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One Shift, Two Groups: When Fronting Alone Is Not Enough

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1 Introduction

Examining the cultural differences between urban and rural lifestyles is a consideration that is relevant for the description of many speech communities. A sociolinguistic analysis that only surveys urban speakers cannot accurately capture or convey the dialect diversity of a region. This paper argues for a critical distinction between rural and urban speech for the mapping of dialect geographies, and furthermore, for a recognition of the rural lifestyle as reflected through linguistic ideology and subject to variation.

The paper will focus on the fronting of the vowel /uw/ in the speech of European Americans in Northern Arizona. The /uw/-fronting feature is a dominant feature of a new urban vowel shift in the Western states, and is also characteristic of ill-defined national norms of “country” speech. This paper will first show that /uw/-fronting in Northern Arizona English is evidence for the region’s participation in a California-based vowel change, but secondly that /uw/-fronting in Northern Arizona can also be part of a contrasting vocalic system that marks rural lifestyle and rancher identity. Northern Arizona is therefore a site of comparison between two distinct English varieties marked by a shared linguistic variable. Considering the urban/rural distinction as well as analyzing multiple linguistic features is therefore necessary for accuracy in this and any other dialect analysis.

Speakers in this study grew up either in Flagstaff, the largest and fastest-growing city in Northern Arizona, or in nearby localities around Flagstaff, where people live in small towns or ranch communities. The quickly developing urban culture in Northern Arizona reflects new migration from urban California, yet the surrounding rural culture retains elements from an older history of migration from Oklahoma and surrounding states.

Northern Arizona was initially populated (non-indigenously) by the migrant workers who came from the South or the Midwest in the late 1880s to work for the railroad or on cattle ranches. Migration westward into Arizona continued steadily and rose during the Dust Bowl in the 1930s, bringing many migrants into Flagstaff via the Route 66 highway. Today, ranchers, their descendants, and the children of Dust-Bowlers comprise a large portion of the population both in Flagstaff and on the outskirts of town. The rest of the population has arrived later, with most new migrants moving eastward out of California (Corcoran 2003).

Flagstaff had approximately 53,000 residents in the 2000 census,¹ and 78% of its population is European-American. Flagstaff's social diversity is based largely on variation in lifestyle, particularly one's affiliation toward a rural ranching tradition. Thomas (1997) distinguishes a similar "rural/metropolitan" split in Texas, formed as a result of new urban migration into the state. Rapid urban migration is changing the social climate of Texas, Arizona, and many parts of the Southwest, and the urban/rural divide is most likely a salient cultural distinction throughout the region.

As the following data will suggest, speech patterns in Northern Arizona are reflective of a speaker's familial migration history and the subsequent retention of the related culture. The variable of /uw/-fronting, specifically, will be shown to mark participation in both traditional rancher culture and young urbanism. The /uw/-fronting found in rural speech should be attributed to dialect features retained from early migration out of the Oklahoma region, whereas the /uw/-fronting found in urban speakers is due to participation in a general California-based shift. Northern Arizona is therefore a site of convergence between two varieties of English that seemingly share one marked linguistic variable which stems from two contrastive sources. While the situation highlights the dangerous problem in mistaking a single linguistic variable as having a unified representation, the data also give evidence for distinguishing two co-occurring speech varieties. The convergence in Northern Arizona allows for an understanding of those urban speakers whose speech is indicative of a shared identity with the rural speakers. The age distribution data for the urban speakers and the comparative data from the rural speakers together provide evidence for distinguishing a speaker's dialect based on his/her urban/rural ideology.

2 Methods

This study aimed to follow the conventions of acoustic work in dialectology by examining the vowel formants of monosyllabic, stressed words obtained from sociolinguistic interviews with 37 speakers.² 30 of the speakers in this

¹U.S. Census Bureau; "Census 2000 Redistricting Data (Public Law 94-171) Summary File" Date accessed September 23, 2003. <http://factfinder.census.gov/bf/_lang=en_vt_name=DEC_2000_PL_U_QTPL_geo_id=16000US0423620.html>.

²See, e.g. Labov, Yaeger, & Steiner (1972). All the speakers in this study were residents of Flagstaff or living within a half-hour radius of Flagstaff at the time of the interview. All the speakers had also lived in Flagstaff since age 7 or prior, although they varied in the amount of time spent living outside of Northern Arizona. All the speakers of the current study were native speakers of English, mostly monolingual,

paper are considered urban, and the other 7 are considered rural or what I labeled 'rural-affiliated' (5). The urban speakers varied from ages 18 to 75, with 13 females and 17 males. The 7 rural speakers were ages 43-75, all male, and importantly have varying levels of affiliation to rancher culture.³

Vowel data was coded following the conventions of the *Plotnik* program.⁴ Data was collected for each speaker from five occurrences of {iy, ey, o/oh/ah, æw}, ten occurrences of {æ, ow, uw} and five additional occurrences of and /uw/ and /ow/ before /r/ and /l/ (because liquids lower the F2 of /uw/ and prevent fronting; see Luthin 1987). In the present paper, only the data for /uw/ versus /iy/ and pre-liquid /uw/ will be discussed in detail.

