

NWAV 44 (2015) LONG ABSTRACTS

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Going cross-cultural in sociolinguistics

Aria Adli #296

In this paper we will lay out essential methodological steps for developing a cross-cultural sociolinguistic approach, and put forward essential questions based on the analyses of fieldwork data from Paris, Barcelona, and Tehran.

In spite of the great advances in variationist sociolinguistics in the last decades, a major limitation is the fact that the great majority of studies are done on English, some on Spanish and French, but very few on other languages. Likewise, studies on non-Western societies are massively underrepresented. My claim is that we do not only need more studies on other languages and societies, but also a framework to compare different languages and different societies. This framework would not only allow us to better address cultural and linguistic contact in metropolises around the world but to compare linguistic behavior across societies. An essential question is how we can disentangle general principles of sociolinguistic variation from community-specific ones.

In a first step, we will discuss the challenges in *defining cross-culturally valid social variables*. A major criterion is how to ensure conceptual, operational, and implementational *equivalence* (van de Vijver & Leung, 2010). In our study, which is based on a total of 255 speakers from the above mentioned metropolises, the comparison of socio-demographic indicators are least problematic (but not fully unproblematic). The comparison of socio-economic indicators is challenging but to some extent possible due to different proven classifications from the UN. However, the comparison of the subjective side of social structure, namely lifestyle (Bourdieu, 1979), is (expectedly) a core issue, requiring genuine interdisciplinary work between sociolinguistics and sociology. Our approach builds on the identification of four lifestyle dimensions assumed to be valid in all three metropolises, namely leisure, media, appearance, values, which are operationalized partly by a common set of items and partly by culture-specific ones. Then, lifestyle groups are calculated using principle component analysis and cluster analysis.

In a second step, we will discuss the challenges in *defining cross-linguistic variables*, i.e. linguistic variables that are comparable across (several) languages. We use insight from Greenberg (1963) and Haspelmath (2010), and argue that for each investigated language, a *descriptive category* with optional forms has to be defined such that it can be captured by a single *comparative concept*. This is illustrated with optional subject pronouns (in French the variation between subject doubling such as *moi je* 'Istrong Iweak' and simple subjects such as *je* 'Iweak', in Spanish and Persian the variation between overt subjects such as Spanish *yo* 'I' and null).

In a third step, we conduct a cross-cultural study on lifestyle and optional subject pronouns. We find a significant effect for French ($p < 0.036$), a significant effect for Spanish (0.038), but no effect for Persian. We will show that this variation has a different social meaning in the French sample as compared to the Spanish one.

Finally, we will put forth what we think are a series of essential questions on our way towards cross-cultural sociolinguistics, for example: What is the range of indexicalities across cultures? Or, are there linguistic constraints that are encountered more often across languages and communities (such as

markedness or information structure)?

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Productive much?: The Evolution of X Much? Constructions

Meghan Armstrong and Katie Carmichael #328

X Much? is a phrasal construction in American English through which speakers make an evaluative comment about an event in the immediate surroundings (Gutzmann & Henderson 2015), as in (1):

(1) Jan walks into a door.

Cal: Wow, Jan. Walk much?

Previous research on X Much? has suggested that the phrase began as an elided question with a verb in the X slot, spreading to adjectives and finally generalizing to nouns (Adams 2003). Both positive and negative verbs have been attested in the X slot, requiring different interpretation mechanisms to determine the evaluative content of the utterance (Anonymous 2011). In this paper, we use multiple approaches to examine the evolution of the types of terms that have come to fill the X slot in these constructions, as well as the social meaning of the construction.

Following Anonymous (2011), we investigated five X Much? types: (1) Canonical (as in (1)), (2) Negative adjective (e.g. “jealous much?”), (3) Positive adjective (e.g. “amazing much?”), (4) Negative verb (e.g. “drool much?”) and (5) Neutral NP (e.g. “Clark Kent much?”). We collected acceptability ratings for each type using a 5 point Likert scale using an online survey. Participants included a total of 128 native American English speakers (ages 18-65), which we divided into five age groups.

Mean acceptability scores were the highest across age groups for canonical X Much? (“walk much?”). The forms receiving the lowest acceptability scores across age groups were positive adjective X Much? (“amazing much?”) and neutral NP X Much? (“Clark Kent much?”). However, while 25-34 and 35-44 year olds showed a significant difference in the mean scores for canonical X Much? when compared to the negative adjective (“jealous much?”) and negative verb forms (“drool much?”), 18-24 year olds did not. The oldest participants (55-64) dispreferred all forms except for canonical X Much?.

Participants perceived the most common X Much? users to be speakers in their 20s, followed by those in their teens and those in their 30s, with a sharp dropoff in perceived use for speakers above 40. Perceived use of positive adjective (“amazing much?”) and neutral NP X Much? (“Clark Kent much?”) was highest for straight women, followed by gay men.

Our results support the idea that the X Much? construction developed from elliptical questions featuring neutral verbs (“walk much?”), becoming more productive over time in terms of what is found in the X slot. That the youngest speakers in our sample treat examples like “walk much?” the same as “jealous much?” or “drool much?” speaks to the evolution of this phrase. Moreover, we found that gay men and straight women are perceived to use innovative forms the most, and indeed women have been shown to be frequent leaders of change (Labov 2001), and gay men to be stylistically innovative (Podesva 2007). We argue thus that in addition to documenting actual use of linguistic variables, gathering information about perceived use could also provide an important indicator of how language change is proceeding, and who the innovators are.

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The role of duration in perception of vowel merger

Lacey Arnold #340

Systematic differences in duration among vowel classes have been well documented, particularly between tense-lax vowel pairs (e.g., Peterson & Lehiste 1960, Klatt 1976), though these durational differences have typically been considered phonetic rather than phonological. Recently, though, several studies have observed that durational differences among vowel classes may be more salient in both production and perception when vowel quality overlaps to a greater degree (e.g., Fridland, Kendall & Farrington 2014, Labov & Baranowski 2006, Ainsworth 1972), suggesting that duration may in some instances serve as a contrastive cue among qualitatively merged or near-merged vowel classes.

This study examines the effects of duration on perception of /u/, /ʊ/, and /o/ in pre-lateral contexts in Youngstown, a northeastern Ohio community that exhibits multiple patterns of merger and distinction among these phonemes, in order to determine 1) whether Youngstown participants use duration as a cue when discriminating between vowel classes 2) whether exhibiting merger in production and/or perception influences the degree to which speakers utilize duration as a perceptual cue 3) whether the ambiguity of the stimuli determines whether and to what extent duration is used as a perceptual cue.

Target tokens ($N=1,668$) were elicited in both connected and unconnected read speech from 41 native Youngstown speakers born 1933-2005. Thirty-two of these participants also took part in the multiple forced-choice discrimination task, for which 26 target tokens from the production data were used as the base stimuli to be manipulated. The vowel-liquid duration of each base stimulus was synthetically manipulated using the duration tier in Praat to produce four new stimuli, one for each duration category (99.5ms, 194ms, 288.5ms, and 383ms), yielding 104 total target stimuli; 46 distractor stimuli were also included. Stimuli consisted of both “ambiguous” and “non-ambiguous” tokens, determined by whether the speaker of each token produced statistically significant (i.e., $p < .05$) differences between vowel classes in F1 and/or F2. In order to gauge whether participants exhibited perceptual merger, a commutation task (*target tokens=26, distractors=24*), for which duration was not manipulated, was also administered.

Presence of merger in production was determined based on F1 and F2 measurements at 25% and 50% into the vowel-liquid sequence, as well as vowel-liquid formant trajectories.

Results suggest that duration is consistently used as a cue not only for discriminating between the tense/lax vowel pair, but also between /ol/ and /ul/. Despite claims that duration may be utilized as a contrastive cue more extensively in cases of spectral overlap, there was no significant difference in the degree to which duration influenced answer choices for ambiguous and non-ambiguous tokens. Similarly, all participants utilized duration to some extent in the discrimination task, regardless of whether they exhibited merger in perception (as determined by the commutation task) or in production. This can be explained by the exposure of the community as a whole to various forms of merger in everyday communication. Results provide interesting implications for the way sociolinguists measure and classify both produced and perceived phonemic merger.

References

Looking at contemporary Picard from different angles: the relevance of variationist methods for European language policy

Julie Auger and Anne-Jose Villeneuve #222

The debate over a variety's status as a language or dialect is typically of little interest to linguists. It may, however, be vital for European endangered languages that are typologically related to the national language, as only distinct languages can be recognized and protected under the Charter for Regional and Minority Languages. In Northern France, for instance, the popular perception of most Gallo-Romance spoken varieties as 'bad French' has contributed to their stigmatization and lack of transmission.

In this paper, we show that variationist sociolinguistics uncovers important evidence that can impact the recognition of obsolescent varieties. Specifically, we argue that an evaluation of morphosyntactic convergence between Picard and French must consider multiple dependent variables, comparing rates of (co-)occurrence of Picard-like and French-like variants and, most importantly, linguistic factors that condition variation across the two varieties.

Contemporary spoken data extracted from interviews with Picard–French bilinguals were compared to spoken monolingual French data from rural Picardie. While the use of the inflected or periphrastic future (1) shows great convergence ($p = .742$) based solely on rates of occurrence, qualitative differences between French and Picard exist regarding the linguistic conditioning, with sentential polarity playing a significant role on this variable in Picard but not in French.

Other variables—subject doubling (2), negative *ne* deletion (3), and auxiliary alternation between *ête* 'to be' and *avoér* 'to have' in compound tenses (4)—display significant differences ($p \leq .001$) between the two varieties. A comparison of our spoken Picard data with earlier and contemporary written data confirms that, with respect to these three variables, Picard has gradually moved away from French during the 20th Century.

- | | |
|--|---|
| (1) a. <i>l'prochain coup que je l'voèrai</i>
'the next time I'll see him' | b. <i>i va vir chés gins</i>
'he's going to see people' |
| (2) a. <i>chaque poéyis il avoait ses spécialités</i>
'each village had its specialties' | b. <i>tout l'monde [Ø] étoait là</i>
'everybody was there' |
| (3) a. <i>i [Ø] dormt'te point</i>
'they don't sleep' | b. <i>ein mot qu'i n'connoait'té point</i>
'a word that they don't know' |
| (4) a. <i>content qu'oz êtes évnus</i>
'happy that you came' | b. <i>y a personne qu'il a vnu</i>
'there is no one who came' |

While our Picard corpus does not always provide token counts large enough for multivariate analysis, a common challenge for endangered languages, the intersection of variables reveals that the differences between Picard and French are not purely quantitative, but also qualitative. For instance, while non-standard uses of auxiliary *avoir* are extremely unlikely to co-occur with an overt negative *ne* in French, such co-occurrence is widespread in Picard.

The examination of multiple variables within a variationist sociolinguistic framework (e.g. Labov

1972) has been central to breakthroughs for AAVE, a variety previously misunderstood as a 'degenerate' dialect of English. In the context of the ongoing debate over the status of Northern France's obsolescent varieties, our Picardie data provide similar empirical evidence for the fact that bilinguals maintain a mental grammar in the minority language that is distinct from that of the national language.

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Perceptions of raised BOUGHT and TH-stopping: Varying indexicalities of New York City English features

Soubeika Bahri, Marie-Eve Bouchard, Daniel Duncan and Natalie Povilonis de Vilchez
#299

Since Labov (1966/2006), New York City (NYC) has been seen as a “sink of negative prestige,” in the sense that NYC natives negatively evaluate local features and attempt to avoid them in formal speech. The negative evaluation of New York City English (NYCE) is tied to the local variants of the short-*a* split, BOUGHT raising, /r/ vocalization, and TH-stopping (Labov 1966/2006, Becker 2010, Newlin-Łukowicz 2015, inter alia). Becker (2014) provides evidence of this, showing a raised BOUGHT vowel to be associated with meanness and aloofness by native New Yorkers. However, it is unclear whether all NYCE features receive the same treatment. This paper utilizes a perception study to assess if a raised BOUGHT vowel and TH-stopping are evaluated equally by residents of the NYC area.

In this experiment, 100 online participants heard five short clips, each of them one of three from five different YouTube vloggers (15 total clips). Clips were selected from pre-recorded speech in an effort to present participants with maximally naturalistic speech; those chosen presented the speaker in a neutral or positive light. Four white female New Yorkers aged 18-29 were used, along with one Midwesterner as a control. Of the New Yorkers, two speakers exhibited TH-stopping and three exhibited raised BOUGHT. Participants were asked to answer questions using a Likert scale for affective traits; categorical questions about the speakers' occupation and education level; and an open-ended question about the speakers' place of origin. The categorical and scalar questions were analyzed quantitatively using conditional inference trees (Hothorn et al. 2015).

Results indicate that raised BOUGHT and TH-stopping index NYC, but do not necessarily have the same negative weight. The majority of participants believed speakers with raised BOUGHT or TH-stopping to be from the NYC area. Clips that included TH-stopping were viewed negatively with regards to affective traits: users of stopped TH were seen as working-class and unfriendly, based on both affective traits and potential occupation ($p < .025$). In contrast, clips with a raised BOUGHT vowel received mixed ratings: speakers were rated as hardworking overall ($p = .016$), but generally received a range of negative and positive responses. It was quite apparent that perceptions of the BOUGHT vowel were affected by the content of the clip; this is seemingly not the case for TH-stopping.

Respondents' open-ended answers show that both raised BOUGHT and TH-stopping remain salient NYCE features. However, the two features are evaluated quite differently. Following Becker (2014), we contextualize this in terms of indexical fields (Eckert 2008): as NYCE features, both index the mean, aloof, white ethnic New Yorker persona, and are evaluated negatively as such—the sink of negative prestige is alive and well. We argue, though, that TH-stopping is now additionally indexed as working-class. These varying indexicalities explain the varied evaluations of both features: while raised BOUGHT is evaluated negatively as an NYCE feature, this may be overcome by content. However, TH-stopping is always negatively evaluated regardless of content, as it indexes not only a New Yorker persona, but a working-class one as well.

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Automatic detection of sociolinguistic variation in forced-alignment

George Bailey #130

The emergence of forced alignment and automatic vowel extraction is arguably one of the most important methodological advances in modern-day sociolinguistics, particularly with the current trend of employing 'big data' on an unprecedented scale (Fruehwald 2015). Forced alignment software time-aligns orthographic and phone-level transcriptions with a corresponding audio file, which facilitates a more efficient and more reliable analysis of linguistic variation, particularly for long sociolinguistic interviews. This study investigates the possibility of using one such tool, FAVE-align (Rosenfelder et al. 2011) to fully automate the coding of these variable rules, namely: (th)-fronting, (td)-deletion, (h)-dropping, and dialectal variation in the unstressed HAPPY vowel.

The methodology employed here mirrors that of Yuan & Liberman (2011), who investigated automatic coding of (ing), and Milne (2014), who investigated forced alignment recognition of French consonant cluster reduction. It involves the expansion of a standard pronunciation dictionary to include multiple phonemic transcriptions of single lexical entries, each reflecting the surface output of a stochastic phonological process. When encountering words with multiple dictionary entries, the aligner then selects the most appropriate transcription based on how closely the competing acoustic models fit the observed speech signal.

The accuracy of FAVE's variant discrimination is evaluated by comparing its results to manually-coded human judgements on a 20-minute sample of conversational data. The results provide encouraging evidence for this innovative method of token-coding; tokens of (h) are coded with 80.68% accuracy, comparable with the accuracy rates for the voiced segments of (th) (83.74%) and (td) (81.25%). Interestingly, the discriminative performance of FAVE struggles most with the voiceless segments involved in these latter two processes (/θ/ and /t/, respectively); these errors are largely false positives, where FAVE has incorrectly coded for application of the phonological rule. It is unsurprising that FAVE would mistake the voiceless, lenited quality of word-final /t/ in consonant clusters as nothing more than silence or faint background noise. A comparably low accuracy is found for the presence of /θ/, which FAVE often mistakes for /f/, though the fact that a similar rate of discrepancy is shown between human transcribers suggests that these errors shouldn't necessarily be attributed to FAVE's performance, but rather to the subtle nature of this alternation.

The accuracy rates reported here are promising, and have methodological implications for coding sociolinguistic interviews on a large scale. Future developments could further reduce the degree of error by self-training new, speaker-specific acoustic models. More advanced systems could also seek to implement some computational pseudo-phonology, that is, to try modelling a phonological system, including all stochastic processes, so that the aligner tests all possible surface realisations before settling on the closest match to the observed speech signal.

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The sociolinguistics of an incipient sound change: a parallel shift of the front-upgliding vowels in Manchester English

Maciej Baranowski #301

This paper discusses a previously unreported change in progress in Manchester English involving the entire sub-system of front-upgliding vowels, i.e. CHOICE, PRICE, FACE, and FLEECE. These are phonemes which share the same glide target—although they have different nuclei, they all glide towards high front position phonemically. The structural parallelism between them is more readily seen in a phonemic notation identifying nuclei and glide targets (Labov et al. 2006), where they can be represented as /oy/, /ay/, /ey/, and /iy/, respectively.

Although there have been reports of changes in progress involving back upgliding vowels, such as GOAT and, particularly, GOOSE, in northern dialects of English (e.g. Haddican et al. 2013; Hughes et al. 2012; Jansen 2012), variation in the front-upgliding subsystems of the north of England has received much less attention.

The study is based on a sample of 123 informants native to the area, stratified by age, gender, socio-economic status, ethnicity, and neighbourhood. Ninety-two of the speakers identify themselves as white British; the other 31 informants represent the two largest ethnic minorities in Manchester, i.e. Pakistani and Black Caribbean. Five socio-economic levels, based on occupation, are distinguished (from lower-working to upper middle). The informants were recorded during sociolinguistic interviews, supplemented with word list reading and minimal pairs tests.

The informants' complete vowel systems, i.e. all vowel phonemes in different phonological environments, are measured in terms of F1 and F2 in Praat (Boersma & Weenink 2014). For 25 speakers, the point of measurement is selected by hand, following Labov et al. (2006). The speech of 98 speakers is measured automatically, using the Forced Alignment and Vowel Extraction suite (Rosenfelder et al. 2011). The results are subjected to mixed-effects modelling, with fixed effects including social (age, gender, socio-economic status, ethnicity, neighbourhood, and style) and linguistic factors (preceding and following sound, position in the word, voicing of the following sound), with speaker and word included as random effects.

The results indicate that all four vowels are undergoing fronting in apparent time—each shows a moderate but significant effect of age on F2 in the same direction, i.e. increasing F2 values with decreasing age. The two front vowels FACE and FLEECE also share the effect of the position in the word, showing more advanced fronting when followed by a consonant, as in *daze* and *deed*, than in open position, as in *day*, and *see*, suggesting a structural connection. In addition, all four vowels display similar social conditioning, with the lower classes leading the fronting in each case. This appears to be an internal change, led by the working classes, though not necessarily by the very lowest class, as there is indication of a curvilinear pattern in FACE and FLEECE. These results suggest that a parallel shift affecting a whole natural class, i.e. the sub-system of front-upgliding vowels, is in progress in Manchester English, which may be due to changing phonetic implementations of phonological features (Fruehwald 2013).

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T/D-deletion in British English revisited: Evidence for the long-lost morphological effect

Maciej Baranowski and Danielle Turton #307

One of the unsolved problems regarding t/d-deletion (whereby word-final coronal consonants are lost in coda clusters) is the lack of a morphological effect found for British English. Since Guy (1991), many studies of American speech communities have replicated the effect that monomorphemes (e.g. *mist*) delete t/d more frequently than past-tense forms (e.g. *missed*). However, this effect has not been found in previous studies of British English. Tagliamonte and Temple (2005) were the first to report the absence of this, on their 40 speakers from York, although a weak trend could be observed in their data.

Sonderegger et al.'s (2011) study of 10 reality TV show contestants showed a small effect of morphological class, but this disappeared once preceding segment was accounted for in the mixed-effects models. Guy et al.'s (2008), in their study of New Zealand English argue that lexical frequency can account for most of the variation in their data, as do Renwick et al. (2013). However, these studies use comparably small corpora to extract their frequency information, which may not be reliable. Walker (2012) finds no effect of frequency through examination of four different corpus methods.

Our large-scale study is based on a sample of 95 speakers of Manchester English, stratified by age, gender, socio-economic status, and ethnicity. The informants were recorded during sociolinguistic interviews, supplemented with word list reading. Five socio-economic levels, based on occupation, are distinguished (from lower-working to upper middle).

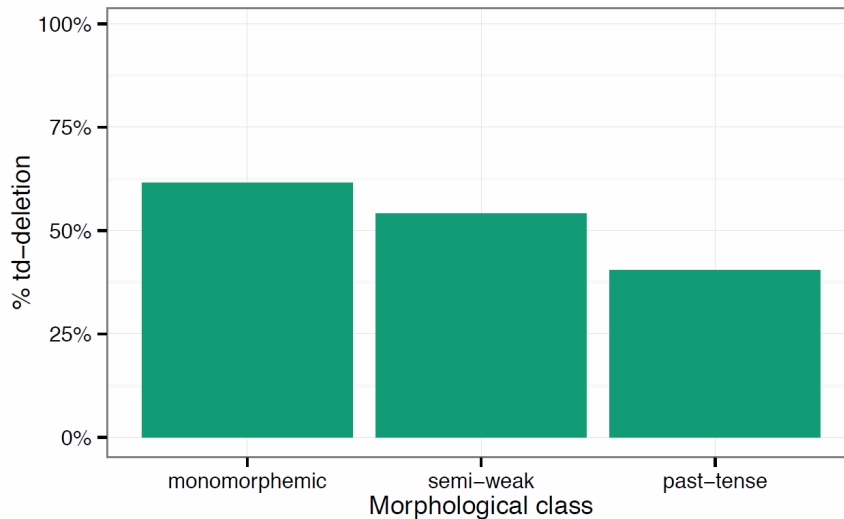
The interviews are transcribed in ELAN and forced-aligned using the Forced Alignment and Vowel Extraction suite (Rosenfelder et al. 2011). The Handcoder Praat script (Fruehwald & Tamminga 2015) is used to locate every token of the variable in the sound file (excluding tokens with a following /t/ or /d/) and play it for auditory analysis, speeding up the coding of the dependent variable considerably, and automating the coding of phonological environment.

The data are subjected to mixed-effects modelling in R, with fixed effects including linguistic factors (morphological status of the word, preceding and following sound, and voicing), and social factors (age, gender, socio-economic status, ethnicity, and style), with speaker and word included as random effects. Zipf-scaled frequency measures were taken from SUBTLEX-UK (van Heuven et al. 2014), which is superior to other commonly used corpora, such as CELEX or the BNC, due to its size and improved lexical decision times.

The results show the existence of the morphological effect between monomorphemes and past-tense forms (Fig. 1). This effect is robust, and remains when preceding segment is introduced into the model, alongside the effects listed above. Voicing, following and preceding segment are also significant. Moreover, the effect of frequency is not significant in this dataset, in both Zipfian log-scaled frequencies from SUBTLEX and the BNC.

We conclude that previous studies have been premature in their dismissal of the morphological effect, and that the effect may come out with large enough datasets representing a coherent speech

community. We also discuss the role of word frequency in analysis of this stable variable, and the importance of using reliable frequency measures in such investigations. Figure 1 Morphological class effect



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Attentive speech and clear speech in Quebec French diphthongization

Liam Bassford, Peter Milne and Morgan Sonderegger #224

Introduction. Explaining variability in phonetic realization has long been a central concern of both variationist sociolinguists and phoneticians. Sociolinguists have most often examined variability along the dimension of *attention to speech* (Labov, 1972), while phoneticians have commonly examined a *clear speech* or *hyper/hypospeech* dimension (Lindblom, 1990) correlated with perceptibility and articulatory effort. Both intuitively and by acoustic measures, these two dimensions seem to be capturing similar things: more attentive speech and clearer speech are associated with lower speaking rate, less segmental reduction, etc. Indeed, the socially stigmatized variants suppressed in more attentive speech are often acoustically “reduced”, and thus appear less in clear speech (Kroch, 1978). This paper addresses the question: **are the attention-to-speech and clear-speech dimensions the same?** We do so by examining a socially-stratified variable where the two dimensions conflict: diphthongization of long vowels in Québec French. The diphthongized variants require increased articulator movement compared to the monophthong variant, but occur more in less formal speech (Dumas, 1981; Mackenzie & Sankoff, 2010; Santerre & Millo, 1978). For example, the vowel /ɛ:/ can be realized as a monophthong ([ɛ:]: standard) or a diphthong ([ɛj]/[aj]: casual). We would expect diphthongization to be less common in more attentive speech but more common in clear speech. If so, then the attention-to-speech and clear-speech dimensions are not the same.

Methods. We extracted 1771 tokens of /ɛ:/ from 61 speakers (20 female) of Québec French from a corpus of parliamentary speech (Anonymous, 2013). We used two measures of realization of these tokens: a binary perceptual assessment (diphthong/monophthong) and an acoustic measurement (Euclidean Bark distance between onset and glide; Mackenzie & Sankoff, 2010). The corpus contains both read and spontaneous passages, corresponding to two levels of attention to speech. To measure speech clarity, we used known acoustic correlates: speaking rate, neighbourhood density, and word frequency (Gahl et al. 2011; Smiljanić & Bradlow, 2009). We also controlled for speaker gender, phonological context, and word class. The effect of all these factors was modeled using two mixed-effects regression models: a logistic regression for the perceptual measure, and a linear regression for the acoustic measure.

Results. The overall diphthongization rate was 26.8%. As expected, in both models, faster speaking rates were negatively associated with diphthongization ($z = -8.68, p < 0.0001$; $t = -3.48, p = 0.0015$), and less attention to speech was associated with more diphthongization ($z = -3.624, p = 0.00029$; $t = -2.53, p = 0.027$); neighbourhood density and frequency did not have significant effects. Other factors affected the perceptual and acoustic measures of diphthongization similarly, except gender: female speakers diphthongized (perceptually) less often than male speakers ($z = -1.80, p = 0.07$), but produced (acoustically) more diphthongized variants ($t = 7.04, p < 0.0001$), in line with the general findings that female speakers tend to use more clear speech (Diehl et al., 1995) but use fewer stigmatized variants (Wardhaugh, 2002). In sum, our findings suggest that **more attentive speech and clearer speech are not the same**, in terms of their effect on phonetic realization.

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Prosodic rhythm in Asian American English

Carina Bauman #313

This paper discusses prosodic rhythm in the English of a group of Asian American college women. Prosodic rhythm refers to the relative length of syllables in connected speech. In relatively stress-timed languages, like English, syllables vary in length depending on stress, with stressed syllables being longer than unstressed syllables. In relatively syllable-timed languages, like Spanish or Mandarin, adjacent syllables are roughly equal in duration. Prosodic rhythm has also been found to differ between regional and ethnic varieties of English, with Singapore English (Low, Grabe, & Nolan 2000; Lim 2010), Hispanic English (Thomas & Carter 2006; Shousterman 2015), and American Indian English (Coggshall 2008) all being more syllable-timed than standard British or American English. In each case, the relative syllable-timing of the ethnolect has been attributed to the initial substrate influence of the speakers' L1, possibly followed by a process in which syllable-timing in English becomes interpreted as a feature of the ethnolect itself. Given that many Asian Americans have exposure to heritage languages that are relatively syllable-timed, we might expect their English to show a similar prosodic influence, but as yet, no systematic study of prosodic rhythm in Asian American English has been published (though see Newman & Wu 2011 for some discussion).

The present data come from sociolinguistic interviews carried out with female college students of Chinese, Korean, and Vietnamese descent, between 19 and 24 years old. All are native speakers of English, with various levels of proficiency in their heritage languages. The measure of rhythm used is the Pairwise Variability Index [PVI] developed by Low, Grabe, & Nolan (2000), and modified for spontaneous speech by Thomas & Carter (2006). PVI is calculated by taking the difference in duration of two adjacent syllables and dividing by the mean duration of the pair. For each speaker, 200 such tokens are calculated, and then the median PVI value is taken. A higher PVI score indicates relatively more stress-timed speech, while a lower PVI score indicates more syllable-timed speech.

Preliminary results from a subset of 8 speakers indicate that Asian American English does indeed tend toward syllable-timing, compared with mainstream varieties of English. The PVI scores of these speakers range from .37 to .54, with an average of .45. These values are somewhat higher than those reported for Hispanic English: for example, Shousterman (2015) found that young Puerto Ricans in NYC had PVI scores ranging from .29 to .50, with an average of .45, while Thomas & Carter (2006) found that Hispanic English speakers in North Carolina had scores ranging from about .30 to .43, with an average of about .37. However, they are considerably lower than the average values reported by Thomas & Carter for European American (.52) and African American (.53) speakers. An average PVI of .45 is also comparable to Lim's (2010) findings for Singapore English (.46 for informal topics and .47 for formal topics). Together, these results suggest that Asian American English may indeed show a substrate effect on rhythm. Further analysis will consider the entire sample of 30 speakers, which includes speakers of Asian and non-Asian descent.

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Deep in the Hear(t) of Texas: Coronal Stop Deletion in a Rural South Texas Community

Robert Bayley and Dan Villarreal #257

This paper, part of a larger study of the emergence of a dialect of Hispanic English, examines the well-studied variable of coronal stop deletion (CSD) by residents of “North Town” (a pseudonym), a predominantly Hispanic agricultural community in south Texas. CSD has been studied since the earliest days of sociolinguistics (e.g. Wolfram 1969), including in varieties of Chicano English (e.g. Bayley 1994; Santa Ana 1991, 1996), and the main constraints on the variable are well documented (Hazen 2011; Schreier 2005). Precisely because CSD has been widely studied, it enables us to compare constraint effects between well documented varieties and varieties that have received less attention (cf. Hazen 2011; Wolfram et al. 2000). Moreover, previous studies in Latin@ communities focused on urban populations in San Antonio and Los Angeles. This study examines this variable in the very different conditions of a rural community where Mexican Americans comprise more than 85% of the population, while Anglos comprise only 10% (for background on North Town, see Foley 1990).

Data were extracted from sociolinguistic interviews conducted in 2005 and 2007 with 31 Mexican Americans and 13 Anglos ranging in age from 10 to 84. As in other studies of Mexican American English, results show a high rate of CSD in North Town (54.2%). However, multivariate analysis of more than 3300 tokens with Rbrul (Johnson 2009) reveals a number of differences between constraint effects on CSD in the English varieties spoken in North Town and other studies of North American English, including varieties spoken in Latin@ communities. As in other studies of Latin@ English and in West Virginia (Hazen 2011), the surrounding phonological environment has the greatest effect on CSD, including deletion by the Anglos in the study, while the effect of morphological class, although significant, is much less prominent. However, in contrast to other dialects, including Mexican American English in San Antonio (Bayley 1994), CSD also occurs following /r/, a result may reflect the influence of the Spanish substrate among the Latin@ speakers. In addition, as in other contact varieties, in North Town CSD occurs frequently (35.5%) in pre-vocalic environments, although less frequently than elsewhere. Moreover, in contrast to Anglo varieties (cf. Guy 1980, 1991), past participles, regular past tense forms, and participial adjectives differ in their effects. Regular past tense forms and participial adjectives disfavor deletion while past participles undergo CSD at the same rate as semi-weak verb forms like *lost*. Finally, and most surprisingly, in North Town, CSD occurs at a significantly higher rate in Anglo than in Mexican American speech.

In summary, although CSD has been very extensively studied, this classic variable continues to serve as a useful diagnostic for examining dialectal differences, particularly in dialects where language contact is involved. This study provides a look into the situation of CSD in dialect contact in a majority minority community.

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Creaky voice in a diverse gender sample: Challenging ideologies about sex, gender, and creak in American English

Kara Becker, Sameer Ud Dowla Khan and Lal Zimman #285

There is a widespread association between creaky voice, a phonation type characterized by slower and less regular vocal fold vibration, and gender in American English. While some work links creaky voice with men and masculinity (Stuart-Smith 1999; Mendoza-Denton 2011), other work locates its use in the speech of women (Szakay 2010; Podesva 2013), or more specifically young, upwardly-mobile American women (Yuasa 2010). However, few studies have described variation in the use of creaky voice by gender beyond the heteronormative categories of woman and man. This study complicates existing perspectives on the role of creak in the construction of gender by investigating speakers from a more diverse set of gender identities, drawing from a stratified sample of both transgender and cisgender (i.e. non-transgender) speakers, as well as speakers who do not identify with the gender binary (i.e. non-binary gender). We find that a simple binary gender distinction does not predict use of creaky voice. Instead, the results from this diverse sample make it clear that creak indexes more than the traditional gendered categories of woman and man.

The current study draws from a corpus of sociolinguistic interviews with 68 speakers of American English between the ages of 18 to 35, gathered in 2014. The sub-sample analyzed here includes 15 speakers, evenly distributed for two social variables related to sex and gender: first, a three-way distinction for self-reported gender identity (female, male, and non-binary); and second, a binary distinction between cisgender and transgender. The data come from two styles: a casual, demographic interview, and a reading passage. Speech was segmented using the Forced Alignment & Vowel Extraction (FAVE) suite (Rosenfelder et al. 2011). Two independent raters auditorily coded vowels for voice quality (including creaky, modal, and other phonation types), with a third coder resolving discrepancies. For each speaker, the percentage of creaky vowels was calculated. Logistic regressions modeled in R investigated the impact of linguistic predictors (vowel quality and style) and social predictors (age, gender identity, and the cis/trans distinction) on creak.

The sample shows no main effect of self-identification as female or male on overall use of creaky voice; speakers on each side of the binary use creaky voice in 25% of vowels. However, results from a logistic regression find that the interaction of gender identity and the cis/trans distinction are significant predictors of creaky voice. Specifically, the group making the greatest use of this voice quality is transgender men (31% of vowels), while the group that uses creaky voice the least is cisgender men (6% of vowels). Because of both these groups' interests in being perceived as male, this finding problematizes any simplistic connection between masculinity or femininity and creaky voice quality.

These results challenge the dominant ideologies about who uses creaky voice in American English, and suggest that a more complex model of gender is important for expanding the indexical field of social meanings carried by a variable like creaky phonation.

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Diverging social perceptions: coda (-r) and variable number agreement in São Paulo Portuguese

Ronald Beline Mendes and Livia Oushiro #371

In São Paulo, the social stratification of coda (-r) and NP number agreement is very similar: sex/gender, level of education and class are significant for both dependent variables. Both are also stereotypes: lack of NP agreement is associated, in public discourse, to lack of formal education (Scherre; Naro 2014), whereas retroflex /r/ is commonly associated with countryside rural speakers (Brandão 2007). However, they diverge in terms of their social perception. In this paper, by comparing results of perception experiments on these two variables, we discuss why that might be. The comparison focuses on percepts of intelligence and effeminacy, which are relevant for NP number agreement, but not for coda (-r) pronunciation.

Both experiments were carried out according to matched-guise methods (Campbell- Kibler 2009). For coda (-r), there were two sets of stimuli, with excerpts of sociolinguistic interviews with two male and two female natives of São Paulo. In each excerpt there were 4-7 tokens of (-r) – either all retroflex or all tap. The questionnaire included differential semantic scales for education, masculinity/effeminacy, intelligence, formality, paulistinity, accent and friendliness, among others, and was applied to 185 listeners. Differences in the responses for retroflex or tap guises were significant for paulistinity, accent, and education, but not for masculinity/ effeminacy or intelligence. Social class was a qualitative variable in this experiment, and in their retroflex guise the voices were generally perceived as pertaining to lower classes.

For NP agreement, there were four sets of stimuli, with excerpts of sociolinguistic interviews with four men from São Paulo. Each excerpt contained 4-7 tokens of plural NPs, either all standard (with number agreement) or nonstandard (without number agreement). The questionnaire likewise included scales for education, intelligence, effeminacy/masculinity, formality, class and friendliness. It was applied to 100 listeners and the differences in their responses for standard or nonstandard guises were significant for all scales except friendliness. In contrast to the results above, all four male voices were consistently perceived as more intelligent- and effeminate- sounding in their standard guise. However, in their nonstandard guise, the voices were still perceived as pertaining to the lower classes.

Although there are differences in design, the experiments are comparable. The results show that correlations found in production analyses cannot be readily interpreted as indices of social identities – as is the case of the mismatch between the correlation with sex/gender and perceptions of masculinity/effeminacy for coda (-r). This further supports the notion of indirect indexicality (Ochs 1992). Additionally, percepts of education are ideologically linked to intelligence and effeminacy in the case of NP agreement, but not for coda (-r), for which education seems to be more closely attached to notions of class. This may be due to the fact that NP number agreement is directly associated with grammatical (in)correctness, while (-r) is more directly associated with regional identities. In highlighting the differences between these results, we discuss how the range of social meanings for these variables come to be structured.

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Totally tall sounds totally younger. A socio-semantic study.

Andrea Beltrama #341

Intensifiers have been investigated from both a sociolinguistic ([1-2]) and a semantic/pragmatic perspective ([3-4]). Yet, the relationship between these two components has not been systematically explored. This paper addresses this question by showing that *totally*'s social meaning is indeed affected by the type of *semantic scale* targeted by the intensifier.

Intensifier *totally* conveys a rich cloud of social meanings (e.g. "Valley girl", "emotive", "young" [5-6]). Furthermore, it features semantic variation [7]: it can combine with *bounded* adjectives (e.g. *bald*), where it intensifies a **lexical scale** supplied by the adjective (\approx *entirely*), or with *unbounded* adjectives like *tall*, where it targets an **attitude scale** of the speaker towards the proposition (\approx *certainly*).

Is there a principled connection between the scale targeted by *totally* and *totally*'s social meaning? Following the generalization that marked variants are richer social meaning carriers ([8-9-10]), we predict social meaning to be most salient in semantically marked contexts, where a lexical scale is unavailable and an attitude scale must be recruited. We tested the hypothesis by crossing 2 adjective types (Bounded, Unbounded) with 3 different intensifier conditions: (i) *totally*, our target; (ii) *really*, a control intensifier which always targets the same kind of scale and (iii) the non-intensified form.

Sentence	Adj	Lexical scale	Pred. SM salience
I just met the new boss. He's totally bald	Bounded	ü	Low
I just met the new boss. He's totally tall	Unbounded	*	High
I just met the new boss. He's { really / Ø } {tall/bald} Control			

Based on open-ended responses from a survey on the use of *totally*, 8 1-to-6 Likert scales were created, 4 of which (Maturity, Articulatness, Seriousness, Intelligence) are predicted to be affected negatively, 4 of which (Coolness, Friendliness, Outgoingness, Excitability) positively by *totally*. 48 participants (age 18-35) saw 12 written sentences and evaluated the speaker's age, gender and status along the 8 scales. Age/gender were converted into a 1-to-3 scale, where 3=female/old respectively. To control for social meaning independently associated with the different adjectives, we analyzed the *differences* between *totally/really*+Adj and the non-intensified form.

	Age	Gender	Mat-Art-Ser-Int	Cool-Fri-Outg-Exc
Totally+Unbounded	-0.95	+0.4	-0.60	+0.90
Totally+Bounded	-0.40	+0.10	+0.05	+0.04
Really+Unbounded	-0.20	0.05	-0.10	+0.05
Really+Bounded	-0.20	0	-0.15	+0.10

We found a main effect of Intensifier and Adjective and an Intensifier/Adjective interaction (all p s<0.01). Users of *totally* with Unbounded adjectives (e.g. *totally tall*) were perceived to be younger (p <0.05), more likely to be female (p <0.05), higher in Coolness-Friendliness-Outgoingness-Excitability and lower in Maturity-Articulateness-Seriousness-Intelligence (p <0.001) compared to Bounded ones (e.g. *totally bald*). *Really* had no significant effect

across adjectives.

Our results show that where an attitude scale is targeted, the social meaning of *totally* is systematically more prominent than when a lexical scale is available. This confirms that the type of semantic scale affects the intensifier's social meaning. With *really* instead, which always targets a lexical scale regardless of boundedness, the social meaning is not sensitive to the Adjective type. This result provides further evidence that the social meaning of a variable is conditioned by its semantic/pragmatic properties, consistent with recent findings ([10-11]).

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Processing Across Language Varieties: The Misinterpretation of African American English *BIN* by Adult Speakers of Standard American English

Tim Beyer, Karly Edwards and Caitlin Fuller #113

Because African American English (AAE) and Standard American English (SAE) share many cognates (forms that are similar in phonology and function), it is often assumed that the two varieties are mutually intelligible. This assumption is bolstered by the fact that many of the systematic differences between them appear as *false cognates* (forms that are similar in phonology, but different in function). Since false cognates *can* be interpreted via a listener's own variety, a listener may make mistakes when interpreting the other variety without knowing that he/she is in error. This has the potential to impact performance on language-based tasks.

Many studies have investigated how AAE-speakers interpret SAE, the dominant variety used in mainstream American institutions. Although research shows that AAE-speakers typically underperform relative to SAE-speakers, it remains unclear whether (or how) non-linguistic factors such as racism, stigma, or SES might be affecting performance on language-based tasks. To address this issue, here we investigate this same phenomenon in reverse, and ask how SAE-speakers interpret AAE. If linguistic differences between related varieties contribute to performance differences, then SAE-speakers should underperform relative to AAE-speakers when the variety at test is AAE. We examine this hypothesis by comparing how AAE- and SAE-speakers perceive, produce, and interpret stressed *BIN*, a tense/aspectual marker that exists in AAE but not SAE.

In AAE, adding stress to *BIN* can indicate that an event or action occurred/began in the remote past (e.g., *Carol BIN talking*) while in SAE temporal adverbials must be used instead (e.g., *Carol has been talking for a long time*). When unstressed, *been* indicates the recent past in both varieties (e.g., *Carol been talking* in AAE is best glossed in SAE as '*Carol has been talking*'). Adding stress to *BIN* is therefore phonemic, altering the meaning of this word in AAE, but not in SAE.

We tested 24 AAE- and 24 SAE-speaking adults and found that both groups were sensitive to phonetic stress and were significant in differentiating between *BIN* and *been* tokens. Similarly, when asked to shadow sentences that contained *BIN* or *been*, both groups systematically and accurately altered their productions to either stress *BIN* (by significantly increasing duration and loudness) or not. Furthermore, in a comprehension task, both AAE- and SAE-speakers successfully differentiated between the remote and recent past when sentences ended in temporal adverbials (e.g., *for a long time, yesterday*). However, when temporal adverbials weren't present, AAE-speakers successfully assigned sentences containing *BIN* to the remote past and sentences containing *been* to the recent past, while SAE-speakers assigned both sentence types to the recent past.

These results suggest that AAE-speakers perceive, produce, and – crucially – interpret differences between *BIN* and *been*. In contrast, despite their ability to both perceive and produce the phonetic differences between *BIN* and *been*, SAE-speakers seem unaware that stress actually alters the meaning of this word and do not interpret *BIN* appropriately. This demonstrates that the ability to perceive and produce cues that are grammatically meaningful in another variety of English does not automatically lead to successful interpretation in that variety.

Intersecting Words, Intersecting Languages: Liaison in Cajun French Between 1940 and 2010

Darcie Blainey #351

French liaison is a sandhi (linking) phenomenon in which a consonant appears between two words in particular prosodic, syntactic and stylistic contexts; crucially, when said in isolation, neither word includes this consonant. Thus, neither *mes* ([me] ‘my’) nor *amis* ([ami] ‘friends’) includes a [z] if said alone, but a [z] appears between them in the noun phrase *mes amis* ([mezami] ‘my friends’).

In the ongoing debate regarding the nature of liaison consonants, researchers have argued that they are best seen as floating final consonants (Charette, 1991; Encrevé, 1988; Wauquier-Gravelines & Braud, 2005), word-initial consonants (Boutin & Lyche, 2014), or epenthetic consonants (Côté, 2005, 2008, 2013). Some studies have proposed multiple suppletive forms for words participating in liaison (Bybee, 2005), which corresponds with early stages of language acquisition (Chevrot, Dugua, & Fayol, 2005, 2009).

Recently, linguistic inquiry has turned to varieties of French whose speakers do not read or write their native tongue, using such communities as further testing grounds for liaison (Jones, 2012; Lyche, 2015). The present study contributes to this emergent scholarship, examining the speech of 39 Louisiana Regional (‘Cajun’) French speakers from the area of Golden Meadow, a small town in southeastern Louisiana. Louisiana Regional French is a severely endangered, orally transmitted language (UNESCO, 2003). By analyzing data from three points in time – 1940, 1977 and 2010 – the paper scrutinizes the changing dynamics of liaison in the absence of a written code, language contact with English, and language variation in a tightknit community over 70 years.

Seven speakers recorded in the 1940s (four female, three male) were born between 1888 and 1912 and have little to no knowledge of English (Guilbeau, 1950). The 12 speakers interviewed in 1977 (five female, seven male) were born between 1888 and 1939 and have at least a working knowledge of English (Larouche, 1979). The 2010 recordings include 20 bilingual speakers evenly divided by sex, whose birth years range from 1921 to 1953. These most recent interviews form part of the international PFC corpus (*Phonologie du Français Contemporain* – Phonology of Contemporary French) (Durand, Laks & Lyche, 2002, 2009) using the modified protocol for Louisiana (Durand & Lyche, 2013; Klingler & Lyche, 2012). Approximately two hours of phonemically transcribed speech produces 3,750 word pairs for analysis. Regression analyses examine sociolinguistic variables (birth year, sex, interview period/formality, speaker) and linguistic variables (word frequency, expected liaison consonant, grammatical category, word identity).

There are three liaison consonants in Louisiana Regional French: /l, n, z/. Results show that the use of liaison /z/ contracts between 1939 and 1977, becoming almost exclusively a morphological plural marker in noun phrases. Also, the rate of liaison does not vary between 1940 (43%) and 1977 (44%), but it drops significantly between 1977 and 2010 in careful (34%) and less careful (30%) speech. The paper tests the hypotheses that these changes are due to language contact, and that liaison is lexically conditioned in Louisiana Regional French. The discussion explores how such

findings intersect with theoretical models of French liaison.

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Internal relations among the short vowels of Canadian English

Charles Boberg #289

The nature and progress of chain shifts has been a central interest of socio-phonetics since initial studies of the Northern Cities and Southern Shifts in American English by Labov, Yaeger and Steiner (1972). Following Martinet (1955), such studies have assumed a functional relation among shifting elements, governed by pressure to maintain maximal margins of security among neighboring vowels, but this assumption has rarely been directly examined. Moreover, the Southern Shift, at least, also involves parallel shifts, which are less clearly related to functional constraints. The Canadian Vowel Shift, a lowering and retraction of the KIT, DRESS and TRAP vowels currently underway in Canadian English, apparently in response to the low-back merger of LOT and THOUGHT (Clarke, Elms and Youssef 1995), provides an opportunity to test the system-internal relations among shifting vowels. Specifically, this paper asks whether the position of each vowel is in fact related to those of its neighbors, as would be predicted by chain shift theory, or to those of other vowels to which it might be socially rather than phonologically related, as might be predicted by a view of Canadian English as an integrated set of features that are adopted or resisted as a whole by individual speakers.

In order to examine this question, word list productions of 61 native speakers of Canadian English from across western and central Canada were analyzed acoustically in Praat, by extracting F1 and F2 measurements at 50% of duration for short vowels and 35% of duration of long vowels. The word list contained 100 words, with several tokens of each vowel phoneme in a range of allophonic environments. A mean for each phoneme for each speaker was calculated and Pearson correlation coefficients were computed for each pair of values being compared.

The analysis finds that the positions of the three front vowels involved in the Canadian Shift are indeed correlated with one another, as in a classic chain shift, with r values over 0.5 for both F1 and F2 ($p < 0.005$). The position of TRAP, however, is not correlated with that of LOT/THOUGHT ($r = .09$; n.s.), which has been proposed as the initiating condition for the shift.

This suggests that the basic mechanism of the Canadian Shift may be a socially motivated parallel retraction of front vowels rather than a true chain shift. A similar parallel shift is observed among the back vowels, in which the fronting of GOOSE is correlated with the fronting of GOAT ($r = 0.58$; $p < 0.005$). Correlations were not identified, however, among structurally unrelated changes. For instance, speakers who are advanced in the retraction of TRAP are not necessarily also more advanced in the fronting of GOOSE; and participation in the Canadian Shift is not correlated with participation in Canadian Raising of MOUTH. This suggests that individual speakers select unique mixtures of the innovative or nationally distinctive features they wish to display, based on a complex interplay of social motivations. [Word count with title: 497]

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Gay Identity and /s/ Variation in French and German L2 English Speakers

Zachary Boyd #196

Previous studies of the interaction between language, gender, and sexual orientation have shown /s/ variation to be a robust correlate indexing gayness and non-normative masculinity. This body of work includes both the production and perception of sibilant variation, and is often concerned with English (e.g., Smyth *et al.* 2003; Munson *et al.* 2006; Levon 2006; Campbell-Kibler 2011), though these findings are also seen in Danish (Pharao, *et al.* 2014), Spanish (Mack 2010; Walker, *et al.* 2014), and Hungarian (Rácz & Schepács 2013). As this previous research centers on monolingual speakers the question of how bilingual speakers index their sexual orientation has yet to be examined. Expanding on the previous sociophonetic work in indexing gayness, the present study explores the potential for identity construction in gay L2 English speakers in relation to these speakers' production of English and the influences of their L1. Drawing on naturalistic speech data from French and German gay and straight men, I hope to determine if and to what extent /s/ variation acts as an index of gayness in L2 English. Furthermore, this analysis takes into account many of the external factors which could effect this variation, including native language, L1 transfer, and local versus global constructions of gay identity.

Results to date show that regardless of their L1, the gay speakers produce /s/ with a higher average spectral peak, a higher center of gravity (CoG), and more negative skew than the straight speakers within the L2. Preliminary results from the L1 speech data also suggest that these results are also seen across language boundaries. The current results are consistent with previous findings which show /s/ variation to index sexual orientation in monolingual gay men's speech. Looking at the L1 French and German data, both the gay and straight speakers produce /s/ CoG at a significantly higher frequency in their respective native languages than in L2 English. While the sibilant produced in the L1 is higher than that in the L2 for these speakers, the marked distinctions between the gay and straight speakers' /s/ production are maintained in both the L1 and L2. English proficiency, assessed by native English speakers (*c.f.* White & Genesee 1996; Sorace & Filliaci 2006), appears to have no impact on this variation. These preliminary results indicate that sibilant variation may be a socially conditioned feature for these speakers and can be accessed as an index for gayness in both the L1 and the L2 in similar, but acoustically different ways. These results may indicate that this variation is not likely to be a result of sociolinguistic competence in the L2 or direct L1 transfer. Instead, this may potentially point to a collapsed dichotomy of local and global distinctions of gay identity, with the measurable phonetic differences between the L1 and L2 possibly indicating a combination of both L1 transfer effects as well as the construction of gay identity in the L2, providing preliminary evidence of this feature's cross-culturally salient indexical meaning.

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When phonological variation tells us about prosody

Natália Brambatti Guzzo and Guilherme Garcia #276

In this paper, we show that variation in vowel reduction (VR) plays a crucial role in the prosodic status of clitics in Brazilian Portuguese (BP). In this language, clitics can be pronominal (obj. pronouns) and non-pronominal (articles, prepositions, conjunctions). Although these two classes have different morphosyntactic behaviour, they apparently undergo identical phonological processes (Bisol 2000, 2005), such as vowel reduction (1a) and sandhi with the initial vowel of the host (1b). If the main criterion for assigning a structure to a given prosodic domain is its phonological behaviour, then both types of clitics seem to share a single domain in the Prosodic Hierarchy (Selkirk 1984, Nespor and Vogel 1986).

- (1) Phonological processes
 - a. Vowel reduction (VR):
me leve → m[i] leve (pron.); [o] dia → [u] dia (non-pron.)
'take me; the day'
 - b. Sandhi:
m[i] [i]squeci → m[i]squeci (pron.); pr[u] /u/ ruguai → pr[u]ruguai (non-pron.)
'I forgot; to Uruguay'

The indistinguishable phonological behaviour between these clitics is, however, only *apparent*. We show that the frequency of vowel reduction (1a) is significantly different between pronominal and non-pronominal clitics. This fact, along with their distinct syntactic behaviour, suggests that BP clitics belong to separate prosodic domains.

Methodology

As vowel reduction in clitic position is categorical in most BP dialects, we selected a dialect in which variation is observed. This dialect is spoken in the Italian Immigration Area (IIA), in southern Brazil. For this study, we analysed one particular clitic, *se*, which can be both non-pronominal ('if *se ela* for 'if she goes') and pronominal (3sg/pl.refl *se machuca* 'hurts him/herself'; passive marker *se fez* 'was done'; indefinite pronoun *se trabalha* 'one works'). This homophony offers an optimal context to examine whether pronominal and non-pronominal *se* differ with regard to VR.

We examined sociolinguistic interviews from 32 IIA BP speakers, equally distributed according to gender, region (rural vs. urban) and age group. Once all instances of *se* were isolated ($n=827$), we extracted F1 and F2 values from the target vowel (s/e/), and also controlled for surrounding segments as well as the distance between the clitic and the stressed syllable in its host. The data were modelled using a mixed-effects logistic regression (glmer() in R). All models included by-speaker random effects as well as random intercepts. Our main model is found in Table 1.

Results

The results show two important aspects of the dialect in question. First, non-pronominal clitics are significantly more likely to reduce than pronominal clitics ($\hat{\beta} = -0.94, p < 0.00001$, Fig. 1). This is

expected considering the morphosyntactic behaviour of BP pronominal clitics: They select a specific host (the main verb of a clause), and no intervening lexical item is allowed between the clitic and its host. In this sense, pronominal clitics resemble BP prefixes, which are not expected to undergo VR. Second, we see evidence of change in progress (Fig. 2), as younger speakers' (18-30 yo) rate of reduction follows the tendency observed in other dialects across Brazil. Although VR is not

Figure 1: Model's predictions for VR

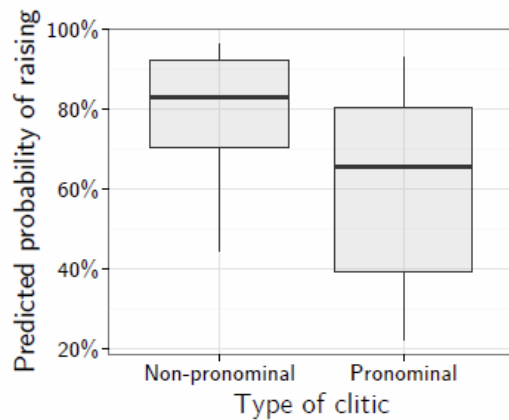
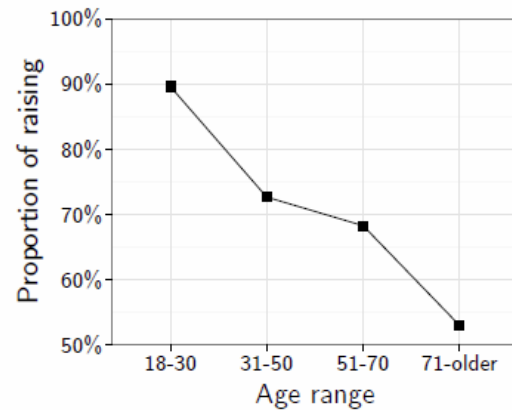


Figure 2: Proportion of [se] reduction by age group



categorical in this group, it is significantly affected by all age groups (see Table 1).

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Ness-less-ness: Zero-derived adjectival nominals in Internet forum data

Marisa Brook and Emily Blamire #377

The following is a case-study of a colloquial construction with nominal forms zero-derived from adjectives, e.g. *made of awesome*∅ (Whitman 2009, Zwicky 2010), *creating amazing*∅ (Francis 2013), and *without scary*∅ (Lighter 2015) which leads to variation between the zero suffix and the standard *-ness* or *-ity* suffixes. This zero form is a stylistic option that is becoming licit through analogy with an increasing number of adjectives, however its distribution shows distinct patterns in different syntactic positions. We propose this variation may be constrained by psycholinguistic parsing effects, more than just syntactic considerations.

To test this idea we used a relative novel tool, the Chrome add-on Web Scraper (Balodis, 2014), to pull data from publicly available forum posts from 2006 to 2015, which are large and valuable source of language data (Claridge 2009). Preliminary data comes from 62,000 posts (9,000,000 words) from forums of the popular webcomic *xkcd*, whose online community tend to be young, tech-savvy, and playful with language. Using AntConc (Anthony, 2014), we searched the data for a list of common adjectives that undergo this zero-marking, and manually counted all the *-ness/-ity/∅* forms. We excluded cases of ellipsis, examples from posters' names or signatures, and quotations of previous messages. Each token was coded for author, date of post, preceding word, phrase, and sentence position.

The preliminary data suggest a staggered onset of the zero form across different abstract nominalized adjectives, indicating a change operating via analogy. The results show that the first lexical item to take on zeroes was *awesome*∅ (38 zero forms out of 78 abstract nouns meaning *awesomeness*): the zero variant increases in real time between 2006 and 2008 to approximately 40% use and is stable thereafter. The next to appear is *crazy*∅ (N = 6/12), introduced in 2010, which showed the same increase over time to 40%. *happy*∅ (N = 2/44) and *sad*∅ (N = 2/14) emerged in 2012, *Stupid*∅ (N = 7/41) appears in 2013 and *smug*∅ (N = 1/7) in 2015. All four are in their increasing period. While some Ns are currently small, they provide a strong starting point for analysis.

