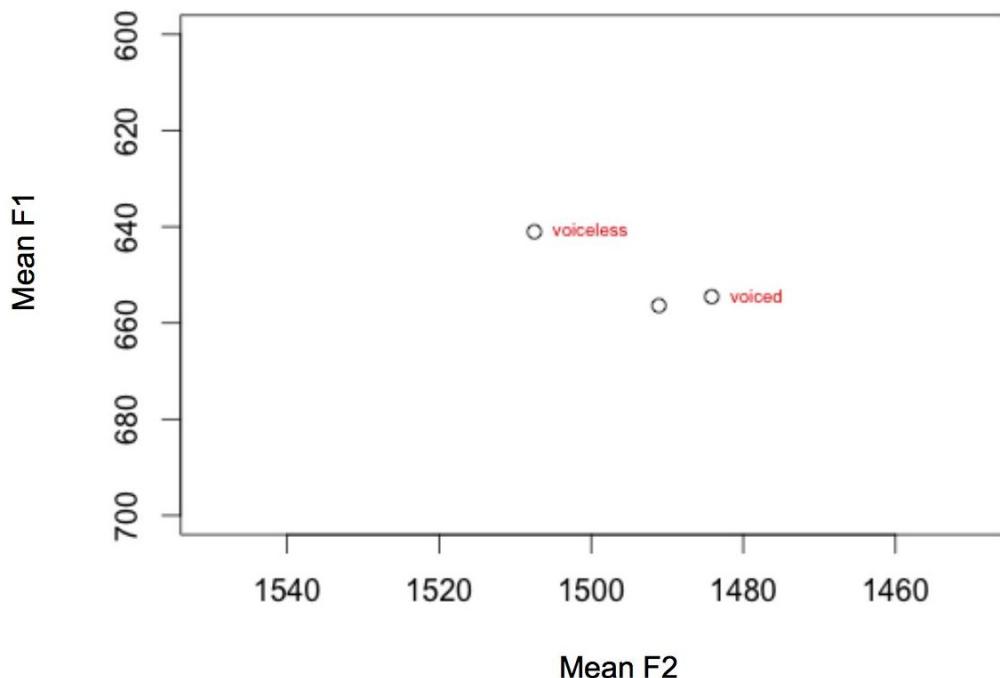
Effects of Following Manner on /uh/



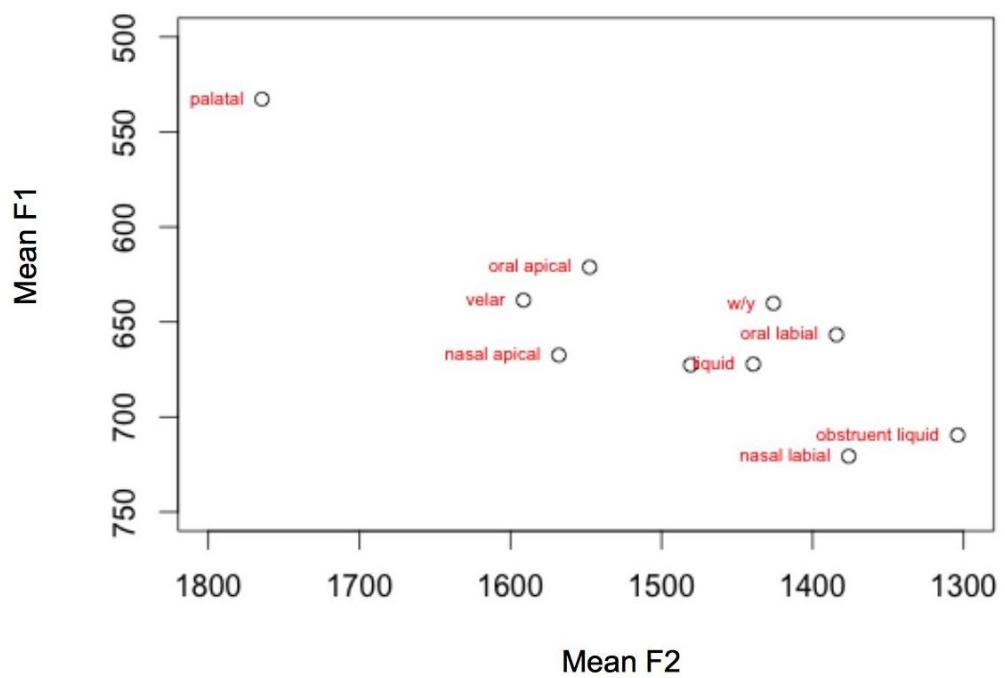
Effects of Following Place on /uh/



Effects of Following Voice on /uh/



Effects of Preceding Segment on /uh/



7. P-Values for Phonological Factors

	/ae/F1	/ae/F2	/o/F1	/o/F2	/oh/F1	/oh/F2	/e/F1	/e/F2	/i/F1	/i/F2	/uh/F1	/uh/F2
Manner	<0.001	<0.001	0.0015	0.0136	<0.001	<0.001	0.0017	<0.001	0.0013	<0.001	<0.001	<0.001
Place	0.1086	0.3415	0.0078	0.4792	0.6288	0.4450	0.3022	0.0111	0.0519	0.2265	<0.001	<0.001
Voicing	<0.001	0.0010	0.1847	0.0387	0.0234	0.1485	0.0083	0.9151	0.2238	0.4201	0.0275	0.6841
PreSeg	0.0243	<0.001	0.0213	<0.001	0.0071	<0.001	<0.001	<0.001	0.0121	<0.001	<0.001	<0.001

Appendix B. Consent Form

The Project

The Holland Life and Language Project is studying patterns of life, language, and style for people in Holland, Michigan. The research team does interviews and recordings. We ask members of the community to share their experiences and give their opinions freely. The recording is an essential part of the project; recordings are saved in an archive and used over for research.

We, The Project Members, Promise:

We won't publish real names or addresses in any Project reports, or give them out to the public.

We'll protect, to the best of our ability, the confidentiality of people interviewed and recorded.

The materials and recordings made as part of the research will be used only for educational or scholarly purposes (not for profit!).

No copies of these recordings or transcripts will be made, and nothing from them will be published, without the consent of the Project Coordinator. If you have questions, please feel free to write her at the above number.

Interviewer: _____

Coordinator: _____

Date: _____

Date: _____

The Person(s) Recorded Agrees:

- ____ It's OK with me if the Project publishes excerpts from recordings with me, in print or on the web, for research purposes -- as long as they protect names, addresses and identifying personal information.
- ____ I understand the researchers aren't doing this for the money, and I'm not asking to be paid either.
- ____ The recording, and any transcript, is the result of a voluntary interview with me. The recording is the primary record; anyone reading a transcript should realize that it comes from my spoken word, which was recorded in confidence.
- ____ If I have other restrictions on the use of this recording I'll make them clear now, so that we can agree on them now; if we can't, I have the right to see the recording deleted.
- ____ I've had a chance to ask questions. I know I can withdraw at any time from the research project, with no penalty and without giving any reasons.

