

TITLE

Sarah Palin's Speech and Upper Midwestern English

RUNNING HEAD

Sarah Palin's Speech and Upper Midwestern English

AUTHORS

Thomas Purnell, Eric Raimy and Joseph Salmons
University of Wisconsin–Madison

CONTACT INFORMATION

Thomas Purnell	Eric Raimy	Joseph Salmons
Assistant Professor	Assistant Professor	Director
Department of Linguistics	Department of English	Center for the Study of
Univ of WI-Madison	Univ of WI-Madison	Upper Midwestern Cultures
1168 Van Hise Hall	7187 Helen C. White Hall,	Univ of WI-Madison
1220 Linden Drive	600 N. Park Street	901 University Bay Dr.
Madison, WI 53706	Madison, WI 53706	Madison, WI 53706
tcpurnell@wisc.edu	raimy@wisc.edu	jsalmons@wisc.edu
(608) 265-3080	(608) 263-6870	(608) 262-2192

WORD COUNT

5,546 (not including references, abstract or title page)

ACKNOWLEDGEMENTS

We thank the following for comments and discussions on this topics and suggestions on an earlier version of this manuscript: Matt Bauer, James Crippen, Marianna Di Paolo, Greg Iverson, Rosina Lippi-Green, Monica Macaulay, and Dennis Preston. All the usual disclaimers apply.

Sarah Palin's Speech and Upper Midwestern English

ABSTRACT

The speech patterns of Republican Vice Presidential candidate Sarah Palin have been the subject of much commentary by linguists, members of the media, and laypeople. We present here the first systematic investigation of those patterns, drawing on her debate with Senator Joseph Biden. We begin by noting some pragmatic / discourse features and provide a quantitative treatment of her 'g-dropping', then offer observations on vowel acoustics and final /z/ devoicing that, taken together, help create an impression of her speech as Upper Midwestern. We then place those findings into the context of settlement history of Wasilla, Alaska, where Palin grew up, and the literature on 'new dialect formation'. We conclude with remarks on how and why her speech is perceived often as Upper Midwestern.

Keywords: American dialects, style / register, sociolinguistic variation, sociophonetics, koinéization, dialect perceptions

Sarah Palin's Speech and Upper Midwestern English

While political events regularly trigger discussions of language and dialect, the choice of Alaska Governor Sarah Palin as John McCain's running mate in the 2008 presidential race stands out for the sheer amount of press it has generated in a very short time. Specialists and laypeople alike have been puzzled and confounded by her accent and speech habits, particularly the impression that she sounds 'Upper Midwestern' rather than Alaskan. In a matter of weeks, a pantheon of notable American linguists, sociolinguists and lexicographers has weighed in on the topic: William Labov on National Public Radio,¹ Steven Pinker in the *New York Times* and Jesse Sheidlower on Slate, the last including numerous insightful comments from Rosina Lippi-Green and James Crippen. In addition, two linguistics blogs, Mr. Verb and Language Log, have devoted numerous posts to the topic. Still, the overall picture has not yet been laid out fully and coherently. This article aims to provide more of that context, including both quantitative sociolinguistic and acoustic phonetic evidence, and we seek to contextualize her speech within issues of dialect formation. Our distinct perspective on this comes from being members of the Wisconsin Englishes Project, where we are exploring Upper Midwestern speech in its many forms and probing its complex origins.²

Much attention to Palin's speech has focused on regional differences, (e.g. comments by Labov, Sheidlower and others on 'Alaskan accents'), but as we argue here social factors and historical considerations connect with regional features fundamentally. We draw our examples almost entirely from Palin's Vice Presidential debate with Senator Joseph Biden, held on October 2, 2008 in St. Louis, moderated by Gwen Ifill. We used the audio and transcript available on the *New York Times website*.

The paper is structured as follows. First, we present quantitative data on two salient and socially value-laden characteristics of her speech. We first briefly note her use of euphemisms like *darn* and related issues. We then take up in more detail her so-called g-dropping, use of a coronal nasal for velar nasal in verbal and deverbal *-ing* forms. This is followed by a brief description of characteristic features that reflect

¹ Instead of URLs, we have inserted links into the electronic copy, signaled by underlining in the text.

² Although the 'Upper Midwest' can include North Dakota, South Dakota, Iowa, and areas beyond, the term in the particular context of this paper more narrowly refers to Minnesota, Wisconsin and the Upper Peninsula of Michigan.

western and northwestern speech generally. After this, we provide acoustic analysis of features that we believe create the impression of an Upper Midwestern accent and point to an understanding of how those features likely found their way into Alaskan speech.³ We conclude with remarks on how this has forged Americans' perceptions of her speech.

Sarah Palin and Social Dimensions of her Vice Presidential Debate Register

Palin's speech has been taken to be strikingly informal, even during the Vice Presidential debate.⁴ In the debate, for example, she uses *gramma* (more or less [g.ræmə]) rather than *grandmother* or some fuller form. She also proffered a *shout out* to a third-grade class in Alaska, and referred to Senator Barack Obama simply as 'Barack' — someone, to our knowledge, she had not met in person.

More striking evidence comes from pragmatics and discourse, such as Palin's use of euphemistic forms like *heck*, *darn*, and *doggone*. In the debate, Palin uses two instances each of *darn* and *heck* in the course of about 7,640 total words, based on the *NYT* transcript of her segments of the debate. The perception of this behavior is that Palin is faux-swearing up a storm. Understanding this mismatch between language behavior and our perception of it starts with facts about how often we actually do hear *heck* and *darn*. According to the Corpus of Contemporary American English (COCA, searched October 2008), the frequency of *heck* is 13.1 per million words in spoken usage (where it is most common), and it shows 2,836 occurrences in the over 385,000,000 words across all text types. *Darn* occurs 5.7 times per million words in spoken usage, and 1,228 times *in toto*. By comparison, Palin's usage of both, extrapolating from the debate, would be 261.8 occurrences per million words. These rates are low, obviously, but 20 and 46 times higher than the frequency in COCA.