Initial analysis suggests that the role played by the class of the preceding word, as hinted at by Zwicky (2009), constrains the variation: the highest rates of zero forms are found following prepositions (25 zero forms out of 55 instances of abstract nouns preceded by prepositions), followed by adjectives (19/58), determiners (8/29), verbs (2/14), and conjunctions (2/17). This perhaps indicates nominal suffixes can only be deleted when the preceding word makes it overwhelmingly clear that the intended form is nominal (e.g. *made [ppof awesome*∅]). Another conditioning factor appears to be syntactic position: zero forms appear much less often in subject position, perhaps do to the potential for a garden path effect caused by minimal attachment.

Our study helps explain the pattern of nominal suffix deletion and shows how scraped Internet forum data and psycholinguistic explanations of parsing as a means of studying low-frequency morphosyntactic variation and change in real time.

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A redo of a previous sound change? The effect of frequency in favorable contexts on /f/ reduction in Modern Spanish

Earl Brown and Matthew Alba #14

Usage-based models of language propose that the phonological contexts in which words are used in spontaneous speech affect the mental representation of those words. It has been found that words that occur more frequently in contexts that favor reduction are reduced more often than words that do not occur in those contexts, even after taking into account the phonological context of the moment. The authors of a recent paper (Brown and Raymond 2012) propose that the frequency with which words occur in phonological contexts favorable to reduction played an important role in the variable outcome of word-initial Latin /f/ in Modern Spanish, as some words retain the /f/ (e.g., Lat. *facilis* > Span. *fácil* 'easy') while others have lost it (e.g., Lat. *facere* > Span. *hacer* 'to do'). Additionally, it has been proposed that the mechanisms of diachronic change are in force in synchronic variation.

This paper analyzes the influence of the frequency with which words occur in phonological contexts favorable to reduction (FRC) on the acoustic reduction of /f/ in a sample of Modern Mexican Spanish. Specifically, 1,081 tokens of word-initial /f/ in the spontaneous speech of 38 speakers of Mexican Spanish living in California are analyzed. The center of gravity of /f/ in Hertz, a measurement of the acoustic energy of fricatives, is taken from the middle 50% of each token of /f/ with the phonetics software Praat (Boersma and Weenink 2015). In addition to FRC and the phonological context of the moment, other frequency and phonological variables as well as the sociodemographic characteristics of the participants are analyzed.

The results of a series of linear regressions suggest that FRC plays a significant role in the reduction of /f/ in Modern Spanish, as has been suggested for the reduction of Latin /f/. However, the conditioning effect of FRC is less robust than the influence of the phonological context of the moment, thus confirming the importance, and even preeminence in these data, of the online articulatory factors in comparison to the usage-based frequency factors. Another interesting finding of this paper is that the lexical frequency of words with /f/ does not make a significant contribution to the reduction of /f/, despite being a significant main effect in other studies of phonological reduction. This result seems to indicate that FRC represents a more precise predictor of phonological reduction than does lexical frequency.

This paper contributes to the discussion of the relative importance of usage-based factors and online articulatory factors on the reduction of sounds, and provides evidence that, to slightly modify Firth's (1957:11) words: "You shall know a [sound] by the company it keeps" (original 'word').

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Phonological and phonetic variation in list intonation in Jewish English

Rachel Steindel Burdin #272

Some variation in the American Jewish English repertoire is closely linked with age, and subsequently, for many Jewish speakers, with generational distance from immigration and Yiddish-speaking ancestors (Benor 2011). This study builds on previous literature and examines the extent to which intonation, previously noted to be a salient part of Jewish English (Weinreich 1956, Newman 2000), (1) varies from co-territorial non-Jewish English, and (2) has changed over time as generational distance from Yiddish increases.

Jewish and non-Jewish native English-speaking participants were recruited from a medium-sized Midwestern city. In addition, native Yiddish speakers, who all also spoke English, were recruited. As previous studies have indicated that Jewish English speakers who also speak Yiddish may have distinct list intonation from monolingual Jewish English speakers, data were collected using a semi-structured task to allow for straightforward comparisons across speakers. Speakers were asked to produce both an open (non-exhaustive) list in which they named any presidents who came to mind, and a closed (exhaustive) list in which they named the last five presidents. This task allowed for semi-spontaneous, non-read speech, while controlling for both lexical content (presidents) and speech act type (listing).

The lists were prosodically annotated using the ToBI annotation system (Beckman and Ayers Elam, G. 1997). As most list items were produced in their own intonational phrase, and a single list did not always have consistent intonational contours across list items, each list item was considered separately. The f_0 range for each list item and several contour-specific measurements, including the f_0 range of phrase-final rises and rise-falls, and, for plateau contours, the f_0 of the plateau, were extracted.

Logistic mixed effects models were built to examine phonological variation in the use of three common contour types- rises, rise-falls, and plateaus- based on age, religion, language status (Yiddish speaking or not), gender, and list status (exhaustive or non-exhaustive). Plateaus were more likely to be used on items in non-exhaustive lists, as expected given Ladd (1978). However, Yiddish speakers were significantly less likely to use rises, and more likely to use plateaus, on non-exhaustive lists compared to non-Yiddish speakers, both Jewish and not. Linear mixed effects models were built to examine phonetic variation in the f_0 measurements based on the same social factors. Jewish speakers (including the Yiddish speakers) produced larger f_0 ranges than non-Jewish speakers, and Yiddish speakers produced larger rise-falls than non-Yiddish speakers (both Jewish and not).

This variation in f_0 range based on religious status in this city points to intonation being a part of the Jewish English repertoire used there. In addition, the Yiddish speakers, who were all Jewish, show some distinctions from the non-Yiddish speakers, both Jewish and not, in the use of different contour types in list production and in the f_0 realization of rise-fall contours, potentially indicating generation-from-immigration based variation in intonation within the Jewish English repertoire.

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Probabilistic Minimalist Grammars for the Analysis of Syntactic Variation

Heather Burnett #114

In recent years, there has been growing interest in the grammatical modelling of intra-speaker syntactic variation. For example, probabilistic grammatical treatments of the shape and conditioning factors of variable phenomena such as voice alternations (Bresnan et al., 2001) (ex. *You see the man vs The man is seen by you*), argument structure alternations (Bresnan and Hay 2008) (ex. *John gave a book to Mary vs John gave Mary a book*), and variable negative concord (de Swart 2010) (*I (don't) see no one*) have been developed for constraint-based frameworks, and, within derivational frameworks, both probabilistic (Nevins and Parrot 2008) and non-probabilistic (Adger 2006, Adger and Smith 2010, a.o.) analyses of the variable realization of certain kinds of agreement morphology have been proposed. However, derivational treatments of the kinds of syntactic alternations cited above have yet to be developed. This paper aims to provide a general probabilistic derivational framework for the analysis of variable syntactic phenomena, and, in doing so, contribute to cross-disciplinary communication between the fields of formal syntax and language variation and change. More precisely, we give a probabilistic extension of Stabler's *Minimalist Grammars* (MGs) (Stabler 1997, a.o.), which formalize the key aspects of Chomsky's *Minimalist Program*.

MGs adopt a very strong version of the *Borer-Chomsky Conjecture*: variation between grammars reduces to variation in feature specifications of lexical items. Thus, every MG can be given as a list of lexical items with their appropriate features.

Definition 0.1 An MG $G = \langle \Sigma, F, \{::, : \}, Lex, MERGE \rangle$, where Σ is a non-empty alphabet. F is the set of syntactic features. $::$ is the type of lexical expressions and $:$ is the type of derived expressions. Lex is a finite subset of $\Sigma^* \times \{::\} \times F^*$. $MERGE$ is a single syntactic rule (Stabler 2011).

Since $MERGE$ is the only syntactic rule, we cannot model variation through inducing a probability distribution on the set of syntactic rules with overlapping domains, as in variable rule grammars (Cedergren and Sankoff 1974). Instead, we will have non-determinism in the composition of features sequences on lexical items:

Definition 0.2 Let \mathcal{G}_{Lex}^G be a lexical grammar associated with an MG G such that $\mathcal{G}_{Lex}^G = \langle Phon, R_{Lex}, P_{Lex} \rangle$, where $Phon \subseteq \Sigma^*$. R_{Lex} is a set of functions such that for all $R_{sf} \in R_{Lex}$,

- $Domain(R_{sf}) = \{s\}$, for $s \in Phon$; $Range(R_{sf}) \subseteq \Sigma^* \times \{::\} \times F^*$.
- $s \Rightarrow_{R_{sf}} s::f$, for some $f \in F^*$.
- P_{Lex} is a probability distribution on R_{Lex} such that for all $s \in Phon$,
 - $\sum_i P_{Lex}(R_{sf_i}) = 1$.
 - $P_{Lex}(R_{sf}) \geq 0$, for any $R_{sf} \in R_{Lex}$.

A probabilistic MG is a grammar $G = \langle \Sigma, F, \{::, : \}, Phon, \mathcal{G}_{Lex}^G, MERGE \rangle$, where \mathcal{G}_{Lex}^G is a lexical grammar with domain $Phon$.

Since MGs are given by listing the lexicon, the probability distribution over the rules that generate the lexicon defines a probability distribution over the MGs themselves. Thus, the formalism captures the intuition that syntactic variation is a kind of ‘switching’ between grammars made available by UG (Kroch 1989), while avoiding the proliferation of grammars inside the speaker’s head. Finally, we give a short illustration of the utility of this framework through a grammatical analysis of person hierarchy effects in English voice alternations (Bresnan et al. 2001).

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Multiple Realizations of Creaky Voice: Evidence for Phonetic and Sociolinguistic Change in Phonation

Patrick Callier and Robert Podesva #294

Although recent work in phonetics has established multiple articulatory bases for creaky phonation (Slifka 2006), with distinct acoustic reflexes (Garellek and Keating 2015), sociolinguists have not considered how the multiple realizations of creak are socially distributed. This paper reports on a large-scale acoustic investigation of conversational data, demonstrating that creaky voice exhibits distinct acoustic properties depending on phrase position and that positional effects are weakening over time, as younger speakers expand the range of prosodic environments in which they creak.

Sociolinguistic interviews with 93 white speakers from California's Central Valley were transcribed and force-aligned. Measures of spectral tilt ($H1^*-H2^*$, Di Canio 2009) and periodicity (cepstral peak prominence, or CPP) were made for all vowels, each of which was also coded by a neural network classifier trained to detect creaky voice (Kane et al. 2013).

Mixed effects regression models reveal that, in addition to the expected linguistic factors, several social factors condition the realization of creaky voice: women are creakier than men overall; like younger women, older women exhibit high levels of creak; and younger men, who are creakier than older men, creak almost as much as young women. Results also show a weakening in apparent time of positional constraints on creaky voice. All age cohorts exhibit the well established (e.g., Henton and Bladon 1988) preference for creak in phrase-final position, but as speaker age decreases, creak is increasingly licensed at earlier phrase positions. We infer that the increased incidence of creaky voice among younger speakers may be due to its spreading into previously disfavored prosodic contexts.

We further observe distinctive acoustic properties of creak appearing in (previously disfavored) non-final position, suggesting different articulatory configurations in different environments. In a hand-coded subset of 500 randomly selected phrases, we compared phrases exhibiting creak on or after the nuclear phrase accent (final creak) and those with one or more syllables of creak before the nuclear accent (extensive non-final creak). Phrases with final creak decrease in periodicity (CPP) across the phrase, for both men and women, but men's $H1^*-H2^*$ increases across the phrase in such contexts, whereas women's decreases. This divergence indicates that men and women implement final creak using different articulatory mechanisms, both of which result in irregular phonation but which may diverge in their level of overall glottal tension (cf. Slifka 2006). This sex-class difference does not hold in contexts of extensive non-final creak, which is uniformly characterized by low or dipping periodicity (CPP) and increased glottal tension (lower $H1^*-H2^*$).

We conclude that non-final creak's differing acoustic profile among younger speakers reflects a different articulation, and potentially distinctive perceptual quality, compared to the final creak of all age cohorts. This may offer a partial explanation for creaky voice's recent appearance in public discourse and points to the importance of attention to phonetic detail in the analysis of

multidimensional variables like phonation. Although a single acoustic measurement may not always be available as a proxy for a phenomenon of interest, this paper offers a strategy for incorporating multiple measures into a single analysis.

On the difficulty of ignoring irrelevant sociolinguistic information

Kathryn Campbell-Kibler and Elizabeth McCullough #38

The third wave of variation has raised crucial questions about the degree of conscious control that speakers exercise over their sociolinguistic behavior. Based on insights from psychology, we can frame this question as how such behavior draws on different cognitive processes, whether slow or fast, accessible or inaccessible to conscious awareness, and effortful or effortless (Evans 2008).

This study asks how much conscious control listeners have over the different types of information contributing to their sociolinguistic perception, taking audio vs. visual information as a starting point. McGurk and MacDonald (1976) demonstrated that visual information contributes to speech perception, while others have shown that social perceptions, for example emotion perception, likewise integrate face and voice information (Muller et al. 2011).

Two perception experiments tested listeners' abilities to suppress audio or visual information by exposing science museum visitors to 15 face-voice combinations involving native and non-native productions of English words. In multiple conditions, listeners assessed how accented (N = 449) or good-looking (N = 442) they found the target. In the "speaker" condition, the face and voice were presented together for rating as a unified talker. In the "face" condition, listeners were told the face and voice were different people and asked to rate only the person represented by the face. Similarly, in the "voice" condition, listeners were to rate only the person represented by the voice. In the latter cases, listeners were instructed to attend to the irrelevant stimulus but not use it for rating purposes. This explicit relevance manipulation was crossed with conceptual relevance (voice for accented and face for good-looking) to create six conditions. Ratings were analyzed using mixed-effects linear regression models.

The results indicate that listeners can reduce their use of a given modality but have trouble completely eliminating it. They also suggest that faces are more easily ignored than voices and that conceptual relevance contributes substantially. All instructions to ignore a given modality showed significant and substantial reduction. Nonetheless, all conditions showed contributions from both modalities except listeners rating accentedness in the "voice" condition, who succeeded in eliminating face input (face beta = 0.0098, $p = 0.806$). The "voice" condition for good-looking showed a reduced but significant face contribution (beta = 0.2058, $p < 0.001$), while voices in the "face" condition had an effect on both accented and good-looking perceptions despite being presented as irrelevant (accented beta = 0.2982, $p = 0.002$; good-looking beta = 0.0643, $p = 0.001$). Perceived face-voice match mediated the irrelevant information in some conditions.

These results support work in sociophonetics and social psychology showing that irrelevant information is sometimes incorporated into perceptual processes, in both speech perception (Hay & Drager 2011) and social perception (Carlston & Mae 2007). We suggest that the contribution of a given cue to a perception is mediated by multiple factors, including explicitly accessible relevance, conceptual relevance, and perceived congruence with other more central cues. We hope to encourage more work on the interplay between consciously accessible information and incidental exposure in sociolinguistic perception.

The High Arctic relocation: a case of new dialect-formation in Inuktitut

Julien Carrier #132

In Inuktitut, transitive verbs appear in three syntactic constructions, namely *the ergative*, *the antipassive* and *the passive*.

South Baffin Inuktitut (Spreng, 2005: p.2-3)

- | | | | | |
|----|-----------------------------------|---------------------------------------|--------------------------------------|---------------|
| a. | <i>anguti-up</i>
ERG | <i>arnaq</i>
woman.ABS | <i>kunik-taa</i>
kiss-IND.03S.S3S | ERGATIVE man- |
| | ‘The man kissed the woman’ | | | |
| b. | <i>anguti</i>
man.ABS | <i>arna-mik</i>
woman-INST.SG | <i>kunik-si-vuq</i>
kiss-AP-S3S | ANTIPASSIVE |
| | ‘The man is kissing a woman’ | | | |
| c. | <i>arnaq</i>
woman.ABS | <i>kunik-tau-juq</i>
kiss-PASS-S3S | <i>anguti-mut</i>
man-ABL.SG | PASSIVE |
| | ‘The woman was kissed by the man’ | | | |

Traditionally, theoretical linguists argue that *the ergative* is used when the patient is ‘definite’ and the aspect is ‘perfective’ and *the antipassive* when the patient is ‘indefinite’ and the aspect is ‘imperfective’ (e.g. Fortescue 1984, Sadock 1984, Spreng 2012), as (a) and (b) suggest. However, numerous examples in the literature contradict this hypothesis and show that those factors are not categorical (e.g. Bittner 1987, Carrier 2012). Also, very little has been said so far about *the passive* and the properties of the agent in those constructions. This study analyses the alternation by using a multivariate regression analysis to examine the simultaneous effects of multiple factors, which to my knowledge had never been done in Inuktitut.

The data was collected in Resolute Bay (Nunavut), an Inuit community created in the 1950’s after the Canadian government relocated Inuit families from Inukjuak (Nunavik) and Pond Inlet (Nunavut) into this uninhabited area. Thus, the older inhabitants speak either the North Baffin dialect or the Nunavik dialect while the younger ones speak arguably a mixture of both. The fact that different Inuktitut dialects are spoken in the community is particularly interesting since it has been reported that *the ergative* is used progressively less in favor of *the antipassive* in some Eastern Canadian dialects (Johns 2001 and 2006, Carrier 2012).

20 speakers were recorded telling a personal story and 1108 transitive sentences were examined. Some factors discussed in the literature have their predicted effects. For example, *the antipassive* is favored with an ‘indefinite’ patient and *the ergative* is almost categorically found with a ‘definite’ patient. However, grammatical aspect is not relevant in the alternation. On the other hand, the analysis introduces other significant factors that had not been proposed yet. Among others, we observe a person hierarchy involved in *the ergative*, according to which a ‘first/second’ person agent and a ‘third’ person patient highly favor the variant. Similarly, we note an animacy hierarchy in *the passive*, in which a ‘human’ patient and a ‘nonhuman’ patient favor the construction. Furthermore, the group from Nunavik, who was larger than the one from North

Baffin, has influenced more the first generation of speakers all born and raised in the community. The analysis shows that the Nunavik dialect is affected by the phenomenon of fading ergativity, as reported in other dialects, and that the particularities in the latter are even more substantial in the 'new' Resolute Bay dialect. In a nutshell, we see that the patient in *the antipassive* is gradually less constraint while it is the opposite for the agent in *the ergative*.

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Looks like change, dunnit? Negative polarity tags in three varieties of British English

Claire Childs #34

Negative polarity tags in British English are highly variable in form but can be categorised into three groups, illustrated below: (1) full forms, e.g. *didn't, isn't*; (2) reduced forms where the original tag has undergone phonetic attrition, e.g. *dint, int*; (3) coalesced forms (e.g. *dunnit, innit*), which represent a further stage of reduction where the verb and pronoun become a single unit. These types therefore represent three steps in a chronological process of reduction, where coalesced tags are the most recent innovations (Andersen 2001; Pichler 2013). My paper explores the diversity of the negative polarity tag system in three Northern British dialects, to examine whether this reduction process is advancing consistently across space.

1. It's a bit sad, *isn't it?*
2. Cause it's a dead old building, *int it?*
3. That's a bit daft, *innit?*

Over 1,000 negative polarity tags were extracted from vernacular speech corpora from Glasgow, Scotland (1997, 2003), Tyneside, North-East England (2007-11) and Salford, North-West England (2011-12). Variationist analysis reveals that Glasgow speakers use reduced tags most often (46.3%), followed by coalesced (32.4%) and full forms (21.3%), whereas in Salford the three types have near-equal frequency. In Tyneside, on the other hand, full forms constitute the majority of tokens (70.4%), alongside 22.6% coalesced and 7% reduced. The adoption of reduced/coalesced tags is therefore less advanced in Tyneside than in Glasgow and Salford, which is further emphasised by the social trends: e.g., in paradigmatic ISN'T IT contexts, *innit* is used more by young people (the prototypical innovators in changes from below (Labov 2006)) and men in each locality, but Tyneside displays the greatest social differentiation in these respects.

Each community's overall trends are maintained with different verbs and pronouns. As for discourse-pragmatic function, although tag reduction correlates with non-conductive (as opposed to conducive) functions in Tyneside, it is addressee-orientation (versus speaker-orientation) that is the relevant factor in Salford. This result runs contrary to the usual finding that functional correlates of discourse-pragmatic variables are constant cross-dialectally. For example, quotative BE LIKE's propensity for introducing internal thought as opposed to direct speech is consistent across US, UK and New Zealand English (Buchstaller & D'Arcy 2009:

and varieties of Canadian English (Tagliamonte & Denis 2014: 127). Research into invariant tags (e.g. *eh, yeah*), on the other hand, has shown that these markers have different sets of functions in different world Englishes (Columbus 2010). My results reveal that this characteristic can be extended to negative polarity tags, showing that tags more generally (and potentially other right-periphery elements) are subject to variety-specific functional nuances.

As this study demonstrates, the comparative sociolinguistic approach grants a unique perspective on variation and change within the negative polarity tag system, revealing that while linguistic trends in the distribution of variants may be robust cross-dialectally, effects of

discourse-pragmatic function do not necessarily conform. Consistent social trends in usage across communities show that variables are undergoing the same change, but it is the magnitude of differentiation between the social groups that reveals each community's stage along the trajectory.

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Indexing racial and local identities: A preliminary examination of phonological variation in two New Orleans neighborhoods

Lauren Colomb #343

New Orleans' unique historical geography has directly resulted in the creation of a distinctive culture, ethnicity, and language varieties (Campanella 2008). Despite its complexity, the linguistic climate in New Orleans is vastly understudied. Most academic treatments of English in New Orleans focus on the language of working-class Whites ("Yats") (Coles 1997, 2001; Eble 2006; Carmichael 2012). Any discussions addressing African American speech in New Orleans do little more than make broad, homogenizing, and essentializing references to African American English (White-Sustaíta 2012). However, it is clear that the linguistic and racial distinctions are much more complicated than what this literature might suggest. Historical and current folk discussions of the city's language, however, acknowledge and embrace the variation found across the city (Alvarez & Kolker 1985; Champagne 2012; Taggart 2013; Campanella 2008).

Yat is understood as uniquely "New Orleans," and its use is indexical of native, authentic New Orleans (Coles 1997, 2001; Carmichael 2012). This is problematic, though, because it might suggest that authenticity is restricted and limited to working-class Whites. In contrast, however, there are a striking number of linguistic similarities across racial lines in New Orleans; for example, distinct variation in phonology (e.g., *goil* for *girl*; *earl* for *oil*) and syntax (e.g., emphatic reduplication as in *I'm not just tired, I'm tired tired*; *ain't* for *be not* and *do not*) are found in the speech of both African American and White working-class New Orleanians (White-Sustaíta 2012). That is not to suggest that these two groups are linguistically identical, but rather that these similarities may index locally salient authenticity (or authenticities) across racial lines.

This paper preliminarily explores these linguistic similarities by examining interviews and oral histories collected from speakers from two New Orleans neighborhoods, the Lower Ninth Ward and St. Bernard Parish. These neighborhoods are similar in socioeconomic status, physical location, nativity rates, and historical geography; they are, however, clearly racially stratified with each being almost exclusively African American and White, respectively (Campanella 2008). Because these fixed macro categories are relatively clear cut in each neighborhood, it is reasonable to use neighborhood residence as a proxy to identify racial, local, and social identities.

The present paper focuses on the phonological variation present across these neighborhood, and therefore racial, boundaries. There are phonological features that are shared between these two groups; some of these features are specific to New Orleans (including the *er~oi* reversals mentioned above), while others are similar to other nonstandard varieties like generalized African American English (cf. Rickford 1999; Green 2002), including significant post-vocalic r-lessness. In contrast, there are features that seem to index a specifically African American New Orleanian identity, distinct from both the White "Yats" and these generalized AAE descriptions. This paper explores the ways in which these speakers index various locally salient identities through phonological variation.

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The Future's Path in Three Acadian French Varieties

Philip Comeau, Ruth King and Carmen Leblanc #162

Over the last decades, there has been a virtual explosion of variationist studies of future temporal reference in French on both sides of the Atlantic. For North American varieties, there is largely a split between Acadian and Laurentian results. Prior research on Newfoundland and Prince Edward Island varieties of Acadian French shows them to be closely in line with descriptions of 17th century French in that temporal distance from the moment of speech constrains choice between the inflected (1) and the periphrastic future (2). On the other hand, Laurentian varieties appear to have almost entirely lost this constraint and the choice of variant is mainly governed by sentential polarity (Wagner & Sankoff 2011).

1. Ça fait qu'on **fera** brûler le château. (IM09) 'So we'll burn down the castle.'
2. On **va faire** sauter le pont. (IM-09) 'We're going to blow up the bridge.'

The present study focuses on systematic comparison of three varieties of Acadian French for speakers born at the turn of the 20th century. The communities – Baie Sainte-Marie, Nova Scotia (BSM); Îles de la Madeleine, Quebec (IM); and L'Anse-à-Canards, Newfoundland (AC) – differ considerably in their settlement patterns and contact histories across time. The BSM variety is at one end of a continuum due to dialect isolation across several centuries while the IM variety is at the other end due to successive waves of Acadian settlers from the late 1700s onwards. The AC community is in an intermediary position, but with the added dimension of late 19th century secondary settlement involving speakers of a European French variety. We are thus able to determine if constraints found to be in place in recent research were also operational in these varieties before substantial 20th century contact with supralocal (including Laurentian) varieties of French or with English.

The study involves variationist analysis of data for twelve speakers per community born between 1870 and 1930, drawn from both archival sources and sociolinguistic interviews, in fact the oldest available audio recordings for the varieties. The comparison across FTR systems shows different stages of the grammaticalization of the periphrastic future: 1) the results for BSM, the community with the least contact, show vestiges of the earliest stage of grammaticalization of this variant (Fleishman 1982), since it functions to mark imminence more so than general proximity; 2) both BSM and AC results mirror those of earlier Acadian research in that temporal distance but not polarity is selected as significant; and 3) for IM, we see a system which shares aspects of both Acadian and Laurentian systems with significant effects for both temporal distance and polarity. This first variationist analysis of FTR for any IM variety indicates a point on the PF's grammaticalization path between that indicated by the AC results and that found in studies of Laurentian French, where the PF has become the general future marker. Our comparison shows how sociolinguistic history helps explain the grammaticalization stages reached in these Acadian varieties and also sheds light on the future system in French more generally.

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The Gap Effect in Quantitative Sociolinguistics

Patricia Cukor-Avila and Guy Bailey #300

Panel surveys have become a preferred tool for exploring language change in quantitative sociolinguistics. The reasons for their popularity are clear: (1) their results, unlike those of trend surveys, cannot be artifacts of demographic developments since the same informants are re-interviewed, and (2) they allow for the analysis of individual variation as well as variation within a speech community. The primary weaknesses of panel surveys are well known too: they often suffer from panel attrition and the panel may become less representative over time if the demographics of a community change and new informants are not added to reflect those developments. Since these problems are clearly understood, researchers can easily compensate for them. This paper, however, identifies an issue that is unique to panel surveys (and other longitudinal work) in quantitative sociolinguistics; that is not widely recognized; and that can create significant problems for the interpretation of the results of panel surveys – the GAP EFFECT. The GAP EFFECT refers to the linguistic consequences of breaks in contact between fieldworker and informant during periods between interviews in longitudinal studies. These gaps often result in a diminution of the familiarity built up between fieldworker and informant and a consequent reduction in the use of stigmatized linguistic features in the first interview after the gap. During subsequent interviews, however, the use of stigmatized features increases and approaches levels of use before the gap.

Data on zero copula and zero 3rd singular from the panel survey portion of the Springville Project illustrates how the GAP EFFECT works and how it can lead to erroneous inferences about changes in linguistic behavior. The Springville Project includes a panel survey with sixteen informants who were interviewed multiple times over a period of years since 1988. In addition to interviews over a span of years, the Project also includes multiple interviews within a single time frame for most informants. The latter allow us to assess the effects of time gaps between interviews in the panel survey. The data suggest that when there is a time gap of more than two years between interviews, the occurrence of zero generally declines in the first interview only to increase in subsequent ones. For example, in the two-year gap between 1989-1991, Vanessa's average zero 3rd singular declines about 6% and in the three-year gap between 1992-1995 it declines just over 10%; however, in the nine-year gap between 2000-2009 her rate of zero 3rd singular drops approximately 23% and in a subsequent interview it approximates earlier averages. Brandy's average zero 3rd singular in the first interview after an 18-month gap is negligible, yet in the first interview after a seven-year break in contact (2009), the use of zero declines almost 44%, and in an interview the next day it increases over 30%. It would be easy, especially in the latter case, to attribute the decline to changes in linguistic behavior, but as subsequent interviews show, what appears to be a change in linguistic behavior is only the GAP EFFECT.

Variation in the signal: Remnants of social correlation in a completed sound change

Meg Cychosz #159

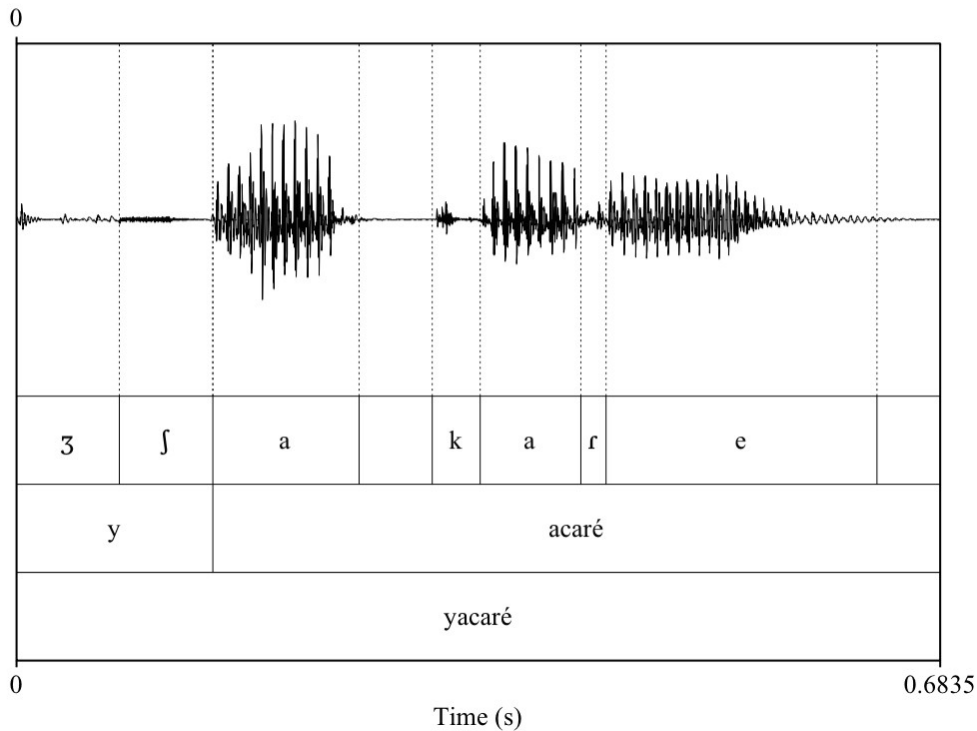
This devoicing of the palatal consonant, also known as *sheísmo*, is a distinctive trait of Buenos Aires Spanish. The sound change and variation present between the original voiced variant and the current devoiced (see 1) have been attributed to a variety of social factors since the devoiced variant was first observed amongst young women (Fontanella de Weinberg 1978; Wolf & Jiménez 1979). Although current research has shown that this sound change is complete and no longer stratified between men and women (Chang 2008; Rohena-Madrado 2011), from a perception standpoint, the status of the variable and the remnants of social correlation remain unexamined.

1. lei[ɰ]ure to lea[ʃ]es
 “leisure” “leashes”

As such, this study examines the gender identity stereotypes associated with the palatal variable in an analysis of the perceived masculinity of male speakers of Buenos Aires Spanish ($N=6$). Perceived masculinity is defined as the manner in which listeners perceive speech and how, via acoustic recordings, listeners subsequently identify the masculinity of the speakers.

Two distinct populations of L1 Spanish speakers completed the perception tasks: Buenos Aires Spanish ($N=10$) and peninsular Spanish ($N=9$) with each group balanced for gender. Peninsular Spanish speakers offer an ideal control group for this study as they are far removed from the social context of Buenos Aires and no participants had lived in Argentina or had extensive contact with the Argentine variety. For the perception tasks, three variants, each of equal duration, were utilized: [ʃ], [ɰ], and a partially voiced variant between the two, acoustically synthesized utilizing PRAAT (see 2) (Boersma & Weenink 2015). These three variants were spliced into the lexical items *calles* (streets), *vayamos* (we go), and *yacaré* (alligator) and two perception tasks were then presented to participants: 1) a standard AXB discrimination task run in PRAAT and 2) a matched-guise task in which participants ranked the variant presented along a 5-point scale of masculinity from “very masculine” to “more effeminate”.

Multinomial logistic regressions, conducted utilizing SPSS, show that speakers of Buenos Aires Spanish and peninsular Spanish did not significantly differ on the traditional discrimination task. Both groups of speakers successfully distinguished between the voiced and in between variant – but not the devoiced and in between variant. Concerning the social correlation task, results show that speakers of peninsular Spanish selected the less extreme scores (2-4) on the scale of masculinity. This finding could be attributed to peninsular Spanish speakers’ lack of exposure to palatal variants non-existent in that variety. Although no significant relation was found between variant presented and ranking, differences between the groups of speakers on the social task demonstrate that even a completed sound change may yet demonstrate some social stratification, a finding in line with previous works (Blake & Josey 2003). Finally, these results demonstrate the importance of expanding binary [+/- voiced] variants for a more fine-grained acoustic analysis in studies of language attitudes and speech perception. Through the incorporation of such methodology, this work looks to contribute to variationist sociolinguistics and acoustic approaches to sociophonetics.



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Nisei style: Vowel dynamism in a second-generation Japanese-American community

Annette D'Onofrio and Janneke Van Hofwegen #364

On February 19, 1942, President Franklin Roosevelt signed Executive Order 9066, culminating in the forced relocation and detainment of over 110,000 people of Japanese ancestry living in the United States. Two-thirds of these individuals were US-born, second-generation Japanese-Americans, or *nisei*.

Having lived in the US their whole lives, the *nisei* were native speakers of American English, speaking Japanese only in the home, if at all. To date, there are only two linguistic analyses on the English variety spoken by this generation. Spencer (1950:242) described the variety as “somewhat distinctive and aberrant,” from not only mainstream (white) American English, but also from the preceding and subsequent generations. In a variationist analysis, Mendoza-Denton and Iwai (1993) auditorily coded FACE and GOAT vowels in 4 Japanese-American and 4 white speakers, finding that *nisei* produced more monophthongal vowels than either European-American or *yonsei* (fourth-generation) speakers.

In this study, we build upon Mendoza-Denton and Iwai's (1993) auditory study by instrumentally assessing vowel-intrinsic spectral change in FACE and GOAT vowels among *nisei* in another speech community. Sociolinguistic interviews were conducted in 2010 with 4 *nisei* from Livingston, California (2 women, 2 men; aged 80+), all detained as young adults in Colorado. These speakers were compared with 4 white speakers from the same county, matched for gender and approximate age.

All tokens of stressed FACE and GOAT vowels (N=2652) were extracted from each interview. 50 equidistant F1 and F2 measurements were taken along each vowel's duration and normalized by speaker. To reduce coarticulatory effects, the first and last 20% of these measurements were excluded, leaving 30 measurements to calculate two quantitative measures of vowel dynamicity: trajectory length (TL) and spectral rate of change (SROC) (Fox & Jacewicz 2009). TL measured total distance traveled in F1/F2 space across each of the 29 intervals, while SROC indicated the speed of this movement. Mixed effects models for each vowel class (FACE and GOAT) assessed fixed effects of *ethnicity*, *gender* and *token duration* on TL and SROC, with random effects of speaker, word, and phonetic environment.

For both measures, for both vowels, Japanese-American speakers were significantly more monophthongal than white speakers. Further, for FACE, gender interacted significantly with ethnicity: Japanese-American women produced more monophthongal FACE vowels than Japanese-American men, while the gender pattern reversed in white speakers. The groups of women therefore comprised the poles in this sample, with Japanese-American women most monophthongal, white women least monophthongal, and both groups of men between the two.

Adding to work on vowel dynamism in sociolinguistic patterning (Koops 2010, Risdal & Kohn 2013), these findings instrumentally show significant and systematic differences between *nisei* and white speakers' uses of monophthongization in this community. Though the likely origin of FACE

and GOAT monophthongization in *nisei* English is Japanese substrate, the fact that it plays out differently between vowels, and across genders, suggests it to be much more than substrate alone. Rather, these findings illustrate that substrate features can be taken up as stylistic resources, in this case to construct a distinct *nisei* style.

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Variation Patterns in Bilingual Speech: Adversative Words in South Tyrolean

Silvia Dal Negro and Simone Ciccolone #117

The domain of connective words is well known in language contact studies, both in terms of borrowing and as a frequent switching point in bilingual speech. Of all connective words, those marking contrast have proven to rank very high on various borrowability scales cross-linguistically and within single languages. The fact that adversative values are further strengthened by the contrastive effect produced by code switching has been called for as a reasonable explanation (see for example Maschler 1997), but the picture is more complex than that and other explanatory points of view have been put forward (Matras 2009). All of them, however, remark the special status of contrast in contact linguistics.

A particularly interesting fact is that different functions of adversative words seem to be treated differently in situations of language contact: Notably, adversative particles used as discourse markers are borrowed more often (or earlier) than adversative conjunctions endowed with full semantic meaning. Such asymmetries offer an ideal field for an investigation of variation of use in bilingual speech in order to figure out whether borrowed adversative particles specialize in specific functions and distributional patterns or not, and if this specialization is a function of bilingualism type and degree.

These hypotheses will be tested against a corpus (of about 130.000 tokens) of spoken German (dialect) collected in South Tyrol, an officially bilingual (Italian-German) region in Northern Italy, in which different degrees of individual and community bilingualism (and monolingualism) coexist. In particular, the corpus documents the local German community and its variable degrees of permeability to the national language (Italian). In data analysis we consider distributional patterns of Italian *ma* and Tyrolean German *obâr* (both more or less corresponding to English *but*) taking into account both linguistic factors, such as function of adversative particles, their occurrence in recurrent word combinations, activation of code-switching, and external factors, such as geographical area within the region, degree of bilingualism (in individuals and in conversations), situational variation (spontaneous vs. elicited kind of data).

From the first results of the analysis, a multifaceted picture emerges. On one side, distributional patterns of *ma* and *obâr* do not overlap, in that *ma* tends to crystallize in very frequent fixed formulas, whereas *obâr* occurs in a much greater variety of word combinations. Moreover, such fixed forms occur more frequently as (clause initial) insertions in monolingual German segments (and more generally conversations), whereas a broader and varied distribution of *ma* is correlated with language alternation and a more extensive activation of bilingual mode, which is typical of some bordering areas of the region.

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Vous vous prenez pour qui_hhh?: Speaker identity and style in the realization of French final vowel devoicing

Amanda Dalola #64

Phrase-final vowel devoicing (PFVD), e.g. *mais oui_hhh*, is a phenomenon in Metropolitan French (MF) in which utterance-final vowels lose their voicing and produce fricative-like whistles (Fónagy, 1989). Most of the scholarly attention on PFVD has focused on its phonological conditioning, revealing that high vowels /i,y,u/ devoice most often in declarative phrase-final position, where intonation in MF canonically falls (Fagyal & Moisset, 1999; Smith, 2002, 2003; Martin, 2004). In the literature, PFVD is often associated with Parisians and females (Fagyal & Moisset, 1999; Smith, 2006), although no study has expressly tested either claim. Age findings have also been reported—the oldest and youngest of three arbitrary age groups found to be the highest producers of PFVD (Fagyal & Moisset, 1999)—however, no study has tested age as a continuous variable or across a large sample population. A recent perception task (Author, 2014) found that native MF speakers perceive PFVD as indexing both positive speaker traits of FORMALITY and negative speaker traits of EMOTION. Such findings warrant an investigation of stylistic variation in its *production*, particularly for features used to manifest such traits, like register, speech rate and affect.

The goals of this study are to test prior claims that PFVD marks Parisians and females in peripheral age groups, and determine the effects of register, speech rate and affect. PFVD was elicited from 71 native MF speakers (48F, 23M) in a two-part reading/role-playing task targeting phrase-final tokens of /i,y,u/ (72/participant=5112 total). The reading task elicited scripted speech; the role-playing task exploited Bell's (1984) notion of imagined audience, by targeting controlled naturalistic speech with explicit pragmatic directives, e.g. *You are angry and calling a hotel to complain about bad service*. Each target vowel was coded for the binary presence of PFVD, determined by a drop in intensity and lack of voicing bar in the spectrogram. Measures of age, gender, self-reported Parisianness, place of longest residency (not France, France but not Paris, Paris), register (familiar, formal), speech rate (reading, conversational, careful) and affect (apathetic, passionate) were fitted to a logistic mixed-model regression with PFVD occurrence as the dependent variable and word and participant as random effects (Drager & Hay, 2012). Results indicated no significant effect for gender ($p=.13$), Parisianness ($p=.65$), or longest residency ($p=.60$), but did find effects for age (PFVD 1.05 times more likely for every 1-year increase in age; $p<.01$), register, speech rate and affect: apathetic ($p<.001$) >> familiar, formal ($p<.01$) >> conversational[ref] >> reading, passionate ($p<.05$) >> careful ($p=.001$).

These results are meaningful because they refine previous reports concerning PFVD and age, present robust evidence against PFVD's association with Parisians and females, and confirm perception findings with production data to suggest that PFVD rates are sensitive to both individual speaker traits *and* shifts in register, speech rate and affect. The present work has implications for sociophonetics: not only do MF speakers readily perceive PFVD, but they adeptly manipulate it for stylistic and social effect.

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Phonological markers of neighborhood identity in Anchorage, Alaska

Clare Dannenberg and David Bowie #264

The past few years have seen quite a bit of research on what is variously called the California or Canadian Shift (see, among several others, Boberg 2011; Kennedy & Grama 2012), in which the front lax vowels undergo a chain shift of lowering and/or retraction. This shift has been found in a wide range of locations across North America, including Alaska's population center, Anchorage (Romig 2013). This paper extends the research done on this shift in Anchorage in an attempt to move toward a better understanding of the dynamics of language variation. Anchorage presents a particularly compelling laboratory for such investigations, not least because it is a relatively recently founded and highly ethnically and linguistically diverse urban environment (Farrell 2013) in a location relatively distant from other predominantly English-language cities.

We report on early results of an ongoing research project in Anchorage, Alaska to document two things: The sociophonetics of the region, and linguistic markers (both quantitative and qualitative) of local identity. To investigate the relationship between these markers, 19 residents of Anchorage were interviewed, with interviews consisting of an open-ended discussion designed to produce narratives (focusing particularly on local geography and experiences), questions designed to measure degree of local identity, and a reading passage (Arthur the Rat, modified to oversample variables of interest in the region).

Earlier research in the area found evidence of the California/Canadian Shift. In addition, the researchers have observed possible raising of short-*a* before [g]. Acoustic analysis of interviewees' vowel production verifies that both of these are present in Anchorage. Further, the degree to which these features were exhibited—sometimes in a fairly extreme form—correlates with measures of Alaskan and neighborhood identity, which seems to indicate that these are seen as local, rather than supra-regional (e.g., Western or Northwestern) features.

This indication is particularly noteworthy in light of a separate survey (205 respondents) finding that Alaskans view themselves simultaneously as having an accent, and speaking correctly, despite expectations that individuals who would self-identify as speaking correctly would also self-identify as being accentless (e.g., Niedzielski 2010; Preston 1996; Preston 2013). To explain this counter-normative finding, supplemental qualitative evidence is offered to highlight the ways in which the strong local orientation of many Alaska residents leads them to resist influences from other (i.e., non-Alaskan) norms.

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Race, Gender, and /u/: Social Perceptions of a Less Conscious Sociolinguistic Feature

Zachary De #149

One current change in progress in North American English is the fronting of the back upgliding vowel /u/ (Labov, Ash, and Boberg 2006). While much research has focused on the production of this vowel, showing that younger, White, educated, urban females are more likely to front /u/ (Labov, Ash, and Boberg 2006; Fridland and Bartlett 2006; Hinton et al. 1987) and that /u/ is used to perform local identities (Bucholtz 1998; Hall-Lew 2004), little work has been done concerning how listeners evaluate /u/ (but see Torbert 2004). The current study seeks to fill this gap in the literature by asking: what is the meaning of /u/ in perception and how is it modulated by perceived speaker race and gender?

In order to answer these questions, a matched guise test (Lambert et al. 1960) was conducted with 12 speakers from the SLAAP corpus (Kendall 2007). Speakers were equally and orthogonally divided by gender (male and female) and race (Black and White). Sentences were selected containing exactly one token of /u/, which was then digitally manipulated to “back” and “front” positions. All 24 recordings (12 speakers x 2 guises) were then played to 94 college student listeners, who rated each recording on several 6-point Likert scales, including how feminine, intelligent, urban and trendy each speaker sounds. After conducting a factor analysis, responses were then analyzed using mixed effects models, with fixed effects for speaker race, speaker gender, /u/ guise, and their interactions.

In addition to differences in ratings across gender and race overall, results indicate that a fronted /u/ makes a speaker sound more feminine ($p=0.0015$) and more White ($p<0.0001$), which follows the expected social pattern in production. Listeners also evaluated fronted /u/ as more intelligent than backed /u/ ($p<0.0001$); however, there was a significant race-gender-/u/ interaction ($p=0.0008$), such that Black male talkers were not rated as more intelligent in the front /u/ condition. Furthermore, listeners rated recordings with fronted /u/ as more trendy ($p=0.0031$), but only for White speakers ($p=0.0072$).

Most surprisingly, listeners evaluated fronted /u/ as *less* urban and *more* country ($p < 0.0001$), implying that within the experiment, listeners confound suburban and country space and imagine fronted /u/ specifically as suburban.

Based on the results from the experiment as well as responses from post-survey questions, I argue that like meanings assigned to fully conscious sociolinguistic features, meanings assigned to features low in explicit awareness are not fixed or uniform. In the case of /u/, two-thirds of listeners did not report paying attention to the word with the /u/ vowel and yet speaker race played a large role in how these same listeners evaluated /u/, especially in the case of “trendiness.” As such, this work further supports the idea that listeners make use of everything in the speech signal in order to form impressions, including features listeners may not be completely conscious of.

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Quantifying the Effects of Ambient Noise on Vowel Formant Measurements

Paul De Decker #338

Sociophoneticians face two problems when it comes to recording casual speech: to choose a natural, acoustically-uncontrolled location and ignore the potentially deleterious effects of ambient sounds, or avoid noisy, natural environments that give rise to vernacular speech styles (Labov 1984) in order to obtain higher quality audio. To date, no systematic studies have been conducted, nor any guidelines established, on the practice of conducting sociolinguistic interviews and the effects of environmental acoustics, particularly ambient noise on commonly studied spectral properties. This paper does this by providing an initial assessment of which noise types are detrimental to common vowel formant analyses. To empirically investigate the effects of noise and their levels of intensity on formant measurements, two male and two female speakers in their early twenties were recorded reading 260 English carrier phrases with an iPad 2 running the field recording tool, iSLR (D'Arcy and Cooley 2013). Each lossless recording was digitally mixed in Praat 5.4 (Boersma and Weenink 2014) with three additional ambient noise conditions at three levels of signal-to-noise ratios (SNR): +20dB, +10dB, and +0dB. One condition simulated overlapping speech; a second was a wide-band white noise which simulated noises like rushing wind and room noise associated with items like air conditioning units or fans; a final condition simulated a 60Hz hum, a noise commonly affecting some lower-quality recordings. Approximately 25,000 vowel tokens were selected for analysis: 700 from each audio recording (x4), under each SNR (x3) for each speaker (x4). Vowels were segmented and aligned using the Prosody-lab Aligner (Gorman, Howell and Wagner, 2011) and F1 and F2 were automatically measured at the temporal midpoint of each vowel using the LPC analysis in Praat.

Results from multiple Pearson's r tests in R (R Core Team, 2014), designed to assess the correlation between measurements from each SNR reveal several significant findings (statistical values omitted for lack of space): positive correlations were found between "noiseless" and +20dB, and +10dB SNR conditions for all vowels and both formants. Only in the +0SNR condition were significant negative correlations identified. The most detrimental condition was White Noise, an effect likely due to its wide band spectrum. Finally, F2 frequencies were altered more often than F1. These results are discussed in full.

We interpret these patterns as having practical importance to where sociolinguistic interviews should be conducted. First, not all noise is detrimental. Second, not all noises affect all vowels or formants equally. Finally, ambient noises up to but not including +0 SNR are less likely to result in measurement error when using automatic formant measurements requiring Praat's LPC algorithm. Therefore, while efforts to reduce loud levels of background noise can be useful, it may not always be necessary to confine speakers to sound attenuated booths to make recordings high-enough in quality to perform common sociophonetic analyses.

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Let's stay positive: "Positive" anymore and polarity sensitivity in the Northwest

Amie Dejong #304

"Positive" *anymore* (e.g., "Movies are awful anymore") has received much attention in the variationist literature (Chambers, 2007; Hindle & Sag, 1973; Labov, 1973, a.o.). Studies found that it is most robust in the Midwestern US, Pennsylvania, and Appalachia, but that it is spreading out (Labov, 1973; Wolfram & Christian, 1976; a.o.). I track this variant today in Washington and Idaho, heavily settled by Midlands immigrants, and examine its progression in apparent time. I apply a more fine-grained analysis of the (dis)favoring contexts of *anymore* across dialects and conclude that they are more complex than earlier studies suggest.

Data comes from a judgment task of 31 sentences with *anymore* in negative, neutral, and positive (or antiveridical, nonveridical, and veridical (Zwarts, 1995)) semantic contexts. The task was administered orally to 19 speakers, raised near Boise, Idaho or various parts of Washington. The oldest age cohort was born before 1950, the youngest after 1972. The results, as in previous studies, form an implicational scale of acceptance (abridged here):

	Acceptance
(1) I don't think (that) he'll do that anymore.	100%
(2) I wonder if they sell those anymore.	100%
(3) I hate going downtown anymore.	68%
(4) It's really hard to find a good job anymore.	61%
(5) Everyone listens to Justin Bieber anymore.	24%

Sentences with *anymore* c-commanded by negation (1) or a hypothetical (2), were accepted by the majority, expected for a negative polarity item. *Anymore* in a veridical clause (5) was only accepted for positive *anymore* dialects. (3) and (4) were accepted by positive *anymore* speakers, but received judgments that did not fit into the implicational hierarchy for the standard American English ("negative" *anymore*) speakers. This, I argue, shows a clear break between two dialects with two different *anymores*, and standard AE speakers' indecision is due to ambiguous veridicality in (3) and (4). Hindle and Sag (1973), however, argue for a single continuous scale of *anymore* use, with a single lexical item.

Multivariate statistical analysis was run using Goldvarb. Region and age are significant: Boise speakers are most accepting of *anymore*, as are the oldest cohort. Veridicality is a strong predictor: veridical contexts were accepted only 16% of the time, versus 62.8% for antiveridical and 69.7% for nonveridical. Higher acceptance of nonveridical contexts is unexpected based on previous semantic work on polarity sensitivity. Novel, statistically significant syntactic results include: embedded clauses are a favoring factor; subject type correlates with acceptance.

This project is one of the first to investigate grammatical variation in northwest North American English. It shows that positive *anymore* is robust in Boise, Idaho, but is either being lost by younger Washingtonians, or did not survive dialect leveling. A detailed study of semantic and syntactic factors shows that there are two lexical items, a "positive" and a polarity-sensitive *anymore*. Other

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Leaders and laggards: the intersection of sex and gregariousness in change

Derek Denis #319

Background: Perhaps the most oft-cited finding of twentieth-century sociolinguistics is that women lead linguistic change (cf. Labov 2001, Eckert 2012, Meyerhoff 2014). While this generalization adequately describes data from languages and speech communities worldwide and is included among Labov's (2001) set of principles of change, it remains underexplained: Why are women the leaders and men the laggards? If we begin with the not unreasonable assumption that biology plays no role in this difference (*pace* Chambers 2009), we must seek explanation in other factors (cf. Eckert 1989). To the extent that it has been investigated, this finding has been explained with reference to class, prestige, and social capital (Trudgill 1974), social networks and mobility (Milroy 1980, Bakir 1986), and social-psychological factors (Yu 2010). This paper continues the latter line of inquiry, examining the intersecting roles of *sex* and *gregariousness* (a social-psychological factor argued to be associated with linguistic innovators [Labov 2001; Eckert 2011]) in the context of interrelated changes to the vowels of Toronto English: the lowering and retraction of [æ], [E], and [I] (the Canadian Shift) and the fronting of [uw].

Data and Method: Twenty-four sociolinguistic interviews were recorded in early 2015; casual speech from 18–30 year old Torontonians was analyzed acoustically using Praat (Boersma and Weenink 2015). The first and second formants of at least fifteen tokens each of [æ], [E], [I], and [uw], along with [i], [u:I], and (merged) [O/A] from each speaker were measured following Roeder and Jarmasz (2010) and Boberg (2010). Frequencies were normalized following the ANAE method (Labov et al. 2006) using NORM (Thomas and Kendall 2007). Each participant completed a Social Network Survey that included the questions 'how many friends do you speak with on a daily/weekly basis?' and 'how many friends/best friends/groups of friends do you have?'. The geometric mean of these five measures is taken as an overall metric of a participant's *gregariousness*.

Results: A series of mixed-effects linear regressions testing the fixed effects of *sex* and *gregariousness* (with a random intercept of speaker) on a subset of speakers show:

1. Retraction of [æ], [E], and [I] correlates with *gregariousness*, while only retraction of [E] correlates with *sex*.
2. Lowering of [æ] and [E] correlates only with *sex*. (Note though that distortions along the height dimension is a potential artifact of ANAE normalization [Thomas and Kendall 2007]).
3. Controlling for preceding coronals (Labov et al. 2006:152–3), the difference between the F2 of [æ] and [uw], "an index of phonetic innovation in Canadian English" (Boberg 2010:205), correlates with *gregariousness* (i.e., more gregarious, more innovative); *sex* does not.

Conclusion: Gregariousness correlates well with linguistic innovativeness; in many cases where *sex* does not. This is in line with those that argue that the observation that women lead change may be (at least partially) reducible to factors that are not related to biological sex but that relate more to differences in socialization, personality traits, and exposure to innovation (*inter alia* Eckert 1989, Milroy 1980, Yu 2010).

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A real time comparison of the lenition of intervocalic /d/ in Spanish: Examining the changes in the sociolinguistic profile from 1987 to 2004-2010.

Manuel Diaz-Campos, Gibran Delgado Diaz and Olga Scrivner #111

Lenition of intervocalic /d/ is one of the most studied phenomenon in the dialectological and sociolinguistic literature dedicated to Spanish. Zamora-Vicente (1970) points out that intervocalic /d/ deletion can be documented as far as the 17th century. Cedergren (1973) provides the sociolinguistic profile of intervocalic /d/ in the Spanish of Panama where elision is favored in informal styles by women, older speakers, and lower socioeconomic participants from rural areas. In Peninsular Spanish elision is widespread in younger generations with university education (Samper Padilla 2011: 113). However, Samper Padilla also mentions the predominance of elision among males and speakers of lower socioeconomic background. The present investigation contributes to further our knowledge on the pattern of variation involving intervocalic /d/ deletion by comparing corpora from two points in time. While the common practice has been to analyze data impressionistically in apparent time, this investigation examines data in real time. The second contribution of this study is methodological by analyzing the dependent variable as continuous by performing adapted acoustic measurements based on Carrasco, Hualde and Simonet's (2012) investigation.

Thirty two speaker from *Diachronic Study of the Speech of Caracas* 1987 and 2004-2010 were selected for the analysis. The speakers are evenly divided according to sex, socioeconomic level and age. The factors analyzed were: proceeding and following phonetic context, stress, grammatical category, sex, socioeconomic level and age. Statistical analysis of the data was performed by applying conditional tree, random forest and linear mixed-effects models and by treating the dependent variable as continuous according to the intensity ratio measurements obtained. This measurement was obtained by dividing the lowest intensity point of /d/ by the highest intensity point of the preceding vowel. This equation provided a value between 1, a more vowel like production, and 0, a more stop like production (Carrasco, Hualde & Simonet, 2012). However, since intervocalic /d/ tends to be produced as an approximant in intervocalic position a 0 value is not expected. In fact, the lowest ratio was 0.85.

The intensity measurement suggests that deletion is not the norm and that lenited variants are common in this speech community. The data reveal that the average intensity ratio is 0.9558. Results show that overall age, period (1987 and 2004-2010), sex, socioeconomic level, and following phonetic context have a significant effect on the lenition of intervocalic /d/. In the period of 1987, the sociolinguistic profile of the intervocalic /d/ shows that younger speakers delete more than older speakers. Within this group of younger participants, males, and middle and lower socioeconomic class participants lenited more than females and upper class speakers. In the 2004-2010 period, only the sex of the speaker is selected as a significant factor with male speakers favoring deletion. While this phenomenon has been documented since the 17th century and it can be considered a vernacular variant in the speech community, in the most recent period, the sociolinguistic profile has changed. Variation is widespread across all age groups and socioeconomic classes. However, it seems that lenited variants are associated with male speech.

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Discourse-pragmatic variation in the L2 context: A case study of Polish and Chinese migrants in Dublin, Ireland

Chloe Diskin #227

Discourse-pragmatic markers (DPMs) have been the object of a wealth of formal investigation; however, quantitative approaches to discourse-pragmatic variation and change are in their early and exciting stages (Pichler 2013). In addition, there are few studies that take this approach further by looking at non-native speakers in a migratory context. Since the economic boom years of 1995-2006, in-migration has become a permanent feature of Irish society. This paper takes migration in Ireland as a context for a sociolinguistic approach to Second Language Acquisition (SLA).