A speaker's back vowels were judged as being "fronted" based on how closely the F2 values of those vowels approached the average F2 values of the speaker's stable front vowels. Specifically, a token of /uw/ was considered fronted if the difference in F2 values between that token and the pre-liquid /uw/ average was a significant percentage of the difference between the average F2 values of that speaker's /iy/ tokens and the pre-liquid /uw/ tokens.

and all European-American. I interviewed the speakers for 30 to 45 minutes each. Word lists were also recorded, at the close of the interview, but the only data from these tokens used in the analysis were for instances of /uwl/, which occurred rarely in the interview speech.

³Speakers were contacted by snowball method. Interviews were conducted at the speakers' home or in a quiet public space. Questions asked focused on local issues and the speaker's life in Arizona. Recordings of the interviews were made on either a digital mini-disc recorder [*Sharp MDSR60S mini-disc player/recorder*] or a digital wave recorder [*Olympus W-10 handheld voice recorder*]. The interviews were then transferred to digital wave files and analyzed on Praat [<http://www.fon.hum.uva.nl/praat/>].

⁴Words were chosen from the interviews for analysis based on syllabicity, stress, and phonological environment. F1 and F2 measurements were made for all vowels at least 50 milliseconds past the onset or in the middle of the steady state, and again at the offset if the vowel was a diphthong (see Thomas 2002). Each vowel was coded for F1, F2, duration, stress, consonantal environment, and the conversation topic in which the word occurred. All vowel space figures in this paper were created on PLOTNIK, which was developed by William Labov in 1992 (and is continuously updated), and can be obtained through the United States Regional Survey, Linguistics Laboratory, University of Pennsylvania, 3550 Market Street Suite 201, Philadelphia, PA 19104. It is currently only available for Macintosh. See also: <<http://www.ling.upenn.edu/~wlabov/Plotnik.html>>

3 Results: Urban

3.1 Typical Young Urban Speaker

Studies have shown that the Western US is an area of back-vowel fronting (Hinton et al. 1987; Luthin 1987; Di Paolo & Faber 1990; Hagiwara 1997; Conn 2000; Hall-Lew & Yaeger-Dror 2002; Eckert & Staum 2003; Ward 2003). In addition, a few studies in California have noted the raising of /æ/ before nasals (Hinton et al. 1987; Eckert & Staum 2003). Evidence from the speech of urban Northern Arizonans shows the presence of both of these vowel changes and supports the claim that speakers in this study are fronting /uw/ because of participation in a new Western shift.

Figure 1 is the vowel space of Mandy,⁵ who was born in 1975 has lived in Flagstaff since she was 18 months old. Mandy's speech exemplifies the emerging Western sound changes that align the Northern Arizona townspeople with the speakers of other cities in the West (e.g. Hagiwara 1997). Most significantly, Mandy's /uw/ is realized with high F2 values. All of Mandy's /uw/ tokens are fronted regardless of the presence or absence of a preceding coronal, indicating that the sound change is not simply an effect of consonant environment (methodological precautions should also support this claim). In addition, all of Mandy's /uw/ tokens which precede /l/ are expectedly produced with a very low F2 and mark the back boundary of Mandy's vowel space, and are therefore the point from which the fronting of /uw/ can be compared.

The difference in the average F2 values of Mandy's /iy/ and /uw/ productions is 1658 Hz. Her /uw/ tokens are fronted on average 58% of this F2 distance, with her most-fronted token fronted 92%, at 2481 Hz, and her least-fronted token fronted 35%, at 1538 Hz. Much of the large spread of F2 values for Mandy's /uw/ tokens is probably due to the newness of the sound change and the previously documented (Stevens & House 1963) greater tendency for /uw/ to front when following a coronal than in other phonological environments, as is seen here. As a further note, Mandy's /uw/-fronting is not the most robust example among the Flagstaff speakers, and there are half a dozen more speakers who front /uw/ even further than she does. Nevertheless, all of Mandy's /uw/ tokens which are not in pre-liquid environments are quite fronted and indicate a robust sound change.

⁵All names are pseudonyms.