A last observation is that Palin's broader pragmatic and discourse marking patterns (e.g. *you betcha*) and paralinguistic behaviors (e.g. winks) further support the signs of informality she projects. These aspects of her performance strengthen and

³ As will be clear from the foregoing description, we are interested in this short paper in structural linguistic issues in social and historical context, and we do not delve into matters of the construction of identity more beyond the minimum immediately required for our task.

⁴ Such impressions have come from conversations with colleagues and others, but can also be found in the media. See below for one example.

reinforce our impression of her actual linguistic behavior during the Vice Presidential debate.

Palin's pronunciation has left an equally strong impression of informality. This may be motivated in part by her occasional use of widely stigmatized features like prefixal rhotic-vowel metathesis in *p[ɜ]duce* for *produce* (again, an example drawn from the debate). But the most salient social/stylistic feature of Palin's speech is her use of [ɪn] rather than [ɪŋ] in the progressive *-ing*. Palin used this feature in the debate (see (1)), and it is no surprise that Tina Fey on Saturday Night Live (Oct. 4) and Maureen Dowd in the *New York Times* (Oct. 5) expressly satirized that trait immediately thereafter.

- (1a) takin' personal responsibility
- (1b) people are hurtin'
- (1c) where you're goin'

Before examining Palin's *-ing* variants more closely, let us review some linguistic and historical facts. First, while we retain the familiar name for the phenomenon, there is no phonetic [g] to 'drop' in *-ing* forms for most English speakers, rather a simple difference in place of articulation, with [ŋ] produced at the soft palate and [n] at or near the alveolar ridge. Historically, as most readers of this journal will know, present participles in English were formed with *-inde* suffixes, which have become [ɪn] with the reduction of word endings that typify the language. Modern *-ing* comes from a suffix *-ing ~ -ung* that formed abstract nouns, often from verbs, such as Old English *scōting* 'shooting' from *scēoton* 'to shoot' (Campbell 1959).⁵ In this instance, as often happens in standardization, grammarians have decreed that usage should follow a basically ahistorical pattern by promoting the nominal form and, in this instance, they carried the day to an extent.

Quantitative analysis of all Palin's tokens from the debate confirms that she does g-drop more broadly than those few isolated instances. Still, counting all verbal and deverbal *-ing* forms, Palin only g-drops about a quarter of the time, as shown in Table 1 below, where many have the impression that Palin does it far more consistently. But

⁵ This morphological division parallels the patterns of Modern German, with present participles in *-end* and abstract deverbal nouns in *-ung*, like *sprechend* 'speaking' and *Besprechung* 'discussion'.

within that set of forms with the coronal variant, we find that the majority of them — 40 of 65 total — are reduced forms of the future auxiliary *going (to)*, where she varies between *goin' to* and *gonna* realizations. These reduced forms are widely used in even formal speech, and captured in the familiar spelling *gonna*.⁶

Table 1
Sarah Palin's g-dropping in the Vice Presidential debate⁷

	Velar	Coronal	% 'dropping'
Auxiliary <i>going</i>	2	40	95.2%
All other	187	25	11.8%
Total:	189	65	25.6%

Of the 25 coronal, non-auxiliary forms, none were nominal forms of the type *federal funding*, *government spending* or *the building*, which reflect historical *-ing* patterns. Moreover, all were very high frequency lexical items, like *taking* (2 of 2 occurrences), *bringing* (2 of 3 tokens), *looking* (3 of 4 tokens), as well as *saying*, *doing*, *being*, and *getting*. The only exception to this pattern is *craving*, which she happens to use twice. That suggests an additional systematic aspect to her behavior: Palin's g-dropping is pervasive in the future auxiliary, widespread in highly frequent verbs and basically absent in more formal-register vocabulary.

For comparison, we checked two stretches of Senator Joseph Biden's usage during the debate, his first contributions up to 9:46 minutes into the debate and a randomly selected stretch from about 41:22 to 48:35. In the first passage, of 21 tokens, Biden used the coronal variant twice, both times in the future auxiliary. In the second, he used 23, with the coronal variant three times, all again with the future. Biden does not, in fact, use what would be written in eye-dialect as *goin' to* but rather the more fully reduced *gonna* in each case, while for non-auxiliary *going*, he has the velar variant, as in "what was going on", a phrase he uses twice. Biden has not been identified as a g-dropper in the press, which supports our sense that speakers

⁶ We note the familiar point that the reduced form *gonna* is possible only for the auxiliary: *we're gonna win* / **we're gonna Chicago*. See Hopper & Traugott (1993:1-4) for additional discussion.

⁷ These numbers reflect some differences from the *Times* transcript, where we have corrected minor transcription errors, such as changing *bring in* to *bringin'*.

increasingly understand the auxiliary as distinct from the lexical verb *to go*. It would thus be consistent with a view that the reduced forms of the future auxiliary do not trigger this impression.

The reaction to g-dropping by political figures during this campaign season has been sharp at times. Author and conservative commentator Peggy Noonan, for instance, wrote in the *Wall Street Journal* (Oct. 17):

More than ever on the campaign trail, the candidates are dropping their G's. Hardworkin' families are strainin' and tryin'a get ahead. It's not only Sarah Palin but Mr. McCain, too, occasionally Mr. Obama, and, of course, George W. Bush when he darts out like the bird in a cuckoo clock to tell us we are in crisis.

As shown in detail by Campbell-Kibler 2006, American English speakers are extremely sensitive to frequency in a behavior like g-dropping and assign it clear and highly variable social meanings. It appears that an overall rate of g-dropping of 25% in a Vice Presidential debate is more than sufficient to trigger the threshold on our expectations about violating a formality level.