Adopting mixed methods, this paper examines discourse-pragmatic variation among 41 recently-arrived Polish and Chinese migrants, as compared to a comparator sample of native Dubliners. All participants engaged in sociolinguistic interviews with the author throughout 2012. The objects of analysis are the DPMs *like*, *you know* and *I mean*, and the quotative system. These DPMs have previously been shown to have certain idiosyncrasies in Irish English, in particular clause or turn-final *like* (Kallen 2006; Nestor 2013; Nestor et al. 2012). Therefore the acquisition of these DPMs by migrants may indicate a willingness to accommodate to or integrate into the local speech community (cf. Sankoff et al. 1997).

Using both fixed and mixed effects models, the findings show that the overall rate of DPMs is not conditioned by extra-linguistic factors, such as nationality, gender, proficiency in English, length of residence (LOR) or level of education. However, clause-final *like* is employed almost exclusively by the native Dubliners; whereas the migrants prefer to employ it clause-initially or medially. Other differences that emerged were a distinct preference for Poles to employ *you know* and for Polish males in particular to disfavour the use of *like*, but only when used as a filler or as a quotative. The findings suggest that DPMs can be subject to variation, but that this can be dependent on their syntactic position or on their function within the utterance.

The second part of this analysis takes a language ideologies approach (Irvine and Gal, 2000; Kroskrity, 2004) and shows how views held by migrants surrounding Irish English can influence the acquisition process. Adopting methods from discourse and conversation analysis, the analyses show that many of the migrants view the variety of English spoken in Ireland as strange, unusual, fast-paced and at times isolatory. Many find that it is at odds with the English they acquired in their home countries prior to arrival, which was for the most part within the formal education system. They tend to view Irish English as non-standard, particularly as compared to British or American English. A triangulation with the quantitative data shows that migrants who arrived in Ireland with little prior schooling in English, coupled with economically-motivated reasons to remain in Ireland, tend to be more likely to accommodate to Irish patterns of use of DPMs, since their language ideologies are not as focused on the notion of a 'standard' and they feel that using Irish English can act as a gateway to Irish social and professional networks.

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Network analysis of sociolinguistic complex contagions

Robin Dodsworth #238

Sociolinguistic variables have been found to diffuse through networks (Milroy 1980, Labov 1972, Labov 2001, Cheshire et al. 2003). However, sociolinguists have argued that only *surface* forms faithfully spread via contact, while *complex internal factors* are simplified or lost (Ash & Myhill 1986, Britain 1997, Kerswill & Williams 2000, Labov 2007). This line of inquiry parallels sociological research about the network conditions under which “complex contagions” spread (e.g. Centola & Macy 2007).

This paper uses contemporary network methods to ask whether linguistic variables with complex internal factors spread differently through the network than simpler variables in a dialect contact setting. In Raleigh, North Carolina, the Southern Vowel Shift (SVS) has been reversing since about 1950 as the result of sustained migration from outside the South. Recent work has shown that the reversal of the SVS in Raleigh is constrained by network factors (references redacted). For example, *community detection algorithms* identify clusters in the network, which are used as factors in regression. This and other network methods have previously revealed that while one isolated cluster has largely retained the SVS, the other areas of the network are remarkably uniform, with respect to the elements of the SVS, despite their differing levels of contact with migrants from outside the South.

Do complex internal factors show this same uniformity? In Raleigh and in the South generally, the raising and fronting of /ae/ (z2-z1 at the vowel nucleus and, separately, at the midpoint) is conditioned by the manner and voicing of the following sound. The pre- 1950 Raleigh system is voiced stops > sibilants > other fricatives > voiced stops.

Speakers born before the SVS began to reverse all show the same pattern, regardless of network position. The current study again uses community detection algorithms to identify sub-communities (clusters) within a 150-speaker subsample of the conversational Raleigh corpus. The network is the one-mode projection of a bipartite network based on school attendance from elementary school onward. Each of 5 distinct algorithms returns a unique set of age-weighted clusters. Mixed-effects models, one for each set of clusters, evaluate the interaction between network clusters and internal factors as /ae/ becomes backer and lower across apparent time.

A major point of interest is whether the internal factors differ between 1) new peripheral neighborhoods that developed as the result of migration from outside the South, and 2) the core area of the Raleigh network corresponding to neighborhoods that pre-date large- scale migration. In earlier work on surface elements of the SVS, these areas were surprisingly uniform. In the current analysis, these areas are again remarkably uniform at first; both areas maintain the traditional pattern for about 30 years after the SVS began to reverse. However, about 1980, a distinction develops: speakers from the older core neighborhoods retain a slightly simplified hierarchy with respect to the following sound, while speakers in the newer, peripheral neighborhoods have lost the internal conditioning of /ae/ altogether. This is evidence that complex linguistic contagions do not diffuse between (even well-connected) network clusters as effectively as surface forms.

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‘Gimme dat ting’: Word initial th-stopping among urban British youth

Rob Drummond and Susan Dray #166

This paper reports on the use of word initial th-stopping (/t/ for /θ/ in words such as *thing*, *three*, *thump*) in the context of two inner-city PRU (Pupil Referral Unit) learning centres catering for 14-16 year olds who have been excluded from mainstream education for behaviour/discipline issues. The learning centres are small, with a day to day attendance of around 13 young people across two school years, and representing a balanced gender mix and a variety of ethnic backgrounds. Although this kind of th-stopping is traditionally associated with West Indian Creoles and Englishes (Wells 1982) and British Creole (Patrick 2004), we find it being used by young people irrespective of their ethnicity, however defined.

The ethnographic nature of the project has allowed us, by seeing the young people and adults alike engage in various practices, to observe how each speaker draws upon linguistic resources and repertoires which variably include /θ/→/t/ and in doing so enact a range of identities.

Although we do report on who uses the feature, how often, and in what linguistic context so as to explore possible social/linguistic patterns, our main focus is to take a practice-based approach in order to understand why the feature is being used in a particular interaction, and what identity work it is doing.

Recorded data have been collected from unguarded interactions inside and outside the classrooms, peer and self-recording on the part of the young people, informal conversations with the researchers, and discussions about language; all of which took place during the 10 months of ethnographic fieldwork carried out by two researchers across two sites. In addition to the recorded data, observational data were reported in detailed field-notes in the form of a shared diary for each researcher.

We argue that, far from simply indexing ethnicity, th-stopping is being used in different ways by different speakers in different contexts. Indeed, this has been a recurring theme with some of the ‘Anglo’ males especially, who use this and other features traditionally associated with West Indian/British Creoles as an (ethnically) unmarked form in their everyday interactions. In fact, despite this traditionally strong association with a specific ethnolect, th-stopping is available to be used by anyone in the PRU context – adults/students, males/females, all ethnicities – it just depends on what it is they are doing. We suggest that this form of th-stopping is an example of a particular way in which the language of urban young people is changing; hitherto ethnically loaded features are now doing different identity work, and it is by focussing primarily on practices rather than speakers/ethnicities that we can see the process of change most clearly.

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The rapid grammaticalization of the English *ish*-construction: Syntactic change in apparent time

Daniel Duncan #214

In Standard American English, *ish* is an affix which suggests likeness to the root (*boyish*, *reddish*). Some speakers of American English use it in an innovative way: following a VP (1) or PP (2), even when no adjective is present. The meaning of likeness to the VP/PP resembles that of affix *ish*:

1. I finished my homework **ish**.
2. I live in Chicago **ish**.

Previous studies of *ish* presuppose that it is in use among younger speakers (see Norde 2009, Bochnak and Csipak 2014), preferring to focus solely on a formal account of the construction. This paper provides results of a sociolinguistic study of *ish* that both advances the formal analysis of the feature and demonstrates how it varies with age, serving as an intersection between formal syntax and variationist sociolinguistics.

As part of a survey of acceptability judgments, test sentences were created in order to evaluate previous syntactic claims that *ish* cannot be negated (3) and objects cannot be extracted from VP or PP phrases modified by *ish* (4-5).

3. *I didn't finish my homework **ish**.
4. *Here's [my homework]₁ that I finished t₁ **ish**.
5. *It's [New York]₁ that I'm moving to t₁ **ish**.

The survey asked respondents to rate sentences on a three-point scale of grammaticality, collapsed into a binary variable for analysis. 104 informants were surveyed, balanced for gender and age (under 25, 26-49 and over 50 years) in a Manhattan, New York park. Results were analyzed using mixed effects logistic regression (Bates et al. 2014) and conditional inference trees (Hothorn et al. 2015).

Overall, no one sentence was accepted or rejected categorically. In a regression model, sentence type and age were significant predictors of acceptability ($p < .0001$). Informants regularly accepted sentences (1-2), posited as grammatical in previous work, and disfavored those posited as ungrammatical (3-5). Younger speakers favored *ish*, with acceptance decreasing as informants' age increased. Acceptance of sentence (1) seems to lag behind that of (2) by about 15 years in apparent time; *ish* modifying a PP is more widespread than *ish* modifying a VP. Conditional inference trees indicate that acceptance of negation and clefting are correlated.

Based on the results, I argue that acceptance of *ish* represents a change in progress. PP-*ish* leading VP-*ish* suggests that *ish* is in the process of grammaticalization. The speakers who accept it with negation/clefting appear to be using it to modify the whole sentence at either TP/CP. Thus, we have the following course of grammaticalization:

6. Deriving Adj → modifying PP → modifying VP → modifying TP/CP

It appears that *ish* is moving upward and leftward into the main clause. This represents grammaticalization similar to that of English modals and complementizers (Roberts and Roussou 2003), albeit much more rapidly—over the course of a few generations in apparent time.

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Representations of Welsh English online: What can tweets tell us about salience and enregisterment?

Mercedes Durham #270

Twitter not only allows researchers to quickly collect attitudes about accents and dialects across extended periods of time (Campbell-Kibler and Torelli 2012; Author), but it can also help gauge which linguistic features are particularly salient or enregistered in cases where the tweets (attempt to) perform or comment on a particular variety (example 1).

1. the welsh accent though. It's not 'Wales' - it's 'Way-ullls'

The performance tweets can be marked by the use of dialect specific vocabulary or morphosyntax, as well as orthographic respellings that attempt to reflect pronunciation differences (examples 2-4). Many tweets make use of several of these options at once. Other tweets merely comment on the pronunciation of words or phrases, demonstrating salience, but without attempting to reproduce the accent (examples 5-6).

2. *welsh accent* "your voice is well lush"
3. yous arent even funny like (in a welsh accent)
4. The valleeeeeeeeeeeys (welsh accent)
5. Love the word 'beautiful' in the welsh accent
6. I like to put on a strong Welsh accent and say the words 'studio' and 'video'.

Using tweets containing the words *Welsh* and *accent* collected as part of a broader project running over the past three years, this paper will focus on a sub-section of over 2500 instances in which the tweeters either attempt to perform a Welsh accent or in which they comment on specific features of Welsh English. The larger project examined a cross-section of tweets sent over a period of nine months and considered whether the attitudes in the tweets were predominantly positive towards the Welsh accent, negative, made some other type of comment on the accent, or whether they demonstrated some kind of performance of the Welsh accent. A majority of the tweets were straightforwardly positive towards the Welsh accent (50%), but performance tweets were the second biggest category (20%). This underlines that performing and/or commenting on specific features of the accent is a key component in people's motivations to tweet about Welsh English.

Broadly speaking the performance tweets fall into two categories: those where people simply mention their attempts at the accent (70%) and those in which tweeters mark their use of it in the ways mentioned above. This paper will discuss what the main linguistic features used to perform a Welsh accent on twitter are and how closely they can be correlated with actual and stereotypical features of Welsh English (Hughes, Trudgill and Watt, 2012; Mees and Collins 1999; Penhallurick 2007), particularly in terms of how phonological features are presented in writing.

On the whole, tweeters' use and 'misuse' of orthographic conventions (to represent Welsh English intonation patterns and the pronunciation of /iu/ rather than /ju:/ for example), alongside more readily replicated, and often more enregistered, lexical and morphosyntactic

features, demonstrate that there are a range of linguistic features of the Welsh accent that are salient even if tweeters have no way of producing them completely accurately online.

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Even More on the Pragmatics and Variable Distribution of Anymore in the US Midland

David Durian #47

Traditional sociodialectal analyses of the occurrence of positive *anymore* in the lexicon of US Midland dialect English speakers posit that positive *anymore* functions as a near-synonym to the temporal adverbial *nowadays*. In these analyses, positive *anymore* is analyzed as being merely a stigmatized regional variant of *nowadays* for these speakers, used with the following meaning: the activity or situation referred to “was not formerly true, but has come to be characteristic of the present” (Murray, 1993:174). On this view, both positive *anymore* and *nowadays* appear to be maintained in the lexicon of speakers because *anymore* is the heavily stigmatized variant, and therefore, users actively maintain both variants so that they can avoid usage of *anymore* in situations where use of the standardized variant *nowadays* carries prestige (Wolfram and Christian, 1976; Murray, 1993; Cassidy, 1985).

In the present analysis, I challenge this traditional view of the distribution of positive *anymore* and *nowadays*. Using the theoretical framework of pragmatics to conduct an analysis of the variable distribution of these items, I demonstrate that speakers of the Midland dialect maintain use of both items to indicate pragmatic contrasts that result in the specific usage of one item or the other in utterances that are highly sensitive to the presuppositional inferences triggered by each of these items. Using data elicited via sociolinguistic interviews with 62 US Midland dialect speakers, and based on these speakers' evaluations of sentences in which the items occur, I demonstrate that a more detailed analysis, which reveals these pragmatic contrasts, can be obtained by investigating the variety of discourse contexts in which each item occurs.

Specifically, my analysis demonstrates that both positive *anymore* and *nowadays* are presuppositions indicating a change of state, but the difference between their pragmatically acceptable uses centers around that *degree* of the change of state that each conveys. I argue primarily that, in discourse contexts in which a change of state is not implicitly marked, the occurrence of either is pragmatically acceptable, hence the commonly held conclusion that positive *anymore* and *nowadays* function as synonyms. However, as my analysis also demonstrates, in highly specific discourse pragmatic contexts in which a change of state is implicitly marked, subtle differences in meaning between positive *anymore* and *nowadays* become apparent. In these contexts, positive *anymore* triggers the presupposition that a change of state has been completed, while *nowadays* triggers the inference that only a partial change of state has occurred.

Via the course of my analysis, I also investigate the impact of positive and negative polarity items on the occurrence of *nowadays* and positive *anymore* when they are distributed in complementary contexts. As a result, I posit that the co-variance of positive *anymore* and *nowadays* is sensitive to an envelope of variation pertaining to the contexts in which the items can co-occur. The variance exhibited by these items is shown to be a bounded phenomenon, with occurrences of positive *anymore* deemed increasingly infelicitous by hearers of utterances in which it occurs as the limits of the envelope are reached.

The Sociolinguistic Significance of Lebanese Liquids: Production of /l/ and /r/ in Lebanese Arabic and English

Amanda Eads #96

The production of liquids in language contact situations can be diagnostic of transfer, substrate, and the construction of ethnically defined varieties of English. Recent studies have shown it can acquire a range of social meanings in emerging varieties of English across time and place (e.g. Van Hofwegen 2009, 2010) and is a critical variable for perpetuating ethnically associated speech. This study considers the production of /l/ and /r/ in Lebanese Arabic and English to determine how emerging varieties of Lebanese English integrate liquids into their English language variety. While both Lebanese Arabic and English have liquids, these phonemes are quite different. Arabic /r/ is typically a voiced alveolar flap or trill whereas American English /r/ is typically a bunched or retroflexed approximant (Thomas 2011, Ryding 2014). For both Arabic and English, /l/ is produced as a voiced alveolar lateral with allophones however the allophonic variation differs. English /l/ is typically light in syllable onset and dark in syllable coda while Arabic /l/ is usually light in all positions; dark /l/ is used only in exceptions such as loan words, emphatic contexts, and when a derivative of the name of *Allah* 'God' is used (Khattab 2002). The study is based on the acoustic measurement of liquids for 10 Lebanese Arabic speakers, 10 first-generation Lebanese immigrant English speakers, and 5 second-generation Lebanese immigrant English speakers. For the Lebanese Arabic and first-generation Lebanese immigrant English speakers, Lebanese Arabic is the speakers' first language while English is their second. However, the second-generation English speakers are divided in terms of L1 and L2 but all are bilingual to some extent. In order to assess what levels of assimilation and/or interference are occurring, I analysed formant frequency values of Lebanese Arabic and English /l/ and /r/ through Praat and statistically using normalized values in R. I compared the third formant frequency values of /r/ and found on average the Lebanese L2 English speakers produced higher F3 values and often produced flapped or trill /r/ rather than the bunched and retroflex /r/ common in English. To assess whether the speakers were producing light or dark /l/, I examined the first and second formant frequency values of /l/ produced in both syllable onset and coda. The results reveal that some of these Lebanese L2 English speakers produce light /l/ in syllable coda position and that when dark /l/ is produced in syllable onset it is due to contiguous low back vowels. According to Daher's study (1992) of the Lebanese in Cleveland, immigrants showed varying levels of interference based on education level and continued use of Arabic and English. In order to account for this, the Lebanese speakers in this study are of similar education, social class, and language backgrounds.

The study shows that Arabic interference plays a role in the /l/ and /r/ production in the 'Lebanese English' of these L2 speakers and that this production continues to some extent among second-generation Lebanese immigrant speakers, thus showing the potential for a substrate effect in perpetuating Lebanese English.

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Variation and grammaticalization in Central American Spanish possessive constructions

Martin Elsig #247

Romance languages differ in their grammar of attributive possession. Some make use of a possessive adjective and allow for the combination of an article and a possessive (e.g. Italian *il/un mio libro* 'the/a my book', Portuguese *o meu livro* 'the my book', *um livro meu* 'a book my'). Others have a possessive determiner and the article and the possessive are complementarily distributed (e.g. French *un livre (à moi)* 'a book (of mine)', *mon livre* 'my book', **le/un mon livre* 'the/a my book'). Standard Spanish has a prenominal possessive article (*mi libro* 'my book', **el/un mi libro* 'the/a my book) and a postnominal possessive adjective (*el/un libro mío* 'the/a book mine'). Alexiadou (2005) relates these differences to distinct stages on a grammaticalization cline whereby strong possessives evolve into weak (adjectival) and eventually into clitic (determinative) elements. In accordance with this model, medieval varieties of French and Spanish can actually be shown to still exhibit prenominal adjectival possessives.

Some contemporary varieties of Central American Spanish appear, however, to have retained the medieval grammar of possession, in allowing for the co-occurrence of an indefinite article and a prenominal possessive (*una mi hermana* 'a my sister'). The hypothesis to be tested is whether these varieties still feature adjectival possessives and are hence to be located on an earlier stage of the grammaticalization cline.

For this purpose, I extracted 2.091 possessed indefinite noun phrases from the PRESEEA Guatemala corpus (Moreno Fernández 2005, 2006, Verdugo de Lima et al. 2007), 120 of which feature the co-occurrence of article and possessive. The results of a GoldVarb analysis indicate that it is the indefinite article rather than the possessive that is less grammaticalized. In particular, a postnominal relative clause specifying the reference of the noun and a presentative function of the noun introducing a referent with thematic persistence favor the co-occurrence of article and possessive, cf. (1).

(1) *me junté con un mi cuate que él era pandillero y <ah> buena onda y todo pero una- una vez me recuerdo que me dijo que- que fuéramos a un lugar que se llama la verbena, queda aquí en la zona siete* (GUA008)

"I joined a buddy of mine who was member of a gang and <ah> good vibes and everything but once I remember that he told me that we were about to go to a place that is called La Verbena, it's here in the zone seven"

Both factors have been mentioned in the literature as evidence in favor of an early stage of grammaticalization of the indefinite article from the numeral *uno/una* 'one' to a generalized article (cf. Company Company 2005 and Heine 1997).

All the empirical evidence points towards a grammar of Central American Spanish in which the possessive has fully grammaticalized into a definite determiner, just like in Standard Spanish, while the indefinite article in constructions of the type in (1) still has the function of quantifying over a set of concrete and identifiable items.

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The influence of Spanish of Miami English rhythm

Naomi Enzinna #302

This study found that monolingual English speakers from Miami speak a variety of English influenced by Spanish. Anecdotally, several news organizations (the Sun Sentinel, the Miami Herald, etc.) noted this variety in 2013; however, no empirical evidence supported their claims. In this study, read and spontaneous speech from Miami English Monolinguals (MEMs), Ithaca English Monolinguals (IEMs), and Early and Late Spanish-English Bilinguals (EB, LB) were collected, and rhythm metrics (Ramus et al., 1999) were compared between groups. Surprisingly, results suggest that MEMs with English-speaking parents (MEME) and from neighborhoods with a lower Hispanic population (MEML)—who likely have less direct contact with Spanish than MEMs with Spanish-speaking parents (MEMS) or from neighborhoods with a higher Hispanic population (MEMH)—may be leading this change. These results support Labov's (2014) claim that children may reject features of their parent language (in this case, English) when the speech community is highly stratified.

In this study, 10 IEM, MEM, EB, and LB participants were recorded reading "A Rainbow Passage." The recordings were analyzed for the proportion of vocalic intervals (%V) and the standard deviation of consonantal intervals (ΔC) (Ramus et al., 1999). According to these measures, English has a lower %V than Spanish, due to vowel reduction, and a greater ΔC than Spanish, due to greater syllable structure variation. I predicted that MEMs' %V and ΔC would fall between English and Spanish.

Analyses of %V and ΔC show MEMs have a greater %V than IEMs ($p < .004$) but do not differ from EBs.

These results suggest that MEMs' %V is similar to that of EB speech. For all groups, there is no difference in ΔC . Regarding parent language, MEMEs have a greater %V than IEMs ($p < .000$), but MEMSs do not. Regarding neighborhood demographics, MEMLs have a greater %V than IEMs ($p < .062$), but MEMHs do not. These results suggest that MEMs with less Spanish contact are leading this trend.

Additionally, follow-up analyses of pitch show that IEMs have a greater f_0 standard deviation and range than MEMs. These results suggest that MEMs' pitch is similar to that of Spanish-English bilingual speech because English has a greater f_0 standard deviation than Spanish, and native English speakers have a greater f_0 range than non-native English speakers (Kelm, 1995).

Miami is 65.6% Hispanic, and Spanish-speakers hold high social, economical, and political positions in Miami (U.S. Census, 2014; Lynch, 2000). This study argues that frequent contact between English and Spanish speakers in Miami, as well as the social prominence of Spanish, is causing Miami English to acquire Spanish-influenced prosodic properties. Further, it sheds light on how language contact can influence prosody in diverse speech communities.

Abbrev.	Participant Group	Description
EB	Early Spanish-English Bilingual	Lived in Miami majority of life; speaks Spanish, English; learned English before age 10
IEM	Ithaca English Monolingual	Lived in Ithaca 10+ years, speaks English, represents English monolingual group with low Spanish contact
LB	Late Spanish-English Bilingual	Born outside USA; speaks Spanish, English; learned English after age 10
MEM	Miami English Monolingual	Lived in Miami majority of life, speaks English
MEME	with English-speaking parents	Parents speak English
MEMS	with Spanish-speaking parents	Parents speak Spanish
MEMH	from high Hispanic population area	Miami neighborhood >50% Hispanic
MEML	from low Hispanic population area	Miami neighborhood <50% Hispanic

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Could the road to schwa be paved by /a/? Filled pauses as sites of variation and barometers of contact induced change in Boston Spanish

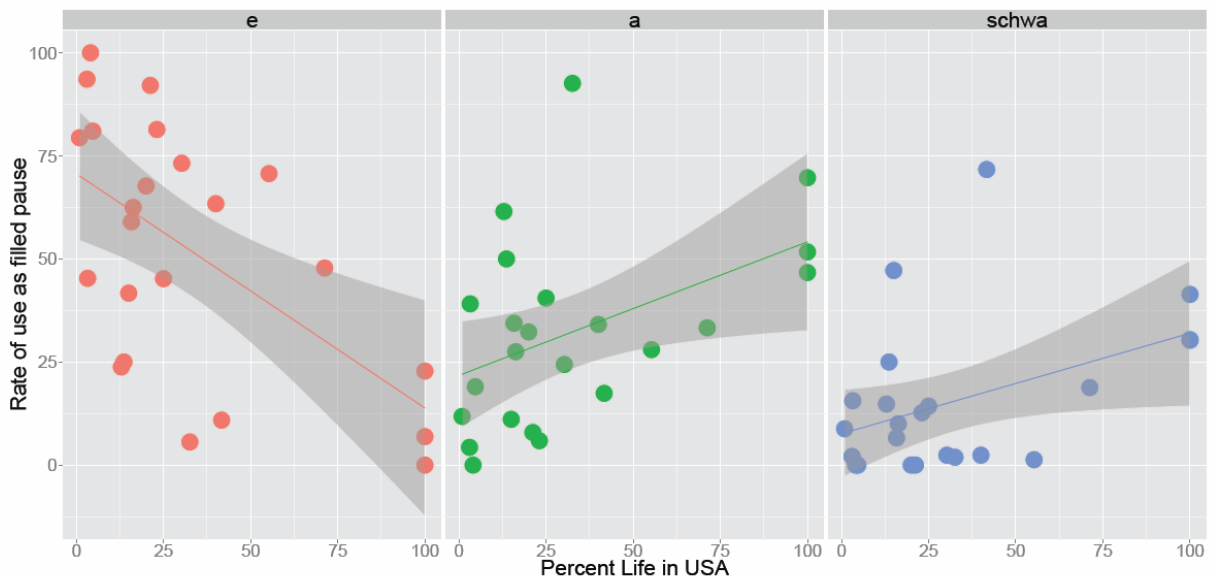
Daniel Erker and Joanna Brusco #118

The non-silent hesitation phenomena that pervade speech rarely earn linguists' attention. This despite findings that *filled pauses* vary cross-linguistically (Swerts 1998, Hazmah 2012) and serve wide-ranging discourse functions (O'Connell & Kowal 2005, Watanabe 2007). The current study builds upon growing variationist interest in filled pauses (Lieberman 2014, Fruehwald 2015) by investigating them in a language contact setting. Results indicate that filled pauses constitute a site for contact-induced change in the behavior of Spanish speakers in the U.S. They also represent a potential pathway for schwa, typically unattested in non-contact varieties of Spanish, to enter the vocalic inventory of speakers in the U.S.

Data consist of 1,600 vocalic hesitation phenomena produced in sociolinguistic interviews with 24 native Spanish speakers in Boston, MA. Interviews were conducted in Spanish, and pauses were perceptually coded as either tokens of /e(m)/, /a(m)/, or schwa(m). Additionally, F1 and F2 were measured at each pause's midpoint. A clear relationship emerged between pause behaviors and the extent to which speakers have spent their lives in the U.S. Figure 1 plots speakers by rate of use of each pause type.

Percentage of life in the U.S. (PLUS), calculated by dividing years in the U.S. by age, is indicated on the horizontal. Speakers' preference for /e(m)/ declines as PLUS increases. The opposite is true for /a(m)/ and /schwa(m)/

Figure 1.



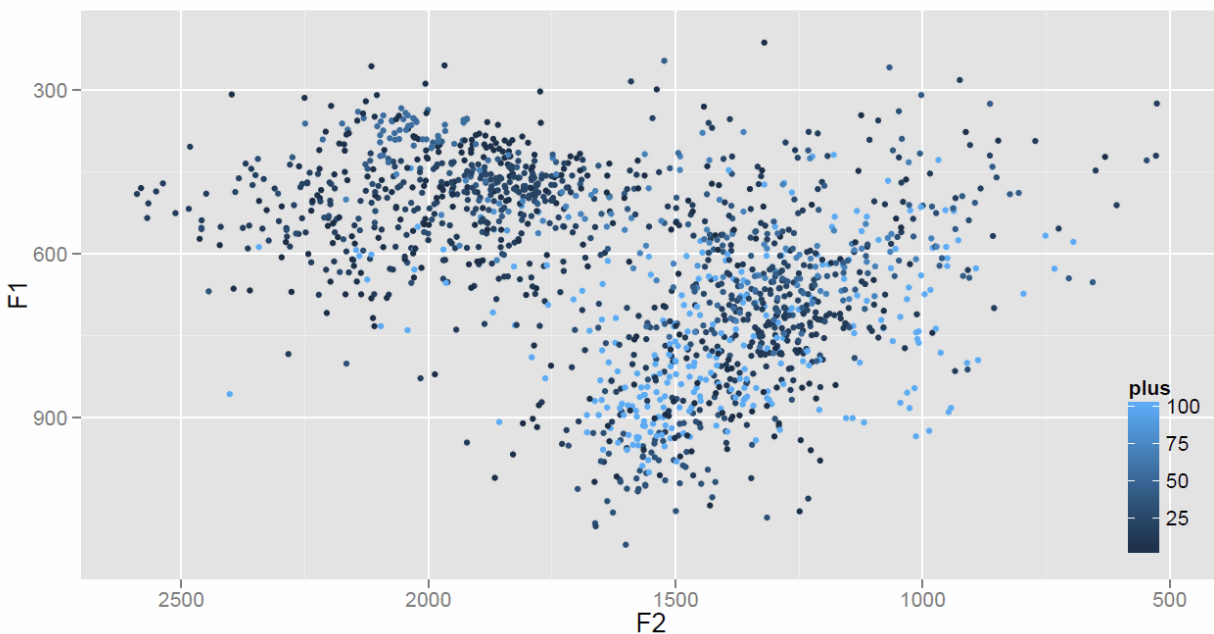
Broadly, these data reflect an apparent time trend of centralization in the filled pauses of Spanish-

speaking Bostonians. This trend is interpretable as evidence of contact-induced change, whereby Spanish pauses converge with those of American English, whose speakers make regular use of schwa(m). The expectation that individuals with higher PLUS have more experience with English is corroborated by speakers' self-reported English proficiency: Of 24 speakers, nine report having 'excellent' English skills. On average, they have spent a significantly greater portion of their lives in the U.S. (53%) than those whose English skills are 'less than excellent' (23%), ($t = 2.3, p < .03$).

The acoustic data enrich this picture. In Figure 2, each pause is plotted by (normalized) F1 and F2. The PLUS of the speaker producing the token is indicated by color. Most tokens located higher and fronter in the vowel space are produced by recent arrivals, the darkest of the dots. The lighter dots, those produced by longtime and native Bostonians, cluster near the low/mid-central part of the vowel space. The statistics support what the visual data suggest. Significant correlations emerge between PLUS and both parameters: F1 increases with PLUS ($r = .248, p < .001$) while F2 decreases ($r = -.259$).

Together these analyses not only make the case that pauses are sensitive barometers of variation and change in contact settings, they also suggest that filled pauses may constitute a pathway for the emergence of a novel vocalic category: Rather than adopt schwa wholesale, speakers increase their use of the Spanish pause filler that is acoustically closer to schwa, /a/, perhaps predisposing or priming them to incorporate the mid-central vowel into their speech.

Figure 2.



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Closing the generation gap: How speaker-level behavior can illuminate contact data

Daniel Erker and Ricardo Otheguy #120

Though it is standard practice in contact linguistics to group speakers by immigrant generation (Silva-Corvalán 2001, Winford 2003), the current study suggests that deeper understanding of contact outcomes is achievable by focusing on locally emerging trends in the behavior of individuals. LOESS (local) regression techniques are used in combination with a continuously defined parameter *percentage of life in the United States* (PLUS) to analyze subject pronoun variation in 63,500 Spanish verbs produced by 140 speakers in NYC. Rather than fitting data with a particular function, LOESS finds patterns point by point, fitting a curve by comparing the behavior of ‘nearest neighbors’. PLUS is calculated by dividing a speaker’s years in the U.S. and age. Together these techniques reveal patterns of dialectal leveling and language contact in speakers’ *pronoun rates*, a measure reflecting the percentage of their verbs that could and did occur with subject pronouns, e.g. whether they said *yo canto* instead of just *canto*, both ‘I sing’.

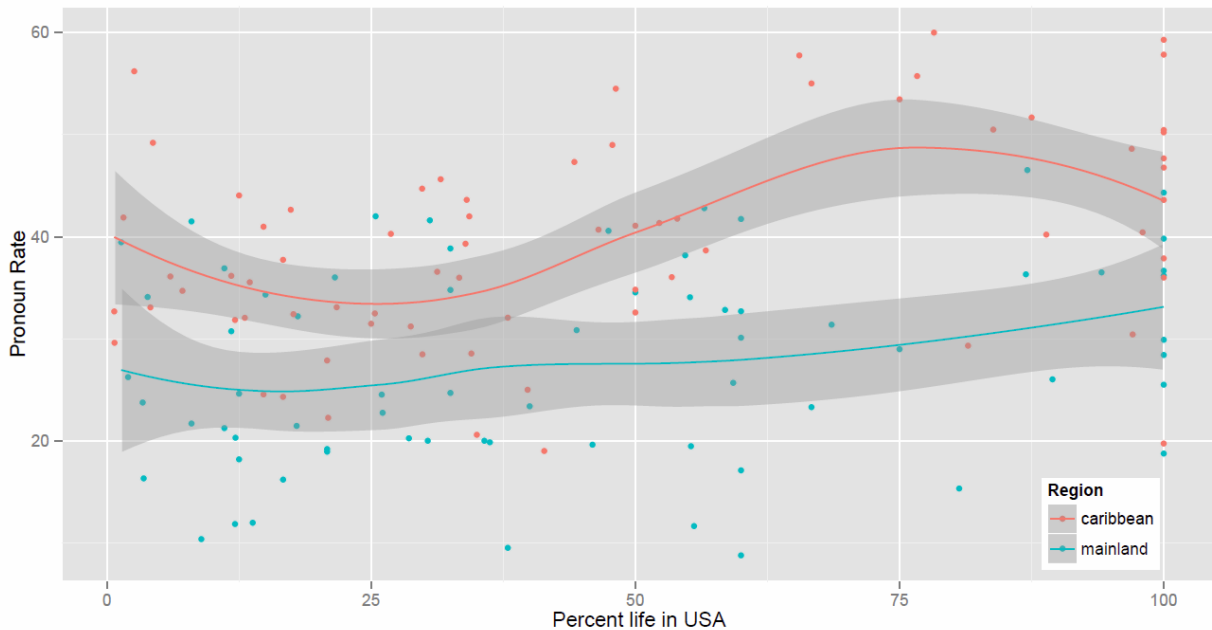
Consider a group-based analysis, showing rates significantly increasing with generation:

	AGE OF ARRIVAL	YEARS IN USA	PRONOUN RATE
NEWCOMERS (N = 39)	≤ 17	≤ 5	29
ESTABLISHED IMMIGRANTS (73)	≥ 13	≥ 11	33
NEW YORK RAISED (28)	< 3 or NYC	-	38
			F(2, 137) = 4.4 p < .01

Now consider a comparison of Caribbeans and Mainlanders, the two largest regional groups in NYC

	MAINLANDER RATE	CARIBBEAN
NEWCOMERS	24	36
ESTABLISHED IMMIGRANTS	27	39
NEW YORK RAISED	33	44

These findings are consistent with an interpretation that increased contact with English, whose verbs strongly favor overt subjects, drives Spanish pronoun rates higher in NYC. However, LOESS regression analysis of rates and PLUS reveals a more complex picture.



Rather than a regionally uniform increase in pronoun life rates, the locally fit regression curves indicate that upon arriving in NYC, Caribbeans' rates *decrease*, initially converging with and only later outpacing the steadily rising rates of Mainlanders. This perspective is more consistent with the facts of the contact setting: While Mainlanders are uniformly exposed to higher pronoun rates, the pressures of dialectal and language contact are heterogeneous for Caribbeans. Contact with English exposes them to higher pronoun rates. Interaction with Mainlanders does the opposite. Additionally, because recent arrivals are more likely to interact with other Spanish speakers than English speakers, the shaping forces of dialectal and language contact likely have different timescales. Dialectal contact is likely more influential for speakers with the lowest PLUS while the influence of English increases with PLUS. These expectations are supported by speakers' self-reported English proficiency: PLUS is significantly higher among the 45 speakers who report having 'excellent' English skills (73%) than for those whose English skills are 'less than excellent' (32%), ($t = 8.6, p < .001$).

Together these findings illustrate how the power of generation-based analyses can come at the expense of resolution, and they show how local regression techniques, together with metrics sensitive to individual speaker differences, can substantially enrich our understanding of contact-induced change.

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Quantifying vowel overlap with Bhattacharyya's affinity

Daniel Ezra Johnson #223

The study of vowel mergers involves asking whether two vowels are distinct, and if so, how distinct they are. The simplest way to address these questions is to take two vowel clouds, measure the Euclidean distance between their centroids (e.g. in F1-F2 space), and statistically test the hypothesis that the two sets of sample tokens could be drawn from the same population. It is also desirable to quantify the degree of overlap of the two vowels, and recent work (Hay et al., 2006; Nycz and Hall-Lew, 2013; Babel et al., 2013) has used the Pillai score (or Pillai's trace, henceforth Pillai) for this purpose. However, Pillai, a test statistic used in the multivariate analysis of variance, is only an indirect measure of overlap. Like an R-squared statistic, it measures the proportion of the total variance accounted for by the vowel class difference.

Bhattacharyya's affinity (or Bhattacharyya distance, henceforth BA; Bhattacharyya (1943)), which also ranges from 0 to 1, is a true measure of multivariate overlap. As well as making fewer assumptions about the data (assumptions that are unlikely to be met in practice, such as normality and homoscedasticity), BA performs better than Pillai in the following respects:

- (1) If the two clouds have the same means, Pillai will indicate no distinction. But if one cloud is larger (more dispersed) than the other ("Nested" in Figure 1), BA will accurately reflect that the overlap is not complete.
- (2) If the clouds are ellipses with different orientations but the same means ("Crossed" in Figure 1), again Pillai will report complete overlap, while BA will more accurately reflect the difference.
- (3) If the two clouds are separate ("Separate" in Figure 1), Pillai will never indicate a complete distinction as long as there is variability within the clouds. BA will accurately show that there is no overlap.
- (4) If the two clouds have different numbers of tokens ("Unequal" in Figure 1), Pillai shows a higher degree of overlap than is actually the case. BA displays much less of this skewing.

We compare the performance of BA and Pillai across speakers ranging from merged to distinct, and also consider the different behavior of the measures depending on whether they are applied to raw formant values or to the residuals of models incorporating elements of the phonetic context. Finally, we provide practical guidelines for implementing BA using the R package `adehabitathr` (Calenge, 2006).

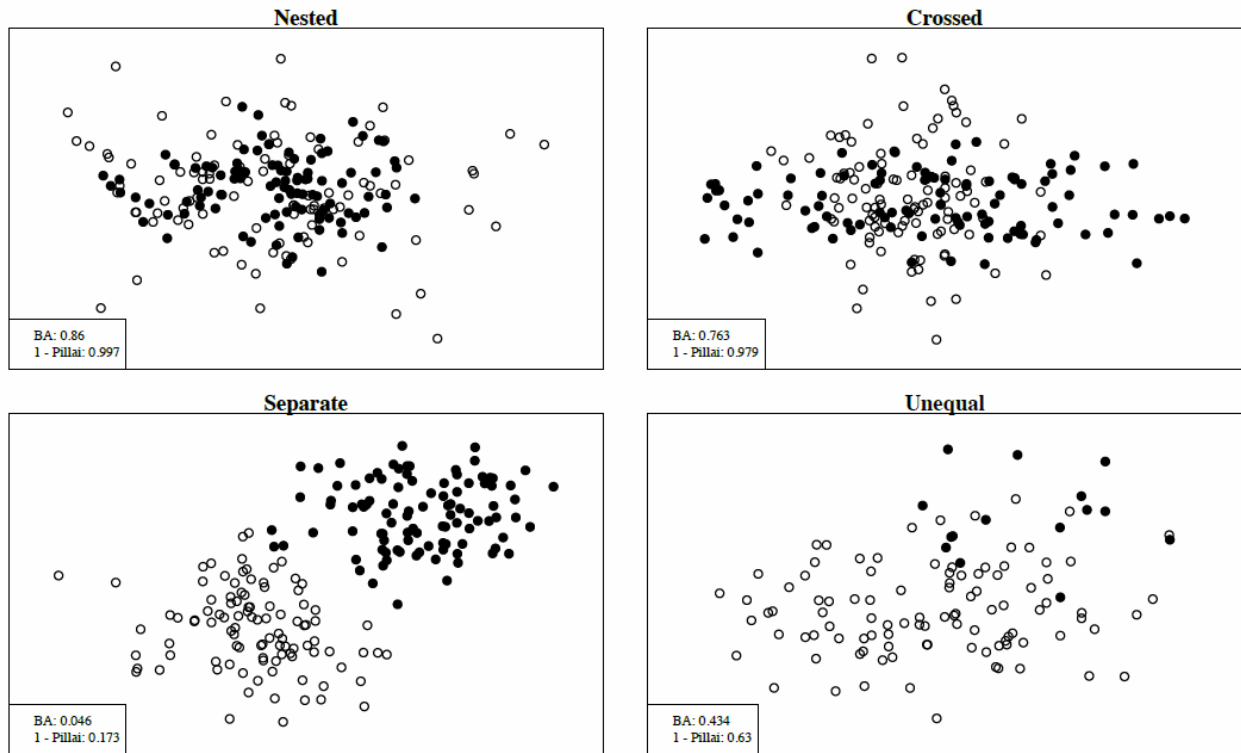


Figure 1: Simulations of four vowel overlap scenarios listed in (1)-(4).

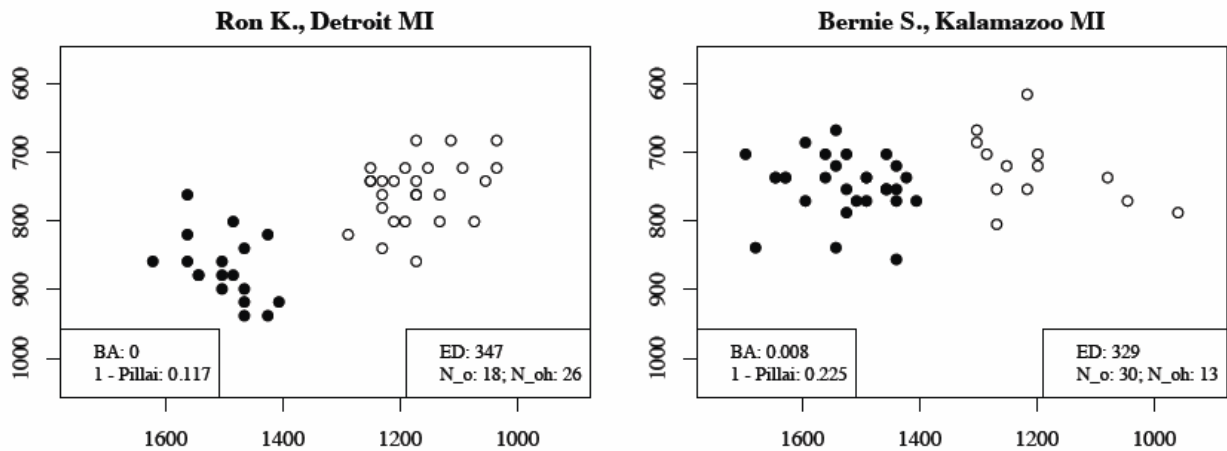


Figure 2: Low back vowels of two speakers from Labov et al. (2006).

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Word final stop weakening in African American English

Charlie Farrington #230

The weakening (or debuccalization) of word final stop singletons is an understudied phenomenon in African American English (AAE). Previous work on /t/ in Anglo American English varieties suggests weakening to glottalization in word final position is geographically widespread (Roberts 2006; Eddington & Taylor 2009). In AAE, weakening is extended to word final /d/, which results in voicing neutralization of final /t/ and /d/ in the variety. A handful of previous studies have examined word final /d/ weakening in AAE, often referring to this process simply as *devoicing*, and have demonstrated that it occurs in widespread regional contexts (Wolfram 1969; Fasold 1972; Koops & Niedzielski 2009) and throughout different social classes (Anderson & Nguyen 2004). In fact these studies show that the primary realization of word final /d/ is a glottal stop. While /d/ weakening is common to many varieties of AAE and has been the primary focus in previous investigations, in some varieties, any non-labial word final stop (i.e. /t, d, k, g/) can be weakened to a glottal stop (Carroll 1971; Luelsdorff 1975), which leads to coda neutralization. The current study presents a quantitative analysis of this larger word final stop system of AAE, investigating the role of linguistic and social effects on stop realization in order to better understand the role that these processes of weakening and neutralization play in the variety, how they interact with regional variation in AAE, and, more generally, the status of these variants in the community.

This study uses instrumentally guided coding to analyze the use and distribution of word-final non-labial stops for 32 speakers, who vary by social class, from two different southern cities, Durham, NC (N=16) and Memphis, TN (N=16). The primary analysis focuses on the realization of word final /d/ (N=~50 tokens per speaker) in order to compare patterns in contemporary AAE in these locales to previous studies. Results indicate that the realization of voiced alveolar stops is conditioned by similar linguistic effects in both locales in both the working and middle class speakers. The fact that word final /d/ weakening is common in both Durham and Memphis, in addition to previously studied varieties, suggests that it may be a widespread unmarked feature within the AAE speaking community. Turning to velar stops, weakening is most frequent in the working class speakers. However, for these speakers, similar linguistic constraints emerge for the weakening of velar stops to that of alveolar stops. Further, there appears to be an implicational relationship between the final stops, such that glottalization is most frequent in /t, d/ and less frequent for /k, g/, but all speakers who weaken /k, g/ also weaken /t, d/. While the results suggest similar linguistic constraints between communities, the major split appears to be with alveolar and velar stops, with more AAE speakers across social classes exhibiting alveolar stop weakening (and thus neutralization), while velar weakening is limited to the more vernacular working class speakers.

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Qualitative labels and quantitative measures in perceptual dialectology

Marino Fernandes, Michael Routhier and Maya Ravindranath #330

We present the results of a perceptual dialectology (PD) map survey (Preston and Howe 1987) conducted with 46 southern New Hampshire (SNH) residents aged 16-81 and analyzed with GIS technologies (following Evans 2011, Montgomery and Stoeckle 2013 and others). Dialect shift in the region away from traditional Eastern NE features is ongoing (Stanford et al 2012, 2014), and we find striking similarity in apparent time between the decreasing production of traditional NE variables and changing perceptions of 'correctness' and 'pleasantness' in the region.

Our analysis is based on four types of maps: 'pleasantness' (P), 'correctness' (C), 'degree of difference' (DOD), and maps created from the labels that participants assigned to different areas (QLabel maps). We discuss our methods of analysis with ArcGIS tools and our results with respect to language change in New England. Following Jeon, Cukor-Avila and Rector (2013) in using GIS tools to examine the labels that participants assign to different areas, we argue that the differences in the social evaluation of a linguistic variant that are apparent in the labels are integral to the promotion of a language change among some groups but not among others. We conduct spatial analyses of pleasantness, correctness, DOD, and visualizations of QLabels to triangulate perceptual judgments.

We find that the DOD maps allow us to see finer distinctions than are apparent in the P and C maps, and that they corroborate the findings of the P maps with respect to the notion of solidarity discussed by Hartley (2005). More importantly, we show that the DOD aggregate maps allow for better insight into that analysis by making a distinction between the areas that respondents find pleasant and the areas that respondents have positive judgements about. That is, we can see that although the areas of high pleasantness and low degree of difference coincide, the areas rated low on the DOD scale (1 "sounds like me") are consistently within, but smaller than, the areas with high pleasantness scores.

Visualization of qualitative labels such as "Boston," "Hillbillies," "Mass-Holes" "Home" and aggregates of evaluative comments into "positive" "negative" and "normal" judgments provide a more nuanced understanding of the data when combined with P, C and DOD scores. Aggregate maps of "positive" comments match low DOD scores ("sounds like me") as well as high P and C scores, demonstrating high linguistic security for our SNH respondents. We find that analyses of all four maps reveal stable negative judgments of Maine and positive judgments of Vermont. Although by and large we find agreement between QLabels and the other maps, we find in some cases disagreement between the QLabel maps and the others (in particular for Boston), and we discuss the implications of this for analyzing the motivation for ongoing language change in ENE (divergence from Boston vs. convergence with a supra-local norm).

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The Emergence of Past-tense *ain't* in AAVE: Support for the Divergence Hypothesis

Sabriya Fisher #322

This paper provides evidence of the use of past-tense *ain't* as a recent innovation among speakers of African American Vernacular English (AAVE). *Ain't* varies with several negative auxiliaries in non-standard British and American English (negative copular *be*, negative present progressive *be*, negative present perfect *have*) (Feagin 1979, Anderwald 2002). More recently, *ain't* has generalized to negative past-tense contexts where it varies with *didn't* in AAVE (Weldon 1994, Wolfram 2004, Howe 2005).

- (1) *Weren't you kind of disappointed that your father ain't believe you though?*
'Weren't you kind of disappointed that your father didn't believe you though?'

Corpora of both former slave narratives and African American isolate communities reveal low (<6%) frequencies of *ain't* in past-tense contexts (Howe 2005). Yet corpora of speakers with more recent dates of birth show higher frequencies of past-tense *ain't*: 32-50% in Harlem (Labov 1968), 20-60% in Philadelphia (Ash and Myhill 1986), and 38% in Columbus, Ohio (Weldon 1994). These facts suggest that past-tense *ain't* is a recent innovation.

To support this hypothesis, data from 17 speakers born and raised in Philadelphia collected as part of the Influence of Urban Minorities on Linguistic Change project (1981-1984) were analyzed.

Interviews were conducted by a male member of Philadelphia's Black community in his mid-30s and were conversational in nature. Interviewees were recruited through the interviewer's social network and included a number of speakers who primarily interacted with other African Americans. These interviews are therefore representative of vernacular AAE as it was spoken at that time.

The 17 interviews produced a total of 423 negative past-tense tokens. Figure 1 confirms an increase in past-tense *ain't* in apparent time, led by a cluster of three younger speakers (< 25 years old) in the upper right quadrant. Their combined average of 72% past-tense *ain't* is well-above that found for adolescents in Labov's (1968) sample. For all 17 speakers, no effect is found for the social factors of gender or contact. The hypothesis that past *ain't* developed from the phonetic reduction of *didn't* (Fasold and Wolfram 1970, Rickford 1977) is tested with the grammatical factor of preceding phonological environment. A three-way interaction between preceding phonological environment, subject type (pronoun or full NP), and subject person/number is included to eliminate a potential effect from pronouns ending in vowels. Surprisingly, the best fit mixed-effects logistic regression model testing both social and grammatical factors reveals only Year of Birth as significant ($p=.0329$), suggesting that past-tense *ain't* may not have developed from *didn't*. These results are in keeping with Weldon 1994. Consequently, a competing hypothesis that present perfect *ain't* extended to past-tense contexts will be assessed.

These findings show the emergence of past-tense *ain't* as a twentieth century innovation, similar to other developments in the AAVE verbal system (Dayton 1996, Cukor-Avila 1995) and lend further support to the Divergence Hypothesis (Bailey and Maynor 1989, Labov and Harris 1986). The

analysis will be strengthened by including more than 43 additional speakers, some with multiple interviews.

	1963-72	1953-62	1943-52	1933-42	1923-32	1913-22	Total
Male	1	2	1	2	1	1	8
Female	3	2	2		1	1	9
							17

Table 1: Gender and age breakdown of the sample population

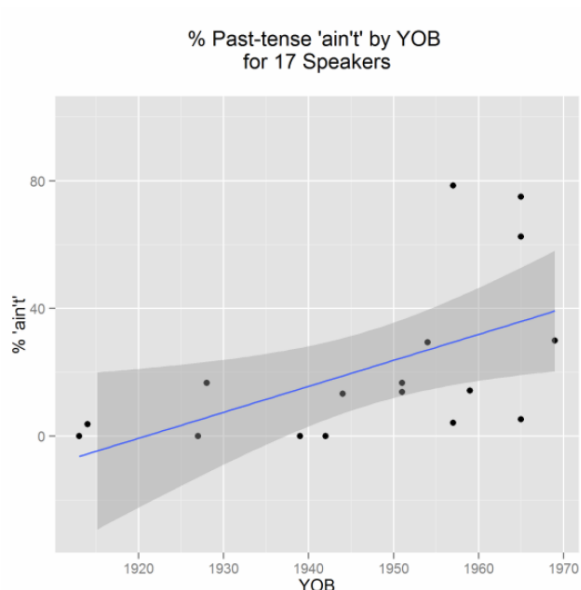


Figure 1: Use of *ain't* for *didn't* for 17 speakers of AAVE in Philadelphia

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“Uh, there’s just drag everywhere”: Gendered hesitation markers in drag transition and performance

Karen Fitzgerald, Bethany Thompson and Gerard Van Herk #82

Drag performances have been a valuable source of information on gender performance and performativity for sociolinguists and others (Barrett 1998, Butler 1990, Mann 2011). However, we find little quantitative work, and very little comparing the language of performers in and out of drag (but see Childs et al. 2014, in which core members of a drag community of practice have higher rates of a female/urban associated variant).

In this paper, we look at how drag queens on the TV reality show *RuPaul’s Drag Race* change their speech as they transition from male personae to full drag. We investigate gender performance through the quantitative analysis of a variable previously shown to be implicated in gender: the use of fillers, discourse hesitation markers as in examples 1-5 (Acton 2011, D’Arcy 2007, Koczogh & Furkó 2007, Laserna et al. 2014).

We focus on the distribution of *um* (5), which Acton (2011) shows is strongly associated with women.

- (1) But ***I mean*** we were all being terrible. (AT5)
- (2) As you can see, ***uh***, there’s just drag everywhere. (RG)
- (3) I’ve been there done that, ***you know***, I am Cher, bitch. (CM)
- (4) my accent was ***like*** really strong. (NF)
- (5) This year has been a nightmare ***um*** come true. (SN)

Discourse markers used by the top three contestants on all six seasons of *Drag Race* were exhaustively extracted and supplemented with interview data (to permit a discussion of style shifting), to a total N of 903. Tokens were coded for drag status (in drag, out of drag, transitioning into drag), season of show, age of performer, and source (from the show vs. interview). Multivariate analysis was conducted with the aid of Goldvarb X (Sankoff et al. 2005).

Results show a statistically significant monotonic correlation of *um* use and drag status: lower rates out of drag, slightly increased rates during transition, and greatly increased rates when in drag. This increase comes partly at the expense of *uh*, as Acton’s research would suggest, but much more so at the expense of discourse *like*. *Um* also correlates with style, with higher rates in the interview situation, rather than the televised segments of the show. This does not appear to reflect a production decision to edit out disfluencies, as there is no parallel effect for *uh*. Random correlations with age and season of the show seem to be due to individual speaker effects.

We conclude that the sociolinguistic resources available to drag performers include not only salient markers of feminized speech, as seen in Barrett (1998), but also features closer to the edges of salience, such as discourse markers, and briefly consider how our findings relate to broader work on gender and performance.

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Sociolinguistic Variation in Practice: The strategic use of Chicano English *sh~ch* in a political election

Isla Flores-Bayer #220

Although the sociolinguistic interview remains methodologically and ideologically central for the study of variation and change (Labov 1972, Schilling 2013, Becker 2013), its limitations are well-known, especially for revealing the range of speakers' stylistic variation. To transcend these limitations, this paper draws on a larger ethnographic study I conducted from 2011-2014 on linguistic variation in a historically segregated Mexican-American community in Central Texas. In addition to more than 70 sociolinguistic interviews, I recorded hundreds of hours of recordings over a 6-month period while following eight Latino/a political candidates running for a city council seat in a wide variety of contexts (e.g. political forums, media interviews, block walking door-to-door, meet and greets with constituents).

For the sociolinguist, politicians on the campaign trail are especially interesting, for while they use language to perform a variety of functions and to index various personas and identities, they do much of this in public, conscious of the need to connect with different groups and constituencies. I focus on one candidate, a middle-aged Chicana, with whom I have over 100 hours of recording. I specifically analyze her substitution of *sh* for *ch* (e.g. *catch* pronounced as *cash*) across contexts as well as micro-variation between them (e.g. between versus during takes of her radio ads). Recent work on Chicano English *sh~ch* shows this alternation is alive, and that the two phonemes are not merged, but vary according to clear phonological constraints (e.g. strengthening and weakening principles).

A regression analysis reveals that while internal linguistic constraints are significant (i.e. *ch* weakens far less in onsets compared to codas), even more important are the varying contexts in which the candidate speaks. The analysis of nearly 1,000 tokens coded acoustically in PRAAT shows this variable is a resource for signaling Chicana identity, familiarity/informality and intimacy, but cannot be reduced to any one of these meanings. An analysis of her speech in more formal contexts (e.g. political forums, radio ads, city hall speeches, read speech) reveals her use of this feature is virtually categorically absent. However, in a formal radio news interview with a Latina host she breaks this trend and weakens *ch* 9% of the time, highlighting her Chicana identity. This contrasts strikingly with 30% weakening of *ch* in the informal door-to-door canvassing of votes, speaking with the voters directly, indexing familiarity. Her control of this variable is clear and highlighted in the comparison of *ch* weakening during and between takes of the recording of her radio ad in the studio. She makes a clear distinction between the imagined, wider radio audience where *ch* weakening is categorically absent and that of the more familiar present audience, as she weakens *ch* between takes. This variable also emerges, many times along with the high-pitch and coos of *baby talk* as she addresses pets, signaling intimacy.

This paper illustrates the complexity of this variable and the value of ethnographic approaches that capture sociolinguistic variation in practice.