Name(s) of person(s) recorded: _____

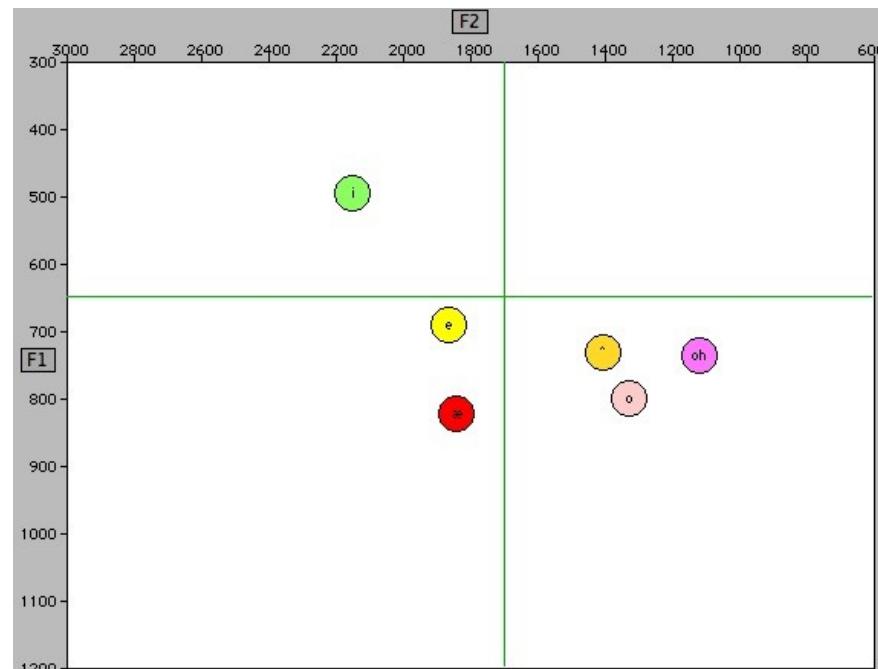
Signed: _____

Date: _____

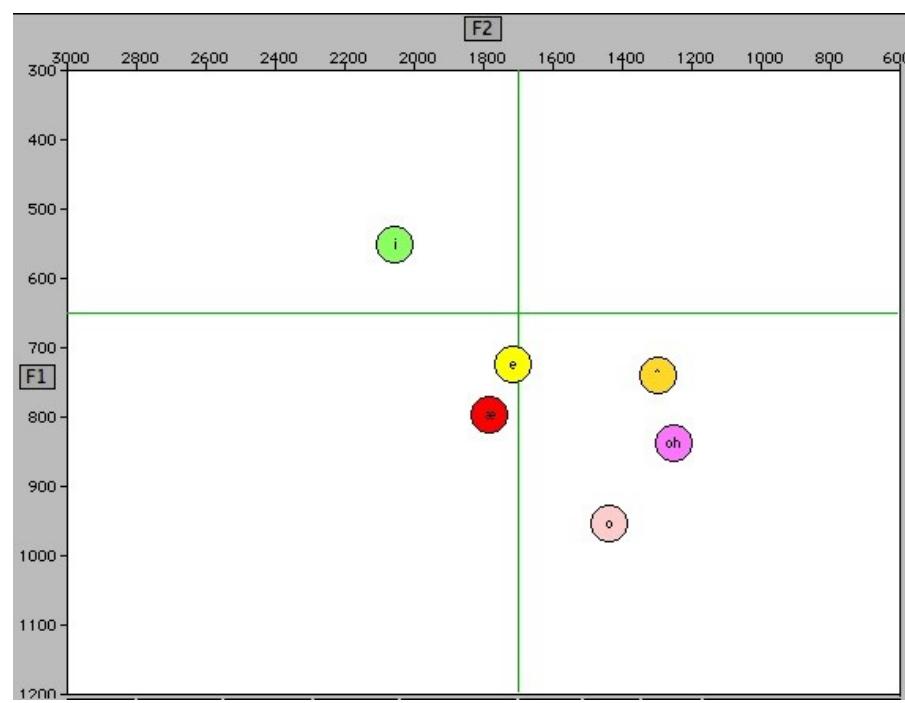
Adapted from Patrick (2012), University of Essex