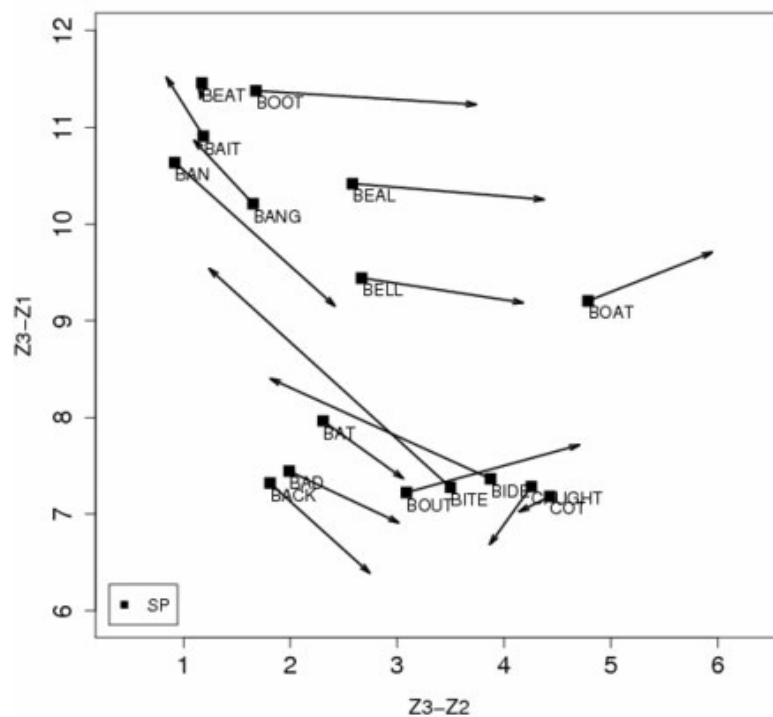
The vast published literature on this sociolinguistic variable in English around the world—much of it reviewed by Campbell-Kibler (2006: ch. 2)—shows several consistent social parameters of variation which suggest why this feature of Palin's speech stands out so much even though it is used rather infrequently, under 12% of the time excluding the future auxiliary. More formal settings correlate positively with more use of the velar variant [ɪŋ], for example, and women use the velar variant more, as do those of higher socio-economic status and more upwardly mobile speakers. All these factors would correlate with very low use by someone of Palin's status and situation, despite efforts to identify with 'Joe Six Pack,' 'Joe the Plumber,' 'hockey moms,' and 'Main Street.' Of course no sociolinguistic studies on *-ing* describe any situation nearly as formal, planned or carefully scripted as the Vice Presidential debate, but Palin's coronal variants exceed those reported in various studies for people of similar or lower socio-economic class in 'careful' or 'reading' style. Labov's classic study of New York City shows 'casual' style rates around 10% for his highest socio-economic group in informal usage; in 'reading' style, only the lowest socio-economic group shows more use of *-in* forms than Palin in the debate (1966:394-399).

Expected Western Regional Features in Sarah Palin's Speech

Sarah Palin's pronunciation undoubtedly has western features. In the grand scheme of American dialects, the western part of the country is often regarded as lacking in clear regional features, although it is conceived of as a coherent dialect region (Labov's 'Third Dialect'). The explanation for this is that the populating of the west entailed the elimination of strong dialect features found in the East and Midwest as people moved westward and different dialects came into contact along the way. The coherence view has, however, received some criticism with particular local features being reported in the literature (Clarke et al. 1995, Di Paolo and Faber 1990, Labov et al. 2006).

Figure 1

Vowel space of select vowel word classes spoken by Sarah Palin during the 2008 Vice Presidential debate⁸



⁸ In order to provide a better comparison across speakers, linear hertz values are transformed into the psychoacoustic bark scale (Traunmüller 1990). Plotting of vowels occurs by taking the difference between Z3 and Z1 for vowel height and the difference between Z3 and Z2 for vowel backness (Syrdal & Gopal 1986). See Adank *et al.* 2004 for alternate transformations.

Two features usually, and very broadly, associated with western speech are the merger of low back vowels and the pre-lateral laxing of tense vowels. Low Back Merger (COT-CAUGHT merger) or near-merger is widely seen as a feature of the west (Labov et al. 2006), and is also found widely in the ‘Midlands’ area from Pennsylvania westward and elsewhere.⁹ Among Palin’s vowels (Figure 1), we observe the Low Back Merger. The vowels in *talk* and *daughters*, for instance, are produced in the area of the vowel space where we would expect *(tick) tock* and *dotters*. In light of discussion in Di Paolo (1992) and DiPaolo and Faber (1990) as to whether or not westerners have a merger or near-merger, Figure 1 depicts the two vowel word classes as most likely near-merger.¹⁰ Although the mean trajectory for CAUGHT is slightly longer and more advanced than that of COT, the directionality and vowel heads are very similar.

A somewhat more complex example of a western feature is the (near-)merger of tense and lax vowels before /l/. Palin typically produces lax [ɪ] for expected [i:] before coda laterals, as in *id[ɪ]l (ideal)*, *r[ɪ]l (real)*, and with a mid vowel in *de[ɛ]led (detailed)*. Comparing the tense BEAL class of vowels with that of the lax BELL class in Figure 1, we observe that the two classes are distinguishable by vowel height. Although there are few words in the BEAL word class, the words are more centralized, or lax, than the tense BEAT class of words. The relation of tense and lax vowels in the context of coda laterals was identified as a merger in western speech by Labov, Yeager & Steiner (1972) and as a near-merger in Utah by Di Paolo (1988). However, Labov et al. expressly find such pairs distinct in the west generally and in their two Alaskan speakers from Anchorage (2006: 285-286, see also Map 9.7, p. 71) although Westerners’ perceptions of the distinction were not found to be strong. Like the Low-Back Merger, this feature is found elsewhere, notably in Midlands and southern varieties.

On these two features, Palin matches expected patterns for someone from the western United States, but this is a short list of features, and neither is exclusively western. At the same time, Labov et al. (2006:279) note that the west lacks the kind of

⁹ Following standard sociophonetic practice, capitalized words, such as COT and CAUGHT, represent classes of words (Wells 1982). Word choice for this examination is clearly limited in scope to words used by Sarah Palin in the debate. For classes other than BELL and BEAL, words with /l, ɹ/ in onset or coda were avoided.

¹⁰ Marianna Di Paolo indicates (personal communication) that, drawing on her work in Utah, the glides suggest near-merger rather than merger.

regional coherence and homogeneity of other regions. With regard to the perception of Palin's dialect as western, these two features appear to provide less indication that her speech would be distinctive to generate the amount of discussion it has.¹¹ Let us, then, turn to some less expected and certainly more widely discussed features of her speech.