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Towards a Sociologically-grounded View of Occupation in Sociolinguistics

Jon Forrest and Robin Dodsworth #246

Sociolinguists recognize the need for new approaches to class in quantitative analysis, in the interest of both theoretical sophistication and attention to the changing and diverse economic structures of distinct communities (Rickford 1986). Large-scale linguistic analysis, newly facilitated by automated methods, brings opportunities for building more nuanced class models. This paper introduces and tests a Weberian (1947) model of class rooted in the idea that socioeconomic distinctions are reproduced in part because employers hire workers with the “correct” kind of cultural capital for particular occupations (Tilly 1999; Rivera 2012).

Accordingly, the present occupational schema is based on 1) the historical presence of industries in the speech community and 2) the interactional needs of employees in those industries.

We test the model on a 150-speaker subset of a corpus of conversational interviews with natives of Raleigh, North Carolina, a dialect contact setting undergoing a white-collar-led retreat from the Southern Vowel Shift (references omitted for anonymity). We implement a five-way distinction between industrial/occupational sectors based on historical changes in Raleigh’s economy and the interactional needs of job classes. To capture the difference between locally versus nationally oriented white-collar labor, we distinguish between Law/Government and Technology/FIRE (Finance, Insurance, Real Estate) industries. The former has a long history in Raleigh, and the latter has grown rapidly on the national level, driving an increase in income inequality (Tomaskovic-Devey and Lin 2011). Concerning the growing service sector, we distinguish between Interactive Service Work and Care Work. Interactive Service Work is defined by high levels of interaction between the worker and customers/clients, monetary exchange being the goal of the interaction (Leidner 1993), e.g., sales. Care Work, in contrast, puts primacy on the nurturing of the individual, with monetary reward less important than the service of others (Hochschild 2003), e.g., teacher or medical staff. Finally, we distinguish a Blue Collar labor category.

The linguistic variables are the elements of the Southern Vowel Shift (Labov et al. 2006): the high front and high mid vowels, /ae/, and /ay/-ungliding. Formant measurements at the vowel nucleus (or glide in the case of /ay/) were taken automatically from transcribed and aligned interviews. Measurements are hand-corrected and Lobanov-normalized. Speakers in this subset were born between 1923 and 1993, and year of birth is significant for all vowels: they are all retreating from their Southern positions across apparent time.

While previous models with a 3-way occupational distinction (professional white collar, unskilled white collar, blue collar) simply showed a white collar lead for most vowels, the new class model reveals that Technology/FIRE workers lead the retreat from the SVS while Law/Government workers remain more conservative. Further, Service workers are retaining the SVS over time to a greater extent than Care workers. Both contrasts (Tech/FIRE leading Law/Government and Care leading Service) suggest that linguistic conservatism, or sounding Southern, is valued in sectors relying on orientation to the local public to further political or monetary goals. The class model used here also introduces collinearity with age and sex; despite the analytical inconvenience, this

collinearity reflects structural realities.

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The Frequency of Undershoot in the Diffusion of the Low Back Vowel Merger

Michael J. Fox #39

The effect of word frequency differs as a function of the type of change with high frequency words being affected by reductive (Bybee 2002) or lenition (Dinkin 2008) changes, and low frequency words by regularization (Bybee 2002). Phillips (1984, 1998, 2001) posits that the most frequent words being affected by reductive/lenition changes are a consequence of physiological factors. One such universal physiological process with acoustic-phonetic consequences is degree of undershoot (Lindblom 1963) defined as the differential approximation to the target as a function of duration, velocity of change, and distance to target and is constrained by the biomechanics of the vocal system (Moon and Lindblom 1994). Thus, if high frequency words are more affected by undershoot we would expect, as Pierrehumbert (2001) does, that undershoot is one type of acoustic phonetic process that biases productions towards gradual distributional (i.e. exemplar) shift. The Low Back Vowel Merger (LBVM) is one reductive change affected by undershoot, which is expanding rapidly in North American English (Labov 2011). This paper asks the question of whether or not undershoot is occurring more prominently in more frequent words, and if so, what this implies for language change.

Acoustic measurements at three time-points (25%, 50%, 75%), and duration of CAUGHT (n = 4169) and COT (n = 6053) come from 97 speakers born and raised in Eau Claire, Wisconsin, between 1920 and 1992. Since the whole vowel space was available, tokens were normalized using a modified version of Lobanov (1971) to account for token imbalance. Linear mixed-effects regression, in a completely crossed (speaker-by-task) design, were used to model the effects of undershoot and word frequency. The logarithm of word frequency was calculated based on the SUBTLEXus corpus (Brysbaert and New 2009). Undershoot was operationalized via vowel duration due to its known strength (Moon and Lindblom 1994).

The modeling results show effects for duration, word-frequency, and an interaction between word-frequency and vowel-class, as well as an interaction between duration, frequency, and vowel-class. The direction of the effects predicts: 1) approximating the target vowel varies as a function of duration; 2) the more frequent words are, the more they are shifted towards their counterpart's distribution; 3) the effects of undershoot vary as a function of vowel-class membership and frequency, such that higher frequency words are predicted to have more distributional overlap at lower levels of duration (i.e. undershot) than at higher levels of duration. These results are commensurate with both exemplar theoretic predictions (Pierrehumbert 2001) and existing empirical observations (Dinkin 2008) thereby lending further support for the idea that processes such as undershoot differentially affect high and low frequency words (Phillips 1984, 1998, 2001). This also illuminates undershoot as a mechanism that can lead to simultaneity of phonetic and lexical gradualness of a change (Bybee 2002) through an interaction between frequency and duration. Taken together these observations taken together with functional load (Wedel, Jackson and Kaplan 2013, Wedel, Kaplan and Jackson 2013) help to explain the rapid diffusion of the LBVM in American English (Labov 2011).

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Exploring task and gender effects on stance-taking in a collaborative conversational corpus

Valerie Freeman #372

In this contribution, we look at speakers' perceptions of direct disagreement over various kinds of sentences (with markers such as *I don't know*, *might*, etc.) across English, Peninsular Spanish (PS), and Uruguayan Spanish (US).

I don't know (henceforth IDK) literally indicates a lack of knowledge but is also used to avoid discussion of certain topics, and the relative frequency of such uses varies across context type (Beach & Metzger 1997; Tsui 1999; Pichler & Hesson 2014). *Might*, on the other hand, is a 'hedge' to not fully commit or to soften something one believes in addition to uncertainty (e.g. Holmes 1990). Thus, these are stance-taking resources for which more than just uncertainty is indexed. Like tag questions, there are indirect discourse functions arising from IDK and *might* that lead to expectations about social categories of the speaker (such as a female identity) (e.g. Ochs 1991, Podesva et al. 2001). Semanticists, meanwhile, consider IDK and *might* to be linked such that IDK is an explicit version of the meaning contained in *might*, but, like evaluative predicates like *tasty*, the explicit version (1b,2b) is predicted to be infelicitous, unlike the non-relativized versions (1a,2a) (Stephenson 2007).

- (1) a. A: Jay might be out. B: No he isn't b. A: IDK whether Jay is out. # B: No he isn't
(2) a. A: This soup is tasty. B: No it isn't b. A: This soup is tasty IMO. # B: No it isn't

Our previous work has shown that (1b) and (2b) are rated poorly in perception tasks by English speakers across dialects, while in PS, only (1b) is dispreferred. Dialect studies have shown, however, that directness is valued in PS, raising the possibility that this pattern is based on politeness norms and is subject to variability rather than fixed semantic properties. US is a perfect test case for this claim given literature arguing that various aspects of US are more indirect as compared to PS. For example, Reiter 2002 shows that US requests were more tentative than PS requests on the basis of corpus data. In this talk, we present perceptual judgment data from 60 PS and 70 US speakers showing absolutely no significant differences in the results between the two dialect groups (based on mixed-effects models of the ratings, using speaker and item as random effects). The audio stimuli were short dialogues ending with agreement or disagreement across sentence types, recorded in each respective dialect, and participants were told that these were informal conversations between relative strangers. There were also no significant differences in ratings by men as compared to women, nor differences in other external factors. It could be that perception and production of indirectness are unrelated in US, but we will argue that a combination of internal (semantic and pragmatic) factors as well as social factors are at work in explaining this pattern.

In particular, we argue that an internal experiential argument accounts for part of these differences (someone has to have experienced the soup for it to be tasty; no one has to experience a proposition to use *might*/IDK), that *might* v. IDK have different pragmatic statuses in terms of whether the propositions in question are put 'on the table' (Farkas & Bruce 2009), and that the difference in their uses as hedges v. avoiders is related to this pragmatic status, giving a case study for a field of semantico-pragmatic contrasts on which social meanings are generated.

Interaction between education and formality degrees in Brazilian Portuguese first person plural pronouns

Raquel Freitag #105

In Brazilian Portuguese, several studies have shown that education is a strong predictive social factor in variation, as in first person plural (Zilles, 2000, Lopes, 1998). There are two pronouns to first person plural and two concordance-affixed morphemes, which can be overlapped:

- (1) “*nós falamos*” (“*nós*” *speak+-mos* affixed)
- (2) “*nós fala*” (“*nós*” *speak+-0* affixed)
- (3) “*a gente fala*” (“*a gente*” *speak+-0* affixed)
- (4) “*a gente falamos*” (“*a gente*” *speak+-mos* affixed)

(1) is the standard pattern and (3) is the innovative pattern of first person plural; (2) and (4) are non-standard patterns. The educational background (p. context) can help outline the social evaluation of these forms: while constructions as (1) and (3) are markers; (2) and (4) are stereotypes (Labov, 1972). The control of formality of data collecting is also a limiting factor across the variation between the forms to first person plural and indicate degrees of social evaluation.

To analyze the effects of interaction between education and formality factors in social evaluation of the forms to first person plural, data were collected in Sergipe, the smallest Brazilian state, located in the Northeastern region. Two groups provided the data, using the sociolinguistic interview method, to gather less formal context, and in ethnographic records of regular meeting of activity, to gather more careful and formal context:

- A. A mixed education level, with individuals who had never studied, basic level, with 4-8 years of school, and graduate level (N = 13 individuals)
- B. The same education level, only individuals who are undergraduates (N = 15 individuals)
The groups constitute community of practices (CofP) (Eckert, 2000).

The multivariate analysis with GoldvarbX of 1,428 tokens of all data of first person plural shows that although *nós* is the form expected by prescriptive grammars, *a gente* first person plural is predominant, 81,6%, an increasing compared to the results of Zilles' study (69%), suggesting that (3) is the standard pattern in the sample. However, multivariate analysis with (1) and (3) patterns reveals that (1) is favored by higher educational level (.74) and more formal context (.67). So, besides the right frequency of (3) pattern, school favors pattern (1).

Only *nós* multivariate analysis shows that standard pattern (1) is associated with higher educational level (.84) and more formal context (.80). Pattern (2) is associated with basic educational level (.18) and less formal context (.40).

Occurrences of non-standard forms (2) and (4) are concentrated on the speech of individuals who had never studied. Only two individuals of higher educational level use (2) and only one uses (4). The behavior of higher educational level individuals lacks (2) and (4) patterns, which corroborates

the hypothesis that the interaction between educational level and degrees of formality has effects in social evaluation of patterns of first person plural in this sample. This result is different from that obtained by Mattos' study (2014), according to which the pattern in Goiás (Central-western region) is not stigmatized, but an index of positive rural heritage. These results reinforce that considering interaction between factors in contrastive dialectal approaches is necessary to explain differences in the social evaluation of first person plural in Brazilian Portuguese.

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Filled Pause Choice as a Sociolinguistic Variable

Josef Fruehwald #236

It has recently been found that in many Germanic languages, including American and British English, there is a change in progress with respect to filled pause choice (Wieling et al. forthcoming). In all cases examined, the filled pause UM (and its cognates) is increasing in frequency with respect to UH (and its cognates). In this paper, I will investigate this change in Philadelphia English in detail, drawing data from 395 speakers in the Philadelphia Neighborhood Corpus (Labov and Rosenfelder 2011), yielding 19,123 tokens of UH and 6,391 of UM. Specifically, I will establish that this is completely prototypical female-led language change in progress spanning the 20th century (Figure 1). Utilizing two-dimensional generalized additive models, I will demonstrate that this change has incremented between generational cohorts, exhibiting virtually no lifespan trends. I will also demonstrate that this change is progressing by one variant (UH) giving way in frequency to the other (UM), rather than one or the other variant changing in frequency independently from the other. Finally, through an investigation of its primary internal conditioning factor (the duration of silence following the filled pause (Clark and Fox Tree 2002)), I will show that the evidence best supports an analysis where speakers are changing their choice of variant within a stable communicative context, rather than a change in what kind of discourse functions are represented (cf. D'Arcy (2012) on *be like* verb of quotation).

While (UHM) exhibits all of the hallmark properties of a sociolinguistic variable, it raises some challenging questions about how linguistic variation ought to be incorporated into a theory of grammar. Filled pauses' relationship to speech planning difficulties seems uncontroversial from the psycholinguistic literature. While filled pauses may play an important role in modulating listeners' expectations about how unpredictable upcoming speech may be (Arnold et al, 2003; Corley et al, 2007), listeners perform relatively poorly when trying to identify them in running speech (Lickley 1995; Lickley and Bard 1996). Moreover, they marginally interact with the broader linguistic context. For example, UH and UM frequently block unstressed vowel reduction in determiners (per Pak (forthcoming)), resulting in [ði:] in "*the um... apple*", but they never condition the "an" indefinite determiner allomorph. That is, an utterance like "**an** um... apple" is unattested, but utterances like "**a** um... an apple" are frequently attested.

The choice we are left with is to either propose a variable "UM-insertion" grammar, stretching grammar's scope to include the "vagaries of performance" like speech planning difficulty, or to push the selection of UM or UH out of the grammar proper into what has been variously called a "sociocultural selection device" (Preston 2004), the "sociolinguistic monitor" (Labov et al. 2011) or "p[sychological]-conditioning" (Tamminga et al forthcoming), whereby an extragrammatical component selects filled pause variants from speakers' lexicon. I argue that this latter option is the theoretically parsimonious one, and that the prototypicality of (UHM) suggests that we consider it more seriously for more variables.

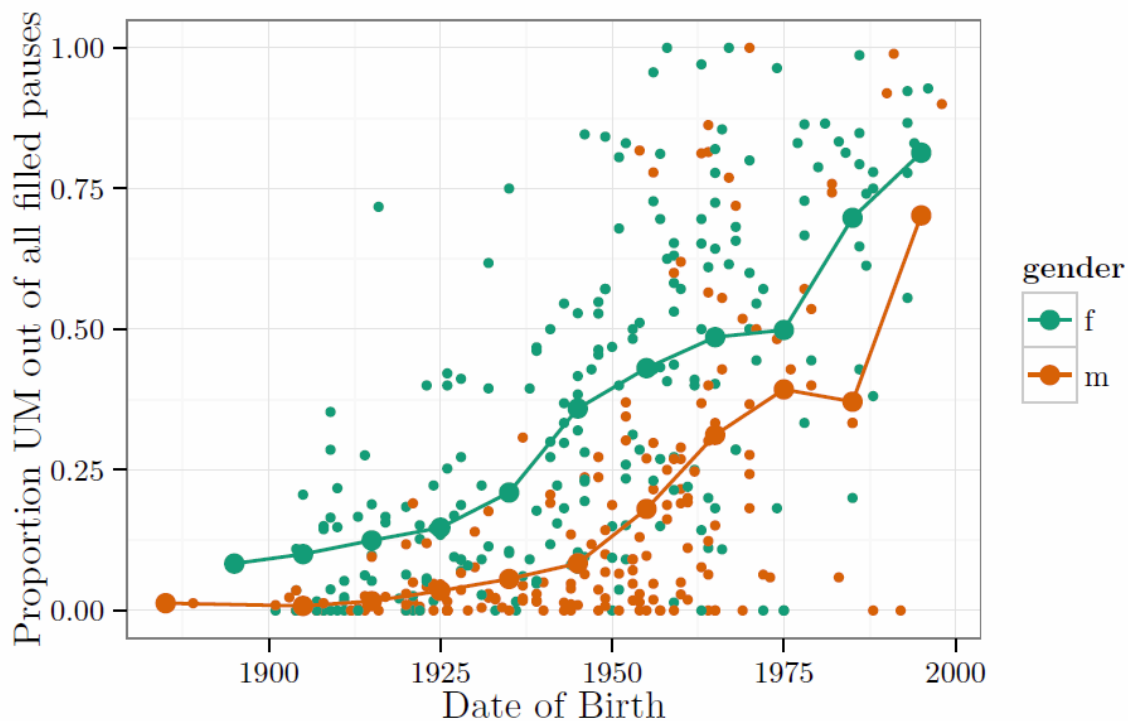


Figure 1: Shift towards UM in apparent time.

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What's Mine is Yours: Stable variation and language change in Ancient Egyptian possessive constructions

Shayna Gardiner #311

Variation is described as two or more variants competing for finite resources (Kroch, 2001; Kroch, 1989). In this model, two outcomes are possible: language change or specialization. Specialization can be then broken down further: specialization for different functions and partial specialization – what we know as stable variation.

Little is known about how stable variation diverges from language change. Optionality between two grammatical forms should be diachronically unstable in most cases; most variation should turn out to be change in progress (Wallenberg & Fruehwald, 2013; Kroch, 2001; Kroch, 1989). Stable variation should be rare, with an extra-grammatical dimension that accounts for the lack of competition between grammars. It has been proposed that continuous factors rather than discrete ones are that extra-grammatical dimension (Wallenberg & Fruehwald, 2013).

In this paper, I analyze the differences between stable variation and language change using one multi-faceted variable: Ancient Egyptian possession. Observing four Egyptian possessive variants, split into two groups with two variants each – clitic possessor variants (new and old) and full nominal possessor variants (construct state and adjunct possession) – for a total of 1802 tokens, I compare factors affecting variant choice in each possessive group.

The results of distributional and multivariate analyses indicate that for the 830 clitic possessives, a change over time is occurring: the innovative form replaces the older form, consistent with previous variationist work on these possessives (Gardiner, *to appear (a)*). Text type was significant as well: the innovative variant is favoured in vernacular texts while the older variant is preferred in more formal texts, also supporting previous results (Gardiner, *to appear (a)*). Finally, possessum type was significant: body parts and characteristics were much more likely to occur with the older variant, kinship nouns showed no preference, and action nouns strongly favoured the innovative variant. This finding is inconsistent with previous accounts, which indicate that alienable nouns should occur with the new variant while inalienable nouns (kinship terms and body parts) should occur with the older form (Gardiner *to appear (b)*, Kammerzell 2000).

For the 972 tokens with nominal possessors, results indicate these two variants do **not** display a change over time as the clitic possessives do – this finding is new to both Egyptology and sociolinguistics. Results also show that text type (a discrete factor) was **not** significant in predicting variant choice. On the other hand, phrase complexity (a continuous factor) **was** significant in predicting variant choice in the stable variation: the more complex the possessive phrase, the more it disfavours the construct state construction. Possessum type was also significant, but **not** with the same divisions as clitic possessives: construct states favoured kinship terms only, while adjunct possession favoured action nouns, characteristics, and body parts. This finding is inconsistent with previous accounts, which indicate that construct state nominal possessives should parallel the older clitic construction. This suggests that, when determining the envelope of variation, structural differences between nominal possessives and clitic possessives are a stronger metric than the parallel functions of the older clitic variant and the construct state construction.

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Language change and lifespan development in old age: the case of *ne* deletion in French

Annette Gerstenberg #248

In accordance with the rules of standard French, sentential negation is realized with two elements: the clitic *ne* preceding the verb which is followed by the adverb *pas* as the second element (1). The clitic *ne* is regularly deleted in spoken French (2).

(1) *Je ne dors pas.*

"I don't sleep."

(2) *Je dors pas.*

"I don't sleep."

Ne deletion forms part of what is called "diglossic grammar" of spoken vs. written French (Massot 2010). *Ne* deletion has been shown to be a central sociolinguistic feature with different positions in the varieties of spoken French (Ashby 2001), and in media specific use (Stark 2012).

The generational distribution of the *ne* variable has often been studied resulting in a clear picture of generation specific use (e.g., Hansen & Malderez 2003). I will elaborate on the question of generation specific use on the basis of a corpus of interviews conducted exclusively with older speakers of French, allowing for a closer look at social groupings within one age group or generation. Among the older French people represented in the corpus it has been shown that a considerable group of speakers with very high rates of *ne*-retention can be identified. For this group, a remarkable co-variation with other normative traits such as a preference for *nous* (1.pers.pl.), in spoken French regularly replaced by *on* (3.pers.sg., but also 1.pers.pl.), was observed. The participants were in their 70's when interviewed in 2005; studies from the 1970's show (Ashby 1976) high deletion rates for the age-groups represented in the corpus. They could have participated in the communal change to *ne* deletion, and the maintenance of a more normative use seems to be part of their "ambitious" linguistic attitudes such as it was demonstrated in the interviews in 2005. The conclusion is that this is an example of a far more personal linguistic behavior developed during the lifespan than a simple proof of the apparent-time hypothesis.

In 2012, we conducted a second series of interviews. The same 12 speakers participated under the same conditions of biographical interview: the individuals were between 70 and 82 years old and experiencing a "normal aging" process. The sample maintained a balance in terms of sex within two social groupings (for the interview methods and criteria of inclusion in the sample used, see Gerstenberg 2011; 2015). We examined the retention vs. deletion of the *ne* variable.

Overall, we found a trend of lower rates of *ne*-retention in the second series (2012). Furthermore, we observed a difference in the preferences of the second, adverbial element of negation. The preference of *pas* turned out to be stable in the two series. But while in the first series *plus* is almost an exclusive feature of *ne* retention, in the second series it is more often used in cases of *ne*-deletion. Another interesting finding is that of an increased standard variation in the second series.

These results will be discussed in light of the age-grading theory. More specifically we will question the meaning of linguistic norms in the process of social accommodation. The results show that it is

important to respect the individual character of lifespan developments.

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Social and phonological dimensions of /l/-vocalization in West Australian English

Simon Gonzalez, Nathaniel Mitchell and Gerard Docherty #327

/l/-vocalization is commonly reported to be a prevalent characteristic of varieties of English spoken in Australia [1][2]. To date, the analysis of the /l/ and /l/-vocalization in Australian English has tended to be auditory or articulatory in nature [3, 4]. A significant challenge posed by the automatic acoustic analysis of /l/-vocalizations is their intermediate vowel-consonant nature [5, 6]. As a result, we know relatively little about the acoustic properties of these realizational variants, and, because of the necessary limitations on sample size imposed by articulatory techniques, we know little beyond that which is available through auditory analysis about how variability in /l/-vocalization is distributed across a larger sample of speakers of a particular variety of English.

This paper reports findings from an acoustic analysis of the realization of post-vocalic /l/ in the conversational speech of young speakers of West Australian English (from the Perth metropolitan area - a location which has not previously been the object of sociophonetic investigation). The results are derived from our analysis of six pairs of same-sex speakers recorded in unscripted conversations of around 30 minutes in duration.

Our acoustic analysis sets out to classify /l/ variants along a consonantal - vocalic continuum. Following [7], we base our acoustic characterization of /l/ realizations on statistical modeling of formant trajectories in vowel-/l/ rhymes, using a dynamic approach to data collection coupled with a cluster analysis statistical model.

Recordings were segmented in *Elan* [8] and subsequently force-aligned within *LaBB-CAT* [9], using *HTK* [10] for correcting misalignments in *Praat* [11]. Using the *R* package [12] *PraatR* [13], formants tracks were extracted. We included tokens of /l/ preceded by monophthongs before pauses or followed by consonants. We excluded contexts with following approximants in order to avoid formant dynamic trajectories beyond the offset of /l/. Adapting the methods described in [7] and [14], we tracked formant trajectories from the onset of the preceding vowel to the offset of the /l/. A total of 15 equidistant points were extracted for each interval. We analyzed the middle 80% (12 points) of the trajectory. We subsequently carried out a cluster analysis of formant trajectories, thereby allowing us to organize data into groups clustered around intrinsic data patterns, independent of categorical classifications. In this case, the analysis divides the data into two distinctive groups for each point of the 12 in the trajectory. Points were then interpolated to generate a continuous formant trajectory. We described these two groups as Variant 1 and Variant 2. Both groups were statistically compared.

Preliminary results (See Figure 1) show that a cluster analysis of dynamic formant trajectories can distinguish between /l/ post-vocalic variants in Australian English. The next step is to map the cluster analysis findings to an auditory analysis of the realizations of /l/ variants as vocalized or not to establish the extent to which there is a correspondence and whether our acoustic methodology is effective in distinguishing between consonantal /l/ and vocalized /l/.

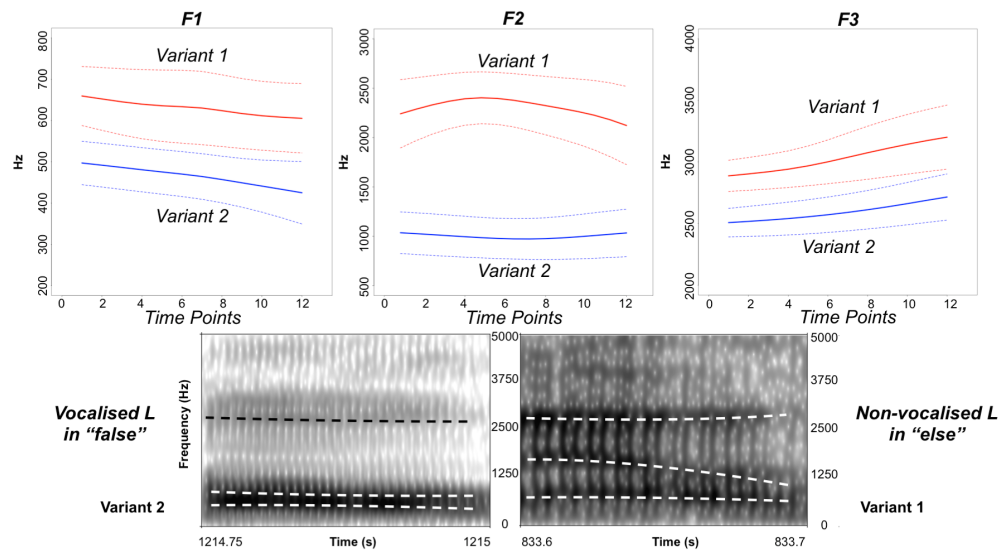


Figure 1. Preliminary results of cluster analysis on the dynamics of formant trajectories of /l/ sequences in Australian English. Formant plots (red and blue) are based on the all tokens from two conversations – four speakers (2 males and 2 females). Two spectrograms are shown to illustrate the correlation between the cluster statistic findings and the acoustic data.

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Using a density measure to quantify phonetic variation along the creole continuum

James Grama #256

The relationship between some creoles (e.g., Hawai'i Creole, Jamaican Creole) and their main lexifier languages is sometimes characterized as a continuum between the basilect (i.e., more creole-like) and the acrolect (i.e., more similar to the main lexifier language). Hence, phonetic and phonological variation in these creoles is sometimes described as varying according to whether a speaker is basilectal, mesolectal, or acrolectal (e.g., Sakoda & Siegel 2008; Wassink 1999, 2001, 2006). However, there is substantial difficulty with researcher-assigned categories which label speakers as, for example, mesolectal, as it is not always clear what features contribute to the characterization of a speaker's lect. Using Hawai'i Creole (known in Hawai'i as Pidgin) as a test example, the current study formulates an objective metric—the Pidgin Density Measure (PDM)—based on Dialect Density Measures (see, e.g., Craig & Washington 2006; Van Hofwegen & Wolfram 2010), which quantifies how basilectal a speaker's variety of Pidgin is.

PDM is calculated as the ratio of Pidgin morpho-syntactic elements to total word count of the interview, and it yields a single number which can be used as a predictor of vowel variation.

To test of the effectiveness of the PDM, the current study analyzed 11,191 tokens over fourteen vowel categories from 32 Pidgin speakers, who varied in age and gender, taken from two existing corpora of speech conducted at different points in time: a 1970s corpus and a 2000s corpus. Acoustic analysis revealed that the vowel spaces of 1970s speakers vary with respect to the vowel spaces of 2000s speakers. 1970s speakers show near-complete spectral overlap between high front vowels /ɪ/ and /i/, between the high back vowels /u/ and /ʊ/, and between the low vowels /a/ and /ʌ/. By contrast, 2000s speakers realize /ɪ/ and /ʊ/ as distinct from /i/ and /u/, respectively, and /a/ and /ʌ/ are realized as more distinct in spectral space. Despite these changes that have taken place over time, 2000s speakers with relatively high PDM scores (i.e., those who produced more morpho-syntactic markers of Pidgin) exhibited more conservative vowel realizations than speakers with low PDM scores. That is, young speakers who exhibited high rates of Pidgin morpho-syntax were more likely to exhibit more overlapping realizations of /ɪ, i/, /ʊ, u/, and /ʌ, a/.

These findings provide evidence that while the vowel space of Pidgin has changed substantially over time, younger speakers of Pidgin who exhibit higher rates of Pidgin morpho-syntactic markers (i.e., are more basilectal) are more resistant to these changes. This finding demonstrates that PDM is an effective way to assess whether speakers who are more basilectal behave differently with respect to sound change than more acrolectal speakers. The PDM has the added benefit of allowing for increased objectivity on the part of the researcher, as it is independent of the test variable (e.g., phonetic segments), which is not the case with researcher-imposed categories. Findings presented in this paper contribute to an understanding of how creoles exhibit systemic variation, as well as how style plays a role in that variation.

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Indexin' Gender: Variable (ING) and the Creation of Non-Binary Trans Identities

Chantal Gratton #250

Gender diversity and non-conformity have increasingly become areas of interest for researchers in various sociological fields, fuelling the development of post-structuralist models of gender identity, which are no longer based on the presupposition of a gender binary. Despite growing interest in the speech of transgender individuals in quantitative sociolinguistics (Papp 2011; Zimman 2012, 2013), little attention has been paid to the language of non-binary trans individuals — individuals who transition from the gender they were assigned at birth to a gender outside of the gender binary — and the manners in which they use language in the construction of their gender identities.

This paper sought to examine specific linguistic strategies employed by non-binary trans individuals in a community of practice (Eckert & McConnell-Ginet 1992), located in Waterloo, Canada. Sociolinguistic group interviews and self-recorded interactions were analyzed using both qualitative and quantitative variationist methods, focusing on relevant metalinguistic commentary and speakers' variable use of (ING), which has received considerable attention in the sociolinguistic literature on indexicality (Campbell-Kibler 2007, 2008).

The metalinguistic data attested to speakers' conscious efforts to distance themselves from their gender assigned at birth through the active suppression of similarities which could weaken their claim to a non-binary gender identity. To explore this, I examined each individual's variable use of (ING) across two interactions, which were evaluated by in-group members as being either more or less safe environments to express their gender identity. Occurrences of (ING) were exhaustively extracted, yielding around 1200 tokens.

A preliminary analysis of the (ING) variable revealed that, within less safe environments, speakers made greater use of variants that are not traditionally associated with the gender they were assigned at birth. That is to say, individuals who were assigned female at birth made greater use of [ɪn] in less safe environments than they did in safer ones, whereas speakers who were assigned male at birth made similar use of [ɪŋ]. I proposed that this non-traditional use of variants produces stances of resistance to cis-normative femininity ([ɪn]) and masculinity ([ɪŋ]). Thus, the variability between interactions represents a need for varying degrees of indexical work. Non-binary individuals made variable use of (ING) in a process of distinction (Bucholtz & Hall 2005), suppressing similarities with their gender assigned at birth to successfully present a non-binary gender identity in a given linguistic interaction.

Unlike other research which presupposes and focuses on a gender binary, even within the literature on trans individuals, this research provides a broader perspective of gender identity and its influence on linguistic interactions. This research is not only beneficial to the domain of language and gender, by examining the place of language within the growing non-binary culture, but also to the broader field of sociolinguistics. It is only by removing the imposition of a gender binary that the effects it has on speakers adhering to the binary system can be discerned.

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Using social media to map double modals in Modern American English

Jack Grieve, Andrea Nini, Diansheng Guo and Alice Kasakoff #244

Double modals have a long history of research in American sociolinguistics and dialectology, including considerable discussion about their possible origins in American English. The analysis of double modals, however, is greatly complicated by the fact that these constructions are both very rare and very informal. Most natural language corpora are therefore either too small or too formal to contain a substantial number of tokens of these forms. Furthermore, double modals are very difficult to elicit through surveys and interviews, due both to their stigmatization and, like most grammatical features, their abstractness. There are therefore many unanswered questions about the usage of double modals in American English. For example, aside from the fact that double modals are primarily a feature of southern American English, very little is known about the regional distribution of these forms in the South. This paper addresses this issue by mapping dozens of double modals across the United States for the first time based on a very large, informal, and richly annotated corpus of social media language.

In particular, to map regional variation in double modal usage, an 8.9 billion word corpus of geocoded American tweets collected between October 2013 and November 2014 was analyzed. This corpus was searched for all possible sequences of two modals (e.g. *may*, *might*) and/or semi-modals (e.g. *ought to*, *should have*). Through this process thousands of tokens of double modals were identified in the corpus, including over 150 different double modal combinations—far more than has ever been observed in previous research—although the most common double modals have *may* (e.g. *may can*, *may could*) and *might* (e.g. *might could*, *might would*) in first position, which is in line with previous research.

The relative frequency of each of the double modals was then mapped across the counties of the continuous United States. Two general patterns were identified. First, as expected, most of the more common double modals, especially those beginning with *may* or *might*, were found to occur primarily in the Southeastern United States. A number of more rare double modals (e.g. *could can*, *would could*), however, were found to be distributed sparsely across the entire United States, in some cases occurring less often in the South. Possible explanations for these differences are considered in the paper, including the emergence of new double modals and the unsuccessful imitation of southern double modals by northerners. In addition, the regional distribution of the more common double modals within the Southeastern United States was analyzed in detail. It was found that different double modals exhibit subtle yet different geographical patterns, with some double modal being more common in the Upper South (e.g. *might could*) and others more common in the Lower South (e.g. *might can*). Finally, in addition to presenting the results of this analysis, this paper considers what these findings reveal about the origins of double modals in American English.

The apparent decline of the subjunctive mood: The case of minority French in Ontario

Rick Grimm #56

Twentieth-century grammarians and linguistic commentators have often suggested that the subjunctive mood is receding in French. This view is in part supported by the observation that in varieties spoken in Canada and France, the indicative (1) can appear in contexts for which the subjunctive (2) is prescribed, illustrated below with the impersonal verb of necessity *falloir*:

(1) *il fallait que son père vient* [vjɛ̃] *le chercher.* (P2-08)

'his father had to come get him.'

(2) *il faut un parent qu'il vienne* [vjɛ̃n] *avec toi.* (H2-18)

'a parent has to come with you.'

The present study examines use of the subjunctive with verbal matrices in the minority variety of French spoken in four communities situated in southeast Ontario. It is based on data from a large sociolinguistic corpus constructed in 2005 which comprises 1.1 million words (Mougeon, Nadasdi & Rehner 2008). The 182 speakers, who are francophone adolescents enrolled in French-medium schools, are categorized along a five-point scale of language restriction that captures the speakers' self-reported daily use of French and the local concentration of Francophones in each community. At one end is the majority community of Hawkesbury (80% Francophone) and on the other is Pembroke, the weak minority community (6%). Three intermediate points (unrestricted, semi-restricted and restricted users of French) are established for the minority speakers in Cornwall (27%) and North Bay (14%).

The quantitative analysis shows that use of the subjunctive is in decline only in the minority communities. While there is a progressive decline in the number of subjunctive-selecting contexts, this is attributable to a reduction in the frequency of *falloir* along the five-point scale. As demonstrated in prior research on spoken Canadian varieties of French (e.g., Comeau 2011; Poplack et al. 2013), this verb accounts for at least two-thirds of the data and selects the subjunctive at very high rates (90%–100%). In the Ontario communities, the rate of occurrence of the subjunctive with *falloir* also decreases as language restriction intensifies. But the subjunctive is not under threat due to incursion of the indicative, as one might expect. Rather, the verb *falloir* is displaced by its more formal counterpart *devoir* (3):

(3) *je dois venir ici pour mon collègue.* (N2-48) 'I have to come here for college.'

Use of *devoir* vs. *falloir* ranges from negligible in Hawkesbury (1%) to high in Pembroke (79%). In contrast, the results of an analysis based on a corpus for the same communities constructed in 1978 (Mougeon & Beniak 1991) show minimal use of *devoir* (< 12%) a generation earlier, signalling change in real time. Further, the 2005 corpus contains a sub-corpus of in-class recordings of 59 teachers in the same four communities. These data reveal that the adolescents' teachers use *devoir* at higher-than-usual rates (cf. Thibault 1991 for Montréal French). My findings suggest that in minority communities educational input plays a role in this case of linguistic change, affecting not only mood but the expression of modality itself.

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A Cross-Varietal Study of Mood Choice in Acadian French

Rick Grimm and Ruth King #129

The French subjunctive is triggered by an array of verbal and non-verbal matrices, of which the most frequently occurring in discourse is *falloir*, an impersonal verb of necessity. Varieties of Atlantic Canada Acadian French differ in terms of overall frequency of the subjunctive vs. indicative mood in this context and in terms of whether or not the tense distinction illustrated in and (2) is also made:

(1) *il faut*PRES.INDIC *que tu seyes*PRES.SBJV *là* ‘you have to be there’ (SL-30)

(2) *il fallait*IMPERF.INDIC *que je nous levis*IMPERF.SBJV ‘we had to get up’ (SL-39)

We take as a baseline the Baie Sainte-Marie, Nova Scotia, variety since it is arguably closest to that spoken by Acadian settlers to the New World, due to dialect isolation across the centuries. While use of the imperfect subjunctive has been in decline in many French varieties since the 17th century and is absent from most present-day varieties (Fournier 1998), Baie Sainte-Marie shows categorical use of subjunctive forms across the tense distinction shown above (Comeau 2011).

The present study involves three communities which have more complex histories of dialect contact than Baie Sainte-Marie: Saint-Louis and Abram-Village, Prince Edward Island, and L’Anse-à-Canards, Newfoundland. The data come from late 20th-century sociolinguistic corpora for a total of 1200 tokens. We consider separately mood choice under *falloir* in the conditional because this environment frequently triggers an embedded verb in the conditional ($\pm 85\%$) in this context (3). Such usage is a well-attested feature of vernacular French, including Laurentian varieties (Seutin 1975; Auger 1990).

(3) *il faudrait*COND *que j’irais*COND *voir ça* ‘I would have to go see it’ (SL-34)

According to our quantitative results, both Saint-Louis and Abram-Village use the subjunctive with *falloir* at very high rates, 93% and 84% respectively. Only Saint-Louis retains the imperfect subjunctive, albeit without the number distinctions found in the Baie Sainte-Marie variety (2 above has singular marking for the 1st person plural). In contrast, the L’Anse-à-Canards variety shows relatively infrequent use of the (present) subjunctive with *falloir*; its selection rate of 37% is one of the lowest reported for any Canadian variety.

To explain these divergences, we appeal to each community’s history. The PEI communities underwent early dialect mixing (and concomitant dialect levelling). Further, Abram-Village, but not Saint-Louis, has had extensive contact with supralocal French varieties since the 1960s. As for L’Anse-à-Canards, this community was settled in the late 19th century by Acadians and by settlers direct from Haute Bretagne, France. According to early 20th-century documentation, e.g., the *Atlas linguistique de la France*, the 19th-century French settlers had the same verbal morphology for the present indicative as did their Acadian counterparts (King 2005 reports the same pattern for late 20th-century L’Anse-à-Canards). However, this early documentation suggests that use of the subjunctive was far less robust by comparison, thus creating the conditions for a reduction in mood choice in the Newfoundland variety. We conclude that the historical facts related to dialect contact and isolation are essential to understanding the variation which obtains across the Acadian

diaspora.

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Twitter as a laboratory for investigating the linguistic and the social determinants of ongoing syntactic change

Stefan Grondelaers and Roeland Van Hout #378

Although Twitter, the micro-blogging platform to which users contribute messages of up to 140 characters, is a relatively recent phenomenon, it has by now become an established data source for (socio)linguistic research. Tweets are conveniently available in large quantities (Tjong Kim Sang 2011), and they include metadata as well as topic tags. Tweets, in addition, feature (informal) written language use with many features of orality, on account of which they are eminently suited as “supplementary data for investigating non-frequent, non-canonical phenomena in spoken language” (Rehbein 2014: 20).

It is exactly in this capacity that we use Twitter as a data source for the investigation of a publicly stigmatized, but vital ongoing change in Netherlandic Dutch, viz. the rapid spread of the object pronoun *hun* “them” as a subject (as in *Als je zo speelt krijgen hun natuurlijk altijd kansen* “If you will play like that *them* will always get chances”). In earlier work, we have revealed both an internal factor and a prestige motivation for *hun*’s unstoppable dissemination as a subject, respectively the fact that subject-*hun* is preferred for the expression of “engaged negative contrast”, and the fact that the vitality of subject-*hun* is sustained by dynamic perceptions pertaining to media cool.

While these factors have hitherto been investigated on the basis of different data collection techniques – corpus analysis and socio-psychological experimentation –, we will demonstrate in this talk that Twitter represents a data source which is appropriate for the simultaneous validation of *both* internal factors and prestige motivations. We extracted a corpus of tweets ($n = 11.861$) containing either the standard pronoun *zij* “they” or non-standard *hun* “them” from a subset (selected on the basis of the most frequent hashtags) of the Dutch eScience Centre corpus (Tjong Kim Sang and van den Bosch 2013). Tweets were hand-coded for sentence structure (+/- predicative), for a number of contrast parameters (the presence of intensifiers, interjections, taboo words, non-linguistic signals), and for orthographic correctness.

While regression analysis confirmed previous findings pertaining to *hun*’s linguistic conditioning, the large effect of orthographic correctness enabled us to extract a subset of deliberately misspelt tweets ($n = 919$, *hun* = 760) – in which users consciously stylize themselves as dynamic and anti-authoritarian provocateurs –, and a subset of tweets with standard orthography ($n = 3993$, *hun* = 2722). Separate regression analyses on these subsets revealed that the marked preference for *hun* in the misspelt tweets is not motivated by any strong predictors, whereas *all* coded independent variables show up as strong predictors of *hun*-use in the error-free tweets. These findings not only demonstrate that the dynamic prestige meaning of *hun* is recruited for social work in the misspelt tweets, but also that this conscious stylization purpose completely overrides *hun*’s (subconscious) linguistic conditioning.

The presented data confirm the complimentary but also conflicting role of linguistic factors and social meanings in syntactic change, and they strongly support the idea that Twitter is a prime data source for the simultaneous study of determinants which normally require very different data

collection techniques...

Eliciting young urban Swedish using a map-task procedure

Johan Gross and Julia Forsberg

Abstract number: 71

Within quantitative sociolinguistics three central issues are to be considered when collecting data: eliciting the speaker's vernacular; overcoming the observer's paradox; and ensuring that the number of tokens enables robust statistical analysis (see additional criteria listed in Labov 1984: 50). The sociolinguistic interview (Labov 1984) attempts to address these issues but provides no guarantee that the necessary number of tokens will be collected. While reading passages and word lists have been used as supplements, these solutions yield a bias towards a more formal context and careful speech style, which is far from optimal for sociolinguistic research (Labov 1972; Yaeger-Dror 2001). Casual speech is also more difficult to obtain when the power imbalance between speakers is greater (Eckert 2013), such as in an interview setting between an adult researcher and an adolescent. *How then can we create a situation where we can control the language production and still keep the attention paid to speech at a minimum?*

In order to develop a new corpus of young people's Swedish, *Språkbruk i Stockholm och Göteborg* (SSG, 'Language Use in Stockholm and Gothenburg') we developed a set of stimuli in the form of map-tasks, a method previously used in various areas of linguistics (e.g. Anderson et al 1991; Grønnum 2009; Scobbie et al 2013; Nolan & Post 2013). However, we created a more complex task by using a larger number of unlabelled objects on each map (approximately 40) and by omitting and varying the images on the paired maps, prompting both interlocutors to become more interactive in solving the task. In addition, as the task was carried out with self-recruited pairs, interaction between friends was obtained, which we could expect to approach the vernacular more than in interviews between a young person and a researcher. We recorded interviews and map-tasks with 111 students between the ages of 16-19 at 4 schools: one in the centre and suburb of each city.

This paper will evaluate the data collection procedure in SSG using Labov's criteria, cited above. All recordings were made in the same way, using headset microphones, ensuring good quality, multi-channel recordings of two informants interacting with each other. The interview (inspired by the sociolinguistic interview) had two main purposes: collecting demographic data; and allowing informants to familiarise themselves with us and the recording setup, minimising the effects of observation. The combination of map-tasks and interviews enabled us to collect 75 hours of dialogue from a good sample of the relevant population in the ten-week timeframe available to us.

Preliminary results show that each minute of map-task recording gives a mean of 9 usable vowel tokens, while in the interview recordings each minute gives 1-2 usable vowel tokens.

Initial acoustic analysis of the two contexts/speaking styles shows higher token quality in the map-tasks as a larger number of vowel tokens are stressed. Furthermore, informants become more active and involved than in the interview. All results indicate that this is a robust method for eliciting sociophonetic data in spontaneous peer interaction.

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Future-time reference in Hexagonal French: Integrating the present indicative in a predictive model of variable use

Aarnes Gudmestad, Amanda Edmonds, Bryan Donaldson and Katie Carmichael #25

This paper examines variable expression of future-time events in Hexagonal (France) French. Our findings contribute to the understanding of the variation between the inflectional future (*il ira* 'he will go') and the periphrastic future (*il va aller* 'he is going to go'), but also document the important role of a form not usually examined in quantitative studies of future-time expression in French: the present indicative (*il va* 'he goes').

Variationist studies on future-time reference in French have focused primarily on two verb forms, namely the inflectional and the periphrastic future, with some attention given to the use of the present tense in future-time contexts (Blondeau, 2006, Comeau, 2011; Deshaies & Laforge, 1981, Grimm & Nadasdi, 2011, King & Nadasdi, 2011; Poplack & Dion, 2009, Poplack & Turpin, 1999; Roberts, 2012). This body of research has shown that a range of linguistic factors (e.g., temporal distance, the presence/absence of a temporal expression, the presence/absence of verbal negation, (un)certainly of the future event) predict variable use, but that the impact that each factor has on future-time expression in French is also variable. While previous studies have focused on Laurentian (e.g., Blondeau, 2006, Grimm & Nadasdi, 2011) and Acadian (Comeau, 2011; King & Nadasdi, 2003) French in Canada, only one study has examined Hexagonal French from a variationist perspective (Roberts 2012); knowledge of variable future-time reference in France thus remains limited. The current study aims to contribute to the understanding of variable future-time expression by examining native speakers of Hexagonal French and by expanding quantitative analyses to include a multinomial dependent variable that consists of the inflectional future, periphrastic future, and present indicative.

The data come from a corpus of more than 45,000 words from 12 spontaneous conversations. The participants were 12 native speakers of Hexagonal French. Using a variationist approach, we identified each use of the inflectional future, periphrastic future, and present indicative in future-time contexts, amounting to more than 300 occurrences, which served as the dependent variable in a multinomial logistic regression model. Each occurrence was coded for a range of linguistic factors whose influence on verb-form use in future-time contexts had been documented previously. The findings indicated that temporal distance, the presence/absence of a temporal expression, and verbal negation predicted use, whereas (un)certainly did not. These results differ from what has been reported previously for Hexagonal and other varieties of French. We interpret these results in light of our methodological decision to go beyond the investigation of the inflectional versus the periphrastic future to include the present indicative, and the decision to analyze this three-way dependent variable in a single, multinomial regression model. Our analysis suggests that in order to fully capture the variation present in spontaneous speech, researchers should include the present indicative in their models of variation.

Attitudes d'immigrants envers le français oral : France vs Québec, ou juste une question de style?

Monelle Guertin #125

Le français parlé au Québec a connu son lot d'attitudes linguistiques négatives à travers l'histoire, de la part de ses propres locuteurs comme de locuteurs du français européen, de locuteurs allophones, ou encore, de locuteurs canadiens anglais. Dans la foulée, le français européen et celui de Paris, plus particulièrement, ont été désignés comme les modèles du « bon français », alors que la variété québécoise a souvent hérité de jugements négatifs sur le plan esthétique, d'un statut de langue non-standard, ou encore, a été perçue comme une variété peu, ou non prestigieuse (Lambert et coll., 1960, 1967; D'Anglejan et Tucker, 1973; Lappin, 1982; Bouchard, 2002; Maurais, 2008; Kircher, 2012).

Avec le temps, nous pouvons observer, globalement, des changements dans les attitudes linguistiques envers la variété québécoise. De très dépréciatives dans les années 60 (Lambert et coll., 1960, 1967), elles sont passées aujourd'hui à une évaluation plus positive (Genesee et Holobow, 1989; Kircher, 2012, Laur, 2002). Cependant, le sentiment général à l'égard du français québécois oral, en particulier pour son aspect *statut social*, n'atteint toujours pas la place réservée au français européen, notamment chez la population immigrante de Montréal, qui le jugent moins favorablement que sa contrepartie hexagonale (Kircher, 2012).

Dans cette étude, nous avons tenté de voir si la variation stylistique (contexte formel/informel) interne à chacune des deux variétés dialectales, affectait les attitudes d'immigrants en francisation à l'égard des français européen et québécois, de la même manière que ces dialectes eux-mêmes l'ont fait dans les études précédentes. Autrement dit, les styles, et les variations sociophonétiques qu'ils entraînent, sont-ils perçus différemment que les variétés dialectales québécoise et française par les apprenants de français langue seconde? À l'aide de la *technique du locuteur masqué* (Lambert et col. 1960), nous avons fait entendre à quarante-trois immigrants en francisation à Montréal, des locuteurs de France et du Québec que nous avons au préalable enregistrés, produisant exactement le même discours dans deux situations différentes ; soit, sous quatre étiquettes - inconnues des participants: Québec formel, Québec informel, France formel, France informel.

Les résultats que nous avons obtenus tendent clairement à démontrer que la variation stylistique a, plus fortement que ne l'a fait la variation dialectale, polarisé les jugements de nos participants. Parallèlement, les données nous font aussi conclure à un amalgame, réalisé entre, d'une part, langue standard et français européen, et, d'autre part, langue non-standard et français québécois. Amalgame qui, malgré les avancées rapportées chez Laur (2002, 2014) pour la perception du français québécois, persisteraient en classe de français langue seconde, comme observé chez Calinon (2009).

La confusion entre variations stylistiques et images préétablies des variétés dialectales du français, tient-elle à la tendance qu'ont les locuteurs québécois à « imiter », en situation formelle, un français européen, à contrôler certains traits caractéristiques du français québécois, tel qu'attesté (Ostiguy et Tousignant, 2008) et produit dans notre corpus? Des facteurs en lien

avec l'insertion à la société québécoise jouent-ils un rôle dans la perception qu'ont eu les participants de ces différents styles et dialectes?

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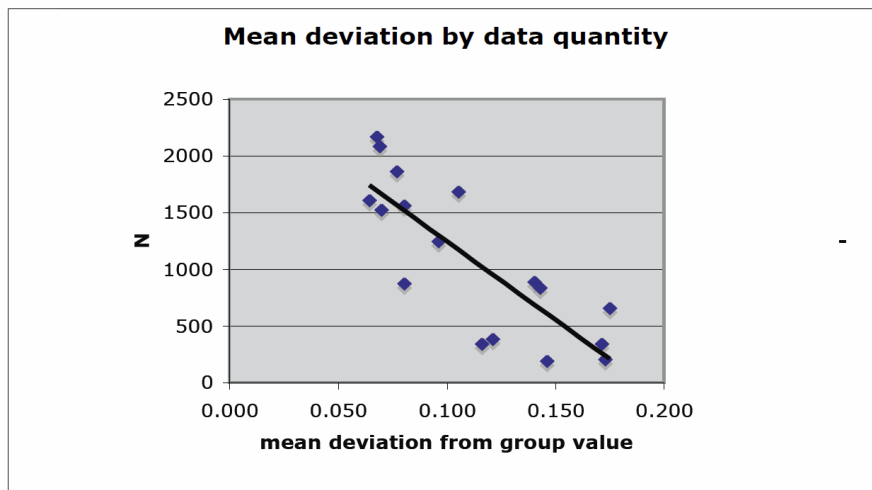
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Coherence, constraints, and quantities

Gregory Guy #69

The contemporary debate in sociolinguistic studies about the coherence of speech communities turns on the relative importance of community norms vs. individual agency in the usage of linguistic variants. In other words, with respect to using linguistic variables, is the behavior of speakers better characterized in terms of consistent community-wide patterns – perhaps a shared ‘variable rule’ – or in terms of individual performance of identity and acts of *bricolage*. Works adopting the former approach typically assume that the shared linguistic properties characterizing a speech community include shared values for the constraints on variation (e.g., the p_i, p_j values in a variable rule analysis); thus specific constraint values or rankings are identified as characteristics of specific speech communities or dialects in Otheguy & Zentella 2012, Otheguy *et al.* 2007, and Cameron 1993 for Spanish pronoun occurrence. But the coherence question remains open about such constraint effects: do individuals conform to quantitative community patterns of conditioning? Can individual identity construction and *bricolage* affect the conditions on variant occurrence and the favoring or disfavoring effects of linguistic context, or is it limited to varying the proportions of use of the variants (e.g., the p_0 values in a variable rule treatment)?

Fig. 1. English –t,d deletion, speaker divergence in constraint values



This paper investigates community coherence in constraint effects in English and Portuguese. We address two potential confounding factors. Some constraint effects might derive from universal considerations affecting all speakers, such as constraints on articulation, perception, or information structure; this would have the effect of overstating coherence. Thus the favoring effect of a following consonant on deletion of coda consonants (e.g. -s and -r in Spanish and Portuguese, -t/d in English) could be due to a universal preference for CV over CC sequences. This problem can be minimized by looking for constraints that differ between languages or dialects. It is also possible that some non-convergence of individuals or contexts might be a consequence of inadequate data quantity, which would understate coherence. This effect can be investigated by considering sample size for speakers and contexts.

Our results show that, in general, speakers display considerable convergence in their values and

rankings of constraints on the variable processes examined. Much observed non-convergence is associated with low Ns (see Fig. 1, where divergence from community norms for constraints on -t,d deletion shows a strong negative correlation with data quantity). We conclude that it is unlikely that individual speakers manipulate their constraint effects on linguistic variation.

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Genitive variation and change in Caribbean English: A real-time study of Jamaican and Bahamian news writing

Stephanie Hackert #267

The past decade or so has seen an upsurge in corpus-based work on grammatical change in present-day English, much of it doubtlessly inspired by Leech et al.'s landmark volume (2009). The authors systematically mine the Brown family of corpora for a variety of categories such as the subjunctive, modals and semi-modals, the progressive, the passive, relative clauses, and genitive constructions. In interpreting their results, they discuss not only linguistic factors such as grammaticalization but also sociolinguistic and sociohistorical ones such as colloquialization and Americanization.

With regard to postcolonial Englishes, corpus-linguistic work has so far mostly been concerned with synchronic comparisons to the metropolitan standards and has often been limited to the observation of cross-corpus variation in normalized frequencies. The proposed paper applies the theoretical and methodological insights of variation analysis to the description and explanation of ongoing grammatical change in two newly emerging Caribbean standard varieties, i.e., Jamaican English and Bahamian English. I will systematically compare two historical newspaper corpora from the 1960s with two contemporary ones. The variable in focus will be the choice between *s*-genitive and *of*-genitive constructions.

Today, "genitive variation is arguably the best researched of all syntactic alternations in English" (Rosenbach 2014: 215). Still, to this date, there are no (published) studies of the feature in varieties other than British, American, and - marginally - Canadian and New Zealand English.

Rosenbach has shown that "the *s*-genitive is currently increasing" and that "this increase is more advanced in American than in British English" (2002: 3). It will be interesting to see whether Jamaican and Bahamian English have undergone a shift in norm orientation with regard to the use of genitive constructions, from British-oriented during colonial times to American-oriented today, which seems plausible in light of the geographical proximity and current socioeconomic (and, in the case of the Bahamas, sociohistorical) links between the Caribbean and the North American mainland.

In my investigation, I will demonstrate that traditional variationist concerns, such as careful delimitation of the envelope of variation and the simultaneous statistical consideration of both intra- and extralinguistic factors, are highly relevant to corpus linguistics if an accurate picture of ongoing linguistic change is to be arrived at.

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Northern Arizona: Sound Change and Dialect Contact

Lauren Hall-Lew, Mirjam Eiswirth, Mary-Caitlyn Valentinsson and William Cotter #41
 Previous work on (uw), or GOOSE, and (ow), or GOAT in Northern Arizona English (Author 2004, 2005) found that young townspeople and old ranchers both front GOOSE. This suggests two distinct processes of GOOSE-fronting (see also Koops 2010), with Northern Arizona framed as an area of dialect contact between the Southern Shift (Labov 1994) and the California Vowel Shift (Eckert 2004). The present paper builds on these findings to look at another California Vowel Shift feature, the short-a ‘nasal split’ (Eckert 2008), in Arizona. California English shows fronting and raising of pre-nasal (ae), or BAN, and backing and lowering of (ae), or TRAP, elsewhere. We consider these variables in data from Northern Arizonans from 2002-2003. The demographic representation is, unfortunately, not balanced (Table 1). Two subsets of the data were analyzed statistically: gender is tested within the *townie* group only and the town/ranch contrast within the *men* only. We then qualitatively compare the statistical model for the men to data from five women, the one female rancher and four townies of her approximate age.