3.2 Sex, Age, and Social Class

Differences in /uw/-fronting between male and female speakers are rather slight, especially for the younger speakers. When there are differences, the men appear to participate in the described vowel changes with less consistency or to a lesser extent. However, sex differences generally do not appear significant.

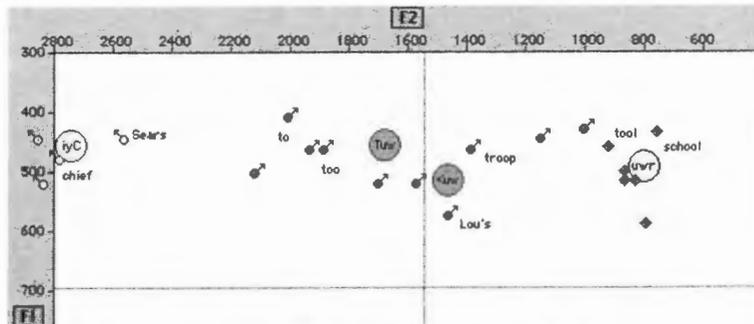


Figure 2: Jill, urban female born in 1948

The most important social factor with regard to urban Western vowel movement is the age of the speaker. Take, for example, the speech of Jill, a middle class female born in 1948, whose vowel space is shown in Figure 2. The difference between Jill's average /iy/ F2 value and her average /uw/ value is 1947 Hz. Her /uw/ tokens are fronted on average 40% of this F2 distance, with her most fronted /uw/ at 65% of this distance and her least fronted /uw/ at only 8%. Each of these differences indicates that Jill produces less fronted /uw/ than does Mandy, and that some of Jill's realizations of /uw/ are not even fronted at all, in contrast to the categorical fronting of Mandy's /uw/ productions. Cross-speaker comparisons indicate that, while urban speakers over 50 years old are participating in the Western vowel shift, younger speakers exhibit a more consistent and extreme realization of the shift than do older speakers. These findings are consistent with and can be taken to indicate a sound change in progress (Labov 1994).

Some of the older speakers appear not to be participating in the sound changes at all. Figure 3 shows the vowel space of Patrick, who is very close to Jill's age. Initially apparent is that Patrick's vowel space is smaller than Jill's or Mandy's. Despite this, it is also apparent that Patrick's productions of /uw/ are not fronted. The difference between Patrick's /iy/ average F2 value and his /uw/ average is 1197 Hz. His /uw/ tokens are only fronted on

average 9.5% of this F2 distance, with his most fronted /uw/ at 33% of this distance and his least fronted /uw/ actually at -3%, meaning that it was produced even further back than some of the pre-liquid /uw/ tokens.

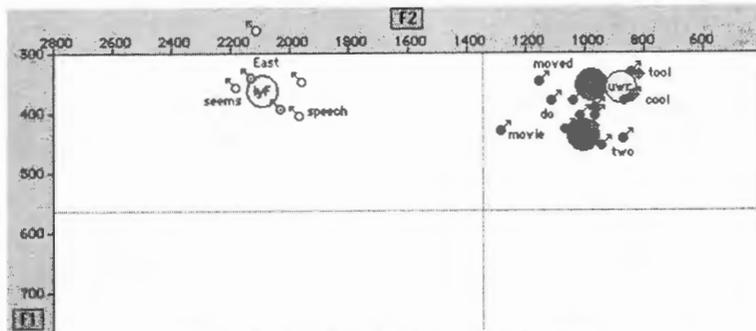


Figure 3: Patrick, urban male born in 1946

Patrick's extremely low percentages of fronting are in stark contrast to Mandy and even Jill and indicate no significant fronting of /uw/. Although not shown in Figure 3, the data show that Patrick is furthermore not participating in the movement of /ow/ or /æ/, and therefore, unlike other men only slightly younger than himself, is not participating in the Western sound change at all. Since the vowel productions of the very young men were only marginally different from Mandy's, it is apparent that age is the most significant factor in a speaker's realization of this sound change.

Traditional notions of social class are inadequate for the speech communities of the Southwest. For the urban speakers in Northern Arizona (and other parts of the West; see Ward 2003), members of varying socioeconomic classes are highly integrated, attending the same schools, the same places of worship, and generally the same places of leisure. Lines between neighborhoods of varying property values are not always clear. However, for the rural speakers, there can be strong class divisions between those who own and those who work the land. Many of the older, male townspeople interviewed in this study are not actively working on a ranch, but are affiliated with ranching either by genealogy, property ownership, and/or weekend leisure activities. Reasons of heritage place some of these speakers in a somewhat aristocratic social class relative to the majority of Flagstaff. In contrast, the two ranchers in this study are part of a working class precisely because they live and work the ranch that they own, as opposed to living in the city and hiring workers. Therefore, there is a paradox that makes pure class-comparison impossible: generally speaking, in the ranching culture, the more

a person is connected to the ranching lifestyle, the lower that person's class. Questions of socioeconomic class (SEC) are therefore complicated by the overlapping connections in Arizona between a speaker's SEC and their affiliation with rural rancher culture, discussed in Section 4. Traditional conceptions of social class are therefore inappropriate for this sample.