Apparent Upper Midwestern Features in Sarah Palin's Speech

In addition to the noticeable colloquial patterns and western features, Palin also evinces Upper Midwestern-like features, such as the realization of *you* as [jʌ] or the stereotypical *you betcha* and *gotcha*. As with the *-ing* feature, perception of these acoustic characteristics of Palin's speech may be stronger than their actual presence. In this section we discuss features associated with Upper Midwestern speech: diphthongization of /æ/, Canadian Raising of /a/ in diphthongs, the back and monophthongal character of /o/ and /u/, and final 'devoicing' of obstruents.

The role of /æ/ in the sound systems of Upper Midwesterners is complex and often distinguishes a speaker from Chicago, Madison and Minneapolis from one another. Briefly, the broadest American pattern shows /æ/ raising before nasal codas, so that BAN is higher than BAD, BAT, BAG, or BACK. In the southeastern portion of the Upper Midwest, one observes raised vowel variants in BAD and BAT word classes above BAN. Labov et al. (2006) argue that this reversal is criterial for the Northern Cities Chain Shift. Our experience is that in speech from suburban Chicago, [æ] can be diphthongal where BAD, BAT, BAG and BACK are all diphthongs ending near [a]. In contrast, speakers in Wisconsin, typically from Milwaukee through Green Bay, can display a diphthongal BAD and a monophthongal BACK. BAT can pattern with either class. Speakers from eastern Minnesota through Milwaukee often have a raised BAG class where *bag* rhymes with *vague* (Zeller 1997, Labov et al. 2006) or, for many outsiders, can sound like *beg*. Speakers from northern Wisconsin and parts of Michigan's Upper Peninsula tend to have non-raised, monophthongal /æ/.

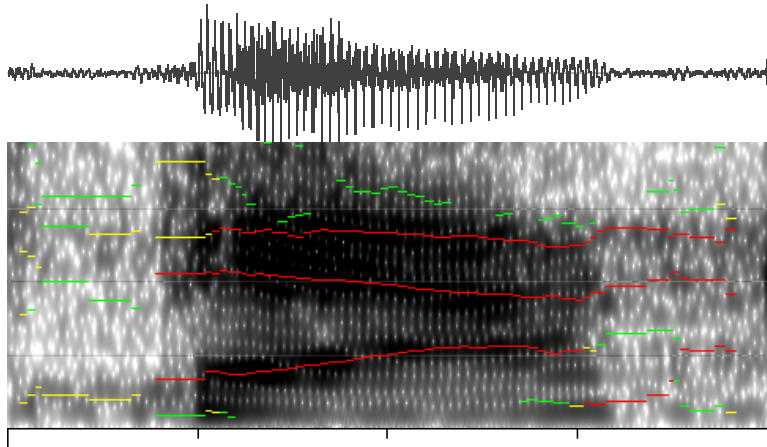
¹¹ Still, imitations of Palin's speech, including Tina Fey's on Saturday Night Live, involve significant fronting of /ɔ/.

Table 2
Bark normalized formant values for selected word classes
 (see Figure 1 and Appendix A)

Vowel	N	Z3-Z1	Z3-Z2
BEAT	3	11.46	1.17
BAIT	5	10.91	1.19
BEAL	2	10.42	2.58
BELL	4	9.44	2.67
BAN	5	10.64	0.92
BANG	5	10.21	1.65
BAD	5	7.44	1.99
BAT	12	7.96	2.31
BACK	6	7.32	1.81
BOOT	6	11.38	1.68
BOAT	13	9.21	4.79
BOUT	5	7.22	3.09
BITE	4	7.28	3.50
BIDE	7	7.37	3.88
COT	8	7.18	4.43
CAUGHT	5	7.29	4.26

Figure 1 (above) and Table 2 (just above) show the complexity of Palin's /æ/ vowel. To begin with, Palin's BAN and BANG word classes are raised. This is not uncommon throughout the United States, even in areas without diphthongization or raising for /æ/. However, the head of her BAD, BACK and BAT classes are not raised (toward 9 bark), although they are clearly diphthongal in nature. Notice in the waveform and spectrogram of Palin saying *pack* (Figure 2), a high but rising first formant, a falling second formant and a stable third formant. Figure 3 compares Palin's vowels to a male and female Minnesotan and shows that the head of this vowel is comparable to the Minnesotans, and that her diphthongal vowel resembles diphthongization in the female Minnesotan.

Figure 2
Waveform and spectrogram of *pack* from ‘... Joe Six Pack, hockey moms ...’



Related to this diphthongization pattern for /æ/, the low vowel /a/ can vary across the region. If a speaker is participating in the NCCS, then /a/ is fronted near or in front of 3 bark on the F3-F2 axis. If the speaker is not participating in the NCCS, which is the case for most of Wisconsin and Minnesota in our experience, /a/ is more central, or between 3 and 4 bark on the F3-F2 axis. For speakers from Minnesota or the western edge of Wisconsin, /ɔ/ has merged with /a/ or at least tends to be low and central. Compared with this, Sarah Palin’s /a/ (the COT word class) appears slightly raised. Note that the /æ/ vowels point towards where we might expect /a/ to be (i.e., where it is for the two Minnesotans in Figure 3), and /a/ is raised on the F3-F1 axis (vowel height) to where the vowel head of BOUT, BITE and BIDE are located. Canadian Raising of the head of these three vowels would make them more centralized. Palin’s diphthongs may reflect a slight Canadian Raising, consistent with speech in contact with Canadian Raising regions.¹² However, in comparison to two speakers from Minnesota (Figure 3), we see that the Minnesotans also have diphthongal /æ/ where the head of the diphthong is not raised.

A stereotype of Upper Midwestern and Minnesotan speech in particular is that the back tense vowels are more tense and monophthongal than in other regions of the United States. In contrast to Minnesota and much of Wisconsin, /u/ fronting is generally attested in western United States. For Sarah Palin, Figure 1 (p. 8) shows BOOT and

¹² Dennis Preston reports that preliminary, unpublished investigations by Wil Rankinen indicate that Upper Peninsula or ‘Yooper’ vowel systems pattern much like Canadian English.