Appendix C. Vowel Plots by Speaker

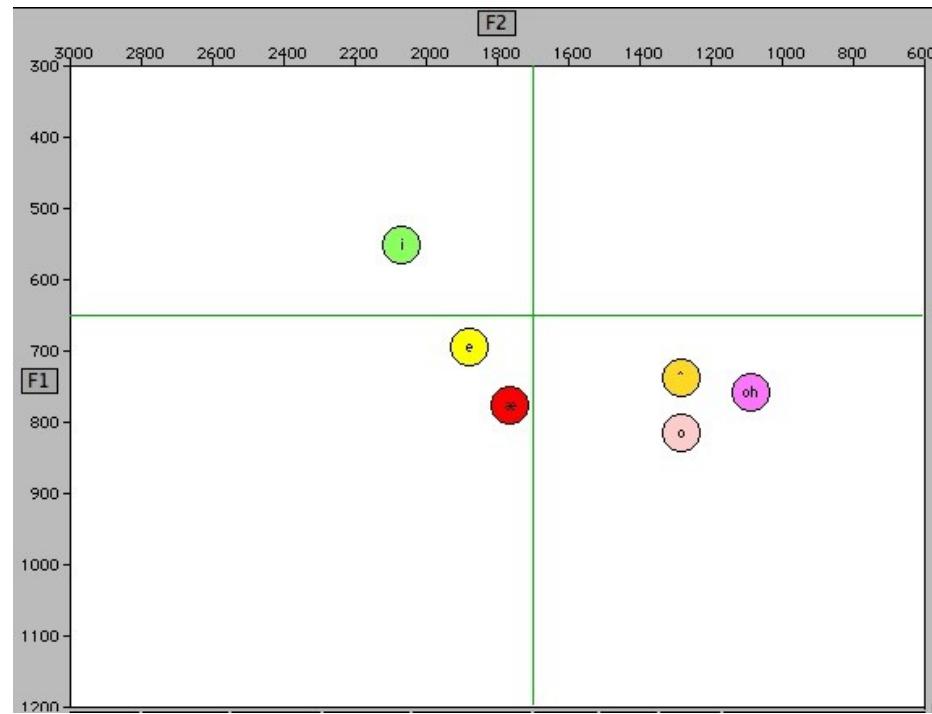
1. Brian



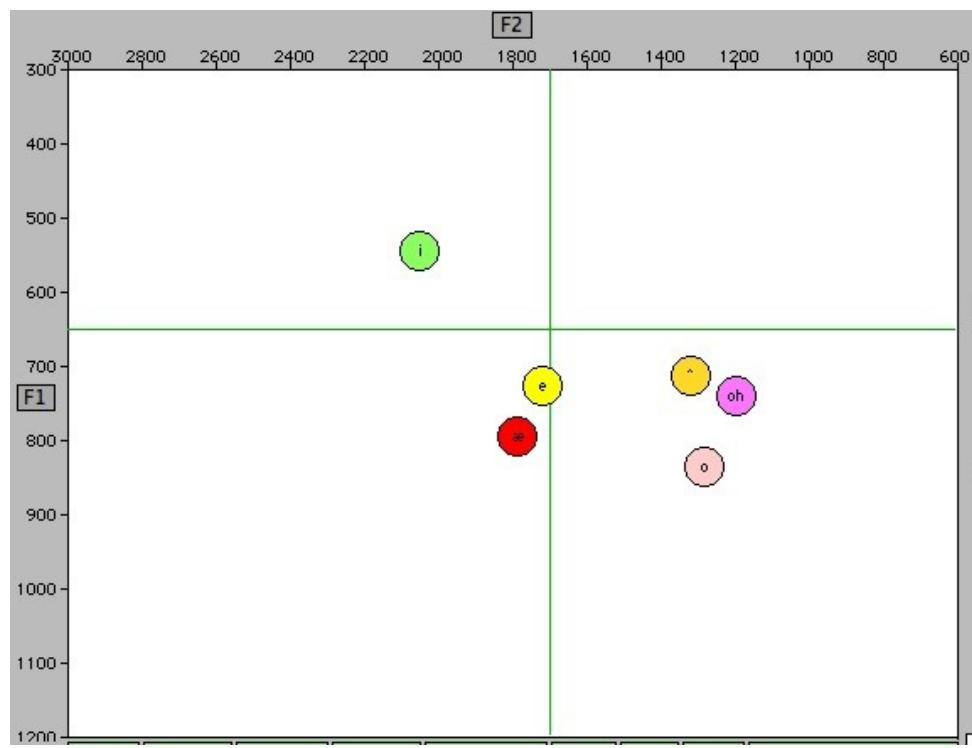