What this study does find, however, is that rural speech features, presented in Section 4, are more salient in the ranchers, less in the pseudo-ranchers, and absent in the townspeople. Since this trend holds regardless of socioeconomic class, the important social variable is probably a question of lifestyle and not a question of class.

4 Results: Rural

The situation of /uw/-fronting (along with /ow/-fronting and /æ/-raising) in Northern Arizona is most likely due to participation in the change-in-progress documented in California, Oregon, and Utah. These results, however, are only relevant to those urban speakers who do not identify with the local rancher culture.

When the data is examined by age, across male speakers, the most important characteristic of Northern Arizona English appears to be the distinction between rural culture and urban culture. In contrast with Patrick's speech are the vowels from Clyde and Billy, two rural males born in 1930 and 1932, respectively. Both men have worked on neighboring cattle ranches, just outside of Flagstaff, for their entire lives. Figure 4 shows Clyde's vowel space, and Figure 5 shows Billy's.

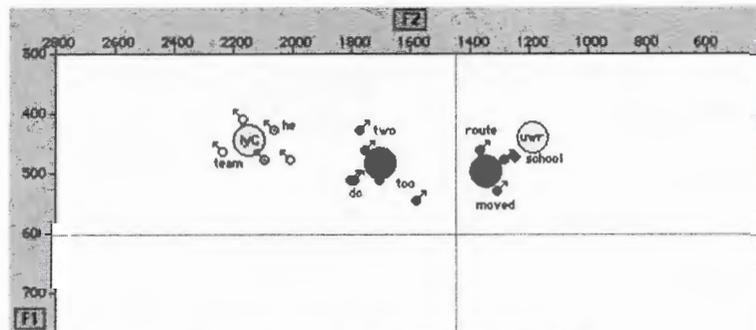


Figure 4: Clyde, rural male born in 1930

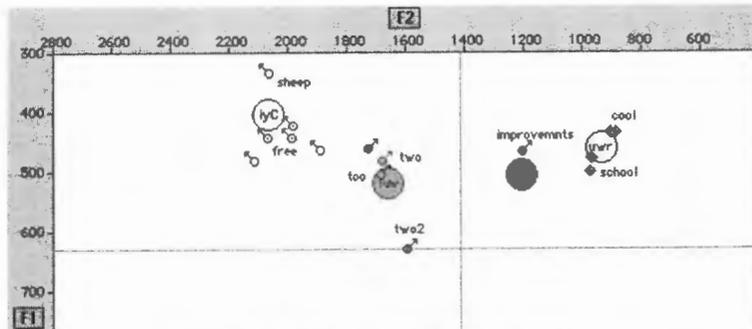


Figure 5: Billy, rural male born in 1932

Unlike Patrick, Clyde and Billy have fronted /uw/s. The difference between Clyde's /iy/ average F2 value and his /uw/ average is only 875 Hz, but his /uw/ tokens are fronted on average 41% of this F2 distance. The difference between Billy's /iy/ average F2 value and his /uw/ average is 1093 Hz, and his /uw/ tokens are fronted on average a substantial 67% of that F2 distance. These percentages position the ranchers in sharp contrast to their urban counterparts, males in their same age group.

It appears that, while some older urban males do not produce fronted /uw/, the older rural males do front their productions of /uw/. However, the speech of these elderly cowboys is not a part of the urban Western shift. First, the data show that they do not front /ow/ or raise /æ/. In addition, their speech is marked by phonological features beyond the scope of the current paper. These include the apparent deletion of unstressed syllables (e.g., "in the summer 'bout ever' day"), the use of alveolar /n/ in place of the word-final velar /ŋ/, and monophthongized /ai/. From these data, and not vowel data alone, it is suggestive that native Northern Arizonans who are affiliated with rancher culture use a variety of English which is aligned to other US rural communities and distinct from the speech of urban Northern Arizonans.