Table 3
Sarah Palin's voicing assimilation in a passage
from the Vice Presidential debate

Words ¹⁴	Duration of /z/ (msec)	Duration pulsing in /z/ (msec)	% glottal pulsing in /z/	Pause duration (msec)
<i>Before voiced word-initial obstruent, sonorant or vowel</i>				
was [əzð] the	54.5	54.5	100%	
Americans [nzi] into	120.1	62.7	52%	
was [əzd] deception	57.8	57.8	100%	
was [əzg] greed	85.2	85.2	100%	
Americans [nzd] do	75.7	75.7	100%	
moms [mzə] across	76.7	48.1	63%	
ourselves [vzi] in	173.5	110.4	64%	
individuals [əlzw] we're	112.7	77.2	68%	
<i>Before voiceless word-initial obstruent</i>				
was [əss] smart	70.9	27.6	39%	
is [isk] corruption	83.1	20.4	24%	
peoples [əlsf] fault	96.4	11.3	12%	
is [ish] hurting	59.0	19.4	33%	
<i>Before Pauses</i>				
lenders [əʰsPh], who	39.8	5.9	15%	68.5
ourselves [vsPdʒ] just	47.1	5.9	12%	295.1
as [əʰsPɪ] individuals	119.1	40.3	34%	48.6
dollars [əʰsPw]. We	145.9	34.1	23%	318.4
entities [isPɪ] in	144.9	50.5	35%	271.6
savings [ɪʰsPæ] and	119.6	25.3	21%	395.4
means [nsPw]. We	186.3	54.7	29%	296.0
<i>Unexpected patterns</i>				
is [ɪzPb]*, but	56.0	45.5	81%	265.3
lessons [nzθ]* through	70.2	28.2	40%	

NB P = pause and word boundaries are omitted because all /z/ instances occur word finally. Choice of [s] or [z] was determined from a careful listening of the word.

¹⁴ The actual phonetic sequence of sounds is represented in square brackets between the words in this column.

Another salient sound pattern associated with the Upper Midwest is final devoicing of obstruents. Purnell et al. (2005a and b) have argued that this pattern appears especially strong among younger speakers in the region as a reallocated feature ultimately reflecting the (indirect) influence of devoicing immigrant languages, most Germanic. Palin is perceived as having this pattern, but in fact, her behavior is different than simple final fortition (Iverson and Salmons 1995, for instance). Table 3 (above) shows the percent of glottal pulsing (duration of pulsing divided by duration of the alveolar fricative) during one timed response of approximately 80 seconds of the Vice Presidential debate (beginning at 6:52).

In this passage, Palin assimilates the voiced alveolar fricative to a following voiceless sound even over a pause (as first transcribed and then measured by % glottal pulsing < 50). Out of the 21 examples in Table 3, 19 fit an assimilation pattern where /z/ is voiced 8 times because the following sound is voiced and /z/ is ‘devoiced’ 11 times because the following item is voiceless or a pause. Only the last two examples in table 3 violate this pattern, both with voicing. While this differs from the phrase-internal devoicing patterns found in Wisconsin, Palin’s pause-related devoicing is consistent with nascent phonological devoicing, as argued by Hock 1999, Blevins 2004, Iverson and Salmons 2007, and others.

The prevalence of /z/ assimilating across a pause boundary is apparently sufficient for hearers to perceive Palin as a ‘final devoicer’. This observation parallels those made earlier about Palin’s use of euphemisms and g-dropping. Her actual overall behavior is not the real question. The question is whether Palin’s behavior exceeds a hearer’s expectations about particular dialect features. One thing we can learn from Sarah Palin is that voicing assimilation across a pause boundary apparently is perceived as ‘final devoicing’ and helps listeners to place such speakers in the Upper Midwest.

To summarize the acoustic analysis presented here, we can say that Sarah Palin’s speech has an unraised but diphthongal /æ/, low back merger and slight Canadian Raising. In these regards, her speech is really a mixture of features distributed broadly across the United States and Canada. This suggests that, as with *-ing*, the presence of some suggestive markers (/æ/ diphthongization and Canadian Raising in particular) are enough to prompt many of us to hear Sarah Palin’s speech as being Upper Midwestern.

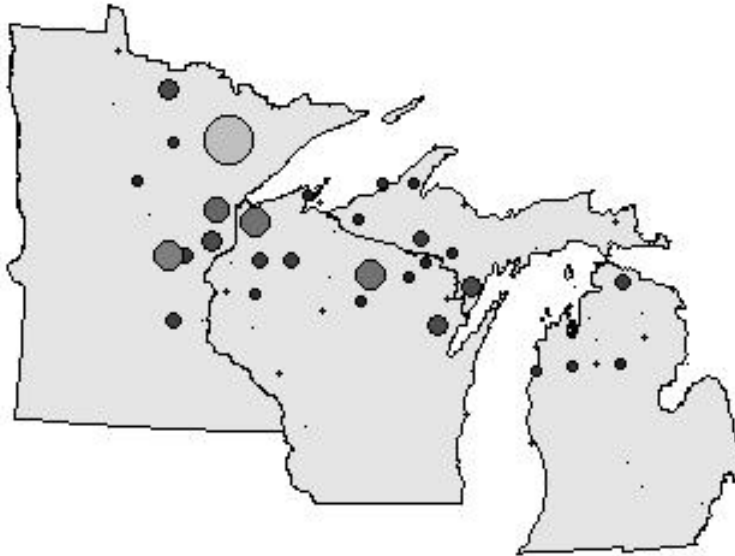
Context of Dialect Formation

That Palin’s accent is perceived to be Upper Midwestern comes as less of a surprise when examining the context of dialect formation in the parts of Alaska where

she spent most of her formative years.¹⁵ This, along with Palin's use of colloquial forms in extremely formal situations, is important for understanding where her speech fits in American society today.

It has now been pointed out repeatedly in the media (including in links given at the outset of this paper) that the Matanuska-Susitna Valley, where Wasilla is located, saw its first large-scale settlement with an influx of residents from depressed areas of the Upper Midwest. In 1935, over 200 families from Minnesota, Wisconsin and Michigan resettled in Alaska in an attempt to develop a farming community. Many descendants of those settlers still reside in the Matanuska-Susitna Valley.¹⁶ At least 67 families from each of three states—Michigan (29 counties), Minnesota (13 counties) and Wisconsin (21 counties)—migrated through the Matanuska Colonization Project (Figure 4). By comparing the counties' 1930 Census data of population per square mile, all of the migrants came from counties below the state average density with the exception of five counties (table 4).