The analysis is based on normalized midpoint F1 and F2 Hz values (Fabricius et al. 2009; Kendall & Thomas 2009-2014). We ran eight mixed-effect models including following phonological environment (PLACE, MANNER) and YEAR-OF-BIRTH. Four on the *town* subset included GENDER as a predictor, and four on the *men* subset included the TOWN/RANCH contrast. Table 2 summarizes the six best-fit models. None of the factors accounted for variation in BAN for the *men* subset. PLACE was never a significant predictor, nor were any interaction effects. MANNER was not tested for BAN and was always significant for TRAP. TRAP lowering and BAN fronting show apparent-time correlations. Women are leading in TRAP lowering. Women also favor a *backer* TRAP and a *higher* BAN than men, although neither variable is changing in apparent time the way they are in California (Eckert 2008). Although not a precise fit, evidence of phonetic divergence between BAN and TRAP still suggests that urban Northern Arizona in 2002 was participating in the short-a nasal split. Only TRAP F2 correlates with TOWN/RANCH, with rancher men producing a fronter vowel than town men. Qualitatively, this is also true for the age-matched subset of women. TRAP fronting is part of the Southern Vowel Shift, and the Southern TRAP vowel is fronter than the Californian TRAP vowel. We take this as potential evidence that rural Northern Arizona in 2002 was better described as having a Southern Vowel System than a Californian one, thus making the region a site of dialect contact between two major US English varieties.

	Townspeople		Rancher	
		YOB		YOB
<i>Female</i>	13	1948-1983	1	1958
<i>Male</i>	22	1927-1984	8	1930-1983

Table 1: Speaker sample

Dataset	Vowel	Formant	Significant Fixed Effects
<i>Town</i>	TRAP	F1	MANNER, GENDER, YEAR-OF-BIRTH
<i>Town</i>	TRAP	F2	MANNER, GENDER
<i>Town</i>	BAN	F1	GENDER
<i>Town</i>	BAN	F2	YEAR-OF-BIRTH
<i>Men</i>	TRAP	F1	MANNER, YEAR-OF-BIRTH
<i>Men</i>	TRAP	F2	MANNER, TOWN/RANCH

Table 2: Significant predictors for each best-fit model

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Social and acoustic factors in the perception of creak

Amy Hemmeter #334

Several production studies have recently linked women in the United States to the usage of “creak,” or “vocal fry” (Yuasa 2010; Podesva 2011; Wolk et al 2011; Anderson and Nguyen 2004; Mendoza-Denton 2011). Perception studies about creak have been rarer and have generally focused on the personality traits associated with creak (Yuasa 2010, Anderson et al. 2014). Although these studies have found that listeners associate creak with women and femininity, few aim to tease apart the salience of creak in women’s speech as a result of acoustic realities versus social associations. This study aims to determine whether listeners a) detect creak more easily in women’s voices and b) if so, whether this salience is due in part to the greater expectation of creak due to the perceived association of creak with women, as opposed to the ease of detecting creak in voices with higher fundamental frequency.

This study seeks to answer those questions by pairing pitch-altered gender-ambiguous voices, unaltered male voices, and unaltered female voices with photos of faces intended to prime listeners to perceive the speakers as male or female. In a previous perception study, listeners judged the pitch-altered stimuli to be gender-ambiguous. Listeners were required to correctly identify creak or lack thereof in eight of twelve unambiguous, natural examples (without visual stimuli) from sociolinguistic interviews in a brief training task before proceeding with the experiment. They were then asked to determine whether an utterance contained creak in the experiment stimuli. All audio stimuli were produced by six different speakers reading phrases in which naturally occurring creak was observed in previously collected spontaneous speech. The gender-ambiguous voices were split between male and female photos, whereas the normative male and normative female voices were presented with male photos and female photos respectively. I hypothesized that if speakers have a faster reaction time and higher accuracy (or a lower accuracy but a stronger expectation of creak) for stimuli with female photos in the gender ambiguous voices than the same audio stimuli with male photos, this indicates a social dimension in the perception of creak. Differences between gender-normative speakers could be due to social or acoustic considerations.

The results of this study indicated that there is a difference in the gender-ambiguous stimuli: listeners were more likely to correctly identify creak when the accompanying photo stimulus was a woman’s face. There is also a significant difference in the gender-ambiguous condition between the male photo condition and the female photo condition in reaction time; reaction time is quicker for the stimuli with female photos. However, listeners had an easier time identifying creak in unaltered female voices than in unaltered male voices, likely due in part to acoustic salience for creak in the speech of women versus the speech of men.

These results indicate that gender judgment is affecting how quickly listeners hear creak. When primed to expect a female voice, listeners respond more quickly and are more likely to respond that the speaker uses creak, even when there is none.

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Grammaticalization, or just simple phonetic reduction? I dunno!

Nicole Hildebrand-Edgar #58

The interaction of frequency and phonetic reduction is well documented in language change [1; 2]. This is exemplified particularly well by I DON'T KNOW, which is commonly reduced to *I dunno* in natural speech [3], as in (1), and is further reported to be a highly frequent collocate across varieties of English [3; 4]. Both factors suggest that I DON'T KNOW may be a grammaticalized construction, and yet while reduction and frequency are implicated in grammaticalization, neither is a necessary or sufficient criterion for identifying grammaticalization, either synchronically or diachronically [5]. This talk explores whether the reduction of I DON'T KNOW is indicative of grammaticalization or simply a by-product of discourse frequency [6; 7].

(1) ...and it was about **I dunno** eleven o'clock at night (BM/77/M)

Referentially, I DON'T KNOW indicates lack of knowledge, but it also performs diverse pragmatic functions, including turn-management, hedging, and face-saving [8; 9]. If function is a conditioning factor in the reduction of I DON'T KNOW, an argument may be made for its grammaticalization. For example, both [10] and [11] report strong correlations between the unreduced form and the referential function on the one hand, and between the reduced form and pragmatic functions on the other. This form-function split is attributed to grammaticalization: pragmatic I DON'T KNOW has become a conventionalized discourse marker, is processed as a single unit, and is thus more prone to phonetic reduction than the referential source form.

However, to support a universal path of grammaticalization deriving from the semantics of I DON'T KNOW, this form-function relationship must be attested in other varieties of English.

This paper operationalizes the variationist toolkit to probe the relationship between form and function of I DON'T KNOW. The data come from the Synchronic Corpus of Victoria English, collected in 2012. Extraction concentrated on 40-minute segments of casual vernacular dialogue from 24 speakers between the ages of 17 and 84, resulting in a total of 286 tokens of (I) DON'T KNOW. Given the discourse-pragmatic nature of this construction, it is inherently less frequent than phonological variables (e.g. [12]). Nonetheless, the stratification of the sample and the form/function asymmetry that characterize the variable enable examination of usage patterns across a range of social and linguistic contexts.

Quantitative variationist analysis reveals results similar to those reported in the literature [10]; [11]: The forms encoding referential meaning (lack of knowledge) surface predominantly in matrix-complement constructions, whereas those encoding pragmatic meaning occur mostly in syntactically unbound constructions. Moreover, the frequency of phonetically reduced pragmatic tokens increases in apparent time, suggesting ongoing change in the discourse marker.

Based on these findings, I argue that the change observed in the patterning of variants is not indicative of an emerging new form but of the ongoing phonetic reduction of an already grammaticalized form. Parallel findings with other varieties suggest that a universal path of grammaticalization underlies the development of this construction. However, frequency effects drive ongoing change that is restricted to form while the pragmatic functions remain stable.

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Nonstandard agreement in Standard English: The social perception of agreement variation under existential *there*

Katherine Hilton #359

Nonstandard number agreement under existential *there* is the norm, even in standard varieties of English. Strikingly, non-agreeing forms comprise roughly two-thirds of all existential *there* tokens.

- (1) AGREEMENT: *There are probably different ways to do it.*
- (2) FULL-VERB NON-AGREEMENT: *There is probably different ways to do it.*
- (3) CLITIC NON-AGREEMENT: *There's probably different ways to do it.*

There is mounting evidence, though, that the two non-agreeing forms (2-3 above) are neither syntactically nor sociolinguistically equivalent. *There is* + NPpl is used mostly by speakers with less formal education, while *there's* + NPpl is used frequently by nearly all speakers, regardless of education, and may be undergoing grammaticalization. In this paper, I investigate whether *there's* + NPpl and *there is* + NPpl constitute distinct sociolinguistic variants by testing how listeners socially evaluate the speakers who use them. These perception studies demonstrate that *there's* + NPpl is much less socially marked than *there is* + NPpl, and its effects on listener perceptions are almost indistinguishable from those of the standard variant *there are* + NPpl.

The study consisted of two surveys in which participants read or listened to one of the sentences from (1-3) above and then answered questions about how they perceived the speaker and speaking context. Participants rated, on a 10-point scale, how educated, articulate, intelligent and laid-back the speaker seemed; how likely he/she was from each of four different regions of the U.S. and three different class backgrounds; how likely the speaker was talking to a friend or interviewing for a job; and how old the speaker was. Participants also answered language attitude and biographical questions about themselves. 900 participants on Amazon Mechanical Turk completed the surveys. The four women and four men who recorded spoken stimuli were all from the same dialect region and evenly divided by two age groups, 18-25 and >80.

Linear mixed effects regressions reveal that *there's* + NPpl is much less socially stigmatized than *there is* + NPpl. Participants rated users of *there is* + NPpl as significantly less educated, less intelligent, less articulate, and less likely to be wealthy or middle-class. However, perception of *there's* + NPpl and *there are* + NPpl did not significantly differ across any of these attributes.

Social evaluations of *there is* + NPpl was also significantly more negative when it occurred in written form than spoken, and the stigmatization of *there is* + NPpl positively correlated with the extent to which survey-takers reported being bothered by other people's grammar mistakes.

Crucially, perceptions of *there's* + NPpl were not negatively impacted by modality or participants' attitudes toward grammar mistakes.

These results demonstrate that, unlike other nonstandard agreement patterns, *there's* + NPpl is remarkably lacking in social stigma. *There's* + NPpl is not perceived as nonstandard, even by those who are least tolerant of nonstandard language use. This raises questions about the range of social

meanings beyond standardness that *there's* + NPpl, in particular, and other grammatical variables more generally, can and do convey.

Sibilants and ethnic diversity: A sociophonetic study of palatalized /s/ in STR clusters among Hispanic, White, and African-American speakers of Texas English

Lars Hinrichs, Alexander Bergs, Axel Bohmann, Erica Brozovsky, Brian Hodge, Kirsten Meemann and Patrick Schultz #367

Many varieties of English are seeing variation in the phonetic realization of /str/. Extant work describes the variable as undergoing change, with a backed, or palatalized, variant of the cluster's initial sibilant being most common among younger speakers (Bass 2009; Durian 2007). While awareness of the feature among native speakers is limited, and discussions of it are infrequent, some discussants in popular media contexts have suggested that the feature is indexically linked to white male identities, specifically: working class, heteromale identities. This hypothesis has never been confirmed: even though the proposed indexicality of STR backing has a racial component, extant sociolinguistic work on the feature typically studies sets of speakers from the same ethnic group. Therefore, we present a study of STR backing in a sample of 39 native speakers of American English from Central Texas self-identifying as Hispanic, African-American, or white. The sample was balanced for gender and age.

Sociolinguistic interviews (free conversations and wordlist readings) were conducted with all speakers. Interview transcripts were forced-aligned with audio files of the interviews using FAVE (Rosenfelder et al. 2011). Since it is known that palatalization affects /s/ in other consonant clusters as well, prevocalic clusters of /s/ before /k, p, t/ were also included. All tokens of the target forms STR, SK, SP, and ST before vowel were automatically identified ($N = 2,271$); baseline tokens of pre-stressed, pre-vocalic /s/ and /ʃ/ were additionally measured for each speaker. Center-of-gravity (CoG) measurements (Renwick & Cassidy 2015) were logged at the midpoint of the sibilant's duration (data extraction performed in Praat, Boersma & Weenink 2012). Measurements were normalized by proportionally converting each speaker's range of variation between baseline /s/ and /ʃ/ to a scale from 0 to 10,000.

Mixed-effects linear regression models were fitted to the CoG observations. While age emerged as a significant predictor of backing, confirming that the variable is currently undergoing change, gender did not. By contrast, ethnicity is a strong predictor, with younger African-American and white speakers favoring STR backing.

Our interviews ended in a question eliciting metalinguistic commentary on STR. Speakers showed little awareness of the process (whether commenters were users or non-users of palatalization made no difference). Less than two-thirds acknowledged that they had themselves encountered the backed variant. Moreover, only one-tenth identified as users of backed STR. Questions targeting social evaluation did not identify a coherent set of indexical values associated with the feature, although a tendency to classify it as Southern emerged, as well as some mildly dismissive commentary among some informants who viewed backing as non-standard or as transfer errors in non-native speakers.

This gap between production and awareness suggests that the change progresses, for the most part, below the level of conscious awareness. Overall, our study reveals young white and

African- American speakers as standing together in an unexpected alliance in favor of STR backing. Among Latinos, the feature is used less consistently, and is more strongly constrained to the idiolects of some speakers. There was no evidence of the feature being restricted to younger white males.

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Dialect leveling, F2 slope and ethnicity: Variation in the Texas English GOOSE vowel

Lars Hinrichs and Kyle Gorman #368

The urban areas of Texas are some of the most diverse and most rapidly developing in the US South. Local dialects of English are leveling as a consequence, which frequently presents as the exchange of traditional forms for variants that are used in mainstream US English. One form undergoing such change is the GOOSE, or /u/, vowel. Recent work investigating the Texas English (TxE) vowel system found that GOOSE is changing not only in terms of its position as determined by formant measurements at midpoint, but also in terms of trajectory across the vowel's duration (Koops 2010). While speakers of more conservative forms of TxE for the most part produce the vowel with little mobility in the second formant (F2), younger speakers often show a backing trajectory in the vowel that is expressed in a lowering of F2 across the vowel's duration. Hinrichs et al. (2013) measured this trajectory using the difference in F2 between on- and offglide (20% and 80% of duration, respectively), finding apparent- and real-time evidence of ongoing change.

In this study we present notable improvements: first, the dataset contains more than twice as many speakers (89 lifelong residents of Central Texas) as prior studies. Speakers were born between 1895 and 1995 and recorded between 1980 and 2012, providing considerable time depth. Second, improvements were made to the method of representing F2 slope. For all GOOSE tokens, F2 was measured at 9 intervals (approximately every 10% of the vowel's duration). Tokens preceded by tautosyllabic glides or followed by tautosyllabic liquids were excluded, as were tokens taken from monosyllabic function words (e.g., *too*). Raw formant measurements were converted to the Mel scale and Lobanov-normalized.

Two dependent variables were extracted: the mean F2 throughout the vowel's duration, and the slope of the F2 curve as measured by linear regression, respectively. These were then modeled using linear mixed effects models with random intercepts for speaker and word. Preceding and following context were included as covariates.

Mean F2 was found to be increasing in apparent time ($p = .035$). There was also a significant effect of ethnicity ($p = .001$), and African-Americans and Latinos both had a significantly lower mean F2 than Anglos. There was also a significant effect of style ($p = .002$) with more formal styles favoring a higher mean F2.

F2 slope did not show a significant change in apparent time. There was a significant effect of ethnicity ($p = .033$). This effect appears to be driven by a lower F2 slope in Latinos compared to Anglos ($p = .054$); there were no significant differences between African-Americans and the other two ethnic groups in the sample. There was also a significant effect of style ($p < .001$), with a greater slope in more formal styles.

Results confirm that social conditioning of this change is complex. The differential uptake of incoming forms among ethnic groups, with Latinos preserving traditionally Texan variants more strongly than others, calls for ethnographic follow-up work to illuminate the role of

group/individual identity in this change.

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Social networks, oil, and linguistic marketplaces: The Canadian Shift in urban St. John's, NL

Matthias Hofmann #202

The variety of middle-class speakers in St. John's conforms to some degree to mainland Canadian-English pronunciation norms, but in complex and distinctive ways (Clarke, 1985, 1991, 2010; D'Arcy, 2005; Hollett, 2006). One as yet unresolved question is whether speakers of this variety participate in the Canadian Shift (cf. Clarke, 2012; Chambers, 2012), a chain shift of the lax front vowels that has been confirmed for many different regions of Canada (e.g. Roeder and Gardner, 2013, for Thunder Bay and Toronto, Sadlier-Brown and Tamminga, 2008, for Halifax and Vancouver). While acoustic phonetic analyses of St. John's English are rare, some claims have been made that urban St. John's speakers do not participate in the shift, based on two or six speakers (Labov, Ash & Boberg, 2006; Boberg 2010). Other researchers with larger data sets suggest that younger St. John's speakers participate in mainland Canadians innovations to different degrees than mainlanders (e.g. Hollett, 2006). The Canadian Shift has not been uniformly defined, but agreement exists that with the low-back merger in place, BATH/TRAP retracts and consequently DRESS lowers. Clarke et al. (1995), unlike Labov et al. (2006), assert that KIT is subsequently lowered. Boberg (2005, 2010), however, emphasizes retraction of KIT and DRESS and suggests unrelated parallel shifts instead.

In this paper, I demonstrate the presence of the Canadian Shift in St. John's, NL, conforming to Clarke et al.'s (1995) original proposal. In my stratified randomly-sampled data (approx. 10,000 vowels, 34 interviewees, stratified as to age, gender, socioeconomic status, and "localness"), results from Euclidean distance measures, correlation coefficients, and linear, as well as logistic, mixed-effects regression show that (1) young St. John's speakers clearly participate in the shift; and that (2) age has the strongest and a linear effect. Continuous modeling of age yields even more significant results for participation in a classic chain shift (6% decrease in lowering per added year). My findings also confirm that the change seems to have entered the system via formal styles (cf. Clarke, 1991, 2010, for TRAP in St. John's).

The focus of this paper is the interpretation of my results: traditionally, the linguistic homogeneity on a phonetic level of the Canadian middle class has been explained by Canada's settlement and migration patterns of the North American Loyalists from Ontario to the west (cf. Chambers, 2009). Newfoundland's settlement is distinct, in that the British and the Irish were the only two relevant sources. If settlement were the only crucial reason for a shared pronunciation of Canada's middle class from Vancouver to St. John's, the Canadian Shift should be absent in the latter region. I suggest three reasons for middle-class St. John's' participation in the Canadian Shift: 1) Newfoundland's 300-year-old rural-urban divide as a result of its isolation, through which British/Irish features are attributed to rural and lower social class speakers; 2) the development of the oil industry since the 1990's, through which social networks changed according to the perception of social distance/closeness; and 3) the importance of the linguistic marketplace, which is high in St. John's due to 1) and 2).

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Intraspeaker Variation in Ethnic Identity Performance: The Role of Suprasegmentals and Peak Delay

Nicole Holliday #150

The acoustic properties that listeners may rely on in making judgments of speaker ethnicity are an important yet poorly understood topic in modern sociolinguistics. Numerous scholars have investigated ethnic identification and its social consequences, particularly in studies of black and white Americans (cf Thomas and Reaser 2004). Though various studies (Tarone 1973, Purnell, Idsardi and Baugh 1999, Foreman 2000) have found that individuals generally make accurate and reliable judgments of speaker ethnicity, scholars have had difficulty identifying the properties that listeners react to in making judgments (Thomas 2015).

Additionally, there is little research about the production side of these ethnic identification tasks, and few studies have examined differences between speakers identified as “black” and those identified as “white”. Furthermore, these studies have often overlooked the potential role of intra-speaker variation in use of suprasegmental features that may differ between ethnolinguistic varieties.

The current study focuses on one aspect of production that has been observed to differ between Mainstream U.S. English (MUSE) and African American English (AAE): peak delay, or the length of the interval between vowel onset and highest F₀ of a stressed syllable. Thomas (2015) notes that tonal peaks tend to occur later in AAE than in MUSE, but few studies have examined this difference quantitatively, and sociolinguists have not yet examined the role of peak delay in style-shifting. Understanding how speakers may alter their use of peak delay in different linguistic styles sheds light on this understudied variable that may be ethnolinguistically meaningful for speakers and listeners.

This study examines peak delay intervals in declarative clause Intonational Phrases (IPs) with H* and L+H* pitch accents (following the ToBi conventions for Mainstream American of Beckman et. al 2007) in the speech of eight black/biracial identified men, aged 18-32, in the Washington D.C. area. Participants were recorded in two 20-minute icebreaker game conversations with two of their friends, one session with a black male friend interlocutor and another with a white male friend interlocutor. Following these conversations, participants took part in a 22-question sociolinguistic interview with questions about their self-defined racial identity and linguistic background. This experiment was designed to illuminate differences in the ways that these individuals may employ linguistic style as a function of their own racial identity and their interlocutors.

Separate t-tests were performed for each of the eight speakers comparing peak delay in the two different interlocutor conditions (N=100 per speaker per condition, total N=1600). After Bonferroni correction for multiple comparisons, six of the eight speakers had peak delay intervals in conversations with black friends that were significantly longer than the intervals in conversations with white friends ($p < .05$). This indicates that the majority of speakers may employ the interval between a syllable’s vowel onset and its maximum F₀ to differentiate between styles that they may use with black and white friend interlocutors. This result demonstrates that suprasegmental features that differ between MUSE and AAE are subject to intra-speaker variation, and that more

work is needed that examines production as well as perception in ethnolinguistic variation.

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Ladies first? Adolescent peaks in a male-led change, TH-fronting in southeast England

Sophie Holmes-Elliott #31

Research into the incrementation of language change provides evidence for what Labov (2001:454) labels the *adolescent peak*. Adolescents use higher rates of incoming innovations than young adults, and higher rates than children who start out by modelling their caregivers (Kerswill, 1996; Smith et al, 2007). Adolescent peaks have been observed across a range of different types of change (Labov, 2001; Tagliamonte & D'Arcy, 2009), supporting the claim that an adolescent peak is a 'general requirement of change in progress' (Labov, 2001:455). Further, for phonological changes, gender is implicated - peaks are present only in the gender leading the change. Only females show peaks in female-led changes and males in male-led changes (Labov, 2001:456-61). However, Tagliamonte & D'Arcy 2009 find no such gender asymmetry in morphosyntactic and discourse-pragmatic changes.

In this paper I contribute to the question of gender and adolescent peaks through the analysis of a rapidly expanding innovation in the UK: TH-fronting as in (1). Crucially, this is a male-led change, thus presents an ideal opportunity to test whether gender asymmetries hold in a British variety.

(1) *Well their dad was one of **thirteen** [fʒtɪn] I think [fɪŋk] her mum was one of nine, yeah, like as I say she's **Catholic** [kəʔlɪk]* (Matt, 46)

The data for the present study come from an age and gender stratified sample of speakers from Hastings, a town on the southeast coast of England. Importantly, the sample contains four age-cohorts: children (8-10 years), adolescents (15-18), middle (40-55); and older (65+). This is in line with Labov's (1994:49) assertion that apparent time studies should encompass the youngest members of the speech community, and therefore enables direct investigation of adolescent peaks in this variety.

Following Kerswill (2002), I extracted all possible contexts of the voiceless dental fricative [θ] resulting in 3,000 tokens. Results from lmer analysis revealed that along with the majority of studies, TH-fronting showed rapid expansion in apparent time – 8% in older speakers to 76% in the adolescents ($p < .001$). The results also showed an adolescent peak – the children showed an average rate of 66%, so as predicted by Labov, they lagged behind the leading adolescents. Significantly, a peak was present for *both* males and females. However, despite both genders exhibiting peaks, their exact quality differed: the female peak was steeper and more pronounced than the male peak.

In line with previous work (Labov, 2001; Tagliamonte & D'Arcy, 2009), I interpret this result as relating to the interaction between gender and the stage/rate of the change. Specifically, while the leading males' rate of change had slowed as they reached completion, the change was still progressing at a comparatively quick rate for the females, hence their steeper peak. These results offer further support for the presence of an adolescent peak. However, they do not support the suggestion that peaks are a solely a property of the gender leading the change. I

discuss these results within the context of the dynamic impact of gender on incrementation and on language change more broadly.

Dressing down up north: a sociophonetic investigation of DRESS lowering in rural Scotland

Sophie Holmes-Elliott and Jennifer Smith #30

A number of recent studies into a range of geographically separate varieties have reported a series of parallel shifts in the short-front vowels. One element of this shift involves the lowering of /ɛ/ (which corresponds to the DRESS lexical set (Wells, 1982)). DRESS-lowering has been found in Irish English (Hickey, 2013); London English (Torgersen et al, 2006) as well as northern varieties of North American English (Labov, 1991), including Canadian varieties (Clarke, 1995; Boberg, 2005). However, there are conflicting accounts concerning the exact mechanism underlying this shift, including chain shift (Labov, 1991; Clarke, 1995), analogy (Boberg, 2005) and gradual shift through phonetic conditioning (Hickey, 2013).

This paper contributes to research on DRESS-lowering through a sociophonetic analysis of 24 speakers, stratified by age and gender, in a community in Buckie, northeast Scotland. Our preliminary analysis revealed that the vowel system in this dialect is very stable, but with one exception: DRESS is lowering significantly in apparent time ($p < .001$). Further inspection of the conditioning factors revealed an interaction of internal and external constraints: following-l promoted DRESS lowering as demonstrated by higher F1 measures ($p < .001$) in the younger speakers. Might changes in the DRESS vowel be correlated with changes in /l/ quality in this dialect? In other words, might DRESS-lowering be the result of gradual shift through phonetic conditioning (Hickey 2013)?

In order to answer this question, we investigated more closely [l] quality in apparent time, and specifically in terms of clear/darkness. Acoustically, clear [l]'s demonstrate relatively lower F1 and higher F2 measures, while dark [l]'s show relatively higher F1 and lower F2 (e.g. Carter & Local 2007). In order to gain a profile of [l] quality in Buckie, we took F1 and F2 measures from [l]'s in both word initial and word final contexts. Analysis of 1090 tokens revealed a number of findings on use of [l]. First, while Buckie traditionally exhibits relatively dark [l]'s in both initial and final contexts, younger speakers show a move towards the more supralocal British system of a prosodically determined distribution: clearer [l]'s in word initial position, and darker [l]'s in word final position (e.g. Sproat & Fujimara, 1993). Inspection of the acoustic correlates of this change revealed that younger speakers, and young females in particular, showed significantly higher F1 in word final /l/ contexts ($p < .001$). As DRESS-lowering is also associated with higher F1, our results indicate that these features are indeed related. The seeming interaction of these features suggests that, in line with Hickey (2013), the mechanism behind this change is a gradual shift through phonetic conditioning; namely through the adoption of a more supralocal system with regards to [l] quality. We discuss these findings in the context of sources of change across different dialects and the potential knock-on effects within the wider phonological system.

Not-so-strange bedfellows: Language documentation and sociolinguistics in Gaza

Uri Horesh and William M. Cotter #11

Linguistic exploration of Arabic dialects is still often carried out within the dialectological framework that emerged in the 19th century (Behnsdedt & Woidich 2013 for a full historical account). Sociolinguistic interest in Arabic dialects began in the 1970s-80s (Abdel-Jawad 1981). Interestingly, the two approaches currently exist side by side, with dialectologists collecting texts and compiling descriptive grammars and lexica, and variationists focusing on individual variables and their sociolinguistic evaluation.

The emerging problem is that oftentimes the dialects investigated for these purposes have never been described beyond the rather narrow prism of the handful of variables analyzed.

Thankfully, modern sociolinguistic research typically produces abundant data, recorded at very high quality and elicited from representative samples of speakers. These data lend themselves well to being transcribed, described and preserved (Schleef & Meyerhoff 2010 for the significance of transcription for sociolinguistics). This is especially important because of rapid changes occurring in Arabic dialects, which may be induced by language contact, migration and displacement (Al-Wer 1997, Hachimi 2007) or class and gender effects (Haeri 1996).

This paper presents quantitative results from recent sociolinguistic studies conducted on the variable (Q) in the speech of Palestinian refugees in Gaza. These results suggest that phonological variation is split along gender lines. Women show a strong tendency to opt for the supralocal variant, glottal stop (Al-Wer 1997), while men overwhelmingly adopt a localized variant, [g]. The range of possible social meanings of this variable, its indexical field (Eckert 2008; Silverstein 2003; Wortham 2006), is used by the refugees to reflect identity formation and maintenance. The differing linguistic practices of women and men for (Q) aid in integrating speakers into a local identity frame, while maintaining a broader regional identity through relevant indexical meanings, tying community linguistic practices into larger processes of adequation – “long term pursuit of socially recognized sameness” (Bucholtz & Hall 2004).

This type of analysis can potentially enrich Arabic sociolinguistics by taking investigations of linguistic variables out of the realm of discrete social categories while highlighting the interface between variationist sociolinguistics and anthropological theory, an approach already employed by many (non-Arabic) “3rd-wave” sociolinguists. What remains to be discerned is how such rich sociolinguistic analyses can simultaneously play a role in documenting the varieties in question. They clearly *should* play such a role, especially in the case of understudied varieties like Gaza for which descriptions have been limited to linguistic cartography (Bergsträsser 1915) and sporadic oral texts with only partial metadata (Salonen 1979-80, Barnea 1973).

In the conclusion of this paper, a concrete proposal for better incorporation of descriptive and documentary techniques into the study of Arabic variation is discussed. We advocate augmenting sociolinguistic investigations with methodologies used by linguistic anthropologists and specialists in language documentation. Emphasis is placed on working with community members in the field,

resulting in the potential to transcribe and translate portions of the data that lie outside of our immediate frame of analysis, while involving the community in the production of linguistic knowledge about their language varieties.

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“She’s one that says ‘warsh’”: Cross-Generational and Within-Family Perceptions of Oklahoma English

Ho'omana Nathan Horton #45

It is attested both anecdotally and in the literature (e.g., Milroy & Milroy 1999) that older speakers perceive younger speakers as degrading or ruining the *standard* or overtly prestigious variety through their uses of slang and texting or their inability or refusal to use it, a perception that belongs to what Milroy & Milroy call “the complaint tradition.” It is not known, however, what younger speakers think about older ones or what speakers of all generations who share an often stigmatized variety, think about the other generations’ varieties. The variety examined here is Oklahoma English, which has been shown to share a number of phonological, lexical, and morphosyntactic features with Southern American English, the variety of American English most lacking in overt prestige (e.g., Preston 1996). Bakos (2013) shows considerable evidence of local insecurity about the variety.

In this study, I investigate perceptions and attitudes that speakers from two families in rural Oklahoma have about their relatives across three generations. How do they feel about the English spoken by their grandparents, parents, children, or grandparents? The purpose here is two-fold. I provide insight into inter-generational perceptions of speakers of a local, stigmatized variety of English and also demonstrate a methodology to investigate language attitudes across generations.

There appears to be no research that investigates inter-generational attitudes toward any variety of a language. Certainly absent from the literature is any sort of intra-familial attitudinal study, which will allow for a focused, bi-directional investigation of inter-generational attitudes. In this presentation, I do not just analyze respondent attitudes toward a general population of a certain age or socially-defined generation, but the attitudes of speakers from each generation toward specific individuals from the other generations.

This study uses Likert scales that measure the degree of similarity and dissimilarity across generations for four characteristics: similarity to the rater, degree of local typicality, degree of “correctness” compared to the rater, and “intelligibility.” The quantitative ratings are coupled with a qualitative analysis of respondent comments on and explanations of their ratings. The findings both confirm and deny the usual perception of younger speakers but add to our knowledge of younger speakers’ perceptions of their elders, particularly in the context of a stigmatized variety. In the case of Oklahoma English, the complaint tradition may actually operate in reverse, with older speakers believing that younger generations are better speakers, especially as a result of education, while younger speakers identify their older relatives’ typically Southern phonology and lexicon as making their English worse.

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I got a story for you: The rapid convergence of stative possessives in Cape Breton English

Matt Hunt Gardner #373

In Cape Breton English, like other dialects of English, stative possession is usually expressed using one of three forms: *have*, *have got*, and *got*, as in (1).

(2) *ARSM91*: It's uh, two stories, uh, I think. It's about 1,300 square feet, I think. And uh, we got about two-and-a-half acres of back yard — uh, half of which my dad actually mows. And uh, we have a pool table in the basement.

Variation between these forms is especially germane to investigating the origins of Cape Breton English, which is often labelled a relic Scottish dialect enclave within Canada (Trudgill, 2004, p. 7; Gold, 2010, p. 28; Chambers, 2004, p. 228) The trajectory of change for this variable is not the same in Canada and in the British Isles. While *have got/got* are innovative forms in the United Kingdom and increasing in use (Tagliamonte, 2013, p. 149), in Canada, *have got/got* are older minor forms which are now rarely used among young speakers (Tagliamonte, 2006, p. 317). Furthermore, *have got/got* had not arrived in northern Ireland or Scotland by the time Cape Breton's Celtic settlers emigrated. Therefore, *have* vs. *have got* vs. *got* is a perfect test site for determining if the community grammar in Cape Breton has its origin in Scots/Irish/British English, or in Loyalist English like Inland Canada.

To investigate both the rates of *have/have got/got* use, as well as the internal linguistic factors constraining the variation, data was drawn from two corpora. The first, a set of transcribed interviews with older, rural Cape Breton storytellers collected between 1973 and 1983, with speaker birth years ranging from 1885 to 1930. The second, a 65-speaker corpus of sociolinguistic interviews collected in Cape Breton in 2009 and 2011, with speakers born between 1916 and 1999.

Preliminary results show that the older, rural speakers from the 1973-1983 storytelling corpus use *have got/got* about 60% of the time, making them the most *dissimilar* to conservative Scottish English.

Among speakers from the 2009-2011 corpus there is a monotonic decrease in *have got/got* forms in apparent time, from about 56% *have got/got* among those born between 1916-1945 to only 21% among those born in the 1980s and 1990s. Tagliamonte and Denis's (2014) analysis of rural Ontario speakers born during these same years also shows a monotonic decrease in *have got/got* forms to about 20%, but from only about 34% *have got/got* use among their oldest speakers. The rapid convergence of Cape Breton speakers towards Inland Canadian norms is also reflected in the internal linguistic constraints governing the variable, with speakers born before 1945 having no significant predictors, while for those born after 1945 first and second person subjects, as well as concrete

objects significantly favour the *have got/got* forms — just like in rural Ontario (Tagliamonte & Denis, 2014).

While Cape Breton English yet maintains some divergent phonetic, phonological, and morphosyntactic features, with respect to the expression of stative possession it is in lockstep with the rest of Canada. The oldest speakers are also the least Scottish with respect to the patterning of this variable, suggesting that the dialect shows Loyalist not just Scottish influence. Cape Breton's late and rapid convergence with respect to the stative possessive system may provide insight into the processes that contributed to the homogenization of Canadian

English as it occurred in other once-divergent peripheral Canadian dialects.

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Heritage Faetar's Verbs are Good to the Last (Pro-) Drop

Michael Iannozzi #65

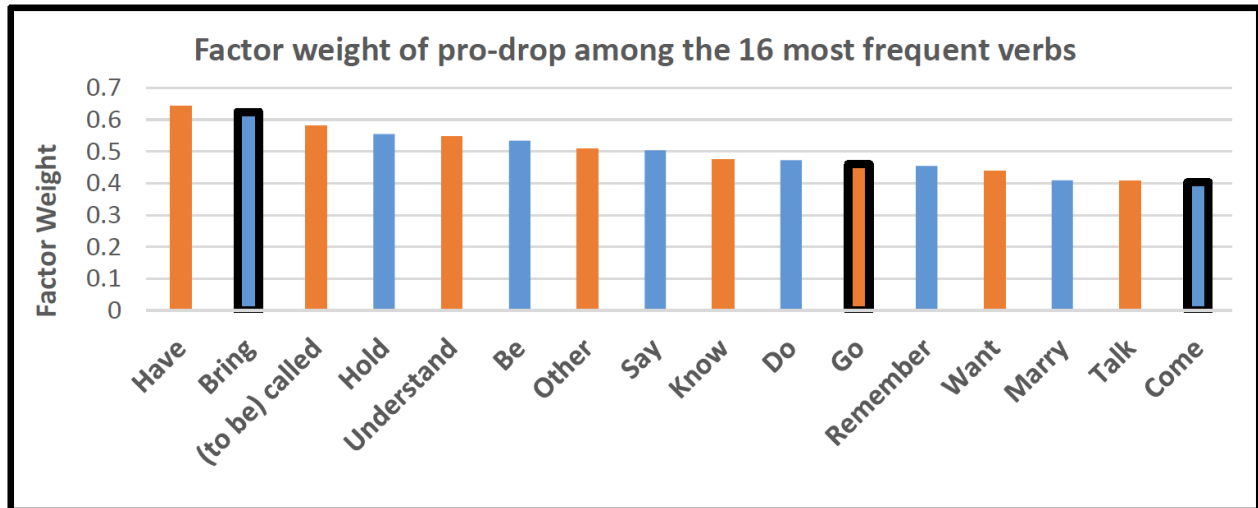
The purpose of this study is to contrast Heritage and Homeland Faetar. Previous work provided an overview of the variability of the presence of subject pronouns (pro-drop) in the Homeland (Italy) and Heritage (Toronto) varieties of Faetar, which is an optionally pro-drop language. Here I examine Heritage Faetar more closely, analyzing many additional factors.

Previous work on Spanish pro-drop has shown verbs to be grouped (in terms of pro-drop rate) by semantic category (Silva-Corvalán, 1994; Travis, 2007; inter alia). However, we find, looking at verbs individually, that grouping thus may lose important distinctions. For example, the verb *say* occurs 50 times in the dataset versus 47 occurrences for all the other verbs in the “speech act” class, and *say* patterns very differently from the others for Faetar pro-drop, as noted by Travis for Spanish (2007:117). In fact, the most common verbs as lexical item variables had a significant effect in the multivariate analyses with factor weights ranging from 0.40 to 0.64. This range illustrates the risk of grouping verbs by class. For example, the “motion class” of verbs contains the equivalent Faetar words for *come* (0.40), *go* (0.46), and *bring* (0.62) (cf. Silva-Corvalán, 1994; Travis, 2007). In Figure 1 it is clear that these three verbs do not group together cohesively in terms of their rates of pro-drop.

The data comes from standard sociolinguistic interviews conducted in 2009-2010 as part of the HLVC project (Nagy, 2009). Recordings were analyzed from first and second-generation speakers ranging from age 30 to 90. Almost 1,000 tokens of finite clauses were extracted from 12 speakers in the corpus and were coded for linguistic (20) and social factors (4), which included: transitivity, animacy, generalizability (Ashby & Bentivoglio, 1993), realization of previous mention, priming distance, verb class (Travis, 2007), and a changed subject from that of the previous phrase — or “switch reference,” form ambiguity, and verb lemma (Carvalho & Child, 2011). In the best-fitting model, these factors are significant: person and number, preceding direct object, realization of previous mention, verb lemma, animacy, and priming distance.

By better understanding the constraining factors of pro-drop in a Heritage language, we are able to both compare with the Homeland varieties and with other Heritage languages. We are also able to gain insight into the generalizability (or lack thereof) of significant constraints for pro-drop among various languages— or even varieties of a language. Many studies have been done on pro-drop in different varieties of Spanish, and all have found different constraining factors (cf. Silva-Corvalán, 2001; Travis, 2007; inter alia). Our present study focusses on a Franco-Provençal language with only ~1000 speakers, which as a Heritage language has very different rates and constraints than its Homeland variety (Heap & Nagy, 1998), and also than other Franco-Provençal varieties (Diémoz, 2007).

This paper's findings allow us to learn more about how languages change when they are transplanted, and provide new ways of analyzing pro-drop's constraints.



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Nobody knows everyone: Longitudinal change in cross-community perspective

Bridget Jankowski and Sali Tagliamonte #174

The English pronominal quantifier doublets, as in (1), have been variable since Middle English:

(1)

- a. She needed *someone* to visit [...] I always had *somebody* with me. (FV, F, b. 1920, TOR)
- b. I'm not blaming *anybody* for it [...] You couldn't hurt *anyone*. (LW, M, b. 1925, TS)
- c. *Everyone* was real tight. [...] *Everybody* was really friendly. (JT, M, b. 1976, BR)
- d. *Nobody* is awake during the night [...] *No one* was there. (KS, N, b. 1994, KL)

This variation has been subject to considerable research, including comprehensive documentation of its historical development (Nevalainen & Raumolin-Brunberg, 2003; Raumolin-Brunberg, 1994; Raumolin-Brunberg & Kahlas-Tarkka, 1997). However, the progression of this change appears to differ across the major varieties of English. American English (AmE) and Canadian English (CdE) favour *-body* while British English (BrE) and New Zealand English favour *-one* (Biber, Johansson, Leech, Conrad & Finegan, 1999:352-3; D'Arcy, Haddican, Richards, Tagliamonte & Taylor, 2014; Haddican, Richards & Taylor, 2008). This suggests divergent pathways for the *-one* forms as they infiltrate the vernacular grammar of English around the world. However, no studies to date account offer a consistent comparison by community types or address factors such as rural vs. urban, peripheral vs. core or social factors which might explain these differences.

This study expands the available information by conducting a comparative analysis across thirteen communities in Canada. The localities contrast by distance from the main urban center, population size, economic base and social structure. This enables us to track variation in and among the doublets through geographic and social dimensions within a single nation.

Every pronominal quantifier from sociolinguistic interviews with 600 individuals were extracted, providing over 12,000 tokens, which were coded for social and linguistic predictors and analyzed using distributional analysis and mixed effects statistical models. The *-body* variants dominate overall, but the change towards *-one* is progressing steadily in apparent time. As expected the large urban center has the highest proportion of the *-one* variant, 44%. The other communities range across the spectrum, some with only 10% *-one* exposing differential infiltration of this variant across cities and towns within the same country. Neither geographic proximity to the urban center nor local economy is explanatory and while factors such as speaker sex and level of education are significant in some communities they are not consistent and comprise the weakest constraints in the system. The most explanatory factors are: 1) date of birth, 2) population size and 3) quantifier. These results demonstrate that geography still exerts an important effect on a change in progress after hundreds of years. Consistent with Trudgill's cascade model (1972) distant locales of modest size pattern along with the regional epicenter, but rural communities retain conservative forms, even when proximate to the city and particularly when they comprise dense social networks (Milroy, 1980). Further, the *-one* forms are not dispersed equally among the quantifier cohort. One quantifier lags behind in retaining the older variant, *nobody*, and this is constant throughout the

region. Thus, despite great distance and highly varying frequencies, regional parallelism unites all thirteen locations, consistent with Labov's (2007) model of generational transmission.

Divergence from local norms - Language change in a peripheral town

Sandra Jansen #43

Observing language change in non-urban communities can provide us with information about changes that have been completed already in other, often more urban communities. A stock of research in more remote areas of the British Isles already exists (e.g., Smith 2002; Tagliamonte 2012; Maguire 2014). However, these works have not addressed the issue of levelling local and supralocal forms in peripheral, but not necessarily rural, communities in the UK. My paper addresses the complex levelling processes found in the THOUGHT lexical set in Maryport English.

Maryport is a peripheral town of 11,000 on the West Cumbrian coast. While flourishing during the 19th century due to the coalmining and shipping industry, the town has seen a constant decrease in workforce in the 20th and 21st century.

The data for this talk stem from sociolinguistic interviews which were conducted in Maryport in July/August, 2014. Overall, 36 sociolinguistic interviews, including a minimal pair list, were transcribed and analysed, using an apparent-time approach. Broadly speaking, the following variation for THOUGHT can be observed:

- a) [au], in words which historically contained a velar fricative, e.g., *daughter* and *bought* (cf. Wells 1982: 358f);
- b) [o:], which makes words such as *boat* and *bought* homophones;
- c) [ɔ:], a complete distinction between THOUGHT and GOAT.

In the first step, all THOUGHT tokens were analysed auditorily to investigate the distribution of a) across the sample. In the second step, the tokens that were realized as b) and c) were analysed acoustically to investigate the trajectory of change from [o:] to [ɔ:]. Contour maps are used to visualize the overlap of the two vowel sets.

The data suggest that the merger towards [ɔ:] has not been completed in Maryport English. The existence of the different variants is partly due to the incomplete THOUGHT monophthongization, as seen in a) (Wells 1982: 191) which is fairly restricted to Maryport now and can therefore be deemed as local variant. Variant b) is not explicitly mentioned in historical sources but has been found in other places along the West Cumbrian coast by the author and can be identified as supralocal variant. Variant c) is the supraregional variant which is found in various varieties across England.

While Maryport speakers have managed to maintain local features longer than other varieties along the West Cumbrian coast, we now see a rapid decline in the local as well as the supralocal feature. At the same time, local patriotism for Maryport and identification with the community have decreased. I argue that the declining social conditions lead to a case of resignation, i.e. the speakers no longer associate themselves with their community, which correlates with the decline of local and supralocal variants.

In conclusion, this paper, by closely examining the changes in the THOUGHT vowel in Maryport English, sheds new light on social changes leading to levelling processes in more peripheral towns

in the UK.

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Grammaticalization of function words in language change in Barunga Kriol, a north Australian creole variety

Caroline Jones and Katherine Demuth #189

This paper examines variation and change in the phonetic forms of function words across four generations of speakers in Barunga Kriol. Barunga Kriol is a specific local variety of north Australian Kriol, an English-based creole language spoken by approximately 15,000 people across the middle third of the Northern Territory, Australia. Barunga Kriol is regarded by its speakers as undergoing rapid change, and the popular perception is that this variety is becoming more like English. The existing description of Barunga Kriol dates from the late 1970s (1); our research aims connect language documentation with the study of variation in this creole language, so as to quantify adult variation to support our study of children's acquisition of this variety as a first language. Our data for this paper come from newly recorded sociolinguistic interviews recorded by Indigenous community peers with 28 adult native speakers of Barunga Kriol across four generations: Teenagers (18-19 years of age), Young Adults (20-34 years of age), Middle-aged Adults (35-50 years of age) and Older Adults (over 50 years of age).

We examine the variation and apparent-time differences in the pronunciation of four highly frequent function words in Barunga Kriol: two prepositions *blanga* / *bla* / *ba* 'for, of' (<belong), *langa* / *la* 'to, at'; the 1st person plural pronoun *melabat*, *mibala* / *mela* / *mel* 'we'; and the determiner *det* / *thet* 'the' (<that). We quantify the patterns of reduction in these function word forms in terms of the categorical coding of variants, and in terms of continuous measurements of duration and vowel centralization, and explore segmental and prosodic context effects on the distribution of variants.

Results from the categorical coding reveal that in Barunga Kriol, the preposition *blanga* ('for, of') is today only used by the Older Adult generation, who are also the only generation to use *bla* much.

All other generations tend mainly to use *ba*. The preposition *langa* ('to, at') is almost exclusively used by the Older Adult and Middle-aged Adult generations, but even they predominantly use *la*. For the 1st person plural pronoun, younger generations most commonly use *mela* / *mel*, whereas Middle-aged and Older Adults also use the forms *melabat* and *mibala*. For the definite article, the rates of *thet* vs. *det* are approximately 2/3 vs. 1/3 among Teenagers and Younger Adults; older generations use relatively higher rates of *det*. Segmental (and perhaps prosodic) context plays a role here; mixed effects analyses show that *thet* is more likely when the preceding word ends in a vowel.

The overall pattern of results clearly indicates language change in progress for Barunga Kriol. The four function words examined display a change towards phonetically reduced forms. This can be interpreted as ongoing grammaticalization in this young creole variety. Contrary to the general popular perception of a shift towards English, the direction of change, at least for these function words, is not typically decreolization towards (standard) English-like forms, with the possible exception of the determiner *det*/*thet*.

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Talmbout: An Overlooked Verb of Quotation in AAE

Taylor Jones #50

While there has been a wealth of research on verbs of quotation in recent decades (Butters, 1980; Schourup, 1982; Blyth et al., 1990; Ferrara and Bell, 1995; Buchstaller, 2001; Singler, 2001), including studies focusing on African American English (AAE) (Cukor-Avila, 2002, 2012), the discussion has been centered on comparing *go* and *be like* against *say*. In this study, we draw on the Philadelphia Neighborhood Corpus (PNC), on popular media (novels, television, music), and on social media (Twitter, Vine) to describe an AAE-specific verb of quotation, *talkin' 'bout/talmbout*. We demonstrate that it is used to introduce both direct and reported speech (1,2), as well as unuttered thoughts and non-lexical sounds (3). While it has not been discussed in the literature beyond mention as 'other' in typology of verbs of quotation, it has been present in AAE for at least a century (4).

- (1) ... toward the young white voice
talking about "Who that back in there?"
(*Toni Morrison, 1987*)
- (2) they come **talkin' 'bout** they is scared of me!
(*Langston Hughes, 1950*)

- (3) (Dragons) **talkin' 'bout** [æ:ɹ]...Just straight roastin' goats!
(*Key & Peele, 2015*)
- (4) (he) ... **talkin' 'bout** he's gwine a marry soon as he kin' fi' a wife
(*Berenice Wiggins, 1925 (b. 1897)*)

We argue that *talkin' 'bout* fulfills a fundamentally different role than *be like*: whereas *be like* is correlated with first person narrative (Cukor-Avila, 2002), the results of logistic regression on Twitter data shows quotative *talkin' 'bout* is almost always third person quotation and strongly predicted by indignation or mocking (coefficient = 3.10083, p-value < 0.001, n = 71). In fact, it often appears with secondary indignation markers like semi-auxiliary *come* (Spears, 1982; Green, 2002). Moreover, it is not always understood by non-AAE speakers, as it is an understudied camouflage construction (Spears, 1982; Wolfram, 1994; Collins et al., 2008; Lane, 2014). However, now it is more salient because it is becoming lexicalized as *talmbout*, especially on social media, and can no longer always be analyzed as grammaticalized *be talkin' 'bout* (possibly with null copula), but is rather a single lexical item with a corresponding paradigm for some speakers (5,6).

- (5) They show **will talmbout** "don't get my hair wet" (@ChillyKBlige, January 14, 2014, Twitter.)
- (6) lemme know what they **talmbouted** (@10Shiney golds, December 29, 2012, Twitter.)

The fact that it has been in use in AAE for a century and has resisted borrowing into other dialects has theoretical implications for the study of 'new' verbs of quotation, cross-dialect borrowing and diffusion, and the study of camouflage constructions. Moreover, its recent lexicalization bears on the AAE divergence hypothesis controversy (Fasold et al., 1987; Bailey and Maynor, 1989).

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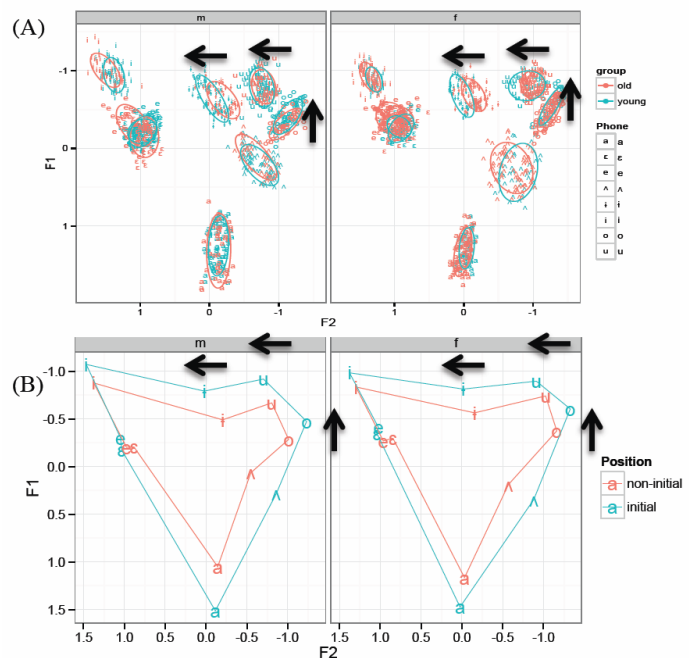
Chain shift and initial syllable prominence in Seoul Korean

Yoonjung Kang and Tae-Jin Yoon #355

Background: In Korean, as in many other languages (cf. Barnes 2002), segments in word-initial syllables have a phonologically privileged status and sound changes that merge phonological contrasts tend to affect segments in non-initial syllables before segments in initial syllables. For example, in Contemporary Seoul Korean, the vowel length contrast is retained only in word-initial syllables (Lee 1960). Segmental contrast mergers also tend to affect non-initial syllables before the initial syllable as in the merger of /e/ and /ɛ/ in Seoul Korean (Chung 2002). While these changes involve a reduction of phonological contrasts, relatively less is known about how non-reductive sound changes interact with prosodic prominence. In the current paper, we provide a corpus-based study of an on-going sound change in Seoul Korean and examine how a non-reductive sound change, a vowel chain shift in particular, interacts with positional contexts.

Data and analysis: The data for the study is drawn from a corpus of read speech produced by 117 Seoul Korean speakers balanced for gender and age (NIKL 2003). The formant measurements were extracted using force-alignment and an automatic formant extraction algorithm adapted from Escudero et al. (2009). A total of 655,287 tokens of monophthongal vowels in non-functional morphemes are included in the analysis. Formant measurements are normalized using Labov and Lobanov methods (cf. Kendall and Thomas 2012). Linear mixed effects models are used for statistical analyses.

Results: The diagram (A) shows by-speaker mean formant values (Lobanov) for each vowel for each gender and age group (young: birth year= 1966~1984, old: birth year=1932~1965). The three vowels involved in the back vowel chain shift are indicated by black arrows. The diagram (B) shows the mean formant values of each vowel showing the contrast between initial and non-initial syllables. We can observe that the vowels in initial syllables are overall produced with a more peripheral quality. In other words, high vowels are produced more raised while low vowels are produced lower in initial syllables. Similarly, front vowels are produced more front and back vowels are produced more retracted in initial syllables. The only exceptions to this generalization are the three back vowels undergoing the shift. When these vowels occur in an initial syllable (a position of prominence), they are produced more toward the direction of shift; the mid vowel /o/ is produced more raised in initial syllables (unlike other mid vowels) and the back vowels /i/ and /u/ are *fronted* in initial syllable (unlike other back vowels). In



other words, unlike a reductive sound change where a prominent position is the last context to be affected by the sound change, a prominent position *leads* a chain shift.

Our finding is in line with recent studies on chain shifts in Canadian English (Hall 2014)—where the shift is found to occur in relatively formal styles—and in New Zealand English (Hay et al. 2015), where low frequency words (which are less prone to reduction) are ahead of high frequency words in the change.

Word order variation in adverbial clauses

Tanya Karoli Christensen and Torben Juel Jensen #209

Danish (as well the other mainland Scandinavian languages) distinguishes between two word orders: 'Main clause word order' places sentence adverbials and negations after the finite verb (V>Adv), while the 'subordinate clause word order' always has sentence adverbials placed before the finite verb (Adv>V). In spite of terminology, and the discourse of the educational system, both word orders are found in subclauses, and thus belong to a wider range of phenomena under the heading of main clause phenomena in subclauses (MCP; cf. Green 1976; Aelbrecht, Haegeman, and Nye 2012):

1) hun gik ud af fra vores skole fordi hun ikke rigtig kunne følge med (Adv>V)
she went out of our school because she not really could follow with

1') fordi hun kunne ikke rigtig følge med (V>Adv)
because she could not really follow with

'she dropped out of our school because she couldn't really keep up'

V>Adv word order in subclauses has been argued to signal relatively higher informational importance as compared to the main clause; dubbed *emphasis, assertion, main point of utterance or foreground* (Hooper and Thompson 1973; Meinunger 2006; Julien 2007; Simons 2007; Wiklund et al. 2009; authors). Most earlier studies have been intuition- or judgement-based and focused on complement clauses, but our focus in this paper is adverbial clauses, and the study presented is based on statistical analyses of a large corpus of modern spoken Danish. The data include recordings from two different locations in Denmark and from two points in time (1980s and 2000s), enabling us to study social and geographical variation as well as possible changes in real and apparent time.

In our study, 3,270 adverbial subclauses have been manually coded for a range of factors relevant to hypotheses regarding both the status of the subclause as foregrounded or backgrounded, and its degree of integration into the main clause (how independent is it, functionally). The effects of these factors are assessed via mixed models analyses.

As could be expected from studies of English *because*- and German *weil*-clauses, the conjunction *fordi* 'because' displays a much larger tendency to occur V>Adv than any of the other conjunctions in the study (Hooper and Thompson 1973; Chafe 1984; Günthner 1996; Sweetser 1990; Keller 1995; Heycock 2007; Diessel and Hetterle 2011). When combined with their propensity to be non-integrated, long and produced after some disfluency, this necessarily leads to a discussion of the syntactic and functional status of (the majority of) Danish *fordi*-clauses.

At the same time, we find an effect of socio-economic class across adverbial subclauses such that WC speakers use more V>Adv word order than MC speakers. Socio-economic class interacts with location, pinpointing the effect of class to the rural town Vinderup which seems to be converging towards a Copenhagen-like pattern of V>Adv word order. First and foremost, the results indicate a significant divide between subclause word order in written and spoken Danish which remarkably has not been commented upon in the public discourse on language correctness.

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New speakers as agents of social and linguistic change in Franco-Provençal-speaking communities

Jonathan Kasstan #195

An emerging body of work in the sociolinguistic literature has considered the notion of the ‘new speaker’ in the context of endangered minority varieties, where traditional linguistic practices are in flux, and where language shift has long been taking place (see most recently Jaffe 2015). Research undertaken, for example, on the Breton varieties spoken in France has shown that new speakers produce linguistic variants that are far removed from the norms associated with traditional native speakers (*e.g.* Jones 1995). In the context of Irish and Galician, scholars have argued that, where new speakers arise in traditional native speaker communities, they feel a deep sense of social and linguistic ‘incompatibility’ (O’Rourke and Ramallo 2011: 139).