2. Blake



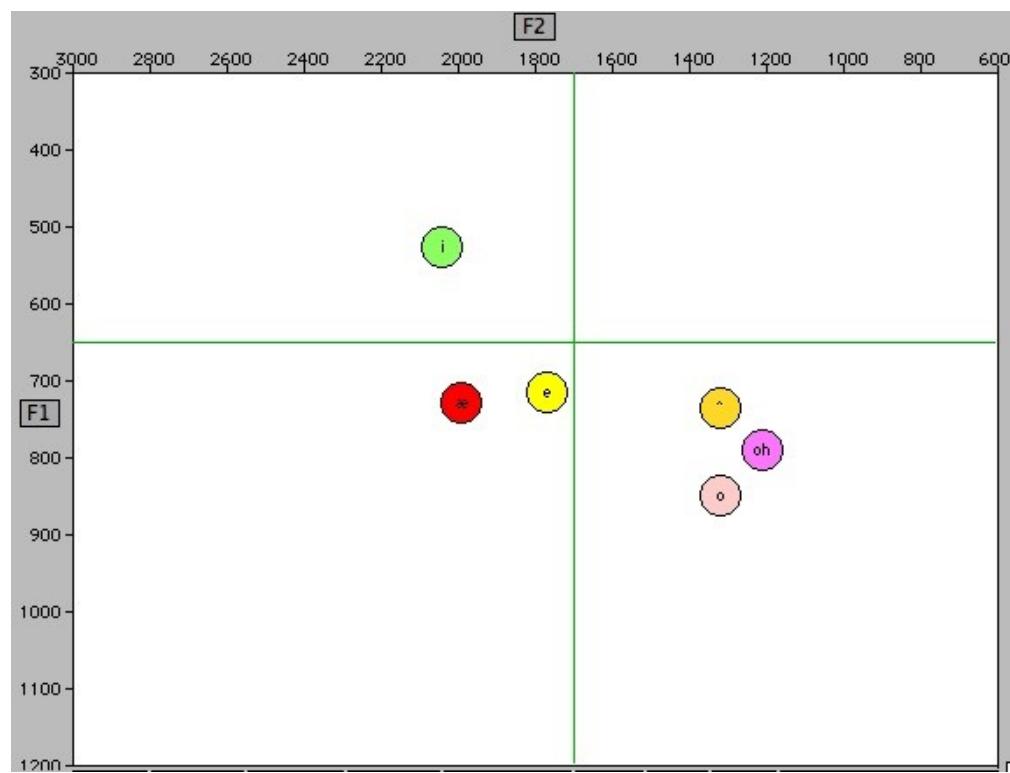
3. Caleb



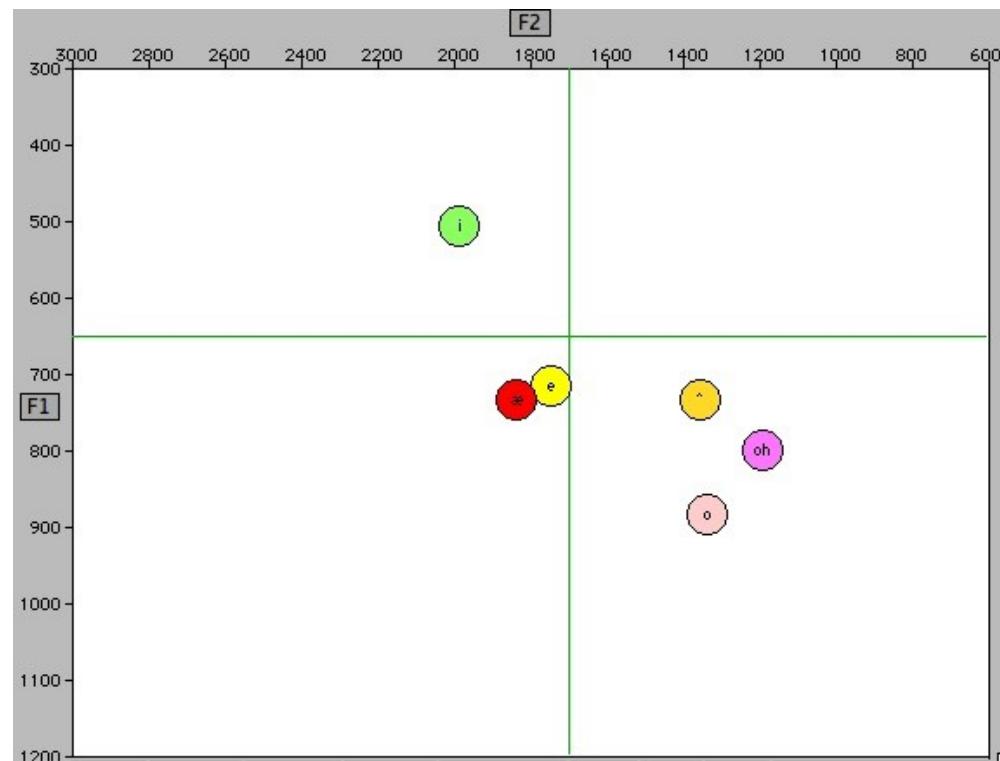