Figure 4
Counties in Minnesota, Wisconsin and Michigan sending migrants to Matanuska-Susitna Valley, Alaska



NB: Size of dot represents number of families (of a minimum of 1 and a maximum of 15).

¹⁵ We became aware of this from comments by James Crippen to a post on the blog Mr. Verb.

¹⁶ See information on *Alaska Far Away* (2007, <http://www.alaskafaraway.com>), a film by Paul Hill and Joan Juster in which descendants are interviewed.

Table 4
Distribution of Upper Midwestern migrants to Matanuska-Susitna Valley, Alaska, with a
comparison of population density on the 1930 Census

Michigan	Families	Pop/Sq. Mi.	Minnesota	Families	Pop/Sq. Mi.	Wisconsin	Families	Pop/Sq. Mi.
Menominee	6	224	St. Louis	15	119	Douglas	9	348
Cheboygan	5	159	Mille Lacs	10	143	Oneida	9	134
Iron	5	173	Carlton	8	242	Oconto	6	236
Manistee	4	310	Koochiching	6	31	Sawyer	5	67
Ontonagon	4	83	Pine	6	624	Washburn	5	133
Wexford	4	292	Hennepin	5	45	Barron	4	195
Dickinson	3	386	Kanabec	5	31	Bayfield	3	388
Gogebic	3	279	Itasca	4	31	Florence	3	76
Houghton	3	519	Cass	3	242	Forest	3	109
Roscommon	3	38	Lake of the Woods	2	31	Lincoln	3	234
Benzie	2	210	Beltrami	1	74	Ashland	2	195
Chippewa	2	159	Crow Wing	1	242	Marinette	2	237
Keweenaw	2	92	Washington	1	109	Polk	2	284
Marquette	2	236				Sheboygan	2	1367
Missaukee	2	120				Taylor	2	178
Muskegon	2	1679				Trempealeau	2	320
Oscoda	2	30				Burnett	1	119
Presque Isle	2	167				Dunn	1	311
Alcona	1	73				Iron	1	125
Antrim	1	210				Price	1	135
Charlevoix	1	292				Vernon	1	320
Clinton	1	423						
Delta	1	276						
Ingham	1	2108						
Iosco	1	132						
Kalkaska	1	66						
Montmorency	1	50						
Schoolcraft	1	70						
Wayne	1	30467						
State Ave.		842			317			532

Table 5
1930 Census percent of county population that is minimally a first- or second-generation immigrant

Michigan	Families	Min % 1st or 2nd immigrant	Minnesota	Families	Min % 1st or 2nd immigrant	Wisconsin	Families	Min % 1st or 2nd immigrant
Menominee	6	39.7%	St. Louis	15	52.1%	Douglas	9	45.3%
Cheboygan	5	20.2%	Mille Lacs	10	39.8%	Oneida	9	30.1%
Iron	5	52.9%	Carlton	8	50.7%	Oconto	6	33.4%
Manistee	4	38.8%	Koochiching	6	35.9%	Sawyer	5	29.9%
Ontonagon	4	56.6%	Pine	6	39.7%	Washburn	5	23.9%
Wexford	4	18.4%	Hennepin	5	36.4%	Barron	4	42.5%
Dickinson	3	40.9%	Kanabec	5	42.4%	Bayfield	3	49.2%
Gogebic	3	57.4%	Itasca	4	38.4%	Florence	3	43.8%
Houghton	3	54.8%	Cass	3	21.4%	Forest	3	22.3%
Roscommon	3	18.3%	Lake of the Woods	2	37.9%	Lincoln	3	35.0%
Benzie	2	16.0%	Beltrami	1	27.8%	Ashland	2	42.5%
Chippewa	2	30.1%	Crow Wing	1	31.6%	Marinette	2	37.2%
Keweenaw	2	57.9%	Washington	1	35.0%	Polk	2	35.1%
Marquette	2	46.8%				Sheboygan	2	32.8%
Missaukee	2	18.7%				Taylor	2	41.7%
Muskegon	2	24.8%				Trempealeau	2	34.7%
Oscoda	2	6.4%				Burnett	1	36.4%
Presque Isle	2	28.9%				Dunn	1	29.6%
Alcona	1	22.9%				Iron	1	54.1%
Antrim	1	15.6%				Price	1	42.3%
Charlevoix	1	17.2%				Vernon	1	22.6%
Clinton	1	11.5%						
Delta	1	38.5%						
Ingham	1	11.4%						
Iosco	1	24.0%						
Kalkaska	1	8.1%						
Montmorency	1	18.8%						
Schoolcraft	1	28.6%						
Wayne	1	29.9%						

One aspect of this narrative that has not been told as often is that many of these communities in the northern portion of these states were settled especially heavily by immigrants, even by the standards of the region, and not by so-called ‘Yankee’ or Southern migrants. Taking Wisconsin as an example, the 1930 Census identifies specific counties as having high concentrations of immigrants of particular backgrounds: German (Sheboygan County), Norwegian (Douglas, Barron and Trempealeau Counties), Swedish (Douglas and Polk Counties), Finnish (Douglas County). As a case in point, the 1930 Census for Douglas County—a county sending 9 families to Alaska—reported that out of a total population of 46,583, under the category of “White persons born in...” there were 2,747 Swedes, 1,956 Norwegians, 1,359 Finns, 767 Poles and 487 Germans. On top of this are 13,807 residents of the county that reported foreign-born parents. In short, at least 45% of Douglas County reported being either first- or second-generation immigrants (table 5).¹⁷

Additionally, the Yankees in the areas where these settlers came from were more likely to be part of the established wealth (Buenker 1998:180). They were thus presumably less willing to move out of the state. Poorer Yankee, Midland or Southern settlers who came into the Upper Midwest tended to stay in the southern parts of the region. For example, settlers from Missouri remained in southwestern Wisconsin and those who migrated north from Appalachia stayed in southern Michigan. The overall percent of people in the three states reporting foreign-born parents in 1930 was 19.0% for Michigan, 25.6% for Minnesota and 23.8% for Wisconsin. Figure 5 shows that 65.7% of the families overall came from communities with a percentage of residents with foreign-born parents greater than the state average. This varied by states; Michigan and Wisconsin both had 62.7%, while Minnesota had 71.6%. Given what we have argued elsewhere about immigration and its impact on Wisconsin English (Purnell et al. 2005a, b, Wilkerson and Salmons 2008, Purnell and Salmons forthcoming, Salmons and Purnell forthcoming), the low density of residents and the high percentage of immigrant families traveling together to settle in a new area is a prime target for *koinéization* (dialect formation).