This paper considers emerging new speakers of Francoprovençal: a highly fragmented Romance dialect grouping spoken traditionally in parts of France, Switzerland and Italy by < 1% of the total regional population (~ 150,000). Quite unlike Breton, Irish or Galician, Francoprovençal is not a clearly defined or coherently demarcated linguistic unit. Its introduction into the Romance literature in the 19th century as a discrete set of varieties has never been fully accepted by

Romance linguists (see Martin 1990 for an overview). There is no one prestige dialect or ‘standard Francoprovençal’, and, given its status as ‘severely endangered’ (Salminen 2007: 261), these varieties can accurately be described as undergoing a process of ‘gradual death’ (Campbell and Muntzel 1989: 182-6).

Through an analysis of data collected in 2012, we examine /l/-palatalisation in obstruent + lateral onset clusters as a linguistic variable in two very different Francoprovençal-speaking regions: les monts du Lyonnais (France) and the Canton of Valais (Switzerland), both regions comprising varieties that have been in long term contact with Standard French. The data come from a wider sociolinguistic investigation into language variation and change in these regions. A sample of 57 informants were interviewed from 9 fieldwork sites, forming three categories of speakers with very different routes of acquisition: native L1 speakers; late speakers, who acquired Francoprovençal later in life; and new speakers, who acquired Francoprovençal in a purely educational context. The data (n=1359), which come from both spontaneous speech samples and formal elicitation tasks, are assessed against historical linguistic atlas data, and tested with Chi-square according to both macro and micro-level social variables. The findings suggest that bi-directional change is taking place in these communities. While on the one hand the native speaker and late speaker data evidence convergence with national norms, we find in the new speaker data emerging vernacular forms that, we suggest, might form part of a larger pan-regional new speaker norm.

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When variables intersect: The interplay of the expression of the subjunctive mood and necessity in two varieties of French.

Laura Kastronic #251

French spoken in Quebec (QF) is widely decried as inferior to Hexagonal French (HF). While it is often assumed that the two varieties are vastly different, this assumption has not been tested empirically. In fact, systematic and accountable analyses of morphosyntactic features in HF are generally absent from the current body of linguistic research on French, which precludes the possibility of reliable comparison. This represents the main motivation for this study: to conduct an accountable analysis of multiple variables in HF and QF, using the comparative variationist method.

Data for HF come from two different contemporary speech corpora: *Corpus du Français Parlé Parisien des années 2000* (Branca-Rosoff et al, 2012) and *Enquête Sociolinguistique à Orléans* (LLL-Orléans, 1968-2010). Data for QF originate from *Le français en contexte: milieux scolaire et social* (Poplack & Bourdages, 2008). All consist of spoken, informal contemporary French.

The first part of this project focused on subjunctive use in HF as compared to QF. A multivariate analysis revealed that the internal conditioning factors which govern subjunctive use in HF closely parallel those in QF in that lexical and morphosyntactic factors largely account for variant choice. The only striking difference between the two varieties is the overall rate of subjunctive, which is *lower* in HF, contrary to all expectations. Further analysis revealed that this discrepancy is mostly due to circumstantial differences in governor use, in particular *falloir que*. *Falloir que* exhibits near-categorical rates of use in both varieties, but accounts a much smaller portion of the governor pool in HF than in QF. This finding led to the obvious question: how are HF speakers expressing necessity if not through the use of *falloir que*?

This inspired a comparative variationist analysis of the expression of necessity in HF and QF. In Modern French, there are several different ways of expressing necessity ('be necessary'): *falloir*, *être obligé*, *devoir*, *avoir besoin*, and *avoir à*. Multivariate analyses revealed a complex system of expressing necessity in HF, with each variant occupying its own niche according to the strength of the obligation. The main variant in HF is *falloir* but followed by an infinitive (2), rather than the complementizer *que* (1). This contrasts with the system in QF, which is almost entirely dominated by *falloir que*.

(1) « J'ai perdu ma carte vélib donc euh *faut qu'*j' m'en refasse. » (CFPP/1/2325) "I lost my vélib card uh so I have to get another one."

(2) « C'était compliqué parce que *fallait attendre* plusieurs jours. » (ESLO2/2/748) "It was complicated because we had to wait several days."

Analysis of variability in the expression of the subjunctive and necessity more generally allows us to locate apparent differences between HF and QF, not in the loss of mood distinctions, but in the cross-variety differences in the expression of necessity. It also highlights the importance of considering the intersection of different variables in variationist work and how variability in one area of the grammar can potentially impact variability in other areas.

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New Data and Tools for Research on African American English

Tyler Kendall, Minnie Annan, Charlie Farrington, Jason McLarty and Natalie Schilling
[#231](#)

No variety of U.S. English has received more attention by researchers, the media, or the public than that spoken by African Americans. African American English (AAE) has long been a central object of study in North American sociolinguistics (e.g., Wolfram 1969; Labov 1972; Fasold 1972; Rickford 1999; Poplack & Tagliamonte 2001; Green 2002; Wolfram & Thomas 2002; Lanehart 2015). Much is known about many structures of AAE varieties and a large body of research has investigated its origins and current trajectories of change. Yet, there remain important questions about the origin of these varieties, their current and future development, and their relationship(s) to regional European American and other socio-ethnic varieties. There also continues to be a range of important social and educational applications of enhanced knowledge about the nature of AAE.

At the same time that AAE has been so extensively studied, it remains massively underrepresented in terms of publicly available datasets and in terms of its use in general linguistic theory building (Green 2002). Almost all AAE data collected to-date are in private collections and often have not been collected in a way that allows for wider, public sharing. For instance, Kendall, Bresnan, & Van Herk (2011: 233) report that despite generous data-sharing from colleagues, they were able to obtain only 250,000 words of transcribed spoken AAE for a corpus-based syntactic study – a tiny amount of data in comparison to corpora available for other varieties. These circumstances have created a situation in which the most studied variety of American English remains inaccessible to larger-scale, computational and corpus-based study. It is also difficult for those who have not played a role in data collection projects themselves, such as educational professionals or graduate students, to obtain primary materials for research and application.

In this paper, we detail a project to develop the first public corpus of African American English spoken language data. This project, with a core component of sociolinguistic interviews with a cross-section of African Americans from Washington DC, is making available both legacy data from the canon of sociolinguistic research on AAE (e.g. Fasold 1972) as well as a new series of interviews recorded in 2015. The paper (admittedly a somewhat unconventional NWAV presentation) has four parts:

- a) it motivates the current corpus project,
- b) it describes the architecture and design of the corpus (data, metadata, transcription and annotation, potential extensions, access to and availability of the corpus),
- c) it presents a follow up study to Kendall et al.'s (2011) syntactic analysis of the dative alternation (partly as illustration of the utility of the corpus and partly to shed further light on the dative alternation in AAE), and,
- d) most importantly, it solicits input from the larger sociolinguistic research community on a range of aspects of the project (e.g. annotation frameworks and formats, availability and distribution plans).

It is important that the first public corpus of AAE is indeed developed with guidance from potential users and we hope to receive important input from the participants at NWAV.

The Canadian Vowel Shift in Production and Perception: New Evidence from Montreal

Thomas Kettig and Bodo Winter #126

The Canadian Shift (CS), a systematic lowering and backing of the short vowels /ɪ, ε, æ/, has been extensively investigated in the speech of English-speaking Canadians (Boberg 2005, 2008, 2010; Clarke, Elms & Youssef 1995; Hoffman 2010; Roeder & Jarmasz 2010; Sadlier-Brown & Tamminga 2008). However, the perceptual effects of ongoing vowel shifts, including the CS, have received comparatively little attention (Thomas 2002; De Decker 2010; Kendall & Fridland 2012). This study investigates the apparent-time trajectory of the CS in both production and perception in one Montreal community.

This study recruited 12 young speakers (born 1984 or later, 5 female, 7 male) and 16 older speakers (born 1961 or earlier, 5 female, 11 male) from Montreal's English-speaking Jewish community. In Experiment I, participants read 44 sentences containing words with stressed /ε, æ, ɔ, ʌ/. In Experiment II, we played 96 human-sounding synthesized vowel stimuli with F1 ranging from 700Hz–950Hz and F2 ranging from 1200Hz–1950Hz (all 250ms). As listeners heard the stimuli through headphones, they categorized them on a screen by clicking one of four large buttons with the labels BAT, BET, BUT, and BOUGHT.

Production results demonstrate that /æ/ and /ε/ are shifting in apparent time. Young women are leading the change and older men retain the most conservative pronunciations, in line with past sociolinguistic research (Labov 1990). Linear mixed effects models with maximal random effects structure (Barr et al. 2013) confirm significant age differences in F2 for /æ/ ($p < 0.001$) and /ε/ ($p = 0.03$), but not for /ʌ/ and /ɔ/ ($p > 0.1$), plus a nearly significant effect in F1 for /ε/ ($p = 0.06$). Though Boberg's (2005) study found /ε/ to be retracting and /æ/ to be both lowering and retracting, it seems as though the operation of the CS in Montreal now involves the retraction of /æ/ without any lowering, while /ε/ is simultaneously backed and slightly lowered.

The results in perception are less pronounced. A logistic generalized additive model (cf. Wieling, Montemagni, Nerbonne & Baayen 2014) was fit for the categorization of each vowel, with F1 and F2 as tensor product splines and the interaction of F1/F2 and age. This analysis indicated no significant interaction between F1/F2 and age for /æ/ ($p = 0.26$) or for /ε/ ($p = 0.13$), but there were age interaction effects for /ʌ/ ($p < 0.001$) and /ɔ/ ($p = 0.04$). Thus, those vowels that participated in the change in production did not differ overall by age in perception. Only by zooming in on /æ/ versus /ε/ categorization behavior relative to each other did slight differences emerge, with some younger speakers accepting very retracted F2 values as /ε/ responses ($p = 0.036$).

Considering production and perception together suggests that in an ongoing change, speakers' productions may differ, but perception needs to accommodate the fact that both new and old variants will be heard (cf. Evans & Iverson, 2007). This supports Janson's (1983:31) claim that "perception cannot shift too radically away from the parents' pattern." Thus, in the Canadian Shift, both production and perception are changing, but production changes ahead of perception.

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Variation in /æ/ in Montreal and New Brunswick English: With reference to the Canadian Shift

Donghyun Kim, Louisa Bielig, Amanda McDonnell and Ryan Kazma #133

The vowel /æ/, which has been identified as one of the most regionally differentiating diagnostics in North American English (Boberg, 2008; Labov, Ash, & Boberg, 2006), has been reported to be lowered and retracted as a major element of the Canadian Shift (Boberg, 2005; Clark, Elms, & Youssef, 1995; Roeder & Jarmasz, 2010). In the present study, we aim to determine whether the lowering or retraction of /æ/ has spread to the Eastern Canadian region of New Brunswick. We address the question of regional and generational differences of /æ/ in Montreal and New Brunswick to determine whether /æ/ is currently undergoing the lowering and retraction associated with the Canadian Shift. We further investigate whether phonetic contexts that commonly cause the raising of /æ/ (nasals and voiced velar stops), will hinder or delay the process of lowering and retraction of /æ/.

Target words were elicited from 20 female speakers—10 from Montreal and 10 from Bathurst, New Brunswick, and participants were further divided by generation in each region (5 young and 5 old speakers). Formant measures were extracted from tokens of /æ/ as well as vowels other than /æ/ (N=840). Separate linear mixed-effects models were fit to F1 and F2 values at the midpoint of each vowel to determine whether region, generation, following phonetic context, and their interactions are significant predictors of vowel shift.

Our results reveal that speakers from Montreal exhibit significantly lower /æ/ values than those from New Brunswick, suggesting that Montreal and New Brunswick are at different stages of the lowering and retraction of /æ/ with respect to the Canadian Shift. The comparison of generational differences across the two regions shows that /æ/ is much lower in younger speakers than in older speakers only in New Brunswick. This suggests that at least one prominent feature of the Canadian Shift appears to be nearing completion in Montreal, but is in progress in New Brunswick. Furthermore, the phonetic contexts show that raising environments resist vowel shift to a much larger degree than elsewhere environments. That is, /æN/ and /æɡ/ lag behind in the lowering of /æ/ in the Canadian Shift, leading to a hierarchy of /æN/ > /æɡ/ > /æ/ (Figure 1). Taken together, the present study contributes to advancing our understanding of the variation in /æ/ particularly as part of the Canadian Shift beyond Montreal by showing its spread to a more eastern region.

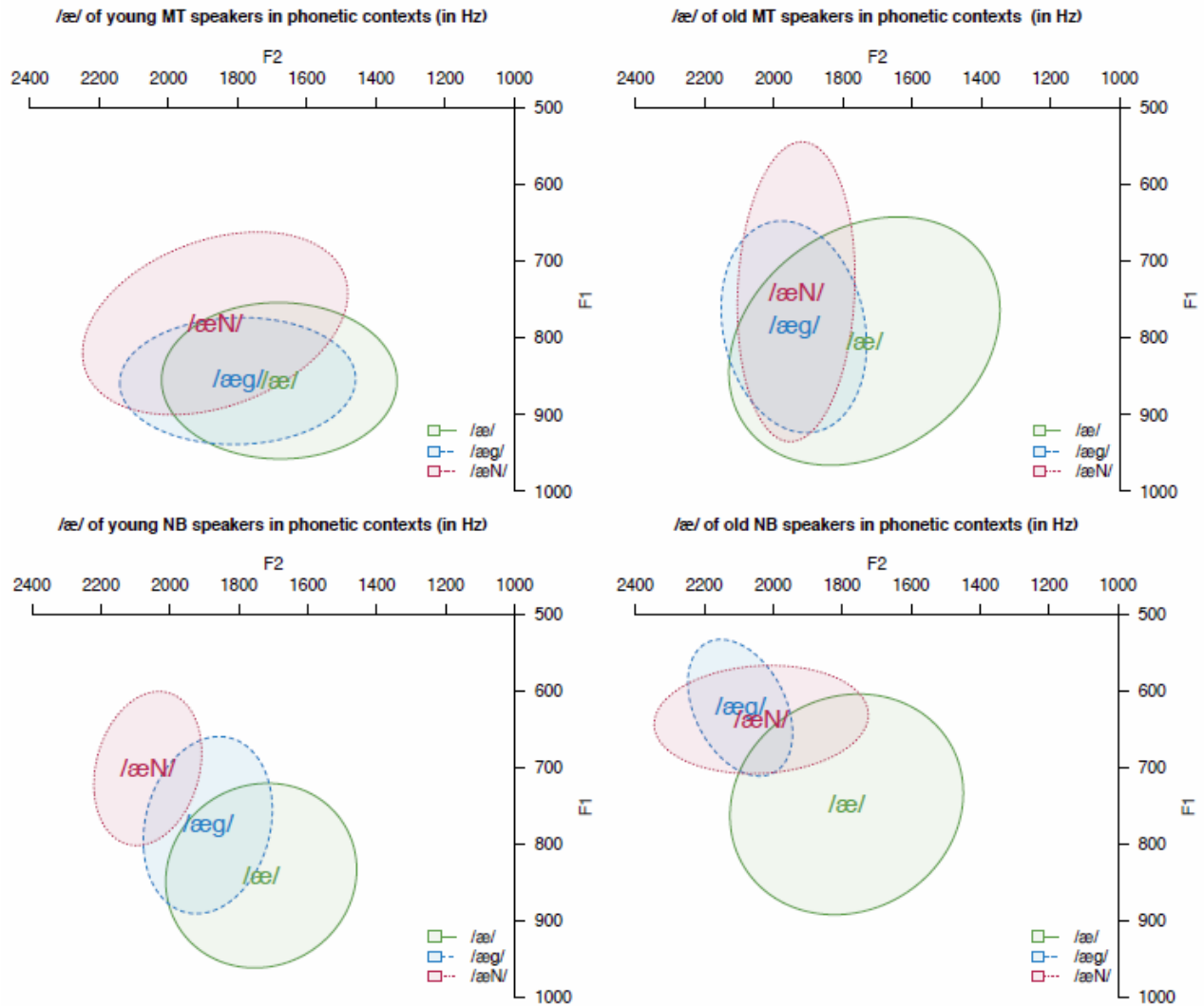


Figure 1. F1/F2 plots of /æ/ by Montreal young (top left) and old (top right) and New Brunswick young (bottom left) and old (bottom right) speakers in different phonetic contexts.

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On negotiating racial and regional identities: Vocalic Variation Among African Americans in Bakersfield, California

Sharese King #235

While previous studies have identified several phonological features as components of African American English (AAE), recent work has illustrated considerable regional variation among African Americans across the United States (Yaeger-Dror & Thomas, 2009). This study builds on Yaeger-Dror & Thomas (2009) by examining vocalic variation among African Americans in Bakersfield, California. My focus is how these speakers negotiate the construction of racial identity using both a supraregional AAE feature (PIN- PEN merger) and resources from their local variety (BAT backing and lowering).

African Americans have the potential to draw linguistic resources from both California English (CE) and AAE. The California Vowel Shift [CVS] predicts BAT backing (Podesva, 2011; Eckert, 2008a), while the African American Vowel Shift [AAVS] predicts raising (Thomas, 2007). Unlike BAT, the PIN- PEN merger does not stand in conflict with either dialect, as it is a feature of both AAE and CE. As such, different indexical potentials may emerge for either variable (Eckert, 2008b). What is the extent of raising and backing within this sample of African Americans and how does this compare to their white counterparts? Furthermore, do speakers exhibit a merger between PIN and PEN and is the extent of the spectral overlap between PIN and PEN socially constrained?

Twelve sociolinguistic interviews with African American Bakersfieldians, balanced for age and gender, were analyzed in Praat. Their data were further contrasted with patterns from eighteen white Bakersfieldians. Tokens were extracted from stressed positions and the measured midpoints were used in various analyses. Two mixed effects models for the F1 and F2 midpoints of BAT tokens were used to assess the effects of race, age, and gender on BAT height and backness. *T*-tests comparing the F1 and F2 of PIN and PEN were used to assess if speakers distinguish the two vowels. Furthermore, a mixed effects model was built to understand how the Euclidean distance between PIN and PEN is socially constrained.

Social conditioning was not found with respect to the height of BAT, but was found for backness across age ($p < .01$) and race ($p < .001$). African American speakers uniformly exhibit the PIN-PEN merger, with minimal social conditioning, in contrast to white speakers, among whom a distinction is emerging among younger speakers (Warren and Fulop, 2014). African Americans therefore appear to resist the fronting and raising of BAT (a feature of the AAVS), perhaps because this feature stands in conflict with the local sound change in progress of lowering and backing (a feature of the CVS). On the other hand, African Americans produce robust patterns of PIN-PEN merger, a feature of both African American and Bakersfield Englishes. The PIN-PEN merger thus enables African American Bakersfieldians to index racial identity while simultaneously affiliating with the local variety. These findings suggest the need to further investigate how the linguistic construction of identity may be constrained by the resources made available by the local sound system.

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The role of geography in syntactic variation: A corpus-based analysis on adverb position across varieties of English worldwide

Edwin Ko Abstract number: 145

Recent investigations have shown an effect of geography on syntactic variation among dialects in a handful of languages (Spruit et al. 2009; Grieve 2012). As dialect corpora are becoming increasingly available, developments in corpus-based dialectology have introduced sophisticated analysis techniques for studying dialect differences. For example, in a study analyzing variation in adverb position, spatial autocorrelation techniques have been employed to identify regional clusters from a corpus of written Standard American English (Grieve 2012). In another study, Euclidean distances were used to measure morphosyntactic differences in British dialects from the Freiberg Corpus of English Dialects (Szmrecsanyi 2011). However, not much is known about syntactic variation among geographically non-contiguous varieties such as World Englishes, and the effectiveness of modern dialectometric techniques in these types of studies – a notable exception is the work by Szmrecsanyi and Kortmann (2009).

In this study, adverb position is analyzed for geographical patterning across ten L1 and L2 varieties of spoken and written English from the International Corpus of English – Northern Ireland, Republic of Ireland, Kenya, Tanzania, Jamaica, Hong Kong, India, Philippines, Singapore, and Canada. Each corpus shares a common design and contains one million words – approximately 600,000 words in the spoken texts and 400,000 in the written. Each corpus was cleaned and tagged; words tagged as adverbs were then manually crosschecked. Five adverb positions were chosen: infinitive-splitting, sentence-initial, non-modal auxiliary-splitting, modal auxiliary-splitting, and pre-auxiliary, and their probabilities were extracted from each corpus. The study then uses a number of statistical analysis and visualization techniques to identify similarities and differences due to geographical space.

The analysis shows that between Euclidean syntactic distances and geographical ‘as-the-crowflies’ distances among pairs of locations, geography explains 16.4% of the variance ($p < 0.01$, Mantel test) within the spoken data. However, there is no significant correlation between syntactic distances and Trudgill’s (1974) notion of linguistic gravity, a measure incorporating geographical distances with population statistics (cf. Nerbonne and Heeringa 2007). Only one variable, sentence-initial, exhibits statistically significant geographical clustering, which is consistent with Grieve’s (2012) findings in which sentence-initial variables (i.e. also position, however position) also exhibited significant spatial clustering. A sentence-initial ‘hot spot’ was analyzed among some of the L2 vernaculars – Hong Kong, India, Singapore, and Philippines. These regions are not all geographically or socially contiguous, therefore contact between these varieties alone is unable to explain why they appear to be more prone to sentence-initial adverbs. Geographical patterning of adverb position was not found within the written data, supporting the claim that written records may in fact conceal their author’s speech patterns (Schneider 2002).

This corpus-based approach facilitates a bird’s-eye perspective on Englishes worldwide, focusing on adverb position variability before turning to a more aggregational and holistic approach to better characterize these varieties (Szmrecsanyi and Wolk 2011; Nerbonne 2009). The study is also a first step in identifying other factors (i.e. social) governing geographical variation in adverb position. The present contributions create further opportunities for studies on trans-national intra-linguistic

variation, and complement existing works on the relationship between geography and syntactic variation.

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The Third Vowel Shift in Kansas: A supra-regional shift with regional variation

Mary Kohn and Carly Stithem #275

While sound change has been vigorously documented throughout the US, the Great Plains remains underexplored. To date, acoustic documentation of this region has been restricted to urban hubs (Labov et al. 2005). This lack of attention leaves questions about sound change at the border of the Midlands and West dialect regions. The Third Vowel Shift, (a.k.a. the Canadian Vowel Shift, or the Californian Vowel Shift), couches each side of this region, documented in Missouri (Strelluf 2014), Nevada (Fridland & Kendall 2012), and California (Kennedy & Grama 2012). This shift is described as affecting front lax vowels such that BAT, BET, and BIT lower and retract (Clopper et al. 2005; Durian 2012; Bigham 2008, Fridland & Kendall 2012; Boberg 2005; Hagiwara 2006; Kennedy & Grama 2012; Labov 1991). Apparent time evidence from three communities in Kansas reveals that the Third Vowel Shift is vigorous within the Great Plains region. However, the tense vowel BAIT also appears to undergo change. Specifically, for proportion of the youngest speakers, differences between the production of BET and BAIT are increasing not only through the retraction of BET, but also through the raising of the BAIT nucleus. This study not only provides one of the first acoustic surveys of rural and suburban Great Plains English, but documents how a supra-regional sound change may become locally-instantiated through changes to vowels not implicated in the general shift.

Thirty participants are included in this analysis: ten speakers from one suburban community (Abilene, KS), and ten from two rural communities (Tipton, KS, and Americus, KS). Thirty minute segments from hour long sociolinguistic interviews were transcribed and force-aligned using FAVE. Key vowels from the front vowel system, including BAIT, BET, and BAT, were extracted. All vowels were normalized using Lobanov (1971) and nuclei were compared using mixed model regressions in R. In line with previous studies from across the Midlands region and California, front lax vowels are retracting in apparent time. However, in addition to these Third Shift patterns, BAIT is raising over time. Vowel trajectory analysis of BAIT indicates that raising occurs primarily by raising of the nucleus resulting in a more peripheral and monophthongal production among some of the youngest generations in the study. This pattern contrasts with other Third Dialect regions, such as Columbus OH, where no apparent time change is evident for the BAIT class (Durian 2012). While the wide-spread Third Dialect shift clearly affects the Great Plains, this dialect region continues to develop distinct patterns through changes to vowels not implicated in the chain shift. This analysis not only provides some of the first acoustic documentation of Great Plains English, but also demonstrates the necessity of looking beyond chain shifts to full systems, as well as the incorporation of trajectory analyses into sociolinguistic studies, to fully identify the ways in which sound changes are spreading across the continent.

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Apparent-time evolution of (dh) in one African American community

Chris Coops #290

Summary: We present an apparent-time study of 20th-century change in the variable (dh) – i.e., [ð]~[d] variation as in then [ðɛn]~[dɛn] – in one Southern African American community. The results indicate that while stopping was already present in a unique AAE constraint pattern at the beginning of the century, it has since then intensified and undergone phonological leveling, rendering the AAE system increasingly distinct from Southern Anglo (dh). We discuss this case of divergence in the context of other recent work on the diachrony of AAE phonological features, as well as more broadly in the context of the recent history of AAE in the South.

Background: An earlier pilot study of (dh) in a rural North Carolina AAE speaker born in the late 19th century (reference withheld) revealed a mixed pattern of internal constraints. Overall, stopping was favored in the same phonological contexts as it is in Southern Anglo vernaculars, where a stop results from assimilation of /ð/ to a preceding coronal stop or nasal (e.g., put dat, in dat; Taylor 1997). However, this speaker also produced stops at a robust rate in a phonologically non-motivated context: following a vowel (e.g., do dat). The latter is reminiscent of (dh) systems in substrate varieties of English, where stops (or affricates) occur regularly in non-assimilation contexts. The pilot results thereby suggest that turn-of-the-century (dh) contained traces of a non-English input source to AAE, e.g. the effect of an Anglophone creole, while simultaneously displaying alignment with Anglo (or, pan-Southern American English) vernacular norms.

The present study: The present study aims to (i) validate the pilot results by comparing them to data from AAE speakers of a similar age cohort and regional origin; (ii) compare early 20th-century (dh) to (dh) in contemporary AAE, given evidence suggesting that stopping has intensified (from Grieser's 2013 analysis of AAE in Washington, DC). We analyze the Princeville, NC corpus (Rowe 2005), a collection of recordings of speakers from a relatively isolated, long-standing, mono-ethnic African American community, born between the 1920s and 1980s. At the time of writing, almost half of the speakers recorded for this corpus (16 of 36 recordings – those at the extremes of the age spectrum) have been analyzed, using at least 100 tokens per speaker (1641 total).

Results: Despite inter-speaker variation in the use of vernacular AAE in the Princeville interviews overall, there is a significant age effect suggesting that stopping has not only increased but expanded to additional contexts. For several of the youngest speakers, stopping appears to have become obligatory after coronal stops and is also favored following non-coronals (e.g. like dat, up dat). In fact, incipient phonologization to /d/ is suggested by flapping to [r] (e.g. to the [tʊrəɐ]), occasionally even in word-internal intervocalic position (e.g. mother [mɑrəɐ]). Overall, this development fits well into the documented 20th-century divergence of AAE and Anglo norms in the South (e.g. Wolfram & Thomas 2002). What is remarkable about the case of (dh) is that an AAE feature with plausible creole origins gained in currency, rather than fading away, as seems to have happened in the case of other, comparable phonological features (e.g., Thomas & Carter 2006 on syllable timing, Van Hofwegen 2011 on light onset /l/).

Intergenerational language transmission in Jakarta Indonesian: Evidence from the pseudo passive in adults and children naturalistic corpora

Ferdinan Kurniawan #171

Intergenerational language transmission is the key to linguistic vitality. Its investigation involves interaction of two subfields of linguistics, namely language change and acquisition, embedded in a variationist perspective. The central question involves understanding the child as the locus of change. This study examines intergenerational language transmission across three generations of Jakarta Indonesian (JI) speakers.

To investigate linguistic change in progress, Sankoff (2006) proposed two types of longitudinal studies: trend studies and panel studies. Resampling from the language community is required for trend studies, while linguistic evidence from the same individual across the time is used in panel studies. This investigation uses both trend and panel studies to analyze intergenerational language transmission across three generations of JI speakers based on naturalistic data from three corpora.

JI is a variety of Indonesian spoken in Jakarta, the capital of Indonesia. JI is an increasingly influential colloquial variety in and around Jakarta. This also serves as the basis of the colloquial variety in urban areas across Indonesia and is of particular interest as more and more Indonesians are adopting colloquial varieties of Indonesian, the National Language, as their mother tongue.

This study takes as its specific focus the patterns of the “pseudo passive”. Examples illustrate the active voice (1), canonical passive (2), and pseudo passive (3) in JI.

(1) Active:

Budi udah nge-beli/beli sepeda
Budi already N-buy/buy bicycle
'Budi already bought bicycle.'

(2) Canonical Passive:

Sepeda udah di-beli ((s)ama) Budi
bicycle already DI-buy (by) Budi
'Bicycle was already bought by Budi.'

(3) Pseudo Passive:

Sepeda udah Budi beli.
bicycle already Budi buy
'Bicycle was already bought by Budi.'

Passive voice and pseudo passive occur as competing structures as (near) complementary distribution (Cole et al. 2006). Despite Cole et al. (2006) suggestions to the contrary, we find that the patterns of use of pseudo passive have not changed across three generations of JI speakers. This study uses three naturalistic spoken corpora of JI collected in colloquial settings: children

corpus collected in early 2000s (collected over a four year period, Gil and Tadmor 2007), adults corpus collected in 1970s (Wallace 1976), and adults spoken corpus collected in early 2000s (Gil and Tadmor 2007). For trend studies, this study uses resampling from the community documented in 1970s adults corpus, 2000s adults corpus, and 2000s children corpus. For the panel studies, children language corpus is used.

From the trend studies, this current investigation finds that the patterns of use of pseudo passive have not changed across these three generations of JI speakers. From the panel studies, three data points of JI children (1;7-3;5, 5;10-6;5, and 11;0-11;11) show that the patterns of use of pseudo passive by JI children resembles the primary linguistic data (PLD) transmitted from parents generations.

Through the patterns of use of pseudo passive, this study offers a new evidence that a morphosyntactic pattern is faithfully transmitted across these three generations. Results from this study provide implication for a new understanding that child language acquisition play important role to diagnose language transmission within generations.

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Is there a HAVE-switch in Danish?

Anu Laanemets #381

The paper reports on results from a corpus-based investigation of the perfect auxiliary variation in spoken Danish. Danish, as many other Indo-European languages, has two perfect auxiliaries – *have* (have) and *være* (be). The choice between the two is claimed to be rather systematic and sensitive to transitivity and aspect (telicity). Transitive verbs and intransitive verbs expressing activities and processes (atelic interpretation) take the auxiliary *HAVE*, whereas intransitive verbs expressing actions and change of location or state (transition verbs, telic interpretation) take *BE* (Hansen & Heltoft 2011). However, as pointed out in Jul Nielsen (1998), Thestrup (2000), Hansen & Heltoft (2011) the actual use of the auxiliary is not as systematic as described; others (e.g. Götzsche 1997) even point to an on-going process of simplification of the auxiliary system whereby the auxiliary *HAVE* is expanding into contexts where we would expect *BE*.

Using the Danish spoken language corpus, LANCHART (Gregersen 2009), which allows for studies across both space and time, the paper investigates whether Danish – like several other Germanic languages (including Old Norse and Swedish (Johannisson 1945, Shannon 1995, Larsson 2009)) – is undergoing a “*HAVE-switch*.” More specifically, the paper focuses on auxiliary selection with two types of intransitive verbs of motion: *gå* (go) and *komme* (come). *GÅ* represents a class of motion verbs, which are neutral with respect to telicity, and thus may be combined with both auxiliaries (Durst-Andersen & Herslund 1996, Hansen & Heltoft 2011), whereas *KOMME* represents a class of inherently telic motion verbs, and so only is to combine with the auxiliary *BE*.

The overall distribution of the auxiliary selection with the verb ‘go’ shows a continuous decline of the auxiliary *BE* across the three generations recorded at the same point in time. Based on the apparent time hypothesis, this result indicates a change within the language community, and thus supports the prediction by Götzsche (1997). On the other hand, the real time panel study of the same cohort groups recorded at two different points in time reveals no significant variation in the use, i.e. each particular generation stays stable. When looking at the meaning, the selection of the auxiliary by and large follows the general pattern described in grammars. The sparsely attested use of the auxiliary *BE* by the youngest generation may be explained by the limited use of the meaning potentials of the highly polysemous verb ‘go’. Finally, a thorough examination of the examples reveals a variation pattern, the majority representing an expansion of *HAVE*. The interesting question is, whether this pattern can be generalized to other (less polysemous) verbs of motion neutral with respect to telicity, and is this putative apparent time change also reflected in the use of the inherently telic motion verbs (e.g. *komme*), where the only perfect auxiliary option is *BE*.

The re-organization of short-a systems in Philadelphia

William Labov, Sabriya Fisher, Guðún Gylfadáttir, Anita Henderson, Hilary Prichard and Betsy Sneller #80

Many recent studies of change and variation have reinforced the concept that the speech community is characterized by “orderly heterogeneity”, where variable elements show continuous variation within the same structural parameters. New York City in the 1960s and Philadelphia in the 1970s were prototypical in this respect. The short-a division into tense and lax categories was found to be uniform throughout each city, while social salience and social stratification was confined to the phonetics of tense allophones.

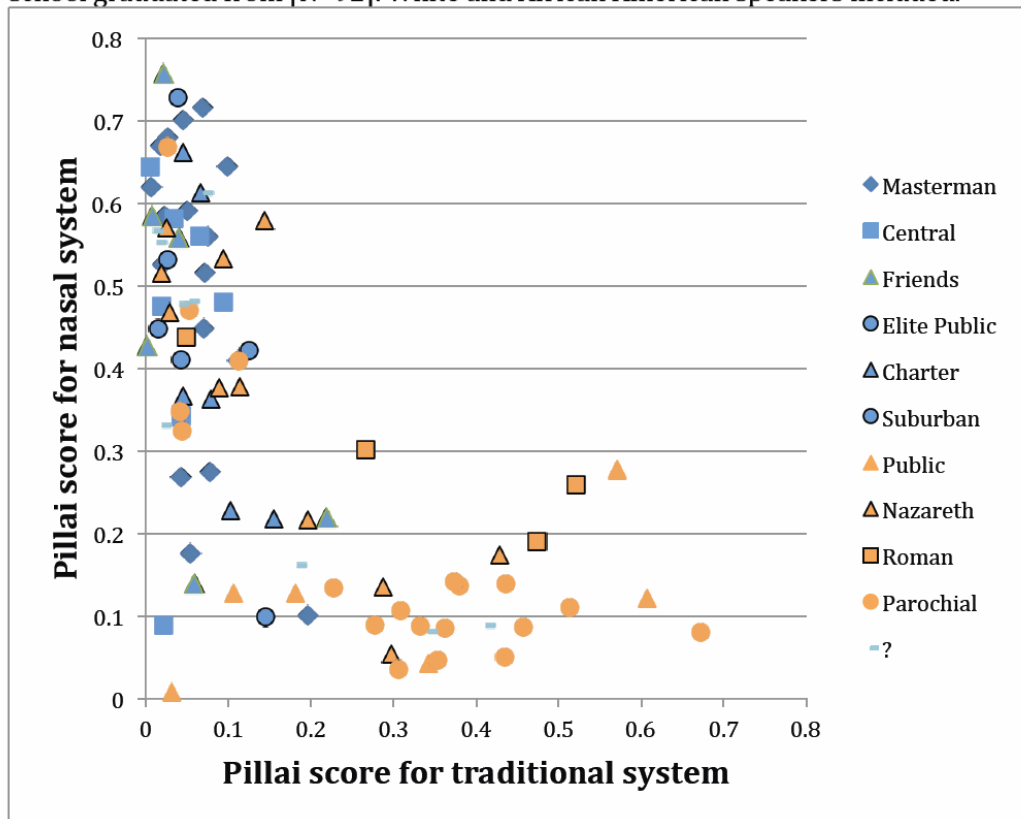
Recent developments in Philadelphia show radical change in the phonology of sections of the population involved in higher education. Briefly, the traditional short-a system is replaced by the nasal system. Short-a before voiceless fricatives, tense in the traditional system, becomes lax, while short-a before nasals becomes tense, including many subcategories that are lax in the traditional system. These newly tensed forms include short-a before velars (*bank, angry*), in open syllables (*piano, Spanish*) and function words (*can, am, and*).

To trace this phenomenon, college students who graduated from Philadelphia high schools were recruited and trained to interview close friends who were also graduates of Philadelphia schools, as well as younger and older members of their families. The interviews included inquiries into knowledge of, familiarity with, and attitudes towards features of traditional White Philadelphian and African American grammar, and a series of semantic differential questions which obtained unreflecting pronunciations of key lexical items (“What is the difference between *mad* and *angry*?”).

The vowel systems of the transcribed interviews were analyzed by the FAVE suite (Rosenfelder et al. 2012). The degree of conformity of each speaker to the traditional and the nasal systems of division into tense and lax forms was then determined by Pillai score (Hay et al. 2006), where 1 = complete conformity, 0 = nonconformity). Mixed effects regression analyses of 92 speakers predicting the Pillai score calculated showed no significant effect of sex, ethnicity, college enrolled in or middle school attended, but a strong effect of high school graduated from (traditional, $p = .000087$; nasal, $p = .000139$). Figure 1 plots Pillai scores for the traditional system and for the nasal system showing two radically different distributions (orange and blue symbols). Conformity to the traditional system (Pillai $> .25$) is entirely confined to White graduates of parochial schools (including Nazareth and Roman) and general public schools, while conformity to the nasal system is characteristic of elite public schools with special admission requirements, private Quaker and charter schools.

This result shows an unusual case of social redistribution of an abstract phonological structure. The question as to whether it is the product of frequencies of communication or of social evaluation may be determined by examining the attitudes and personal histories of the nine speakers from parochial schools who have adopted the nasal system. A further dimension of explanation follows from the finding that African American college students show no participation in the traditional White system (Pillai $< .25$) but show a wide range of conformity to the nasal system (Pillai from 0 to .7).

Figure 1. Conformity to traditional (x-axis) and nasal short-a systems (y-axis) by high school graduated from [N=92]. White and African American speakers included.



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“What do Haitians sound like”? Sociophonetic variation in Haitians’ English in Toronto

Véronique Lacoste #203

Toronto is one of those favourable places where sociophonetic variation in urban English varieties has been widely documented (Hoffman & Walker 2010, Nagy et al. 2013, Baxter & Peters 2013). Elsewhere, sociolinguistic research into emerging varieties in immigrant settings has recently flourished (Fox et al. 2011, Hinskens 2011, Preston 2011, Mazzaferro 2011), asking what sociolinguistic processes are at work in the emergence of a new ethnolect or socio-ethnic variety (Wolfram et al. 2011). This paper examines phonological and phonetic variation in the English spoken by a sociolinguistically heterogeneous group of Haitians living in Toronto, which is variably in contact with Haitian Creole, French, Standard Canadian English and English varieties spoken by other immigrant groups.

This paper presents data from sixteen sociolinguistic interviews. The data distinguishes between two categories of English speakers: 1. Informants who live in Toronto or in the GTA, were born in Haiti, whose parents are Haitian and whose mother tongue is *not* English; 2. Informants who live in Toronto or in the GTA, were born in Toronto or elsewhere in English-speaking Canada, whose parents are Haitian and whose mother tongue or dominant language *is* English. The realisations of some phonological variables such as dental fricatives, intervocalic phoneme /t/, phoneme /ɹ/ and post-vocalic rhoticity will be presented quantitatively. Data results reveal that Haitian speakers whose English is not their mother tongue exhibit high intra-speaker variation: this variation reflects variants characteristic of Standard Canadian English such as a tap [ɾ] for the phoneme /t/ although its voiceless stop [t] counterpart also appears in their speech. The range of phonetic variation for the phoneme /ɹ/ is also particularly interesting and displays the following realisations: the alveolar approximant [ɹ] found typically in English, the voiced uvular fricative [ʁ] often observed in francophone speakers of English and the labio-velar approximant [w] present in Haitian Creole, although the situation of Haitian Creole <r> is a complex one (Nikiema & Bhatt 2005). Other phonetic variants produced by Haitians match those found in the speech of Anglophone Caribbean speakers (e.g. Jamaicans), also established in the Toronto area; others may signal transfer from Haitian Creole or French. Haitian speakers whose English is their mother tongue produce a majority of local Canadian English features.

Phonetic variants used by Haitians in category 1 may be a mark of sociophonetic affiliation with other immigrant communities, whether they are Francophone, Anglophone and/or Creolophone. In addition to explanatory factors such as gender, occupation and length of residence in Toronto, this paper will try to show that Haitians’ English phonology (especially for speakers in category 1) is a reflection of their sociocultural and sociolinguistic situation of “in-betweens” in the Canadian diaspora, i.e. they “[...] find themselves in a [...] linguistic, multicultural, intergenerational and spatiotemporal in-between state –, they do not seem to fit in any model” (Madibbo & Maury 2001, English translation mine). Rather, they display a certain “complexity, singularity, une singularité complexe” (Interview with Josué, 2014). However, there is no indication at this point that a Haitian English variety is emerging in the Toronto area.

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Accommodation and Retroflex Variation in Taiwanese Mandarin: A Case of Dialect Contact in the U.S.

Yu-Ning Lai #136

Full retroflex in Mandarin is considered as a “canonical index” (Chung 2006, p.198) and serves as a stylistic device in different contexts. Due to intensive language contact, de- retroflexion becomes one of salient linguistic features in Taiwanese Mandarin (therefore TM). This linguistic feature is not only the product of language contact but also the normative form in Taiwan society. Distinctive linguistic features and locally sociocultural affiliation in TM result in TM drifting away from its standard form and Mandarin in China i.e., Putonghua (thereafter PTH) which are based on Beijing pronunciation.

This study examines accommodation phenomena in TM speakers when they contact with PTH speakers in the US. Early studies (e.g., Trudgill 1986) argue that in contact situation speakers tend to avoid using particular dialect features to reach convergent communication. Yet, divergent communication would also occur when speakers distinguish in- and out- group speech to emphasize linguistic differences to maintain their group identity. In this view, the researcher is interested in the linguistic choice of TM speakers regarding individuals’ social network strength with their PTH interlocutors in an immigrant community where national loyalties plays a vital role when TM and PTH speakers value their Mandarin as a part of their Taiwanese and Chinese identity respectively in their homeland.

28 TM speakers are recruited in a Taiwanese immigrant community in North Florida. Age ranges from 24 to 66. The data include 50-minute individual interviews, group interviews, and questionnaire. Three major linguistic variants of TM retroflex initials: full retroflex, an intermediate palato-alveolar articulation and full dental are examined. The occurrence rate of each linguistic variant is measured to examine its correlation with speakers’ social network.

The framework of social network predicts that speakers’ social network strength affects their linguistic preference i.e., speakers who have stronger social network with speaker of other varieties tend to avoid using their own language varieties or to adopt the speech to reach convergent communication. However, the overall distribution of three variants of TM retroflex initials presents a different pattern. TM speakers with greater social network strength with PTH speakers produced the least occurrence rate of the full retroflex, the “marker of ‘otherness’”(Brubaker 2012, p. 112). This finding suggests that TM speakers who have greater network strength with PTH speakers may be more sensitive to the linguistic differences between TM and PTH, and develop stronger intention to distinguish in- and out- group speech to maintain their own group identity. This result corresponds to their responses in questionnaires in which the palato-alveolar variant is viewed as the standard variant, and maintaining the palato-alveolar articulation while being aboard would reinforce their Taiwanese identity. From this result we can see that the direction of dialect accommodation in the immigration setting may not be determined by the strength of an individual speaker’s network and the frequency of interaction with their interlocutors but by the positive social value of the acceptable form merging from the local community.

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Perceptual salience of vowel rhoticity in Canadian French

Jeffrey Lamontagne and Jeff Mielke #283

Rhotic / ø œ œ / have been observed in Canadian French since the 1970s (Dumas, 1972). A contact-based explanation is supported by similarity to English syllabic /ɹ/ and the crosslinguistic rarity of [ɹ]-like sounds. However, rhoticity has developed gradually, and speakers with English exposure are not leading (reference redacted). Further, French and English rhotic vowels are distinct in bilingual speakers (reference redacted). These facts suggest an internal sound change. Social and perceptual non-salience are hallmarks of change from below, making perception a key piece of this puzzle.

We report a perception experiment involving 93 listeners (francophones and anglophones in Ottawa, and anglophones in the Southeastern U.S. without French experience). The participants performed tasks designed to measure sensitivity to rhoticity without depending on listeners having preexisting categories for it. AX discrimination of stimuli differing only in formant frequencies (n = 91) was followed by either AXB discrimination of natural stimuli produced by different speakers (n = 41) or an identification task with feedback (n = 46). French speakers also read a word list.

AX stimuli involved 20 trials for each of 13 words with / ø œ œ / and three filler words. Ten stimuli per word were created by resynthesis along two five-step continua starting from extreme rhotic and non-rhotic tokens. French-English continua were created for four words with similar English counterparts (e.g. *peu* ~ *purr*). AX trials consisted of one extreme token followed by one token from the same scale.

The AX and identification tasks show a relationship between French exposure and low sensitivity. AX responses were analyzed with two mixed-effects logistic regression models. A model including French / ø œ œ / trials showed the expected main effect for steps between stimuli ($z = 26:271$, meaning acoustically distinct tokens were rated more frequently as different), and an interaction between steps and group: U.S. English listeners were more sensitive to the differences in rhoticity than francophone listeners ($z = 2:567$, $p = 0:0102$), with no difference between Canadian French and English listeners. A regression considering words with French-English continua found that listeners were more sensitive to differences in trials including English /ɹ/, even when paired with a French rhotic vowel. No relationship was found between French speakers' sensitivity and their production of rhoticity. The identification task (which only included Canadians) found that English listeners classified rhotic and nonrhotic /ø/ more accurately than the French listeners.

These results show that native speakers of Canadian French are not very sensitive to rhoticity, and French rhotic vowels are perceived as more similar to non-rhotic vowels than to English rhotic vowels. This joins existing evidence that rhoticity is a change from below. Empirical data on changes from below is sparse (Cedergren, 1973; Trudgill, 1974; Labov, 1994), partly because changes usually go unnoticed until long after their inception. The little perceptual data on these changes typically involves chain shifts and neutralization (Labov, 1994, 2011). This study has explored some of the techniques that can be used to measure sensitivity in a non-neutralizing change.

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Vraiment Vraiment Intense: The use of intensifiers in Acadian French adolescent speech

Emilie Leblanc #178

Intensifiers are defined as adverbs that augment the meaning of their corresponding adjective. They have been extensively studied in contemporary English (e.g. Labov 1985; Ito & Tagliamonte 2003; Tagliamonte & Roberts 2005; Mendez-Naya 2008; Palacios Martinez & Nunez Pertejo 2012). However, there has been much less research on intensifiers in French (Chevalier & Hudson 2005; Bouchard & Burnett 2010; King 2013). The few studies of intensifier usage in Acadian French in New Brunswick have focussed primarily on English-origin *right* (Perrot 1995; Young 2002; Chevalier & Hudson 2005) (but see also Comeau 2007 and King 2013 for analysis of other intensifiers in Nova Scotian varieties). While previous studies show that *right* is clearly in competition with *vraiment* 'really', the entire variable context has not been fully investigated.

The present study examines French and English intensifier use by adolescent speakers of Chiac, an Acadian variety spoken in the Moncton area of New Brunswick which is widely regarded as exhibiting extensive code-switching and borrowing (Roy 1979; Péronnet 1996). The data come from the Perrot (1995) sociolinguistic corpus of thirty Acadian French adolescents; thirteen males and seventeen females participated in group recordings involving two or three speakers, all members of the peer group. Each interaction was approximately one hour long and consisted of responses to a standard sociolinguistic-like interview questionnaire. For the present analysis, all adjectives with and without intensifiers were exhaustively extracted (N=1299) and coded for adjective type, adjective function, and language of adjective, along with speaker gender (the only social variable controlled for in the sample). Following Tagliamonte (2008), certain tokens were excluded from the analysis: tokens in the negative; tokens with downtoners; and tokens with comparative, superlative and figurative constructions.

The overall rate of intensified adjectives in the Perrot corpus is 38.6%, comparable to Tagliamonte's (2008) study which showed 37% of intensified adjectives for adolescent speakers of Toronto English. The most common intensifiers used in this study are: *right* (44%), *assez* used with the meaning 'so' (18%), and *vraiment* 'really' (9%). Another English-origin intensifier *super* (2%) occurred, but was limited to female speech. A series of multivariate analyses pitted individual intensifiers against all other intensifiers, excluding the non-intensified tokens. For the intensifier *right*, the factor group "adjective type" was selected as significant; adjectives of dimension, physical properties, and age favour the use of *right*. For *assez* 'so', a gender effect was in play with females favoring *assez* and males disfavoring it, a finding reminiscent of Tagliamonte's results for *so*. Another gendered intensifier, *pretty*, was favored by males and disfavored by females, a further finding mirroring Tagliamonte (2008). Overall, the study shows the merits of studying the entire envelope of variation, and points to interesting connections with the results of studies of adolescent Canadian English.

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A diachronic shift: The status of *well* and *ben* in Chiac

Emilie Leblanc and Selena Phillips-Boyle #177

Chiac, a dialect of Acadian French spoken in southeast New Brunswick, is characterised by extensive borrowings and codeswitching with English (Perrot 1995; Chevalier 2007; King 2008). Previous work on discourse markers includes analysis of *well* in American English (Schiffrin 1987), of *ben* in Laurentian French (Bruxelles and Traverso 2001; D'Amboise and Léard 1996), and in European French (Hansen 1995). Chevalier (2000, 2002) has investigated alternations in Acadian French between the English *well* and its lexically analogous French form *ben*. This paper investigates the use of *well* and *ben* in two sociolinguistic corpora of adolescent speech separated by a twenty-year gap, allowing for a realtime comparison. The present study addresses the following questions: a) is there evidence of change diachronically in how *well* and *ben* are used? and, b) What social and linguistic factors condition the use of these discourse markers in Chiac?

The first corpus includes thirty adolescent participants (thirteen males, seventeen females) interviewed in 1991 (Perrot 1995). The second corpus consists of ten adolescent participants (four males and six females) interviewed in 2012. All are native speakers of the local Chiac variety. The data for both corpora were collected using sociolinguistic-type interview questions. The data (N=887) were transcribed and coded in Elan (Wittenburg et al. 2006) for the following social factors: community (the Moncton and Dieppe municipalities), birth year, and gender (education level and age are constant). We also coded for the following linguistic factors: position in the clause, language of the preceding word, language of the following word, speaker before and after the discourse marker, discourse marker doubling, and discourse marker function (response to yes/no or wh-questions, self-repair, reported speech, clarification, requests, results, and reflexive frame breaks).

The results of multivariate analysis show that the use of the French variant *ben* has increased from 36% in 1991 to 71% in 2012. This demonstrates a possible change in progress in the use of these discourse markers. Speaker gender and discourse marker function were also significant. Females favour the French variant (effect=0.60), while males favour the English variant (effect=0.64). In the 1991 corpus, the use of *well* is favoured for wh-questions, requests, results, and reported speech, while *ben* is favoured for reflexive frame breaks and self-repair. In contrast, in the 2012 corpus the use of *well* is favoured for reported speech and self-repair, while the use of *ben* is favoured for wh-questions and clarification. Taken together, these results suggest a possible change in progress in the use of the two discourse markers coupled with the restructuring of discourse functions, which should be investigated in a larger corpus of present-day adolescent usage.

One possible explanation for these results lies in the growing contact with Quebec French speakers (through media and interprovincial migration). This is supported by informal observations of the use of other Quebec French variants in the region.

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Phonetic Effects of Diglossic- and Style-Shifting in Arabic

Thomas Leddy-Cecere #27

Across the Arabic-speaking world, native dialects of Arabic (hereafter DA) exist in a diglossic relationship with Modern Standard Arabic (MSA), which is primarily acquired via formal education and other cultural media (Bassiouney, 2009). Researchers have most often viewed variation between DA and MSA productions as the direct result of a change in style (Parkinson, 1993; Walters, 1996), in the traditional meaning of formality or care in speech (cf. Labov, 1972; Bell, 1984). As such, existing studies of phonetic variation in Arabic diglossia (e.g., Schulz, 1981; Haeri, 1991) have mainly tracked the relative occurrence of categorically distinct DA/MSA forms across more and less formal situations. The present case study extends the examination to gradient phonetic properties and investigates whether such properties distinguish DA and MSA independently of the phonetic correlates of change across the Labovian style continuum, thus addressing the question of whether diglossic variation in Arabic is best viewed as classic style-shifting or as a phenomenon more akin to code-switching between two distinct sets of phonetic norms (as consistent with Sayahi's (2014) description of structural similarities between diglossic and bilingual code-mixing phenomena).

Two native speakers of Egyptian Arabic and two speakers of Syrian Arabic participated in the study; all are teachers of Arabic and regularly produce extended discourse in MSA. All speakers are female, aged 25-32, and of similar educational backgrounds. Each participant recorded a sociolinguistic interview consisting of two parts, each with three components. The first part of each interview took place in the speaker's native variety of DA and comprised: 1) a free speech, spontaneous self-introduction, 2) a reading passage composed by a native speaker of the relevant DA variety, and 3) a wordlist of items unique to the DA variety. The second part of each interview constituted a repetition of the same three tasks in MSA, requesting a recapitulation of the self-introduction and substituting MSA reading passages and wordlists.

Tokens of /a:/, considered to be phonemically equivalent between MSA and the two DA varieties examined (Versteegh, 2006), were extracted via Praat. These were evaluated along three parameters: quantity (ratio of /a:/durations to /a/ durations), quality (F1 and F2), and dispersion (Euclidean distance from the center of the vowel space). A series of ANOVAs (using SPSS) tested for main effects for style (free speech vs. reading passage vs. wordlist) and register (DA vs. MSA), as well as potential interactions. Consistent, significant ($\alpha = .05$) main effects for style were detected across all measures for all speakers. With regard to register, however, the two Syrian speakers showed strongly significant ($p < .01$) effects on quality and dispersion with no parallel effects displayed by the Egyptian speakers. Thus, while the observed effects of change in speech style obtain ubiquitously across the sample population, the effects of change in diglossic register apply only on a dialect-specific basis for this variable; this finding of differential operation for style- vs. diglossic-shifting argues strongly for the separate status of the two sets of linguistic phenomena.

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Retour sur le futur : une perspective sur le français oral dans le nord-ouest de l'Ontario.

Isabelle Lemee #103

Le futur peut être représenté comme le moment du discours précédant le moment de l'évènement (Reichenbach, 1947). L'expression de la référence temporelle future a été largement étudiée à travers les variétés françaises orales. Le futur périphrastique (FP) est perçu comme signalant une proximité, d'où son autre appellation de 'futur proche' (King & Nadasdi 2003, Roberts 2012), tandis que le futur simple (FS) semble favorisé par les formes négatives (Poplack & Turpin 1999, Wagner & Sankoff 2011, Roberts 2012). Ainsi, les variétés de français parlé, tant au Canada que dans le monde, semblent être divisées entre les deux types de systèmes par rapport aux contraintes linguistiques opérant sur la référence temporelle future.

Pour contribuer aux recherches portant sur cette variable, nous analysons les variantes du futur périphrastique, le futur simple et le présent à valeur de futur (P) dans notre nouveau corpus de 26 entrevues de locuteurs de français L1 et L2 du nord-ouest de l'Ontario où le français est en situation minoritaire. Nous analysons des données de français parlé par des apprenants de niveau avancé, et nous les comparons à celles de locuteurs francophones de la région.

Notre étude s'inscrit dans une approche variationniste. Nos résultats préliminaires calculés par le programme de statistiques Goldvarb 2001 montrent une réelle préférence par nos participants pour le futur périphrastique (ex. je vais partir) et le présent à valeur de futur (ex. cet été, je pars au Québec). Ainsi le FP a été utilisé à 59%, contre 28% pour le présent et seulement 11% pour le futur simple. Nos résultats montrent que le futur simple s'oppose au futur périphrastique pour l'expression de la postériorité dans certains contextes linguistiques, alors que dans d'autres, le FP et le présent à valeur de futur sont utilisés en alternance. Par ailleurs, chez certains locuteurs, l'usage du futur périphrastique est quasi-catégorique. Il est à noter que la négation ne semble pas être un prédicteur important dans le choix du futur simple.

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Gender, politeness and intonational variation: The multiple discourse functions of High Rising Terminals in London

Erez Levon #24

In her work on High Rising Terminals (HRT), or the use of final rising tones on declaratives, Horvath (1985:132) argues that the feature's underlying role is to request "the heightened participation of the listener" in conversation. Subsequent research in numerous varieties of English has confirmed and expanded upon this interpretation, describing how HRT can be used to manage collaborative turn-taking (e.g., Guy et al. 1986), seek verification that a conversationally relevant point has been understood (e.g., Guy & Vonwiller 1984), and, more generally, establish a "solidary common ground between the speaker and the hearer" (Britain 1992:79; see also Cruttenden 1995; Bradford 1997; Warren & Britain 2000). In this paper, I examine whether HRT fulfils a similar range of functions among speakers in London. I combine quantitative and qualitative methods to demonstrate that while all of the speakers investigated use HRT as a positive politeness device, the specific politeness strategies that the feature is recruited to perform differ markedly across genders. I consider the ramifications of this finding for our understanding of politeness as a gendered practice, and also discuss the analytical importance of examining a variable like HRT in its discourse-functional context.