4. Garrett



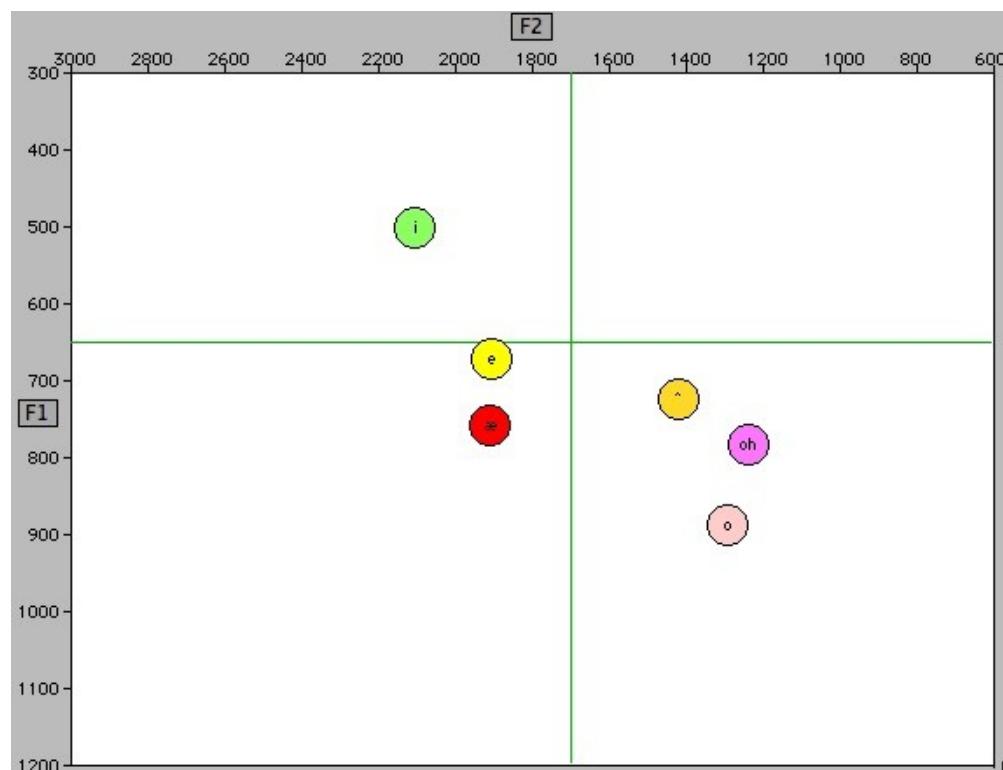
5. Josh



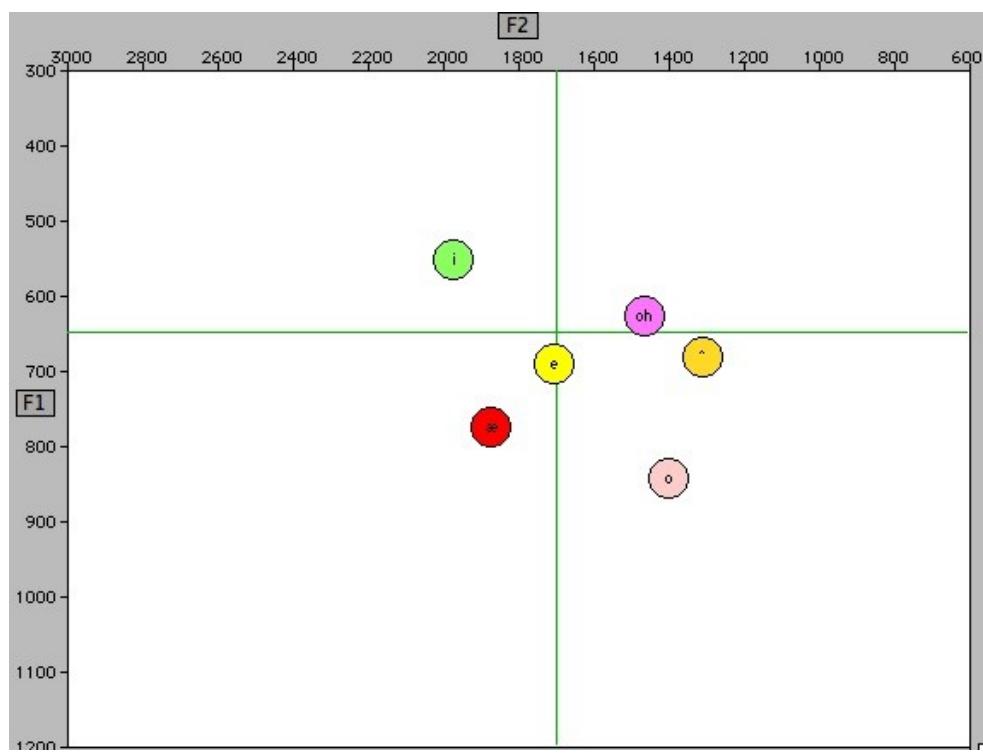