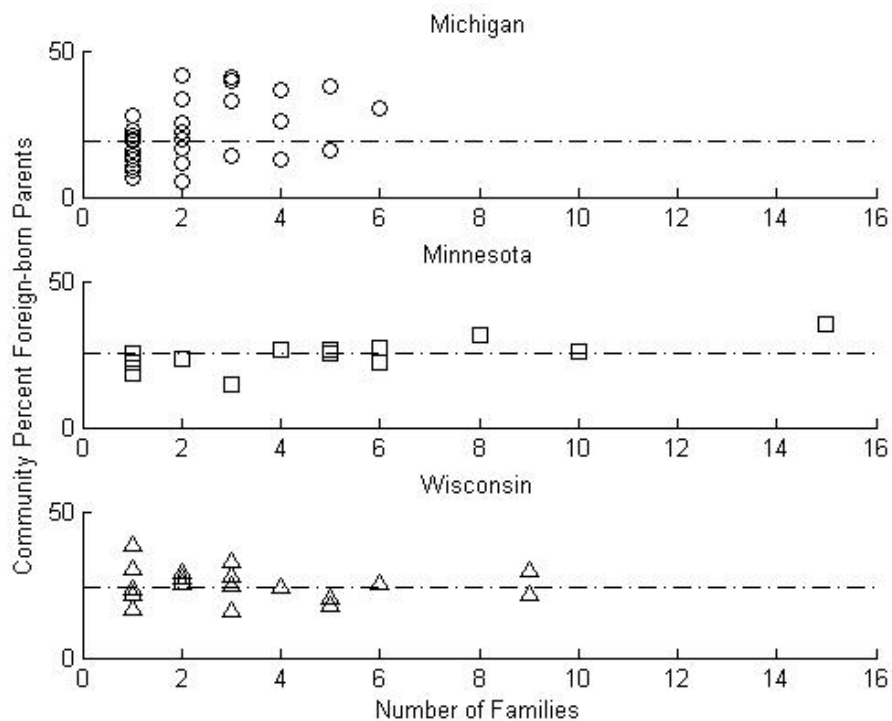
Even with leveling of exceptional features from the immigrant substrate in the Upper Midwest—in the sense of Kerswill and Trudgill 2005—we argue that the speech of the Matanuska-Susitna Valley is, in fact, influenced by the speech patterns in the

¹⁷ Data from the 1930 Census was taken from the Historical Census Browser, University of Virginia.

rural and immigrant settled Upper Midwest. A central component of new dialect formation, beyond such demographics, is that several generations are needed for a dialect to take shape. While original adult settlers may not change their speech patterns, and while the third or fourth generation in the new community may well have negotiated a new variety, the intervening generations show tremendous variability, drawing on the pool of input available from older speakers and peers in the community.

Figure 5

Distribution of communities by the number of families and percent of community with foreign born parents reported on the 1930 Census



What may be most important here for those concerned with language variation and change is that Sarah Palin's dialect lacks certain features of contemporary Upper Midwestern English. It is those features lacking innovation which linguists should find more interesting. For example, we do not hear her pronounce *flag* as fl[ɛ]g or fl[e:]g (cf. Zeller 1997, Bauer and Parker 2008, Purnell 2008). If in fact her dialect is connected to the Upper Midwest, did the rise in BAG as BEG occur after the 1935 migration? Purnell and Salmons (forthcoming) suggest that this pattern in southeastern Wisconsin is tied to the northward advancement of Northern Cities Chain Shift (Labov 1994). If the raised BAG was present in part of the region (e.g., the Iron Range in Minnesota),

would the feature be so ‘abnormal’ to the western dialects so that the *koiné* that emerges in Alaska lacks this pattern while retaining other aspects of the dialect? More research is needed both from historical records in Alaska and the Upper Midwest before the picture becomes clear. Additionally, we suspect that the dialect geography of Alaska is complex with many ‘outsiders’ settling in the state; these dialect variations too need to be studied. The larger issue for Sarah Palin’s dialect features in particular is that she was raised in the community well within the period of reallocation of features and new dialect formation to occur (Kerswill and Trudgill 2005).

Conclusion

Sarah Palin’s speech presents us with an unusual constellation of ways that language can vary in American culture—socially, historically and regionally. In short:

- Palin uses a number of remarkably informal patterns, even in a Vice Presidential debate, from euphemistic usage (*heck, darn*, etc.) and distinctive discourse markers (*you betcha*, etc.) to phonological markers of informality.
- With regard to the last, her ‘g-dropping’, the impression left may be of pervasive use, but it is both limited and systematic.
- Palin shows clearly identifiable Western features such as such as low back merger, (near-?)merger of tense and lax vowels before coda laterals and a fronted BOOT vowel.
- Palin shows clearly identifiable Upper Midwestern features in her discourse markers (*you betcha*, etc.) and in her phonology (‘final devoicing’ and some particulars of her vowel space).
- Perceptually, the ostensibly Upper Midwest features outweigh the Western features, even though they are not necessarily categorical or even high-frequency patterns (like final devoicing), nor identical to patterns found among speakers in Wisconsin or Minnesota today (vowel acoustics.)
- Clear echoes of salient Upper Midwest features found their way to Alaska via immigration of speakers from Michigan, Minnesota and Wisconsin in 1935, such recent immigrations that their presence should still be felt today.

Our hope is that Sarah Palin’s rise to the national stage and into our national linguistic awareness benefits both linguists and the broader public in their understanding of dialects in North America. Although Palin’s idiolect may appear unique to many

Americans, it is likely that we are as delusional about this observation as we are with how many times she says *doggone*. In the end, dialect variation regularly shows the same complex levels of interaction between language, society and history that we have found here.