Data are drawn from sixteen small-group interviews with forty-two 18-25 year-old, White, middle-class speakers of London English (28 women and 14 men), since these are the individuals that previous research has shown to be the predominant users of HRT in the region. From the corpus, 7351 declarative intonational phrases were extracted, and auditorily coded for the presence/absence of HRT. Tokens were also coded for speaker sex, speech context (mixed- or single-sex), text type (i.e., Fact, Opinion, Description, Narrative; Guy et al. 1986) and length of conversational turn. These data were subjected to mixed-model logistic regressions in R. The influence of additional interactional factors, including position in turn, interlocutor response (none, minimal, attempted turn change) and information status (Prince 1981, 1992), was examined via contingency tables for occurrences of HRT only.

Results indicate that men use more HRT (12.6%) than women (9.2%), though the men's use is almost entirely restricted to mixed-sex contexts. Women, in contrast, use approximately equal amounts of the feature in both single- and mixed-sex talk. In addition, prevalence of HRT is significantly correlated with turn length for the women, though no such correlation is found for the men.

Analyses of interactional factors, moreover, reveal that while HRT overwhelmingly appears in the context of "new" information (as opposed to "inferable" or "evoked") for all speakers, women tend to use the feature for (discourse-new) hearer-old topics, whereas men tend to use it for (discourse-new) hearer-new ones. In the talk, I combine a discussion of these quantitative findings with a qualitative examination of the distribution of HRT within individual speaker narratives (Labov & Waletzky 1967; Warren & Britain 2000) to argue that HRT fulfils distinct politeness functions in the women's versus the men's speech.

Frequency Effect on Subject Pronoun Use in Mandarin Chinese

Xiaoshi Li #87

In recent years, some studies have been conducted to investigate the role of lexical frequency in phonological and syntactic variation since Bybee's proposal of the central importance of frequency in language use (Bayley, Ware & Holland, 2013; Bybee, 2002; Erker & Guy, 2012; Walker, 2012). So far, the results suggest a complicated and even puzzling picture of frequency effect. On phonological level, Bybee (2002) found a strong frequency effect on t/d deletion whereas Walker (2012), after examining the effects of different measures of frequency, found that t/d deletion is best accounted for by formal approach instead of usage-based approach. Erker & Guy (2012) extended the investigation of frequency into syntactic variation. The variable they examined was subject pronoun use in Spanish. They found no independent effect of frequency and frequency amplifies or activates other constraints. Bayley et al. (2013) used the same frequency measure as Erker & Guy (2012) and also examined Spanish subject pronominal expression. They found a minor independent effect of frequency and stronger constraint effects in nonfrequent verbs.

This study investigates the effect of frequency on subject pronominal expression in Mandarin. The data were collected from twenty Chinese native speakers (13 college students and 7 college teachers) in three discourse contexts including informal conversations, elicited narratives, and teacher classroom speech with a total number of 7,291 tokens. Frequency was measured in two ways. One was the general frequency with reference to *A Frequency Dictionary of Mandarin Chinese* (Xiao, Rayson, & McEnery, 2009) and the other followed Erker & Guy's (2012) and Bayley et al.'s (2013) dataset frequency measures. Preliminary two runs of multivariate analyses with different frequency measures indicated that frequency does have a relatively minor independent effect. Since the variation patterns in teach speech and student speech were very different (the teachers use overt pronouns at a much higher rate than the students) (AUTHOR, 2012), four additional runs of analyses were conducted – two frequency measures by two speaker groups. The results showed that frequency had no independent effect at all for either teachers or students with general frequency measure, whereas frequency demonstrated a minor effect for both groups with dataset frequency measure. Then twelve runs of analyses were conducted – three speaker groups (teachers, students and the two groups combined) by two frequency groups (frequency vs. nonfrequent) under two frequency conditions (general vs. dataset). Subject person/number and switch reference turned out to be significant in all the runs and other factors were on and off in terms of significance in different runs.

The results suggest that subject pronoun use in Mandarin can not be best explained by usage-based approach and frequency does not play a central role in the use of this linguistic feature. Rather, when discussing frequency effect, many other factors need to be taken into consideration such as frequency measures, speaker groups, discourse and so on. In addition, the “Cheshire cat” (Bayley et al., 2013) nature of frequency effect was demonstrated even within the same dataset.

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Vowel Variation in Emerging Miami Latino English: Exploring Vernacularity through Social Affiliation

Lydda Lopez and Phillip Carter #339

Recent work documenting the role of Spanish substrate influence on new dialect formation in Miami (authors 2014) has demonstrated that Miami-born Latinos differ from non-Latino Anglo Whites for a variety of phonetic, syntactic, lexical, and prosodic variables. Miami-born Latinos were found to demonstrate productions of /u/ and /æ/ that were significantly more backed than those of Anglo Whites. While the college student population provided a good sense of the role of Spanish structural influence in emerging Miami English, it nevertheless gave us a limited sense of the range of vernacularity in the speech community.

To address this limitation, we have expanded our Miami sociolinguistic corpus beyond the university setting. But given the complexities of controlling for variables such as national origin group, bilingualism, and age of arrival in U.S. Latino communities (Bayley 2014), we have limited our efforts to a group of social affiliation we are calling “gym jocks.” The gym jocks we have studied, like the college students in the earlier study, are all Miami-born, come from one of the four largest national origin groups in metropolitan Miami, and are comparable in age to the college students (18-26). They differ from the college student group in that their social practices and shared experiences are oriented to Miami’s gym culture, rather than to scholastic achievement. We do not refer to this group as a community of practice, however, since our fieldwork draws on several different gyms.

For the current paper, sociolinguistic interviews were conducted with 26 Latino “gym jocks: 13 men and 8 women. 5 Miami-born Anglo Whites served as a comparison group. Here we examine the same suite of features we studied for the college students – both allophones of [æ] and /u/, as well as /i, I, ə, ɔ, ay/. For each vowel for each speaker, a minimum of 15 nonrecurring tokens were considered from analysis. Tokens were extracted from sociolinguistic interviews and analyzed for F1, F2, and F3 values using PRAAT. Measurements were taken at the midpoint for all monophthongs and at three temporal locations for all diphthongs. Two allophones of /æ/ were considered: prenasal and prenasal, since Latinos in other regional settings have shown to resist prenasal /æ/ raising (Thomas 2001). Tokens for all vowel variables were coded for phonetic environment as described by Thomas (2011) and vowel data were normalized using the Bark difference metric (Syrdal and Gopal 1986). Statistical analysis testing differences in production between ethnic groups (Latinos and Anglo Whites) and social affiliations (college students and gym jocks) was conducted using SPSS. In terms of ethnicity, our results showed that the gym jocks patterned like the college students, with an ethnic split for both allophones of /æ/ and /u/, with Latinos producing significantly more backed variants as compared to Anglo Whites. In terms of social affiliation, Latino gym jocks demonstrated a near-merger for prenasal and nonprenasal /æ/ and were significantly more backed for /u/ than Latino college students.

Agreeing when to disagree: A corpus analysis of variable agreement neutralization in caregiver and child speech

Cynthia Lukyanenko and Karen Miller #380

Introduction. Learning language requires learning both words and the morphosyntactic rules by which they combine. Most studies of acquisition treat rules as absolute, but morphosyntactic rules can and do occur variably in input to children. In English, for instance, a verb's form depends on the person and number of its subject (*he is, they are, you are*). However, this dependency is often neutralized in locative inversions, even in standard English. When agreement is neutralized, plural subjects appear with singular verbs (e.g., *here's your cookies*) [1-3]. **How does such variability influence agreement acquisition?**

Recent evidence demonstrates that young English-learners begin mastering the agreement system around 2.5 years: toddlers use agreement in online comprehension [4], and make few agreement errors in production [5]. However, other evidence suggests that agreement acquisition is not uniform across structures: children are less likely to produce agreeing forms with plural subjects and in inverted orders [6]. This latter finding is taken as evidence that knowledge of agreement is absent in these structures and that early language learning is construction-based, i.e., that abstract representations develop only once children learn many constructions and generalize. An alternative view is that children have abstract knowledge of the agreement system, and their "inaccuracies" in agreement marking result from their on-going acquisition of adult-like variation.

Methods. With the goal of characterizing neutralization patterns in the input and their impact on development, we examined agreement in two SES-distinct longitudinal corpora: Sarah (ages: 2;0-4;1; SES: working-class) [7], and Nina (ages: 1;11-3;3; SES: middle-class) [8]. All third-person sentences with an agreeing form of the copula (*is, are, was, were, 's, 're*) were extracted by hand. Tokens were coded for subject number (singular/plural), verb-form (singular/plural), and for sentence context (locative inversions, i.e., *there/here/where* sentences, vs. other sentence-types) [2-3].

Results. All speakers produced neutralization variably in locative inversions, and working-class speakers (Sarah and her parents) produced neutralization in other sentence types (examples, rates in Tables 1-2). Interestingly, though Nina's mother produced lower rates of neutralization in locative inversions, Nina, like Sarah, produced high rates of neutralization. Three facts suggest that children's neutralization is best-attributed to ongoing acquisition of adult-like variability, not lack of agreement knowledge. First, both children closely match caregivers' patterns in other sentence types. Second, both children produce varied locative+copula combinations. Third, no patterns of developmental change were found (Table-3). These points indicate that children are sensitive to the agreement dependency, are not relying on frozen forms, and that children's neutralization is not an artifact of developmental patterns like the Optional Infinitive stage: OI utterances are (a) non-adult-like and (b) disappear across the period examined, while neutralizations are adult-like and remain.

Conclusion. Sarah's and Nina's neutralization in locative inversions is directly related to the

variation found in their input, not to a deficiency in their knowledge of agreement marking. We propose that adult-like morphosyntactic variability takes longer to master than (near-)categorical usage, explaining Nina's higher use of neutralization compared to her parents. A developmental account of the acquisition of variable agreement will be presented.

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Table-1. Sample Tokens.

1. a. There was four of them, wasn't there? b.	(Sarah's Mother; File 30)
2. Here's three pennies.	(Sarah's Father; File 18)
3. Where's the things?	(Sarah; File 62)
4. a. Where are the eggs? b. Where's the socks?	(Nina's Mother; File 17) (Nina's Mother; File 37)
5. a. There're no dogs in their yard. b. There's some blankets.	(Nina; File 31) (Nina; File 43)

Table-2. Percentage of Agreement Neutralization in Children and Caregivers.

	Sarah's Parents	Sarah	Nina's Parents	Nina
Locative Inversion				
Copula.PL + NP-PL 'Here're the girls'	10% (7/70)	10% (2/21)	87% (186/215)	10% (8/80)
Copula.SG + NP-PL 'Here's the girls'	90% (63/70)	90% (19/21)	13% (29/215)	90% (72/80)
Other Sentence Types				
NP-PL + Copula.PL 'The girls are happy'	82% (92/112)	71% (35/49)	99% (357/359)	97% (86/89)
NP-PL + Copula.SG 'The girls is happy'	18% (20/112)	29% (14/49)	1% (2/359)	3% (3/89)

Table-3. Neutralization in Locative Inversions and Optional Infinitive Stage (e.g. She don't know; She like it).

	Stage 1 1;11-2;05	Stage 2 2;09-3;03
-Nina-		
Uninflected Lexical Verbs <i>e.g. She like him</i>	91% (77/85)	4% (4/89)
Non-agreeing don't <i>e.g. She don't like him</i>	88% (115/130)	18% (43/236)
Neutralization in Locative Inversions <i>e.g. Where's the girls?</i>	87% (13/15)	91% (59/65)
-Sarah-		
Uninflected Lexical Verbs <i>e.g. She like him</i>	83% (10/12)	3% (1/29)
Non-agreeing don't <i>e.g. She don't like him</i>	82% (153/186)	30% (20/67)
Neutralization in Locative Inversions <i>e.g. Where's the girls?</i>	100% (7/7)	75% (6/8)

Mouthing rates in Deaf Seniors' production of Langue des signes Québécoise/Quebec Sign Language (LSQ)

Stéphanie Luna #279

Prior to 1960, deaf girls and boys in the Canadian province of Quebec were educated separately in religious institutions which adopted different pedagogical approaches with regard to the medium of instruction (Perreault & Pelletier, 2010). Girls had an overall greater exposure to oral French than boys. However, there are differences within the boys in that some had little exposure to French (manual group) while others were taught with some French (oralist group), but less than the girls. Previous research on these signers' focused on the effects of this contact on the lexicon, but the linguistic consequences to other areas of the grammar are not known. This study seeks to address this lacuna by investigating a linguistic contact phenomenon, variable mouthing rate, that is the production of oral language simultaneously with signing. The different degrees of exposure to oral teaching methods in the educational background of older Quebec deaf women and deaf men has led me the following research question: Is the variable production of mouthing rate in LSQ among older deaf people constrained by their previous educational experience? I hypothesized that the mouthing rate in oralist-educated women would be higher than the manual-educated men and I expect the oralist-educated men to be situated between the other two groups.

To investigate whether the different educational experiences affect mouthing rate of these older (60+) deaf women and men, I analyzed natural language data from a LSQ corpus of deaf participants stratified by sex (11 women, 11 men). I circumscribe the variable context broadly, taking into account that each sign could potentially be accompanied by mouthing. This resulted in a total of 1526 tokens which were coded for presence or absence of mouthing. The data were coded based on social factors: the signers' educational experience which corresponds indirectly with sex (oralist-educated women, oralist-educated men, and manual-educated men), the signers' family environment (with/without deaf family members) and the signers' onset of deafness (native/non-native). Since previous studies (Dubuisson *et al.*, 1992) have shown that verbs in LSQ are mouthed less frequently than nouns due to the morphosyntactic complexity conveyed by a single verb in French, we thus consider whether the grammatical category of the sign constrains mouthing.

Results from multiple regression analysis of social factors reveal that there is only a statistically significant difference between the three groups according to their exposure to French ($p < .001$). Oralist-educated women favour mouthing at a factor weight of .59 ($n=828$) while oralist-educated men and manual-educated men disfavour mouthing at respective factor weights of .41 ($n=281$) and .38 ($n=417$). Furthermore, the results reveal that the grammatical category of the sign conditions mouthing rate ($\chi^2=67.9, df=4, p < .001$) in that adjectives, nouns and adverbs are mouthed more frequently (between 58% and 66%) than verbs (42%) or pronouns (17%), which is in line with previous research on other sign languages. These results suggest that the contact situation with oral French has consequences which extend beyond the lexicon, in that there are clear differences in mouthing rates between deaf seniors based on their previous educational background.

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Quantifying the Urban Linguistic Landscape: Nostalgia and Authenticity in San Francisco and New Delhi

Kate Lyons #318

Studies of the Linguistic Landscape (LL) of public spaces have predominantly focused on purely qualitative analyses to unpack the relationship between displayed language and space. While descriptive statistics are occasionally used to discuss the distribution of linguistic phenomena observed (Ben-Rafael et al., 2006; Backus, 2006), more sophisticated inferential analyses have largely gone un-attempted. This study shows the potential of inferential statistics to reveal new insights for the field of LL through a comparative study of language display in two urban spaces: San Francisco, California and New Delhi, India.

To do so, this study presents results from a series of binomial logistic regression models comparing language use on signs in different streets within the Mission neighborhood in San Francisco, California (N = 1,032) and signs in different neighborhoods within the South Delhi area of New Delhi, India (N = 2,416). These neighborhoods were chosen as they both represent high population urban areas of language contact (Spanish and English in the Mission; Hindi and English in South Delhi). Signs in these areas were coded for LANGUAGE (English-only; Spanish-only; Equal Translation, etc.) and AREA (the street or neighborhood of the sign's location). Multiple binomial logistic regression models were performed in order to determine the relationship between the distribution of languages found in signs and their location. Through the use of these models, differences in linguistic variation in the areas studied can be identified as significant, and are therefore empirically identified as contrasts worthy of further investigation (Goodman, 2008). These instances of contrast (for example, a significant difference between the distribution of English on street in the Mission vs. another street) are then evaluated qualitatively, to see in what ways differences isolated by the models can be analyzed using more traditional LL and sociolinguistic methodologies (Coupland, 2012; Kallen, 2010; Heller, 2003; Bucholtz, 2003).

Results show significant differences in distributions of language use in areas divided by socio-economic factors (such as housing values and average rent costs). Investigating these quantitative contrasts with qualitative assessments reveals processes of *linguistic commodification*, or processes by which linguistic forms are turned into "marketable" objects (Heller, 2003: 474; Jaworski & Thurlow, 2010). In the cases of the Mission and South Delhi, this symbolization of language is observed in wealthy areas and is seen to be characterized by nostalgia (Toor, 2000) or varying processes of authentication (Bucholtz, 2003; Lyons & Rodriguez, 2015).

Results suggest that processes of linguistic commodification may begin to be understood as cross-sociolinguistic phenomena. Additionally, the methods in this study show the potential power of replicable empirical tests in LL studies: in applying inferential analyses first, salient aspects of these areas' LLs can be more objectively isolated. The intersection of quantitative and qualitative methods used in this study therefore not only supply new insights regarding language display in communities of intense linguistic contact, but provide new and robust methods with which to advance the study of linguistic variation in Linguistic Landscapes.

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Heritage speakers abide by all the rules: Evidence of language-contact effects in Heritage Polish word-final devoicing

Paulina Lyskawa, Emilia Melara and Ruth Maddeaux #292

With the aim of better understanding Heritage grammars, this study investigates word-final devoicing in the context of contact between two languages with differing application environments for the devoicing rule. Specifically, we examine word-final obstruent devoicing in Heritage Polish spoken in Toronto, Canada, a city whose dominant language is English. Standard Polish phonologically devoices word-final obstruents ([1]). English also exhibits word-final devoicing ([5]), though more restrictedly. We find that Heritage Polish devoicing bears similarities to devoicing in both English and Homeland Polish. We argue that Heritage Polish speakers employ both the Homeland Polish and English devoicing rules and that the Heritage Polish grammar, at least within this domain, is more of a union of the English and Homeland Polish systems than a convergence of them.

Our data come from three corpora: 1) The Heritage Language Documentation Corpus ([4]), containing sociolinguistic interviews with Heritage Polish speakers living in Toronto (N=9); 2) The Homeland Polish Corpus, containing sociolinguistic interviews in Polish with Polish speakers living in Poland (N=10); 3) The Contact in the City Corpus ([2]), containing sociolinguistic interviews with English speakers of Anglo heritage living in Toronto (N=10). For each speaker, ~120 tokens of underlyingly voiced word-final obstruents were extracted from transcribed interviews. The tokens were time-aligned and impressionistically coded for the dependent variable of voicing. Coding was checked by a second coder and, in cases of discrepancies, a third. The factors analyzed were *obstruent type*, *following context*, and *word type*; *code-switching frequency* was coded for the Heritage speakers. A multivariate analysis was conducted using Rbrul.

We found significant differences (Homeland-Heritage: $p=0.0219$; English-Homeland: $p<0.0001$; Heritage-English: $p<0.0001$) among the speaker groups in word-final obstruent devoicing frequency (English 37% (N=1331); Homeland 66% (N=1210); Heritage 71% (N=1043)). The multivariate analysis revealed only *following segment* as significant in Homeland Polish ($p<0.0001$), while all three linguistic factors were significant in English (*following context*: $p<0.0001$; *obstruent type*: $p<0.0001$; *word type*: $p=0.005$); *following segment* ($p<0.0001$) and *obstruent type* ($p<0.0001$), but not *word type*, were significant in Heritage Polish. For all groups, devoicing is favoured before a voiceless obstruent or pause, voiceless obstruent ranking higher than pause in both Polish varieties, pause ranking higher than voiceless obstruent in English. Following vowels also favour devoicing in Homeland Polish. In both Heritage Polish and English, fricatives favour devoicing, while stops disfavour it. Furthermore, code-switching was found to significantly condition devoicing ($p=0.016$).

That Heritage Polish speakers devoice significantly more than Homeland Polish speakers, we argue, is an effect of Heritage speakers employing the devoicing rules of both Homeland Polish, whose devoicing has been described as a phonological process, and English, whose devoicing is phonetic (see [3]). The code-switching results support our claim: code-switching provides the context in which to employ both rules and the more one code-switches, the more one employs them, resulting in a higher devoicing frequency. We predict if this is indeed the case, we will find

instances of this “multiple rule application” in other areas of the Heritage Polish grammar and other Heritage language grammars.

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Production planning effects on variable contraction in English

Laurel MacKenzie #249

Variationist studies traditionally identify conditioning factors as falling into one of two types: “external” factors represent non-linguistic characteristics of the speaker or situational context; “internal” factors comprise linguistic elements surrounding the variable item (Cedergren & Sankoff, 1974). However, often unacknowledged (though see Preston, 2004) is that *psycholinguistic* factors, such as those implicated in language processing, must also play a role in shaping the surface distribution of linguistic variants. The present paper investigates this third category of conditioning factors by exploring the potential role of the incremental planning of speech on the variable contraction of *is* (e.g. *My mother{’s ~ is} a teacher*).

Psychologists have long recognized that speech is planned and produced in discrete units, and that task demands, such as a cognitive load, may compromise a speaker’s ability to plan ahead (Ferreira and Swets, 2002). This incremental, variable production planning has a natural connection to sociolinguistic variation, particularly in the case of sociolinguistic variables which are conditioned by a linguistic element to their immediate right: if the rightward element has not yet been planned, it should not be available to condition the variable that precedes it. Thus, the distribution of variants of a rightward-conditioned variable should differ depending on whether the rightward element has been planned. This has been tested for *ing/in’* variation (M. Wagner, 2012) and *t,d*-deletion (Tanner et al., 2015); we add a case study of *is*-contraction, well-known to be conditioned by the type of constituent to the right of the *is* (Labov, 1969), to this literature.

We extracted 336 tokens of *is* after non-pronoun subjects from the Switchboard corpus (Godfrey et al., 1992). Tokens were coded as either contracted or uncontracted, and, following M. Wagner (2012), the duration of the word following the *is* was used as a proxy for advance planning, with planning interpreted as less likely the longer the following word’s duration. To control for differing word lengths, only tokens in which the word following the *is* was disyllabic were used.

We analyzed the data using mixed-effects logistic regression in R, with a random effect of speaker and fixed effects of subject length, preceding segment, following constituent type, following word duration (log-transformed), and an interaction term between the latter two. If production planning does shape the distribution of variants in this case, we should expect to find a significant interaction between following constituent and our planning proxy. However, we find no such interaction: the effect of following constituent is significant, as expected ($p = 0.01$), but its interaction with following word duration is not ($p = 0.33$).

This result differs from those of M. Wagner (2012) and Tanner et al. (2015), who find a following segment effect on their variables to be mitigated when advance planning is unlikely. However, these seemingly contradictory findings can be explained if advance planning facility differs for phonological versus syntactic elements, as V. Wagner et al. (2010) propose. We draw conclusions from our findings for the nature of grammatical architecture and the cognitive mechanisms that derive varying linguistic forms.

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Is "like" like "like"?: Evaluating the same variant across multiple variables

Ruth Maddeaux and Aaron Dinkin #63

What is the entity to which sociolinguistic indexicality is attached? Variationist research is typically organized around the variable as the object of study, considering each variant in contrast with other variants of the same variable, according to the Principle of Accountability. Campbell-Kibler (2010), however, argues that social meaning may attach to each variant independent of its relationship to the variants it competes with; this echoes Labov (1993)'s claim that social meaning attaches only to surface-visible linguistic features, not the abstract relationships between them.

The word *like* has multiple functions instantiating several different variables, competing with different covariants in each; in many of these variables, *like* is increasing in apparent time (D'Arcy 2007). If social meaning attaches to the surface-visible variant, then the social meaning of the variant *like* might belong to *like* independently of the variables it instantiates. We test this hypothesis via a matched-guise experiment. If true, it could account for why multiple distinct variables are simultaneously changing toward *like*.

We prepared nine guises of a two-minute narrative spoken by a 23-year-old female Canadian speaker: one control guise not containing the word *like*, and eight others each containing ten tokens of exactly one function of *like*—quotative *be like*, clause-initial discourse marker, pre-VP discourse particle, pre-NP discourse particle, approximative, comparative complementizer, preposition, or the verb meaning 'be fond of'—each identical to the control apart from the use of *like*. Each participant heard the control guise followed by two *like* guises, separated by distractors. They were asked to rate each guise on social dimensions such as friendliness and intelligence, and to describe any differences they noticed between the guises they heard. The strong version of the hypothesis predicts that evaluations of all guises should differ from those of the control guise in the same direction, if not by the same magnitude.

The strong hypothesis is not supported by the results. Instead, the results echo D'Arcy (2007)'s classification of *like* functions into "vernacular" and "grammatical": only vernacular functions of *like* are evaluated significantly differently than the control guise, and only vernacular functions prompted participants to describe a guise as "using *like* a lot" (even though the grammatical *like* guises used *like* just as often as the vernacular guises did). The vernacular *like* functions are often grouped together in the discourse-pragmatic literature (cf. Jucker & Smith 1998) as manifestations of a single discourse-marker function, an analysis D'Arcy seems to dispute; if the vernacular functions *are* all a single lexical-grammatical entity distinct from the standard functions, that suggests that this type of object is the surface-visible entity Labov (1993) says is sociolinguistically evaluable.

The comparative complementizer is a "grammatical", not a vernacular, function, but it too is increasing in apparent time (Brook 2014). This study does not support the hypothesis that this is because it shares sociolinguistic evaluation with the vernacular functions. This suggests that we may need to look elsewhere to explain the apparent coincidence whereby multiple functions of *like*, both grammatical and vernacular, are increasing simultaneously in different variable contexts.

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"Black Twitter": AAE lexical innovation, appropriation, and change in computer-mediated discourse

Mia Matthias and Renee Blake #342

African American English is a linguistic commodity that carries cultural capital. Within the United States, the African American community and its Diaspora has experienced loss of lexical items to 'the mainstream' by way of cultural appropriation (Hill 1998, Alim et al 2010, Cutler 2014). Scholars have linked such appropriation of Black culture and language to the seeking of "hipness" by the mainstream. This paper provides a new perspective on lexical innovation, appropriation and change of African American English through computer-mediated communication, specifically "Black Twitter" online discourse. While appropriation of African American English has been documented largely through spoken word, this work extends the discussion to written texts.

Black communities are highly networked in technological spaces to the extent that the Pew Research Center notes that they use Twitter at a higher rate than any other racial/ethnic group such that one in four Twitter users is African American (Smith and Brenner 2012). "Black Twitter" is a socially constructed space composed of a community of users who partake in and describe aspects of Black American society through their use of the Twitter platform (Williams and Domoszalai 2013). While race is not a criterion for participation, according to Clark (2015), critical to participation is the cultural background and competency to understand; and African American English is critical to this in-group communication at times.

Computer-mediated communication within the context of sociolinguistics allows for the examination of linguistic features through space and time (Jones 2015). In this paper, we present results of research that examines the life cycle of three lexical items that originated and underwent change through computer-mediated communication. Using the Twitter API, we mine approximately 18,000 tweets of three AAE lexical innovations (1, 2, 3):

1. *Twerk* (dance form): "I Hate When Girls Don't know How to *Twerk* or Wine TheyCorny.Com"
2. *On Fleek* ("good"): "When someone tries to come @ u but your brows *on fleek*. Lol #fleekology"
3. *Yeet* (originally a dance form, also used as an exclamation or to signify rejection):
 - (a) "I'm hitting that *yeet* at graduation"
 - (b) "***Yeet!***...Hol up, hol up.. ***YEET!!***"
 - (c) "swerve ***yeet*** skiddadle peace bye..."

Using Google Trends from 2014-2015, we show rates of usage of these lexical items from their inception, to their peak, appropriation, and where possible their loss within a virtual world of AAE users and Mainstream English users.

The results indicate that at the height of usage, as indicated by Google Trends, the lexical items experience decreased usage by AAE users on Twitter. We correlate the drops in usage by the AAE

users with highly marked moments for the lexical item in mainstream communities such as designation as a dictionary entry or use by mainstream media. This work also illuminates the rapid rate at which lexical items may be created, dispersed, and undergo change within the AAE community, especially through computer-mediated discourse.

Local and National Identity in Central Brazil

Shirley Mattos and Marta Scherre #67

We analyze coexistent identity trends in subject/verb concord with *nós* 'we' and alternation of *nós/a gente* 'we' in spoken Brazilian Portuguese in the urban area of Goiás State (Center-West region).

Subject/verb concord with *nós* 'we' involves first-person plural verbal forms (*nós somos um ano de diferença* 'we are a year apart in age') and third-person singular verbal forms (*nós é assim* 'we are like that'). This variable is a clear stereotype: it is overt topic in public discussion, and *nós*-without-concord (*nós exporta* "we export") is usually subject to stigma and receives open correction (Labov, 1994:78). However, speakers do not normally notice alternation of *nós*-with-concord (*hoje nós exportamos* 'nowadays we export') vs. *a gente*-with-concord (*a gente não exporta* 'we do not export'): this variable is a marker. The innovating form *a gente* is not subject to a clear stigma, even though not recognized by grammatical tradition.

Our sample consists of 55 speakers (28 women/27 men), with a minimum of 10 years of schooling, 16-86 years of age. We analyze 579 tokens of subject/concord and 2027 tokens of *nós/a gente* alternation and present our results in frequencies and GoldVarb X relative weights (RWs) (Sankoff, Tagliamonte & Smith, 2005):

	Subject/verb concord			Alternation <i>nós/a gente</i> :		
	RWs	%	N	RWs	%	N
Schooling						
10-11	0.196	64,4	163	0.691	86,9	802
> 11	0.635	84,4	416	0.371	71,3	1225
Sex/gender						
Female	0.301	75,6	254	0.599	80,2	968
Male	0.659	81,2	325	0.410	75,1	1059
Age						
16-24	0.180	63,9	133	0.695	87,5	682
25-49	0.462	79,7	256	0.498	77,6	912
41-86	0.780	87,9	190	0.218	61,4	433
Total		78,8	579		77,5	2027

In line with previous research (Rubio, 2012: 278), speakers with more years of schooling favor *nós*-with-concord (0,635), the standard variant. They disfavor *a gente*-with-concord (0,371), a new variant, which is favored by women (0.599) and younger (0.695) speakers (Zilles, 2005:42). Surprisingly, women and younger speakers heavily disfavor *nós*-with-concord (0.301/0.180), the

standard variant: inversely, they heavily favor stigmatized non-concord (0.799/0.820).

The contrast between these phenomena and the fact that overall frequency of *nós*-without- concord reaches 21.2% reveal assertion of identity on two different levels among speakers: (1) local, through *nós*-without-concord and (2) national, through *a-gente*-with- concord. Speakers with same level of schooling in other regions, such as South East, show lower levels of lack of concord, around 8% (Rubio, 2012).

Conflicting trends toward local/national identification in Goiania reveal a country/city cultural blend explicitly recognized, even in media, as an essential component of being from Goiania, called *goianidade* "goianity". Local people do not care about stigma associated with lack of concord with *nós* "we", assign it a linguistic marker of identity. Their attitude is affirmed with disarming sincerity as *nós fala errado porque nós qué... nós é assim* 'we speak wrong because we want to...we are like that' However, *a gente* is increasing, as in other parts of Brazil.

In sum, local identity produces a more complex configuration of social variables in phenomena of language variation and change (Chambers, 1995:221-222; Labov, 2001, 191,196).

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The role of contextual distributions in Differential Object Marking in Mexico City Spanish

Alexander McAllister #48

Differential object marking (DOM) (e.g., Bossong 1991) in Spanish has been shown to be variable, preceding direct objects that do not meet the prescriptive criteria of its use. This multi-faceted marking system appears to operate using semantic and pragmatic aspects of not only the direct object, but also of the subject and the verb. Variationist studies have found a number of variables significant in the appearance of DOM besides animacy of the direct object, primarily definiteness (Balasch 2011, 2014) and specificity (Tippets, 2011), and relative animacy of the direct object referent with respect to that of the subject (Tippets, 2011). These well established linguistic motivators may vary in magnitude of effect according to dialect (Tippets, 2011; Fábregas, 2013) and extralinguistic variables may also influence DOM (Balasch, 2014). However, what remains unclear is how discourse context shapes the use of the differential object marker *a* in the language.

In order to explore this, 1,432 Subject Verb Object (SVO) clauses were extracted from *El Corpus Sociolingüístico de la Ciudad de México* (Lastra & Martin, 2011), a corpus of Mexico City Spanish of over 1 million words constituted by 108 interviews. Tokens were coded for definiteness, specificity, relative animacy, and verb, as well as for education level, age and gender. Results of 7 independent multivariate analyses, including 3 by social group according to speaker education level and 3 for the frequent verbs *conocer* 'know', *tener* 'have' and *ver* 'see' ultimately show that DOM is constrained by the same factors and with the same direction of effect. Nevertheless, there is important patterning of use that constrains appearance of the marker.

This observation was most apparent in both education level and verb. Although the three education levels exhibit a mostly homogenous statistical preference to favor DOM according to Relative Animacy > Specificity/Definiteness>Verb, the data distributions are disparate. Specifically, highly educated speakers exhibit a higher propensity to use indefinite non-specific contexts than do the low and middle-level educated (61% vs. 43% vs. 41% of the data, respectively).

Like education level, disparate data distributions were found for the three most frequent verbs in the data (*tener*>*ver*>*conocer*). Again, all three verbs demonstrate a homogenous conditioning by Relative Animacy > Specificity/Definiteness. However, a clear difference in data distributions is present with *tener*, which shows a high proportion of contexts in which the subject is more animate than the object and an overall higher co-occurrence with indefinite non-specific direct objects. These findings thus demonstrate that these verbs show an individualized contextual distribution that cannot be explained by object affectedness alone (Von Heusinger & Kaiser 2007, 2011).

This study shows the importance of analyzing not only previously established conditioning factors in differential object marker appearance in Spanish, but also carefully analyzing the contexts in which they appear. Ultimately, it contributes to current discussions of individual lexical and speaker effects by highlighting the importance of data distributions in analyzing both linguistic and extralinguistic factors in variation.

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Development of locality judgments and implicit language attitudes

Elizabeth McCullough, Cynthia Clopper and Laura Wagner #99

Implicit language attitude rating tasks reveal listeners' beliefs and opinions about language varieties through judgments about individual talkers. Generally, talkers of standard dialects are rated highly on status measures, while talkers of non-standard dialects may be rated highly on solidarity measures, reflecting covert prestige (Giles & Billings, 2004). Kinzler and DeJesus (2013) showed that 9- and 10-year-olds' language attitudes better reflect widespread American English regional stereotypes than those of 5- and 6-year-olds. However, language attitudes may continue to develop through adolescence (Giles, 1970). Additionally, Preston (1989) suggested that without knowing where listeners believe talkers to be from, any understanding of listeners' attitudes about language varieties is incomplete.

The current study built on previous work on language attitudes associated with American English regional dialects by including a question about the geographical origin of each talker, and by densely sampling child participants to better elucidate attitudinal development. The study was conducted in a science museum in central Ohio, in the Midland dialect region. 240 participants between ages 4 and 75, most of them current or previous residents of Ohio, participated in a language attitudes rating task. Female talkers from the Midland, Northern, Southern, and New England regions of the United States saying the same sentence were each rated on two status measures ("smart" and "rich") and two solidarity measures ("honest" and "friendly") using labeled five-point scales. A similar scale was used for rating whether each talker sounded like she was "from Ohio."

Linear mixed-effects regression models revealed that New England talkers received lower "from Ohio" ratings than Midland talkers from even the youngest listeners. Beginning around age 8, listeners judged Southern talkers to be less "from Ohio" than Midland talkers and more "from Ohio" than New England talkers. Northern and Midland talkers were rated as equally "from Ohio." Status ratings showed a clear local ("from Ohio") vs. non-local distinction, with Midland and Northern talkers receiving higher ratings than New England and Southern talkers beginning at age 8-9 for "smart" and age 12-13 for "rich." Solidarity ratings did not change with age; "honest," like the status ratings, showed a local vs. non-local distinction, while for "friendly," only ratings for Southern talkers were lower than ratings for Midland talkers.

Northern talkers patterned with Midland talkers on all measures for all ages, perhaps because the Northern variety is not stigmatized within Ohio (Campbell-Kibler, 2012). Additionally, while New England talkers enjoyed covert prestige on ratings of friendliness, Southern talkers, who are stigmatized in Ohio (Campbell-Kibler, 2012), were downgraded on all status and solidarity measures. Knowledge of locality differences generally preceded differences in attitude ratings, with adult-like locality judgments emerging by age 8 and adult-like attitudes emerging by early adolescence. This timing likely reflects the gradual understanding of socially complex lexical labels ("rich") and exposure to regional stereotypes. Further, listeners showed a three-way division of dialects for the locality question, but a two-way division for the status and solidarity measures, suggesting that some language attitudes may depend on a less differentiated conception of geography and/or group membership.

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Explaining Discursive 'well' in Ontario French: From Qualitative to Quantitative

Charlotte McDonald #187

Despite significant research on bilingual discourse markers in Acadian varieties of French (Chevalier, 2000; 2003 ; 2007), relatively little has been said about discourse markers in Ontario French. This observation is surprising in light of the findings of Sankoff *et al.* (1997) and Rehner (2002), indicating that native-like use of discourse markers is correlated with overall proficiency. These results interact not only with the work of Mougeon & Beniak (1991) on the fragile state of Ontario French in contact with English, but also with the work of Poplack *et al.* (1988), who suggest that the most bilingual speakers produce the greatest number of innovative borrowings. Our research seeks, therefore, to draw attention to the points of intersection between studies of borrowing, language maintenance and acquisition, encompassed by the study of bilingual discourse markers.

This research focuses on variation between discursive *well* and *ben* in the speech of adolescents in the Francophone minority community of Pembroke, Ontario. The data comes from the Mougeon, Rehner & Nadasdi (2005) corpus, which records the semi-directed, sociolinguistic interviews of 182 adolescents enrolled in French-medium schools in four Ontario communities. Of the four communities represented, Pembroke has the smallest Francophone population. The results of our previous, unpublished research indicate that discursive *well* is unique to the minority communities studied by Mougeon, Rehner & Nadasdi (2005), while virtually absent from the Francophone community of Hawkesbury. In Pembroke, although discourse marker use is considerably lower than in the other communities, we noted 178 tokens of *well*, accounting for 40% of the variable.

In particular, our research seeks to quantify the aspects of the students' language habits which have a role in the emergence of discursive *well* in otherwise French speech. According to Mougeon & Beniak's (1991) restriction index, all of the Pembroke speakers are categorized as restricted speakers of French even though their social and linguistic profiles vary considerably. A qualitative study of the data amongst a subsample of speakers suggested that the emergence of *well* correlates with the speaker's exposure to French outside of school and with their personal orientation. The students in our subsample who used French outside of the classroom and who identified themselves as Francophone or bilingual, seemed to prefer the French variant, *ben*. On the other hand, students who did not orient themselves toward French and had little extracurricular exposure, accounted for many of the tokens of *well* in the subsample.

On a methodological level, our objective is to manipulate Mougeon & Beniak's (1991) language restriction index for the study of discursive *well* amongst restricted speakers with diverse linguistic profiles. To this end, we draw upon the questionnaire that the students answered at the time of their interview and which was used to calculate restriction index scores for each student. In an attempt to account quantitatively for differences in speaker profiles, we shall regroup speakers according to their exposure and orientations as expressed in the questionnaire to determine the significance of these factors on the emergence of *well* in Pembroke.

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Slum-living adolescents, social integration and the directionality of language change

Marcelo Melo and Christina Gomes #170

This study addresses the behavior of two groups of adolescents in the speech community of Rio de Janeiro (Brazil) that share similar social characteristics (low class from slums), but differ in terms of social integration (un/structured family, schooling grade, and access to social programs of education), namely: the EJLA sample, constituted by slum-living adolescents who, during the interview, were living in a reformatory due to some crime they had committed; and the FIOCRUZ sample, composed by slum-living adolescents who, during the interview, were attending an educational program offered by FIOCRUZ, a renowned Brazilian scientific institution. The assessment of socially excluded speakers' behavior can bring contributions to the comprehension of the sociolinguistic dynamics of a speech community specially when related to teenagers, which represent an important group in the delimitation and expansion of the variants' social meaning as it has been demonstrated in several studies (Eckert, 1989, 2000, Wagner, 2008). Results from different studies about a sociophonetic variable – coda fricative as in *me[z]mo ~ me[z]mo ~ me[h]mo ~ me[0]mo* (same) – were taken for the comparison between the two teenager's group and also to the middle class speakers. In terms of social evaluation, the glottal fricative receives a degree of stigma that is less strong than other variants associated to different sociophonetic variables such as the tap in complex onset, like in *grobo* (globe), although it tends to be avoided among middle class speakers. Since EJLA and FIOCRUZ adolescents belong to the same social class, it was expected that the rate of the variants for both groups would be very similar. Instead, the results showed that the two groups differ significantly in terms of overall frequency of the glottal fricative: 7% and 30% respectively for FIOCRUZ and EJLA samples. For FIOCRUZ teenagers, the observed result is almost the same obtained for Censo 2000 middle class speakers, 5%. Furthermore, Melo (2012) showed that the younger and socially integrated the speaker is, the more s/he tends to avoid using the glottal: it is the less used variant among the young middle-class speakers (3,9%, 0,402 of relative weight, for 15-25 year-old-speakers) among other age levels. The results also showed that the same linguistic constraints influence all the three samples according to following context, morphological status, word length and lexical item. In respect to the lexical items that favors the glottal variant, EJLA speakers tend to use them mostly with the glottal, another difference regarding FIOCRUZ speakers. These results show that FIOCRUZ adolescents adopted a closer behavior to that observed for the young speaker from middle-class once they had a chance of some kind of social integration and, thus, adopted a pattern from a more prestigious social group, avoiding the pattern of socially excluded adolescents. We argue that the linguistic behavior of a group can be also related to the continuity/disruption of the social structure in terms of the social integration of this group within the speech community. We discuss whether social integration can be equated with the concepts of social network and community of practice.

Articulatory signals from ultrasound video, applied to North American English variables

Jeff Mielke and Christopher Carignan #314

Ultrasound imaging is an increasingly common part of the toolkit for variation studies (e.g., Lawson et al. 2011, De Decker and Nycz 2012). Articulatory data can shed light on the phonetic underpinnings of patterns of variation, and ultrasound is convenient and affordable, compared to other lingual imaging techniques. A common simplification in ultrasound studies is to select a single representative frame for each token. This is often motivated by the amount of work involved in data processing, which typically involves tracing of the tongue surface in individual video frames (Li et al., 2005), but it sacrifices dynamic information. We introduce a method for examining the temporal dynamics of articulatory correlates of sociolinguistic variables directly from ultrasound video without tracing.

The first step is to apply principal component analysis to filtered ultrasound images, as described by Hueber et al. (2007), to identify principal components (PCs) that represent independent axes of variation within a set of speech data. The analysis represents each frame of a video with a set of PC scores that indicate how strongly it is correlated with each axis of variation. The articulatory PCs themselves are hard to interpret meaningfully, so we use formant measurements and linear regression to transform the PC score vectors into meaningful articulatory parameters. To generate an articulatory signal representing the lingual contribution to /æ/ tensing (tongue body raising/fronting), the PC score vectors are transformed to correlate with the front diagonal of the acoustic vowel space ($Z_2 - Z_1$) (normalized F2 - normalized F1, see Labov et al., 2013) at the same time points. A linear regression is performed with dependent variable $Z_2 - Z_1$ and independent variables PCs 1-20, for every frame during a vowel lying on the front diagonal [a æ E e I i], as determined by forced alignment using P2FA (Yuan and Liberman, 2008). The coefficients from the linear regression model are used to transform the articulatory PC score matrix to match the articulatory diagonal, resulting in a tongue height signal composed of a single score for each ultrasound frame. For any given ultrasound frame, the higher the score is the more raised and fronted the tongue body is.

We demonstrate this technique using /æ/ tensing and variation in pre-liquid vowels in the speech of a regionally diverse group of 20 U.S. and Canadian English speakers. In the case of /æ/, we are able to see clearly that tensing before /m n/ involves tongue body raising that is timed to the vowel nucleus, whereas tensing before /g N/ involves anticipating the velar closure to different degrees, late in the vowel for most speakers, but early in the vowel for speakers from parts of the Northern U.S. and Ontario, where pre-/g/ tensing is reported.

Further applications will be discussed: Since the articulatory signals derived from ultrasound images instead of acoustic data, they are continuous throughout the recording, even during consonant and silence intervals. This makes them powerful for understanding context effects in variation patterns. Since articulatory signals do not involve tracking, they can reliably be used to check formant measurements.

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A corpus study of the influence of input on child acquisition of African American English aspectual markers

Shannon Mooney #325

Interest is growing among sociolinguists about the exact nature of bidialectalism— particularly in whether it may be characterized by different cognitive and social processes than first-language simultaneous bilingualism, and in what senses it can be said to stand apart from the phenomena that are commonly captured under the widely-applicable definition of *style-shifting*. While previous research has sought to explore hypothesized cases of bidialectalism in both US and UK English dialect regions and social situations (e.g., Hazen 2001, Smith and Durham 2012), fairly little effort has been made towards capturing the acquisition process of morphosyntactic elements for children who are exposed to two dialects with conflicting grammars.

A useful and important site for this line of inquiry is the acquisition of variable African American English (AAE) morphosyntax by children exposed to both AAE and another variety of English in their homes, communities, and schools. This study quantitatively analyzes child acquisition of aspectual markers that are unique to AAE but largely homophonous with Standard English particles serving other linguistic functions. Because the acquisition of aspect markers in L1 is understood to be a cognitively complex process that takes place relatively late universally (cf. Shirai and Li 2000), the corpus used is made up of spontaneous speech recordings from thirty-nine preschool-aged (4;6-5;0) children that derive from a relatively small collection in the CHILDES database (MacWhinney 2000, Hall et al. 1984). Though the original research purpose for collecting this data was purely lexical, the current study benefits from the foresight of each transcript having been coded for both the child's ethnicity on a Black-White binary and the child's school community. Originally incorporated as "socio-economic class", the latter measure critically involves whether the child attended a preschool of entirely African American children and teachers or one with both African American and White children and teachers present. The recordings are stratified equally along these divisions.

These valuable and, unfortunately, rare data robustly show the expected finding that the African American children in preschools where more exposure to AAE can be assumed displayed significantly more uptake of the AAE aspectual marking system than their African American and White peers in preschool situations with presumably less exposure to AAE. Moreover, the findings also suggest an implicational relationship between acquisition of aspectual marker *be* and the other markers *bin* and *done*. This is unsurprising given current lexical feature-based accounts with the understanding that the three forms differ in valuation for the feature [\pm PAST] (Adger and Smith 2010). A significant correlation between ongoing acquisition of the proposed AAE aspectual phrase node (Roeper and Green 2007) and overgeneralization of the *be* aspectual marker to contexts in VP that are not adult-like also emerges—importantly, this same overgeneralization does not extend to any significant extent to the inflected *be* that has moved out of the VP. These initial findings motivate the need for much future work on child acquisition of AAE morphosyntax that is also grounded in the situational reality of variable input from multiple linguistic varieties in the child learner's environment.

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L'accord verbal avec les sujets collectifs singuliers sur un continuum L1-L2

Raymond Mougeon and Françoise Mougeon #46

Mougeon, Nadasdi et Rehner (2010) ont examiné douze variables sociolinguistiques dans le français d'élèves d'immersion de 9^e et 12^e. Ils ont trouvé que pour chacune de ces variables, les élèves d'immersion emploient nettement plus souvent les variantes standard que les élèves franco-ontariens de 9^e et 12^e (restreints et non restreints) du corpus Mougeon & Beniak. Ce résultat reflète le fait que les élèves d'immersion ont appris le français presque exclusivement de leurs enseignants en classe. Par contraste, les élèves franco-ontariens non restreints ont appris le français à l'école et dans la communauté. Quant aux élèves restreints, ils l'ont certes appris surtout à l'école mais dans ce contexte ils ont été exposés au français de leurs camarades non restreints et du personnel. Les résultats de Mougeon et al. (2010) soulèvent la question suivante: les apprenants du FL2 plus avancés que les élèves d'immersion manifestent-ils un moindre degré de standardisation et se rapprochent-ils de la norme des locuteurs FL1 restreints, voire non restreints? F. Mougeon et Rehner (2015) ont apporté une réponse préliminaire à cette question par l'étude d'un corpus de 80 apprenants L2 universitaires (corpus F. Mougeon, 2005) incluant trois groupes d'apprenants (engagés–semi-engagés–peu engagés). Pour approfondir la réflexion de F. Mougeon & Rehner (2015), nous avons entrepris l'exploitation conjointe du corpus de français de 182 élèves franco-ontariens (recueilli par Mougeon, Nadasdi et Rehner), du corpus de FL2 de F. Mougeon et du corpus d'immersion mentionné ci-dessus, dans le but d'analyser la variation sociolinguistique sur un double continuum FL1/FL2. La présente communication s'inscrit dans cette recherche comparative et porte sur l'accord non standard au pluriel avec les sujets collectifs singuliers (ex. *le monde ils disent qu'on est une petite ville; ma famille sont dans les politiques*) et sur l'emploi de *gens* et *personnes*, comme variantes du collectif *monde*.

Quant à l'accord au pluriel, notre étude révèle qu'avec le collectif *tout le monde*, les élèves d'immersion n'emploient jamais le pluriel et les locuteurs L2 les plus engagés rejoignent la norme des locuteurs **restreints** (environ 20% de pluriel). Pour le collectif *famille*, les élèves d'immersion et les apprenants peu engagés et semi-engagés emploient le singulier plus souvent que les cohortes de locuteurs L1, mais les apprenants engagés rejoignent la norme des locuteurs **non restreints** (environ 40% de pluriel). Par contraste, avec les collectifs *du monde/le monde*, on constate que toutes les cohortes de locuteurs L2 sont très loin de la norme FL1. Ils emploient très rarement ces collectifs, et quand ils le font, le verbe est au singulier. Parmi les élèves L1, ces collectifs, non seulement sont très fréquents, mais sont employés le plus souvent avec le pluriel. De plus l'accord au pluriel demeure fréquent même chez les locuteurs restreints.

L'analyse de la variation *monde/gens/personnes* révèle qu'au lieu de *du monde/le monde* les cohortes de locuteurs L2 emploient les variantes standard *des gens/les gens* nettement plus souvent que les locuteurs L1, mais aussi *des personnes/les personnes*, ces variantes atteignant respectivement la fréquence de 79% et 93% dans le parler des élèves d'immersion. Finalement, dans le cas de *tout le monde*, on observe beaucoup moins de disparités sur le double continuum L1—L2. Cette variante est fortement prédominante dans le parler de toutes les cohortes L1 et L2, sauf dans celle des élèves d'immersion, qui emploient *toutes les personnes* 40% du temps.

Somme toute, notre recherche montre que si pour certains aspects de la variation les locuteurs L2 les plus engagés rejoignent plus ou moins la norme des locuteurs L1, pour d'autres, ils s'en distinguent nettement, soit par un plus haut niveau de standardisation, soit par l'emploi plus fréquent de *personnes*, forme plus transparente rappelant l'anglais *persons*.

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Variation sociolinguistique dans le discours des enseignants en salle de classe

Raymond Mougeon and Katherine Rehner #61

Le discours des enseignants en salle de classe a fait l'objet d'un nombre très limité d'études variationnistes (Mougeon & Rehner, 2015; Jia & Bayley, 2002; Li, 2010). Conséquemment, on ne sait pas grand-chose sur le modèle linguistique que les enseignants fournissent à leurs élèves dans cet espace social. Est-il largement conforme aux règles du français normé ou le respecte-t-il avec plus ou moins de fidélité selon la marque socio-stylistique des variantes? En d'autres termes, dans quelle mesure le discours des enseignants en salle de classe laisse-t-il place à la variation et celle-ci est-elle conditionnée par les mêmes facteurs internes et externes qui régissent le choix des variantes dans le contexte social plus large où est située l'école?

Plusieurs éléments de réponse à ces questions sont apportés par les premiers résultats d'une recherche en cours. Notre recherche repose sur un corpus d'enregistrements effectués en salle de classe dans les écoles secondaires de langue française des communautés francophones de Hawkesbury, Cornwall, North Bay et Pembroke en 2005. Un total de 59 enseignants ont été enregistrés. Les enregistrements ont fourni 82 heures de discours en salle de classe incluant un total de presque un demi-million de mots.

Notre communication porte sur les alternances suivantes: *je vais/je vas/m'as*; emploi/non emploi de *ne*, verbe au singulier/verbe au pluriel avec le collectif *monde* (ex. *le monde par ici il connaît/ils connaissent les deux langues*) et *gens/monde/personnes* (ex. *c'est du monde/des gens/des personnes qui ...*). L'analyse du discours des enseignants en salle de classe a été effectuée avec le logiciel GoldVarb. Elle révèle que ceux-ci emploient toutes les variantes à l'étude (y compris celles qui sont typiques du français vernaculaire, ex. *m'as*) et donc que ce discours laisse place à la variation. Ceci dit, on observe des fluctuations dans la fréquence d'usage des variantes qui sont révélatrices de différences dans la perception de l'adéquation de leur usage en salle de classe. Par exemple, pour ce qui est des variantes conformes à l'usage normé –*ne*; l'accord au singulier avec *le monde*; *je vais* et *gens*– on a trouvé les fréquences respectives 13%, 14%, 52% et 60%. L'examen de l'influence des caractéristiques socio-professionnelles des enseignants sur la fréquence des variantes a mis au jour une tendance lourde: les enseignants de français font un usage plus fréquent de toutes les variantes conformes à l'usage normé que les enseignants des autres matières. De plus, on observe une gradation selon l'âge relativement à la fréquence de *ne* et *je vais* (les enseignants les plus âgés ont un taux d'usage de ces variantes plus élevés que les enseignants moins âgés). Finalement, notre recherche révèle que dans leur communication avec les élèves, les enseignants exploitent les différences de marque sociale des variantes *je vais/je vas/m'as* et emploi de *ne*/non emploi de *ne* à des fins stylistiques, conformément aux principes de l'*audience design* (Bell, 1984). Ainsi, les enseignants emploient *ne* et *je vais* pour s'adresser à toute la classe plus souvent quand ils enseignent un cours que lorsqu'ils s'adressent à un élève ou à un groupe restreint d'élèves (principe d'accommodation).

Somme toute, notre recherche révèle que le discours des enseignants en salle de classe laisse place à la variation et que celle-ci est conditionnée par des facteurs externes similaires ou identiques à ceux qui influencent la variation dans la communauté. Ce résultat ne correspond probablement pas

aux attentes, peut-être peu réalistes, de la société à l'égard des enseignants relativement au modèle linguistique normatif qu'ils sont censés véhiculer.

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Ignorant and annoying: Inland Northerners' attitudes toward NCS short-o

Monica Nesbitt, Suzanne Wagner, Erin Pevan, Matthew Savage and Alex Mason #181

Recent studies of the Northern Cities Shift (NCS) have observed its retreat in some localities (e.g. McCarthy 2011 for Chicago; Driscoll & Lape 2014 for Syracuse). This is surprising, since the NCS had been understood to be a change in progress, characterized as comprising "indicators rather than markers, with little style-shifting...and no evidence of conscious awareness" (Labov 2010:194). In this paper we examine possible motivations for the recession of the NCS.

We conducted a between-group matched guise test, fielded online to 173 participants recruited via the researchers' social networks in Lansing, MI. Since recently collected sociolinguistic interviews indicated that in Lansing - as in Chicago and Syracuse - short /o/ (BOT) is experiencing rapid retraction in apparent time, we hypothesized that it would be a fruitful locus for attitudes research. Participants heard a short spontaneous speech recording of a young woman. Tokens of BOT were digitally manipulated to create two guises: conservative (mean F2 = 1350 Hz) and NCS (mean F2 = 1710 Hz). Each participant was exposed to only one guise. These were respectively similar to the mean F2 values for /o/ for all speakers recorded in the Atlas of North American English (Labov, Ash, & Boberg, 2006) and for all Atlas speakers in the Inland North.

Participants rated the recording for 63 descriptors derived from earlier focus group discussions, following Campbell- Kibler (2006). The online task included Likert- scale ratings of adjectives such as *annoying* and *friendly*, selection of discrete descriptors such as *from the city* and *redneck*, as well as open-ended questions. In this paper, we report our findings for the 27 Likert-scale descriptors, reduced to 6 parameters when subjected to factor analysis: *rude*, *dull*, *annoying*, *confident*, *liberal*, *accented*.

Of the 114 Inland North participants in our survey, 47 (41%) were exposed to the fronted BOT guise. Overall, this guise was rated as significantly more *annoying* ($p < 0.001$) and *accented* ($p < 0.05$) than was the conservative guise. However, when respondents were grouped binarily by age, we found that fronted BOT and the conservative BOT were significantly different for these parameters only among young people ($n = 31$, age < 40 years). Older respondents did not find the fronted guise significantly more annoying or accented than its conservative counterpart.

Although our focus group discussions and the survey's open-ended questions support Labov's assertion that there is little conscious awareness of the NCS, our experiment shows that Inland Northerners exhibit unconscious awareness of BOT- fronting. BOT-fronting carries negative social meanings in the Inland North, especially for young people. This is in line with evidence from local production, in which young, college- educated speakers are leading the retraction of BOT. It remains to be determined whether other NCS vowels below conscious awareness are also subject to relatively unconscious negative evaluation. We suggest however that in the post-industrial Inland North, young people are increasingly orienting toward national rather than regional norms.