6. Keith



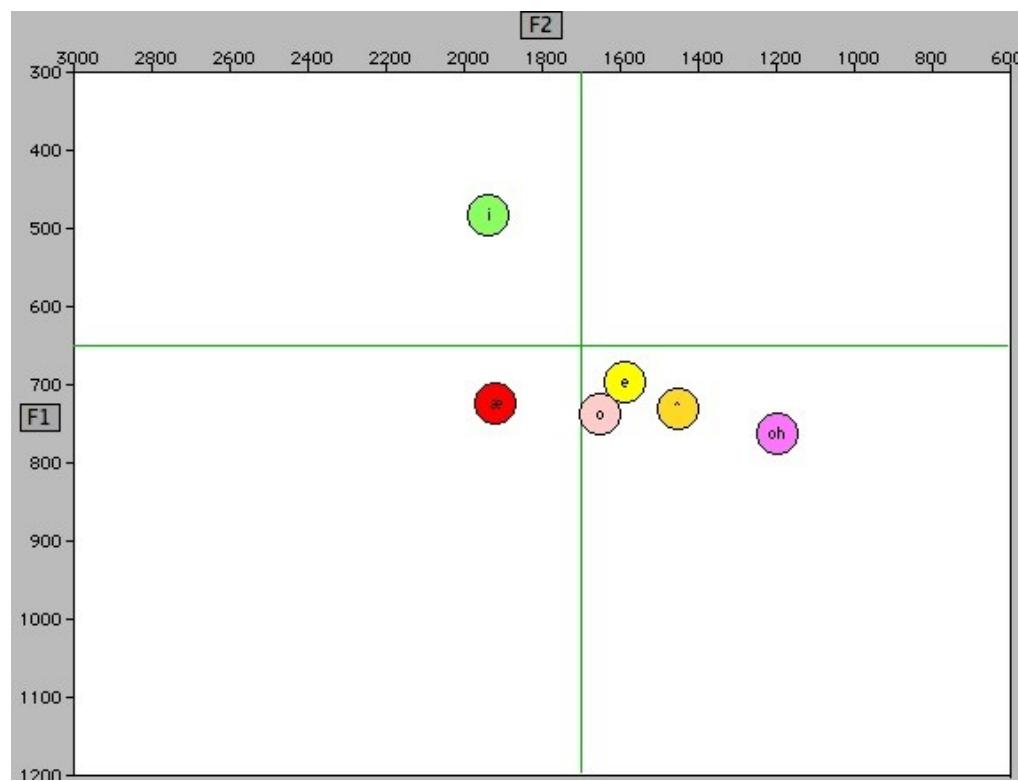
7. Kurt



8. Mark



9. Paul



10. Tanner