Most importantly, this speech style is not confined to rural Arizona but is present to one degree or another in the speech of the townspeople who identify with rural culture. These individuals live in the urban Flagstaff setting but share a migration history with the rural speakers and, crucially, share a current cultural affiliation with rancher culture. In addition, they exhibit a high level of /uw/-fronting that the age distribution data for the Western vowel shift would not predict.

For example, Figure 6 shows productions of /uw/ tokens by Gary (born in 1928). The difference between Gary's /iy/ average F2 value and his /uw/ average is 1205 Hz. His /uw/ tokens are fronted on average 47% of this F2

distance, with his most fronted /uw/ at 69% of this distance and his least fronted /uw/ at 11%. Gary shows fronted /uw/ in a similar pattern to the speech of Clyde and Billy and dissimilar from the speech of Patrick. His irregular patterning according to the urban age distribution is explained by his participation in a rural speech style.

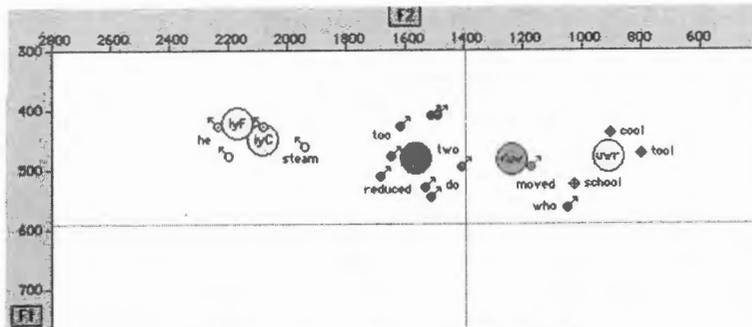


Figure 6: Gary, urban male born in 1928

Gary is a retired insurance salesman who lives in Flagstaff. He is related to the wealthiest ranching family in Arizona, a family that owned and still owns the majority of the ranching lands in Northern Arizona. His father moved to Arizona from Iowa in 1912. Although Gary has hired ranch hands to manage the land, and although his occupation was urban based, he still maintains ties to the rural culture—for example, one of the ranch managers is also one of his best friends. Flagstaff's recent rapid urban growth also means that all of the very oldest speakers in the area grew up before the town could even be considered urban, in other words, before the more recent migration from California began. Therefore, many if not all of the large, wealthy, established families in the area came from ranching culture. These oldest speakers then, like Gary, are more likely to be affiliated with rural culture than speakers a decade or so younger.

Of course, not all of the older males living in the city and affiliated with ranching are Gary's age. Some share a cultural connection more actively, such as owning and riding horses and teaching their children to participate in rodeo, barrel racing, and the raising of animals for county fairs. Many of these urban speakers with rancher affiliation recall having been mistaken for a person from Texas or "the South" based on the way that they speak.

Of the twelve urban males who were born before 1960, ten speakers show some fronting of /uw/, and six of these ten exhibit /uw/-fronting beyond their expected generational pattern. An understanding of each of these

six speakers' connection to rancher culture significantly clarifies the data. This suggests that speakers in Flagstaff may vary in their participation in urban and rural lifestyles, and that this has implications for how they speak.

5 Conclusion

Urban Northern Arizona is participating in the vowel shifting pattern that appears to typify the Western United States: the fronting of back vowels /uw/ and /ow/ the raising of /æ/ before nasals. But this is not evidence for a monolithic sound change that includes all speakers. In fact, speakers who front back vowels are presumed to be doing so for one of two reasons: either they are participating in the aforementioned change characteristic of the urban West, or they are participating in a rural speech style which may have implications for national norms of poorly-defined "country-talk." The sociolinguistic definition of national "country talk" is a vital question to consider in the future of American dialect research.

The distinction between urban versus rural culture is salient for Northern Arizonan social networks and, therefore, its speech patterns. Thomas (1997) describes "the creation of dialect islands in Texas where the large metropolitan centers lie," and a similar phenomenon is developing for Arizona as Californians migrate out of California. Research in the Tucson and Phoenix metropolitan areas would shed light on the possible formation of "dialect islands." Further research should also include more interviews in rural communities, particularly of women and youth (e.g. Thomas 1997). The most immediate implications for future directions come from those speakers who seem to live on the rural/urban borders both in terms of social-group affiliation and linguistic variation. These are speakers who don't fit neatly into a rancher group or a townspeople group, and the vowel patterns of these speakers may in fact be the best place to look for indicators of dialect convergence. For the time being, urban Northern Arizona English is developing in increasing contrast to the traditional, local, rural way of speaking and in increased similarity to the urban varieties of California and Oregon. Northern Arizona is a sort of transition zone where community affiliation and geographical location visibly overlap. The implications for other Southwestern and national communities remain to be seen.

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