References

- Adank, P., Smits, R., & van Hout, R. 2004. A comparison of vowel normalization procedures for language variation research. *Journal of the Acoustical Society of America* 116:3099-3107.
- Bauer, Matthew & Frank Parker. To appear 2008. /æ/-raising in Wisconsin English. *American Speech* 83.4.
- Blevins, Juliette. 2004. *Evolutionary Phonology*. Cambridge, UK: Cambridge University Press.
- Buenker, John D. 1998. *The History of Wisconsin: Volume IV: The Progressive Era, 1893-1914*. Madison, WI: State Historical Society of Wisconsin.
- Campbell, Alistair. 1959. *Old English Grammar*. Oxford: Oxford University Press.
- Campbell-Kibler, Kathryn. 2006. Listener Perceptions of Sociolinguistic Variables: The case of (ING). Ph.D. dissertation, Stanford University. (Available on-line here: .)
- Clarke, Sandra, Ford Elms & Amani Youssef. 1995. The third dialect of English: Some Canadian evidence. *Language Variation and Change* 7:209-228.
- Di Paolo, Marianne. 1988. Pronunciation and categorization in sound change. In K. Ferrara, *et al.*, (eds). *Linguistic Change and Contact, NAWAV XVI*. Austin: Department of Linguistics, the University of Texas, 84-92.
- Di Paolo, Marianna. 1992. Hypercorrection in Response to the Apparent Merger of (ɔ) and (ɑ) in Utah English. *Language and Communication* 12.267-292.
- Di Paolo, Marianna & Alice Faber. 1990. Phonation differences and the phonetic content of the tense-lax contrast in Utah English. *Language Variation and Change* 2:155-204.
- Historical Census Browser. 2004.
<http://fisher.lib.virginia.edu/collections/stats/histcensus/index.html>. Retrieved October 24, 2008. University of Virginia, Geospatial and Statistical Data Center:
- Hock, Hans Henrich. 1999. "Finality, prosody, and change." In Osamu Fujimura, Brian D. Joseph & Bohumil Palek, (eds.). *Item Order in Language and Speech: Proceedings of LP '98*. Prague: Karolinum Press, vol. 1.15-30.

- Hopper, Paul J. & Elizabeth Closs Traugott. 1993. *Grammaticalization*. Cambridge: Cambridge University Press.
- Iverson, Gregory K. & Joseph C. Salmons. 1995. Aspiration and laryngeal representation in Germanic. *Phonology* 12.369-396.
- Iverson, Gregory K. & Joseph Salmons. 2007. Domains and Directionality in the Evolution of German Final Fortition. *Phonology* 24.1-25.
- Kerswill, Paul & Peter Trudgill. 2005. The birth of new dialects. In *Dialect Change: Convergence and divergence in European languages*, ed. by Peter Auer, Frans Hinskens & Paul Kerswill, 196-220. Cambridge: Cambridge University Press.
- Labov, William. 1966. *The Social Stratification of English in New York City*. Washington: Center for Applied Linguistics.
- Labov, William. 1994. *Principles of Linguistic Change. 1: Internal factors*. Oxford: Blackwell.
- Labov, William, Sharon Ash, & Charles Boberg. 2006. *Atlas of North American English: Phonetics, Phonology, and Sound Change*. Berlin: Mouton de Gruyter.
- Labov, William, Malcah Yeager, & Richard Steiner. 1972. *A Quantitative Study of Sound Changes in Progress*. Philadelphia: U.S. Regional Survey.
- Purnell, Thomas C. To appear 2008. Pre-velar raising and phonetic conditioning: Role of labial and anterior tongue gestures. *American Speech* 83.4.
- Purnell, Thomas C., Salmons, Joseph C., & Tepeli, Dilara. 2005a. German substrate effects in Wisconsin English: Evidence for final fortition. *American Speech* 80.135-164.
- Purnell, Thomas C., Salmons, Joseph C., Tepeli, Dilara, & Mercer, Jennifer. 2005b. Structured heterogeneity and change in laryngeal phonetics: Upper Midwestern final obstruents. *Journal of English Linguistics* 33.307-338.
- Purnell, Thomas and Joseph Salmons. Forthcoming. Coherence over time and space in sound change. *Memorial Volume for Sergei Starostin*, ed. by Vitaly Shevoroshkin et al.
- Salmons, Joseph C. & Thomas Purnell. Forthcoming. Language Contact and the development of American English. In *The Handbook of Language Contact*, ed. by Raymond Hickey. Oxford: Blackwell.
- Syrdal, Ann K., & Gopal, H.S. 1986. A perceptual model of vowel recognition based on the auditory representation of American English vowels. *Journal of the Acoustical Society of America* 79:1086-1100.

- Traunmüller, Hartmut. 1990. Analytical expressions for the tonotopic sensory scale. *Journal of the Acoustical Society of America* 88:97-100.
- Wells, J. C. 1982. *Accents of English*. Cambridge: Cambridge University Press.
- Wilkerson, Miranda and Joseph Salmons. 'Good old immigrants of yesteryear' who didn't learn English: Germans in Wisconsin. *American Speech* 83.259–283.
- Zeller, Christine. 1997. The investigation of a sound change in progress: /æ/ to /e/ in Midwestern American English. *Journal of English Linguistics* 25.142-155.

APPENDIX A: Words in each word class.

Word Class	Examples
BACK	back, mac, pack, tax
BAD	adversely, had (stressed), have (stressed), maverick
BAIT	gave, major, mate, state, take
BAN	and (stressed), band, fannie, fans
BANG	thank
BAT	as, ask, has, past, perhaps, Saturday, that
BEAL	feel, feeling
BEAT	Fannie, Freddie, people
BELL	bell, else, tell
BIDE	aside, bipartisan, I, I've, sideline
BITE	like, sight, white
BOAT	ago, also, Conoco, folks, joe, know, mode, over, so, those, though, votes
BOOT	do, new, to
BOUT	about, how, resounding
CAUGHT	office, talk, talking
COT	hockey, job, moms, not, positive, stock, stop, toxic