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LOTS of THOUGHTS on the endangered PALMS of New York

Michael Newman and E. Brian Kelly #151

Labov, et al. (2006) identify New York City English (NYCE) as the only North American English (NAE) variety retaining LOT, PALM, **and** THOUGHT, with PALM in an intermediate position. Yet PALM is mostly ignored by researchers on NYCE low back vowels. An exception is Kaye (2012), who specifies PALM as composed of relexicalized short-O words before voiced codas, long-A words before historic /r/ and /l/, and isolated exceptions (e.g., *father*). Thus for Kaye, *god* and (r-less) *guard* are homophonous PALM words whereas *got* is LOT. However, Labov et al. (2006), Labov ([1966]2006), and Newman (2014) show these conditions are often fulfilled in the breach, with considerable speaker idiosyncrasies. They do not, however, attempt an analysis, nor do they explore whether the widespread NAE low-back simplification is leading to disappearance of the class in NYCE. This study explores these two gaps.

Sixteen participants from five families stratified by generation read passages and sentence frames including 52 potentially PALM, LOT, and THOUGHT words aloud. Participants were at least second generation White New Yorkers born between 1930 and 2002. Data were derived from normalized formants at 35% (to mitigate effects of ingliding) extracted by FAVE. All were from peripheral areas of Queens or Nassau County relatively unaffected by influxes of “transplants” from other North American dialect regions.

Production-based research on vowel mergers typically involves statistical analyses of relative independence of token clusters as defined by prior word class coding (e.g., Wassink 2015). For NYCE, there is little evidence of low-back merger (but see Johnson 2010 for some perceptual evidence), but Becker (2010) finds a lowering of THOUGHT among younger speakers that could set the stage for a future *cot-caught* merger particularly among Whites.

Such an analysis is unfeasible in this case since the idiosyncrasies discussed above make prior coding as PALM too uncertain. Therefore, analysis consisted of determining which words cluster into the different classes per speaker. Cross generational-cross family comparison revealed two interesting patterns. First Kaye’s criteria best described only some of the oldest speakers. Younger ones either presented two clusters equating to LOT and THOUGHT (i.e., no PALM) or a tendency for historic PALM words to concentrate in between historic THOUGHT and LOT ones without a clear division. This pattern resembles “the continuous system” described by Becker (2010) for short-A for participants she described as transitional between the traditional NYCE short-A split and a phonemic nasal short-A system. Second, younger speakers maintaining PALM showed reduction in the number of words in the class that followed an implicational pattern. So, if i.e., *god* and/or *Bob* were LOT for a parent, that word was invariably LOT for their children. However, if they were PALM for parents, they might be either class for children. Most PALMs became LOT, but some, e.g., following /w/, became THOUGHT.

This pattern suggests that mergers involving small classes may not proceed only by shifts in vowel space, so much as progressive defections of words to larger classes and/or weakening of clustering at specific targets.

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A Nonparametric Test for Spatial Dependence

Dong Nguyen and Jacob Eisenstein #260

Quantifying the degree of geographical dependence for linguistic features is a key task for analyzing dialectal variation. Previous work has proposed the use of Moran's I [4] and methods from Point Pattern Analysis [5]. Moran's I is a least-squares statistic for spatial autocorrelation, and has been adopted in several studies of dialectal variation [1, 8]. It is designed for comparing frequencies in data that has been geographically aggregated, typically by bins that correspond to political units such as cities, counties, or states. We show that Moran's I is highly sensitive to the granularity of the bins, giving markedly different results for the same linguistic variable at different levels of geographical detail (moreover, isoglosses need not align with politically-defined geographical units [6]). Variance is also a concern: Moran's I is computed from the relative frequency of the variable within each bin, rather than raw counts, but because population may vary dramatically across bins, Moran's I is overly sensitive to sampling variance in the sparser bins. Point Pattern Analysis avoids some of these issues, by counting spatially-adjacent observations in which the identical form of the linguistic variable is used. However, it is not clear how to generalize point pattern analysis to frequency-based measurements, which are inevitable when comparing high-volume data such as social media data.

We present a new test for spatial dependence that can be applied to either count-based or frequency-based data. It is computed from pairs of individual geotagged observations — which may correspond to interviews, newspaper articles, or social media messages — without aggregation into predefined bins. Our test builds on a rich literature on kernel-based methods for non-parametric statistics [7]; specifically, we employ the Hilbert-Schmidt Independence Criterion (HSIC [2, 3]), which can be seen as capturing covariance in a high-dimensional feature space. HSIC takes as input geotagged observations, and tests the dependence between the locations of the observations (X) and the presence or frequency of a linguistic feature (Y). Both X and Y are mapped to latent feature spaces, such that the inner product between these features can be computed using a *kernel* function on the similarity of the observations. A confidence interval around the null hypothesis can be computed from bootstrap resampling, enabling the computation of p -values. This approach makes no parametric assumptions about the form which spatial dependence will take, capturing arbitrarily complex dependencies, as long as they are sufficiently robust.

We first compare HSIC and Moran's I on synthetic datasets that simulate different cases of dialectal variation. We find that HSIC is more robust to parameter settings than Moran's I, and that the typical procedure for tuning one of the key parameters for Moran's I can overestimate the statistical significance of geo-linguistic associations. We then apply both approaches to a dataset of geotagged tweets from the Netherlands, to examine the geographical distribution of various phonological, morphological, lexical and syntactic features. We plan to release a software implementation by the time of NAW, which will allow linguists to employ this technique in their own research.

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Intergroup dynamics in speech comprehension: Interaction between experience, attitudes, and expectations

Nhung Nguyen, Jason A. Shaw, Michael D. Tyler, Rebecca T. Pinkus and Catherine T. Best
#147

Past research has identified three factors that influence speech comprehension across groups in a speech community: experience with the outgroup (McGowan, 2015), attitudes towards the outgroup (Rubin, 1992; Lindemann, 2002), and expectations about the outgroup (Niedzielski, 1999; Hay & Drager, 2010). In this study, we investigate how the interaction between these variables relates to speech comprehension.

To explore how experience, attitudes, and expectations interact, we investigated 24 Australian-accented English listeners' perception of Vietnamese-accented English vowels. Participants completed an online survey and a vowel categorization task. The survey examined participants' experience with Vietnamese-accented English (yes or no) as well as their affective attitudes towards Asians ($M = 1.67$, range = 1 to 4.5) (Fiske, Cuddy, Glick, & Xu, 2002). The perceptual task involved listening to nonce words containing 13 Australian English monophthongs in the /hVd@/ context spoken by a Vietnamese-accented speaker, then choosing a choice word on the screen that contained the same vowel as the nonce word (Tyler, Best, Faber, & Levitt, 2014). Half of the participants were told to expect that the speaker was Vietnamese (Treatment condition) whereas the other half were not (Control condition).

A binomial mixed effects model was fitted to the accuracy data in R, with experience, attitudes, condition, and a 3-way interaction between them as main factors, with random intercepts for both 'participant' and 'token' and random slopes varying with attitudes for 'token.' The 3-way interaction was significant ($\beta = 1.16$, $SE = 0.48$, $z = 2.42$, $Pr(>|z|) = 0.02$). The relationship between attitudes and comprehension accuracy varied according to whether listeners had experience with the Vietnamese accent and whether they expected a Vietnamese speaker:

- (1) Participants in the Control condition who had experience with the Vietnamese accent patterned together with participants in the Treatment condition who did not have experience with the accent. For these participants, the more negative their attitudes towards Asians, the poorer their accuracy.
- (2) For participants who were completely uninformed (Control condition and no experience) or well-informed (Treatment condition and experience), the relationship was opposite to (1): the more negative their attitudes, the better their accuracy.

The two patterns, although opposite, could be explained by differences in the amount of attention from participants with different attitudes. With pattern (2), the well-informed participants with more negative attitudes may have paid more attention to the task as a compensation strategy (Trawalter & Shapiro, 2010). The uninformed participants with more negative attitudes towards the outgroup probably paid more attention because they imagined an ingroup speaker while doing the task (cf. McGowan, 2015). For those conforming to pattern (1), either experience with the Vietnamese accent or prompts about the speaker's Vietnamese origin informed participants about the speaker's outgroup status. This knowledge may have then elicited their latent attitudes, which,

if negative, correlate with reduced attention and hence degraded comprehension (Nguyen, Shaw, Tyler, Pinkus, & Best, in press).

We conclude that whether intergroup attitudes negatively or positively correlate with speech comprehension depends on the ingroup's experience with and their expectations about the outgroup.

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Variability in the Form of Southern Brazilian Portuguese Imperatives

Luana Nunes and Scott Schwenter #365

In Brazilian Portuguese, many verbs show variability between two forms in imperative speech acts. One of these forms is the true imperative form of the verb (which derives from the third person singular present indicative) as in (1a), while the other variable form is the third person present subjunctive form as in (1b). Both of these can appear either with or without negation:

(1a) (Não) faz isso João!

(1b) (Não) faça isso João!
'Don't do that João!'

As documented by Scherre (2007), this variability is distributed throughout Brazil. However, in the far southern region of the country (e.g. the state of Rio Grande do Sul) the present simple form is more common than in the rest of the country, due to the near-exclusive use of *tu* instead of *você* as the second person singular informal address pronoun in this region. Building on Scherre's observation, this paper analyzes the variability in command forms in the Southern region of Brazil, more specifically in the city of Porto Alegre, the capital of Rio Grande do Sul. The 12 most common Portuguese verbs that show imperative/subjunctive variability in commands such as that shown in (1) were chosen from the Portuguese Frequency Dictionary (Davies 2005), in order to create an online survey. This survey presented 24 (12 affirmative and 12 negative) contextualized scenarios to the respondents, who were then forced to choose either the imperative form as in (1a) or the subjunctive form as in (1b). The situations presented in the survey also included different degrees of social distance between the speaker and interlocutor. For instance, lower social distance obtains in a situation where a friend utters a command to another friend, but greater social distance is found in a context where a boss utters an employee (not) to do something.

Our final results show that there is an overall strong preference for the true imperative variant. Indeed, 22 of the 24 contexts showed a preference for the true imperative, and this variant was chosen over 80% of the time by our 206 respondents. Polarity showed no statistically significant effect on variant ($p=.332$). However, greater social distance as depicted in the survey item context showed a statistically significant effect ($p=.017$) in favor of the subjunctive variant. Indeed, the only two contexts in which the subjunctive was overall the preferred variant presented a relationship of greater social distance between the speakers (doctor to patient and boss to employee), which affected the choice of imperative form in the responses. We conclude that, in agreement with Scherre, the true imperative form is much more common in Porto Alegre than in other parts of Brasil. The explanation, however, lies not solely in the use of *tu* for second person singular informal address in this region, but rather in the functional differentiation of the two imperative speech act variants: the subjunctive form is specialized for signalling greater social distance between interlocutors, while the true imperative is the unmarked form for expressing commands in Porto Alegre.

Second dialect acquisition & stylistic variation: Using D1 and D2 features to convey place identity and attitude

Jennifer Nycz #379

People vary speech to achieve social ends, quantitatively adjusting their use of linguistic variables to define a situation, convey attitudes towards audience or topic, and construct complex and fluid social identities (Kiesling 2009, Schilling 2013). Much work on this topic has focused on speakers who have remained essentially in the same community throughout their lives. However, many people move to new regions and come into sustained contact with new regional dialects. Which features of a new dialect are acquired, and (how) are they used to shape interactions and convey identities? The first question has been addressed by sociolinguistic studies examining the linguistic, social, and developmental factors affecting acquisition of new dialect features (e.g. Payne 1980, Chambers 1992). The second question has remained largely unexplored.

This paper presents a case study of how one mobile speaker shifts between D1- and D2-like variants according to topic and attitude. I argue that this variation reflects her complex and sometimes conflicted place identity, conveying metaphorical closeness to or distance from her home region and her adopted one.

The data are drawn from a 90-minute interview with J, a 45-year-old woman who grew up in a small town in Manitoba before moving to New York City at 31. FAVE-Align and FAVE- Extract (Rosenfelder et al 2011) were used to obtain normalized formant measurements using the FAVV measurement point selection method and the Mahalanobis formant prediction algorithm. Four word classes were analyzed: (aw) and (ay) before voiceless obstruents (81 and 209 tokens, respectively), and (o) and (oh) (256 and 131). Tokens were coded for phonological factors, general topic (e.g. family, work life) and the place context of that topic (e.g. Brooklyn, Manitoba). While robust multivariate statistics were not possible given the unbalanced distribution of tokens, vowel variants were compared across levels graphically and using summary statistics.

Across the interview, J maintains a D1-like raised (ay) and (aw), with mean F1s exceeding those for pre-voiced tokens by at least 60Hz; at the same time, she exhibits a D2-like contrast between (o) and (oh). However, all four vowels vary stylistically, and to some extent independently. For example, while J produced more raised (aw) overall when talking about Canada (vs. the U.S.), raising depended on the specific topic and her attitude towards it: (aw) is highly raised in talk about her beloved family back on the farm, but saliently lowered when she discusses her hometown as a parochial place that she has always wanted to leave. (ay), meanwhile, remaining uniformly high across these contexts. Similarly, the distance between (o) and (oh) seems to be used to move towards the D2 region or away from the D1: talk about her Brooklyn family evokes the largest o/oh difference, while talk about her hometown evokes merger when her attitude is positive, and distinction when the attitude is negative. I discuss these and other results in terms of their implications for a theory of stylistic variation, as well as their contribution to the growing literature on stylistic variation and place identity (e.g. Becker 2009).

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Simultaneous innovation and conservation: Unpacking Victoria's vowels

Sky Onosson, Rebecca V. Roeder and Alexandra D'Arcy #42

The literature on Canadian English (CanE) provides mounting evidence of ongoing dialect differentiation (Labov et al. 2006; Boberg 2008, 2010). In British Columbia, however, information concerning 'local' English is notably skewed toward Vancouver, misrepresenting the cultural landscape of the province. This paper compares five vocalic features in Victoria, the provincial capital, to the model of the typical (western) Canadian city presented in Boberg (2008, 2010) and other research on Vancouver (e.g. Gregg 1984, 2004; Esling & Warkentyne 1993; Labov et al. 2006; Sadlier-Brown & Tamminga 2008). We target characteristics identified by Boberg (2008, 2010) as either General CanE—the Canadian Shift and back vowel fronting—or distinctively Western CanE—START vowel retraction and the proximity of pre-nasal and pre-velar TRAP. We also address yod-retention, a conservative feature that has been observed across Canada and is argued to be obsolescing (Gregg 1984, 2004; Clarke 2006).

To evaluate the realization of these features, we draw on word list data from the 2012 Synchronic Corpus of Victoria English, a socially and stylistically stratified corpus constructed using Labovian Sociolinguistic methodology (Labov 1972). The word list comprises an expanded version of Boberg's (2008, 2010) list, allowing for maximum comparability with previously published results while adding an apparent time perspective. Our dataset totals 9180 instrumentally-measured tokens (4728 from the target vowels) from 114 speakers ranging in age from 15 to 98 (b.1913–1996). We are therefore in a position to examine not only where Victoria is positioned synchronically within the ecology of CanE, but we can also approximate its historical pathway based on evidence from the living speech community.

Statistical analyses (ANOVA, MANOVA, linear regression) reveal that the General CanE features we examine display incremental change toward supra-regional norms, while the other three features reflect striking stability through conservation of historical patterns. The Canadian Shift (TRAP, DRESS, KIT; total N = 1582) and back vowel fronting (GOOSE, TOO, GOAT; total N = 1324) exhibit robust advancement over apparent time, such that young speakers align with Boberg's (2008) measurements for General CanE. This rapid and recent change suggests that Victoria lags about a generation behind Ontario, where evidence indicates the Canadian Shift was completed a generation ago (e.g., Author 2012). In contrast, the START vowel (n = 600) shows no difference across age groups, although its position aligns more closely with Boberg's (2008) average for Ontario than for Western CanE. The relative positions of pre-velar TRAP (n = 462) and pre-nasal TRAP (n = 389), however, position Victoria as quintessentially Western Canadian, while traces of Victoria's British past remain in the prolific presence of yod-retention, which is visible in the acoustic profile of speakers of all ages (n = 371).

Overall, these findings portray Victoria as an innovative yet unique Western Canadian city.

The results thus serve as a powerful reminder that sociohistorical factors shape contemporary dialect features, alongside the everyday forces of speaker contact and regional affiliation (e.g., Labov 1994), highlighting the value of investigating locales outside the traditional domain of CanE

research.

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Spanish in New York City: The intersection between Language contact and dialectal convergence

Rafael Orozco #57

A robust tradition of sociolinguistic scholarship on Spanish in the United States (Fishman, Cooper, & Ma 1971; Amastae & Elías-Olivares 1982; Silva Corvalán 1982, 1994; García & Otheguy 1993; García 1995; Zentella 1988, 1997, 2000; Erker & Guy 2012; Otheguy & Zentella 2007, 2012; Shin 2014; Author 2012, forthcoming; among others) has developed over the last five decades. This research has produced studies on numerous speech communities with various origins. Nevertheless, we have been unable to establish whether Spanish in the US is more strongly conditioned by the effects of contact with English or by those of contact with other varieties of Spanish. This study analyzes the effects of social predictors on Colombian Spanish in New York City. We used 11,800 tokens to conduct a series of statistical regression analyses to test seven social predictors on three linguistic variables: the expression of futurity, the expression of nominal possession and subject pronoun expression.

The three linguistic variables examined are under the conditioning effects of six predictors including age, sex, age of arrival in the US, and length of US residence. Results reveal that, contrary to what occurs in Colombia, men exhibit a conservative linguistic behavior in New York City. This finding is not consonant with Labov's principles of sociolinguistic sexual differentiation (1990:215). Interestingly, there is a role reversal in the sociolinguistic behavior of Colombian women and men in metropolitan NYC. Consequently, Colombian expatriates' sociolinguistic patterns are simultaneously more similar to those of other NYC Hispanics and more different from those still predominant in Colombia. This finding suggests that the effects of contact with other varieties of Spanish impact the Spanish of New York City Colombians more strongly than the effects of contact with English. That is, besides showing tendencies similar to those of New York Puerto Ricans (Claes & Ortiz-López 2011; Otheguy & Zentella 2012; Author forthcoming) but different from those still prevalent in Colombia, our results help account for Colombians' assimilation to their new sociolinguistic surroundings. The results of the present study provide a first line of evidence suggesting that the effects of contact with other varieties of Spanish in the form of dialectal convergence and leveling outweigh the effects of contact with English on the Spanish of Colombians in New York City. Furthermore, these findings provide important information that helps compare the sociolinguistic forces that condition variation in New York City Spanish to those doing so in other (Hispanic) speech communities.

When teenagers use fewer overt pronominal subjects: Is it an instance of retrograde movement or an L1 acquisitional feature?

Rafael Orozco and Monika Estrada #182

This study seeks to answer questions that either emerged as a consequence of increased research on Spanish subject pronouns expression (SPE) during the current decade or remain open in spite of it. We test ten linguistic and five social predictors using 3,656 tokens culled from *CorCaXa* (*Corpus of the Castilian of Xalapa, Mexico*), built on interviews with a socially stratified group of thirty speakers of Jalapeño Spanish. The constraints explored include sex, education, age, subject continuity, verb type, and grammatical person and number of the subject. Our results reveal an overall pronominal rate of 25%. Additionally, linguistic and social predictors intersect in conditioning SPE in Jalapeño Spanish, as pronominal usage is conditioned by eight constraints including subject person and number, age, subject continuity, verb class, and education. Among these constraints, the effect of age is particularly meaningful.

The overall pronominal rate found (25%) constitutes the highest such rate found in Mexican Spanish so far and one of the highest in a mainland speech community (cf. Carvalho et al. 2015; Lastra & Martín Butragueño 2015; Otheguy & Zentella 2012). Grammatical number and person exerts the strongest pressure among linguistic constraints and age does so among the social predictors. The robust effect of age, second among all predictors, sets this community apart from most other Hispanic Speech communities, as the effects of social predictors do not consistently constitute strong SPE predictors (Carvalho et al. 2015:). When age does condition SPE, its effect is not as strong as it is in this speech community. Concurrently, the pronominal rate found among teenagers (10%) is below the lowest overall pronominal rate in the Hispanic World. At the same time, the lower pronominal rate among younger speakers is consonant with findings in other varieties of Spanish such as Dominican (Alfaraz 2015), Mexico City (Lastra & Martín Butragueño 2015), Colombian (Author, forthcoming), and Peninsular Spanish (de Prada Perez 2015).

Our findings have two main intersecting sets of implications. First, there is an evolutionary tendency from Latin being a null pronoun language to the Romance languages (e.g. French, Brazilian Portuguese) gradually becoming non-pro-drop (Erker & Guy 2012). Concurrently, over half a century of variationist research on the effects of age, recognized as the principal social correlate of language change (Chambers 2002, 349) shows younger speakers consistently promoting linguistic innovations (Labov 2001, 437). Thus, the trend exhibited by Xalapa's youth appears to be an instance of retrograde movement (Labov 2001, 75) toward lower overt pronominal usage. Surprisingly, such counter-directional trend would eventually make this variety more similar to Latin and less similar to the other modern Romance languages. Second, as children acquire adults' SPE usage patterns, their pronominal rates gradually increase (Shin & Erker 2015).

Further study of the effects of age shall help determine, among other things, whether we are witnessing a case of retrograde movement or simply an interim evolutionary detour. Moreover, these results open questions as to whether we are in the presence of an acquisitional feature also possibly present in other pro-drop languages.

Social meanings of (-r) in São Paulo: a computational approach for modeling the indexical field

Livia Oushiro #215

Eckert's (2008) concept of "indexical field" fosters a dynamic perspective on the social meanings of language variation and has been fruitfully applied (e.g. Campbell-Kibler 2009, Becker 2013, Walker et al 2014) to explain ideological inter-relations among the potential meanings of variables. However, although representations of indexical fields are deeply rooted in empirical evidence, there isn't yet an objective method for computing and reliably replicating them across studies.

This paper proposes a computational method for modeling indexical fields using Minimum Distance Trees (Gower; Ross 1969), which spatially represent the co-occurrence of terms by smaller distance and non-correlation by greater distance. Data come from a matched-guise experiment (Lambert et al 1967, Campbell-Kibler 2009) on the perceptions of two variants of coda (-r) in São Paulo Portuguese—tap and retroflex, as in *porta* 'door'—, which are salient indices of regional and social identities (Callou et al 1996). Four excerpts of spontaneous Paulistano speech (two women and two men in their thirties), each containing 4–7 tokens of (-r), were digitally manipulated in Praat to produce pairs of stimuli with either only tap or only retroflex-r. These were submitted to 185 participants living in São Paulo, who randomly listened to one recording from each pair; filled-out a perception questionnaire containing 10 semantic scales (how extroverted/accented/educated/Paulistano etc. the speaker sounds), 3 multiple-choice questions (speakers' area of residence/age/education) and 30 optional checkboxes ("hard-working"/"annoying"/"generous"/"redneck" etc.); and self-reported their gender, age, place of origin, and neighborhood. Data were analyzed in mixed-effects models in R.

The strongest correlations refer to geographical identities (retroflex-r as "less- Paulistano", "more-accented", "peripheral-neighborhood-dweller") and speakers' status ("working-class", "less-educated"). Other social characteristics significantly correlated with retroflex-r are "redneck", "simpleton", and "hard-working", while "articulate" and "sophisticated" correlate with tap-r. The Paulistano/Accent scales significantly interact with listeners' area of residence and place of origin: middle/upper-class listeners rate retroflex-r as more accented and less "Paulistano" than do working-class listeners; countryside migrants rate retroflex-r as less Paulistano than do natives, but consider both variants accented, while migrants from other states rate retroflex-r as Paulistano and accented as tap-r. Other social characteristics become significant when analyzing the data by listener subgroups (e.g. women associate tap-r with "spoiled"/"Valley-girl-type"; countryside migrants associate retroflex-r with "honest"/"generous").

Indexical fields were plotted using the "vegan" package (Oksanen et al 2013) in R, for the general data and listener subgroups. The spanning trees show that retroflex-r is consistently associated by all with "rednecks", "accented-speech" and "working-class", and tap-r with "Paulistano", "middle/upper-class" and "educated", while other terms are differently distributed across trees. But some of them cluster in ideologically-related meanings—e.g. "Valley-girl-type"- "annoying"- "spoiled"- "snobbish"—, though this cluster attaches to different nodes: "upper-class" for female listeners, and "femininity" for males. Since class is among the core meanings of (-r),

these different associations of the “Valley-girl”-cluster explain why “spoiled”/“Valley-girl-type” display significant correlations for females but not males. Thus the minimum distance trees represent the dynamic yet structured nature of indexical fields, and shed light on how to interpret and predict new orders of potential social meanings associated with linguistic variables.

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Spread of voicing assimilation in Northern Greek as a sociolinguistic variable

Panayiotis Pappas #112

A well-known sandhi phenomenon in Modern Greek is that when definite articles or object pronouns end in /n/, the initial consonant of the next noun or verb becomes voiced. For example /ton tixo/ (the wall) is pronounced [ton **d**ixo] (Holton et al 1999). A lesser known phenomenon is that in northern varieties of the language, this assimilation spreads to the initial consonant of the article or pronoun as well, so that the previous example is pronounced [**d**on **d**ixo]. This change is not mentioned in the major works on the Northern Greek dialects (Papadopoulos 1926, Newton 1972, Contossopoulos 1981).

I will present apparent time evidence from a rural community in Northern Greece that tracks the development of this variable over the past 70 years. The dataset of 960 tokens has been constructed from structured interviews with 36 speakers who were born between 1930 and 1995, both male and female. The 12 speakers who are older than 50 years old only have basic education (a few years of elementary school), and are for the most part subsistence farmers who may have also worked in menial jobs such as construction workers for the men and seamstresses for the women. The younger participants can be categorized into two levels of education: secondary only or at least two years of post-secondary schooling. In terms of occupation, they are mostly employed in the tourism industry. An important distinction, however, is that while 12 of these younger participants have not left the local community, the other 12 have lived in some of the nearby larger cities for at least 3 years, but have returned because of the recent economic crisis.

The tokens were collected and analyzed using Praat 5.2.17 (Boersma & Weenink 2012) and the data were quantitatively analyzed using Goldvarb X (Sankoff et al. 2012). The results of the analysis show that the rural, non-standard variant (voiced initial consonant) is being replaced by the standard variant (voiceless initial consonant) in apparent time. At the same time, the evidence suggests that the rural variant is used to index masculinity and loyalty to the local community, with local men using the rural variants the most, and returning women using them the least. Of particular interest are two cases of outliers among the older participants (one female, one male) who use the standard variant significantly more than others in their age group. As these two speakers had extensive contact with standard speakers through their summer employment in the tourism industry, they highlight the effect that accommodation can have on change over one's lifespan.

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Lo and behold! Diachronic constraints on the Italian masculine article *lo*

Lauren Perrotti #169

Like other Romance languages, Italian nouns are often preceded by an article that matches the noun in number and gender. When constructing a well-formed, masculine determiner phrase in Italian, the speaker has three allomorphs to choose from, *il*, *l'*, and *lo*. According to modern accounts (Harris & Vincent, 1988; Lepschy & Lepschy, 1981), the selection of an article is determined by the onset of the following word such that words beginning with /s/+consonant take *lo* (1), words beginning with vowels take *l'* (2), and all others take *il* (3) The present study is the first to focus specifically on the masculine singular definite article *lo* from a diachronic perspective.

(1) *lo spirito* 'the spirit'

[Dante Alighieri, *Commedia Divina*, c.a. 1300]

(2) *l'occhio* 'the eye'

(3) *il latte* 'the milk'

These constraints of *lo* appear to have changed and developed over the centuries, with the biggest leap toward modern distribution occurring between the years 1300 and 1600, when present-day effects were operative. The current study took a usage-based, diachronic approach to investigate the development of *lo* from a more broad usage in the time of Dante to the more constrained use of modern Italian.

To investigate change over time, six popular Italian texts provided the sources for analysis. The texts spanned over 700 years and provided 5,466 tokens of singular, masculine definite articles. By considering each text as representation of a time period, it becomes clear that the overall rate of *lo* decreases by more than a fifth over time as the lexical and phonetic constraints change (Figure 1).

A multivariate analysis determined four significant factor groups (Figure 2). Earlier texts from the 1300's and 1449 favor greater use of *lo* than the more modern texts. This is likely driven by the flexibility in the use of *lo* in those texts. It appeared consistently after the preposition *per* 'for', regardless of the following word's onset. At this same time, it appeared before vowel onset words, particularly /i/ onset words like *lo inferno* 'the inferno' (Alighieri, *Inferno*, Canto 1). Following word onset is a major factor in the selection of *lo* across time. Like modern day, /s/+consonant words greatly favor *lo* (factor weight .99), but in the earlier texts, *lo* appeared in all contexts to lesser degrees. Finally, *lo* seems to be favored by words that do not have initial stress, but this finding seems to be driven by the earlier texts that permitted *lo* to appear with /i/ onset words, all but one of which do not have first syllable stress.

Many prescriptive accounts have rested on rules governed by word onsets to be the sole determiners of definite article selection in Italian. It is only when we unearth the past and consider a variationist approach can we see how the use of this unique article has developed into its current form.

Figure 1: Overall percentage of distribution of Italian masculine, singular, definite articles across source texts

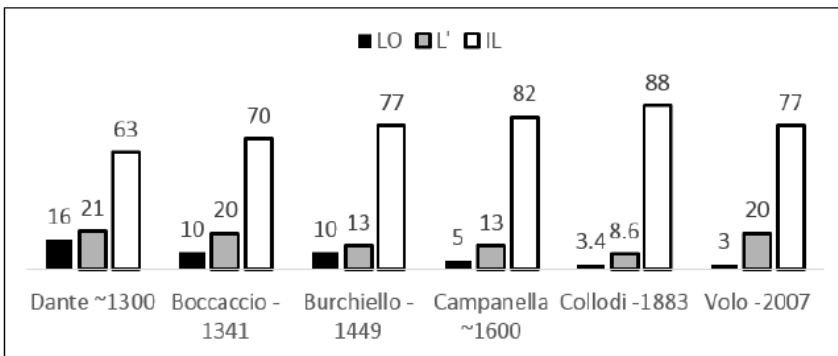


Table 1: Variable rule analyses of the factors selected as significant to the probability of the Italian article *lo* (N = 492)

Overall rate: 9.0%		Input = 0.033	
p < 0.000		Log likelihood = -799.942	
	Probability	% use of <i>lo</i>	% of Data
Text			
Dante ~1300	.78	16.2 (305/1882)	34.4
Burchiello -1449	.69	9.6 (37/387)	7.1
Boccaccio -1341	.60	9.9 (57/557)	10.6
Campanella ~1600	.32	5.0 (29/580)	10.6
Volo -2007	.27	3.0 (39/1297)	23.7
Collodi -1883	.17	3.4 (25/743)	13.6
Range	.61		
Preceding word			
Per "for"	.99	81.1 (159/196)	3.6
Any other word	.46	6.3 (333/5270)	96.4
Range	.53		
Following word onset			
/s/+C	.99	96.6 (168/174)	3.2
Other consonant clusters	.57	8.3 (23/276)	5.0
Fricatives	.51	8.2 (34/414)	7.6
Nasals	.49	6.7 (54/808)	14.8
Affricates	.46	5.4 (16/296)	5.4
Other consonants	.44	5.5 (137/2485)	45.5
Glides	.40	4.9 (3/61)	1.1
Vowels	.34	6.0 (57/952)	17.4
Range	.17		
Stress			
Not first syllable	.61	7.7 (136/1762)	32.2
First syllable	.45	9.6 (356/3704)	67.8
Range	.16		

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On the social meanings of palatalized /t/ and fronted /s/ among adolescent Copenhagen speakers

Nicolai Pharao #190

The aim of this paper is to examine the effect on speaker evaluations of palatalized /t/ [tʰ] alongside fronted /s/ [s+] in two different prosodic contexts of contemporary Copenhagen Danish. Both palatalized /t/ and fronted /s/ are sociolinguistic features that have different social meanings depending upon linguistic and social context. Previous research (Quist 2005, Maegaard 2007) has shed light on the indexical fields and social evaluations associated with fronted /s/, showing that in the language use of male adolescents it is only found among speakers with minority ethnic background, who use a speech register termed “street language”. However, the fronted /s/ has stereotypically been linked with gay speech, but connotations of gayness and femininity do not occur, when the fronted /s/ is presented to listeners in utterances that are characterized by the prosodic patterns that are distinct to “street language” (Author et al 2014). The present paper builds on that research by examining how fronted /s/ and palatalized /t/ interact with each other within the two prosodic frames known as modern Copenhagen speech and “street language”. This is achieved through a speaker evaluation experiment performed among 55 Copenhagen high school students, who evaluated four teenage males’ use of palatalized /t/ versus non-palatalized /t/ in combination with fronted /s/. The stimuli were carefully controlled using cross-splicing of spontaneously occurring tokens of the variable segments into recordings of spontaneous speech. The results show that neither the standard alveolar nor the new palatalized variant of /t/ is very salient when occurring in the “street language” context in combination with fronted /s/. Evaluations of speakers of modern Copenhagen, however, are heavily influenced by the presence of palatalized /t/ in terms of increasing the perceived toughness of the speakers and diminishing homosexual and feminine connotations, but only when the palatalized /t/ is not prefaced by a fronted /s/. When listeners have already heard a male adolescent speaker produce a fronted /s/, before they hear him utter a palatalized /t/, the pattern in the evaluations is the same as for a male speaker who uses alveolar /t/ and fronted /s/. This suggests that the activation of certain stereotypes through the occurrence of specific segmental variants can influence listeners’ interpretation of subsequently encountered variants. The study thus contributes to the growing body of research showing how variants of sociolinguistic variables are associated with multiple social meanings, and that specific meanings are made relevant partly as a result of the combination of linguistic variants in the context.

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The Voice Embodied: Bringing the Quantitative Analysis of Body Movement into the Study of Phonation

Robert Podesva, Patrick Callier, Rob Voigt and Katherine Hilton #293

Although scholars of gesture and bodily hexis have long recognized the centrality of the body in speech production (Bourdieu 1984, McNeill 1992, Kendon 1997, Mendoza-Denton and Jannedy 2011), variationists have not typically incorporated video data into sociolinguistic analysis. Significant hurdles have been the collection of high-quality audio-visual recordings and the large-scale quantification of body movement. This paper applies novel computer vision methodologies to an audio-visual corpus of dyadic interactions to investigate the effects of body movement on two phonation variables: fundamental frequency (F0) and creaky voice. Both variables show robust relationships with how speakers use their bodies.

Data are taken from a corpus of video-recorded dyadic interactions between friends that took place in a sound-attenuated laboratory staged like a living room. Each interactant wore a wireless directional microphone and was video-recorded with an inconspicuous camera positioned for a head-on shot. This paper investigates the speech of 20 lifelong Californians (10 female, 10 male) between 18 and 30 years old. Force-aligned audio recordings were analyzed acoustically via Praat script. The present analysis focuses on, for each vowel, median F0 and whether it was produced with creaky voice (determined automatically using Kane et al.'s 2013 neural network model). Video recordings were automatically annotated for how much speakers move their bodies (movement amplitude, based on frame-to-frame changes in pixel value) and the extent to which they smiled (automatically coded with a Haar cascade classifier trained on open source smile data). Data were fitted to a mixed-effects regression model for each variable (linear for F0, logistic for creaky voice), with a number of linguistic (e.g., phrase position, lexical stress, duration) and social factors (including movement amplitude and extent of smiling) as predictors.

Predictably, F0 levels are higher in stressed syllables and lower in longer phrases, and they decrease as phrases progress. F0 levels also positively correlate with movement amplitude during the phrase, as well as the percent of the phrase that was smiled; movement amplitude and smiling during individual vowels does not predict F0. These findings suggest that the affective stance conveyed by the body has scope over the entire phrase.

Creaky voice is more prevalent as phrases progress, at lower F0 levels, and among female speakers, as found in previous work (Yuasa 2010). Creaky voice also occurs more commonly on vowels produced in phrases exhibiting less body movement (and again movement amplitude during individual vowels is not a significant predictor). This finding resonates with claims that creaky voice creates distance between speakers and the discourse objects about which they are taking stances (Grivičić and Nilep 2004, Zimman 2014, Lee 2015); decreased body movement may indicate restricted engagement with the matter under discussion.

Importantly, movement amplitude and smiling more strongly predict both variables than many well established linguistic (stress, phrase duration) and social (sex) factors. To arrive at an adequate analysis of how these two variables pattern, variationists should examine the body as a

site of variation. We e x e m p l i f y two ways of doing so from a quantitative variationist perspective.

Insérez schwa : comment parler comme un Pape italien du quinzième siècle en français contemporain.

Francois Poire #79

Le doublage au Québec des films et des émissions de télévision de langue anglaise vient d'une volonté d'offrir au public local un référent culturel et linguistique auquel il peut s'identifier, ce que ne permettent pas les doublages produits en France. Une situation particulière se présente alors: les mêmes œuvres font l'objet d'un double doublage France-Québec, ce qui offre une occasion unique d'étudier un continuum dialectal et sociolectal de la langue française des dramatiques télévisuelles (productions pour publics locaux et productions doublement doublées dans différents genres). La langue des médias et dans les médias au Québec a surtout été étudiée dans ses aspects lexicaux et morphosyntaxiques (Bigot 2008), le plus souvent dans une perspective normative (Maurais, 2005), ou encore en termes de traductologie (Reinke & Ostiguy, 2012). Les rares études sur la prononciation tournent aussi sur la question de la norme en relevant par exemple la présence de formes vernaculaires (Reinke, 2005).

Notre hypothèse et objet de cette présentation est que le référent linguistique par défaut des doubleurs québécois demeure un français européen. Nous comparons les doublages français et québécois du personnage du Pape Alexandre de la série *The Borgias* (2012) dont l'histoire se déroule au XVI^{ème} siècle en Italie (aucun besoin d'un référent culturel et linguistique local). À titre de comparatif, un personnage (Charles Laplante, joué par le même comédien québécois doublant le personnage du pape Alexandre VI) d'une série québécoise pour public local (*Aveux*, 2010) est analysé. Une série française destinée au public local (*Les revenants*, 2012) est en cours de dépouillement. Nous retenons pour cette présentation le taux de réalisation du schwa et sa réalisation sur le plan F1 / F2.

Chaque voyelle est segmentée manuellement et codée selon le protocole PFC (Durand et al 2009) : schwa final, interne ou dans un clitique. Les valeurs des trois premiers formants sont extraites automatiquement à l'aide du script *Vowel Analyser* (Riebold, 2013).

90,91% des schwas de clitique sont réalisés dans la version doublée au Québec (91,31% dans la version française) contre seulement 36,88% pour la série locale québécoise. Les schwas internes sont réalisés à 79,05% pour le doublage québécois (69,32% en version française) contre 23,08% pour *Aveux*. Dans le cas du schwa final, on passe de 0% (*Aveux*) à 16,96% de réalisation pour la version québécoise (16,01% en version française). Ces valeurs vont dans le sens d'une prononciation à l'européenne dans la version doublée au Québec. L'analyse des deux premiers formants montrent une tendance à l'antériorisation du schwa : F2 du schwa interne passe de 1327,44 Hz (*Aveux*) à 1460,28 Hz (1439,70 Hz pour la version française); dans le cas des clitiques, on passe de 1457,90 Hz à 1508,50 Hz (1473,50 Hz en version européenne). On note aussi une moindre aperture (F1) dans les versions doublées. Ces résultats sont compatibles avec nos études antérieures (XXX & XXX, 2013) sur les comédiens québécois menant une carrière en France. Après analyse de *Les revenants*, les données seront normalisées et mises en perspectives dans le système vocalique complet des quatre sous-corpus.

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Using variability to measure grammaticalization: A pan-Romance study of the subjunctive

Shana Poplack, Rena Torres Cacoullos, Rosane De Andrade Berlinck, Salvatore Digesto, Nathalie Dion, Dora Lacasse and Jonathan Steuck #282

Recent work on language change has characterized language families in terms of the positioning of their daughters along the cline of grammaticalization. In Romance, French is widely considered most innovative vis-à-vis its Latin source, while Portuguese is claimed to be most conservative, with Italian and Spanish somewhere in the middle. We confront such characterizations with a cross-linguistic comparison of a key grammatical diagnostic: mood selection, i.e. the choice between Indicative and Subjunctive in embedded complement clauses. Quantitative analysis of over 6,000 tokens of subjunctive selecting-contexts (matrix verbs that governed at least one subjunctive in the data), extracted from corpora of spontaneous French (FR), Portuguese (PTG), Italian (IT) and Spanish (SP) speech, reveals apparently robust variability in each, as illustrated in (1)-(4).

- (1) *Je crois pas que ce soit_{SUBJ} la fin du monde.* (FR.060.195)
'I don't think that it would be the end of the world.'
Je crois pas que l'âge a_{IND} tant à faire que ça. (FR.003.189)
'I don't think that age has that much to do with it.'
- (2) *Eu acredito que vá_{SUBJ} sair.* (PTG.143.356)
'I believe that it will come out.'
Eu acredito que ele devia_{IND} ter em torno de setenta anos de idade. (PTG.99.148)
'I believe that he must be around seventy years old.'
- (3) *Credo che tutti lo sappiate_{SUBJ}.* (IT.438.218)
'I believe that everyone knows it.'
Credo che tutto ritorna_{IND}. (IT.511.264)
'I believe that everything comes back.'
- (4) *No creo que haya_{SUBJ} nadie aquí que no pague la renta.* (SP.073.668)
'I don't think there's anybody here who doesn't pay rent'
No creo que hay_{IND} que firmar. (SP.086.555)
'I don't think you have to sign'

We make use of the facts of such variability to assess the relative positions of these languages on the clines of desemanticization (and its obverse, lexicalization), and obligatorification (the extent to which a given linguistic context requires the subjunctive).

Results show that in none of the languages do semantic considerations constrain variant choice, nor does the subjunctive exhibit high productivity, contrary to grammarian and linguist idealizations. We therefore propose an alternative gauge of mood grammaticalization based on 1) the contribution of the governor (by independent measures of its associated rate, the proportion it represents of the entire governor pool, and how much subjunctive morphology it accounts for), 2) the dispersion of embedded verbs appearing in the subjunctive and 3) the criterion of ritualization— obligatoriness of the subjunctive in a small cohort of lexically-particular

formulas.

By these measures, all four languages turn out to be far removed from the putative source, though each is situated at a different stage. Italian and Spanish are most conservative, Portuguese less so, and French most advanced. Although the conditioning of the variability is instantiated somewhat differently in each of the languages, we show that they are all engaged in the same overriding process of lexicalization.

FILLING IN THE BLANKS: Oklahoma Vowels

Dennis Preston #265

Since the *Atlas of North American English* (ANAE) focuses on cities of 50,000 or more, it is important not just to fill in the blanks from missing rural areas but also to use such information to shed light on claims that have been made about major changes in American English. In the case of Oklahoma, only four ANAE respondents (two from Oklahoma City and two from Tulsa) were interviewed and their data made available.

The RODEO (Research on the Dialects of English in Oklahoma) Project has now recorded more than one hundred respondents and acquired and digitized fifty-five more recorded by William Van Riper in the 1960s in his survey that was a part of the larger Linguistic Atlas project (reported minimally in Atwood 1960). In addition, RODEO has access to hundreds of digitally recorded interviews from the Oklahoma Oral History Project of the Edmond Low Library at Oklahoma State University.

Much of this data has been normalized, coded for important demographic (age, sex, status, region) and stylistic categories, and analyzed. In general, the blanks in ANAE filled in by this process show a much more robust rural Southern state of affairs in the current Oklahoma vowel system than suggested in earlier research (e.g., Bailey and Tillery 2008), with the exception of higher status, younger, urban respondents (the only ones studied in ANAE). Although there is no doubt that there is some of the “mild stigma” (120) that Bailey and Tillery assign to Oklahoma awareness of their Southern influenced linguistic features, the collection of data from all regions of the State and from respondents of various social backgrounds does not show a massive retreat from Southerness.

These findings also suggest that peripheral areas (as suggested in Bartoli’s Second Law) may reveal some more conservative elements than are shown in the central areas of a dialect region and that the “Founder Principle” may be at work, supported by overwhelming evidence of the Southern sources of the earliest immigration to much of the State (e.g., Southard 1993:238). Even if those suggestions do not emerge from further study of these data, there is no reason to suspect that, except for a minority population in its largest urban areas, Oklahoma should be assigned to any other region than the South, as is suggested in both Bailey and Tillery (2008:120) and at least for half of the State in ANAE (e.g., Map 11.2, p. 1126).

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The slow spread of Chinese in Inner Mongolia: Using intergenerational data to track language shift

Sarala Puthuval #199

Methods for assessing language vitality typically distinguish between “safe” and “threatened” languages based on whether the number of speakers is stable or declining over time; see for example UNESCO’s 6-level scale (UNESCO, 2003) or Ethnologue’s 13-level scale (Lewis et al., 2015). The age distribution of speakers is also recognized to be important. For instance the Ethnologue scale, based on Fishman’s (1991) framework for assessing language status, draws distinctions between languages still being learned as L1 by children; languages spoken by adults of childbearing age but not being passed on to children; and languages spoken only by elders. Fishman (1991; 2001) particularly emphasized the importance of mother tongue transmission in the home for maintaining a minority language.

This study explores the possibilities of collecting language shift data about family groups instead of individuals, in order to more directly reflect what is fundamentally a cross-generational phenomenon. This approach is especially useful for observing relatively large speech communities undergoing gradual, multi-generational language shift. To demonstrate this point, the presentation will compare two analyses of the same dataset, one using a traditional apparent-time approach and one that incorporates family relationship data.

The data comes from surveys conducted in 2014 and 2015 among Mongolian speakers and ethnic Mongols in China’s Inner Mongolia Autonomous Region, where Mongols make up about 17% of the population (but do not necessarily speak Mongolian). Inner Mongolia exhibits great geographic variation in the degree of Sinitic linguistic influence. The onset of intensive Han Chinese settlement varies from the 1700s in some areas to the 1950s in others. Some subgroups of ethnic Mongols shifted entirely to Chinese a century ago, while others spoke Mongolian almost exclusively until the 1980s.

Language ability data is collected by self-report. Respondents are interviewed about their ability in Mongolian and Chinese; the abilities of their parents or other early-childhood caregivers; and their own exposure to Mongolian and Chinese during early childhood and subsequent schooling. “Mongolian” and “Chinese” are defined broadly, to include all Mongolic or Sinitic languages and dialects of the region. Individuals are classified as Mongolian-monolingual, Chinese-monolingual or bilingual.

The spread of Chinese is well attested in the data. A preliminary apparent-time analysis of a sample of 369 Mongolian-speaking individuals born between 1880 and 2007, comprising 112 primary interviewees and 257 caregivers, shows that bilingualism was common even in the early 20th century, but has now become the rule: a binomial logit regression model estimates a significant year-to-year increase in the probability of being bilingual, going for example from 0.42 for someone born in 1920, to 0.76 for 1960, and 0.93 for 2000. A larger sample including data from Chinese-monolingual individuals is being collected.

Compared with a simple apparent-time approach, an analysis that incorporates family relationships

reveals further patterns that cannot be recovered from individual data, including the stability of bilingualism across generations (64% of bilingual interviewees in the preliminary sample had bilingual mothers) and the potential contributing factors to language shift (e.g. language of schooling, grandparent caregivers, and urban vs. rural environments).

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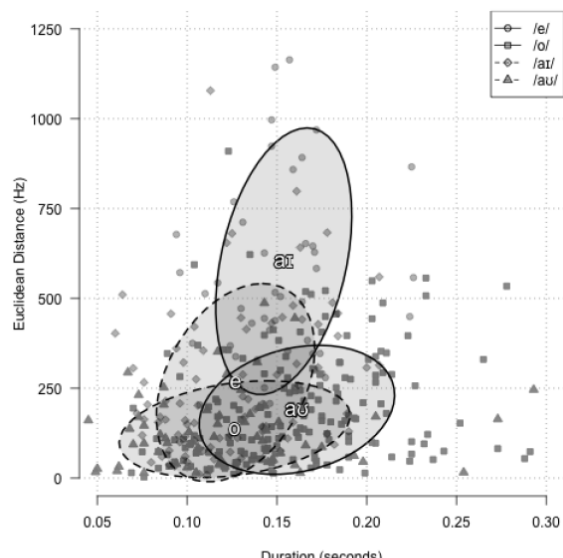
Monophthongal /o/ as a Lingering Substrate Effect in Michigan's Upper Peninsula English

Wil Rankinen and Aaron Albin #324

In most dialects of American English, /e/ and /o/ are often phonetically realized as [eɪ] and [oʊ], i.e., short upgliding diphthongs (Nearey, 2013, 51). However, the monophthongal variant of /o/ as [o], and not [oʊ], has been reported in the western areas of the Upper Midwest (Nguyen, 2011; Rose, 2006). These findings have been argued to be a substrate effect, since the speech communities in question have been heavily influenced by German, Swedish, and Norwegian, where /e/ and /o/ are typically realized as monophthongs (Allen, 1973). The ethnographic investigation of a rural town in Wisconsin by Rose (2006) revealed that the [oʊ] and [o] variants of /o/ were correlated with sex, occupation and education. Monophthongal /o/ was regarded as the default variant in the community used by men and those in professional occupations, whereas [oʊ] was only used by females. Motivated by principles of linguistic change (Labov, 2001), Rose argues this may indicate an incoming form from outside the community.

The present study seeks to determine if similar substrate effects can be found for a neighboring geographic region and other immigrant-heritage groups. The specific case-study under investigation is the American English variety spoken in Michigan's Upper Peninsula among Finnish- and Italian-heritage communities. Even in the speech of monolingual speakers, lingering substrate effects of Finnish and Italian can still be found (Remlinger, 2009). The phonemes /e/ and /o/ are found in both Finnish (Wiik, 1965) and Italian (Rogers and d'Arcangeli, 2012, 119) and are phonetically realized as monophthongs in both languages. Hence, it may be predicted that /e/ or /o/ may be monophthongized in these two immigrant-heritage communities as well.

To test this hypothesis, the present sociophonetic study draws on a corpus of 130 speakers of either Finnish- or Italian-heritage from Michigan's Marquette County, stratified by heritage-location, bilingualism, age, gender, and educational attainment. Figure 1 displays the relationship between each vowel's duration and the Euclidean distance from its nucleus to its off-glide (where points = individual tokens, ellipses = 95% confidence interval, and white labels = means). The /aɪ, aʊ/ vowels are also included for comparison's sake. In the figure, the distribution for /e/ is systematically shifted toward higher values of Euclidean distance relative to that of /o/. This finding suggests that the phoneme /e/ is realized as a diphthong whereas the phoneme /o/ is not.



Thus, the present study reproduces Rose's (2006) finding that /o/ is a monophthong in certain areas of the Upper Midwest (thereby confirming the hypothesis) but reveals that the same substrate effect is not true for /e/ in Michigan's Upper Peninsula English.

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It is just me being a good friend: Discursive Variation in Advice Framing Among European and Asian Americans.

Aisulu Raspayeva #109

This study focuses on the types of advice that emerge in response to a “problem talk” in interactions between friends. Specifically, it examines the variation in face-saving strategies (Brown & Levinson, 1987) employed in advice-giving instances among the dyads (the two participants who are close friends and are of the same ethnicity) from two cultural groups (European and Asian Americans) participating in the psychological lab experiment. This work is motivated by the lack of a comparative research on cultural subgroups other than European American. The data come from a larger NSF-sponsored interdisciplinary project. The participants were self-identified European, Asian, or African American residents of DC, Virginia, and Maryland areas, ranging in age from 18- to 25 years old. Prior to the test, they fulfilled the Current Problems Inventory (MacGeorge, 2009). The research team selected the most serious and least discussed problem for a further discussion and assigned the roles of advice giver and receiver. Problem discussions (approximately 15 minutes per dyad) were video- recorded and transcribed. For this analysis, the transcripts of 10 European and 10 Asian American dyads were randomly selected from the pool of 60 transcripts. The advice was operationalized as a recommended action for the advice receiver given within the limit of one utterance by the advice giver (MacGeorge, Feng, & Thompson, 2008). The coding system was derived after 3 coding rounds of 12 transcripts. It contains two parts: direct (an utterance with a pronoun you in the subject position) and indirect (an utterance with a pronoun I, it, that in the subject position) advices. Each part is further subdivided into 4 levels based on employed face-saving techniques. The direct advice has 4 levels starting from a verb as recommended action, you + deontic modal verbs, a rhetorical question/formula “if x, then y”, and you + circumstantial modal verbs. Respectively, 4 levels of the indirect advice includes “I think” clauses + recommended action, “if I were you” formula, an existential it/that + recommended action, and matching giver’s relevant experience. The results of coding were analyzed using Poisson regression with a cultural group as an independent variable and advice total instances and its levels as dependent variables. First, there was a statistical significance for Cultural_Group ($4.36e-06$ ***) regarding the TotalDirect_Advice with Asian American participants issuing more instances of advice. Next, there was a statistical significance for Cultural_Group regarding DirectAdvice_Level_1 (0.00801 **) and DirectAdvice_Level_2 (0.00801 **) with the Asian Americans outperforming the European counterparts. Finally, there was a slight statistical significance for Cultural_Group regarding TotalIndirect_Advice (0.0213 *) and IndirectAdvice_Level_1 (0.00371 **) with European Americans leading. The results of this preliminary analysis revealed linguistic variation between two cultural groups regarding their use of face-saving techniques in framing advice. In other words, there is a tendency among the Asian Americans to be more direct (and more face-threatening). This motivates more variation analysis regarding the concept of face and culture. In addition, the coding process itself revealed such methodological issue as refining the gradation of a coding system.

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Modeling social factors in language shift

Maya Ravindranath, Abigail Cohn and Thomas Pepinsky #312

The dialogue on language endangerment worldwide has largely focused on languages with small speaker populations (Bradley and Bradley 2002, Florey 2010, Krauss 1992). In this paper we expand our understanding of endangerment by taking a quantitative approach to examining language shift in communities with minority speaker populations in the millions. We argue for a methodological shift toward examining language shift scenarios more broadly and quantitatively for two main reasons: 1) it is becoming increasingly clear that a large speaker population does not protect against language shift (Anderbeck 2013); 2) we need to make a distinction between the symptoms and the causes of language shift, where factors such as a dwindling number of child speakers should be seen as symptoms of language shift that are caused by other factors (Himmelman 2010).

In this paper we use Indonesia as a case study and analyze a sample of the 2010 census. We treat language choice as a sociolinguistic variable following Gal (1978) and analyze the correlation between six social factors and language choice (local languages vs. the national language Indonesian).

Urbanization, education, and development index (an additive index of eight factors) are significant in our analysis, and the effects of these three factors are broadly consistent across the ten ethnic groups we consider. This has implications for the creation of a general typology of language shift scenarios, as it suggests the possibility of generalizing across communities.

Our findings with respect to age and the effect of parent's language on children's language (indicators of the success of intergenerational transmission) show that language shift away from the large local languages is indeed underway, a finding that has implications for how we characterize a language as endangered, since all of the languages we consider have at least one million speakers. Our comparison of different ethnolinguistic groups within Indonesia does show that size matters, however: in Indonesia at least, ethnolinguistic groups with smaller populations are more likely to use the national language, and in those groups the effect of having one parent who speaks the national language is stronger than in larger groups.

We do not find strong evidence of differential use of Indonesian by gender, and to the extent that we do, we do not find women leading in use of Indonesian, as we might expect given the findings of e.g. Smith-Hefner (2009). It seems likely that gender effects that have been found elsewhere are a result of gender differences in social network, access to education, and exposure to Indonesian in particular communities. Our results underscore the fact that gender patterns are more likely to be reflective of differences in other aspects of social life (cf. Eckert and McConnell-Ginet 2013). Similarly, we find that the effect of religion is not the same across groups but rather depends on whether the religion is that ethnic group's majority religion, with minority religious groups more likely to speak the dominant language.

These results provide a starting point for creating more comprehensive models of the sociolinguistics of language shift.

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Regional Differences in Pre-Service Teachers' Responses to Critical Language Pedagogies

Jeffrey Reaser, Jessica Hatcher, Jeanne Bissonnette and Amanda Godley #228

Studies have found that teachers hold sociolinguistic myths including the notion that dialects are unpatterned and that vernacular speakers lack academic potential (Cross, et al., 2001; Blake & Cutler, 2003; Author, 2007; Dyson & Smitherman, 2009). These findings suggest sociolinguistic knowledge continues to be underrepresented in teacher education programs, despite decade-long calls from scholars and English Language Arts (ELA) organizations for teachers to be equipped with sociolinguistically informed content knowledge (CCCC/NCTE, 1974; Delpit, 1988; Author, 2006).

However, a recent study found that current PSTs may be better informed than previous generations (Author, 2014). Rather than being conclusive, the study calls for additional work to reassess PSTs' linguistic knowledge and examine what factors correlate with different sociolinguistic perspectives. This paper examines one such factor: the role that geographical regional plays in what American PSTs know about and how they respond to information about sociolinguistics and related critical pedagogies.

In an effort to equip teachers with research-based language-related pedagogies which help them to better meet the literacy needs of diverse students, we created a four-week, online "mini-course" on language variation. The course drew from research on Critical Language Pedagogy (Author, 2008), an approach that guides students to critically examine and challenge the ideologies surrounding language, dialects, and power. It promoted four foundational sociolinguistic principles: (1) English dialects are equally valid and grammatical, (2) language varies systematically in different contexts and communities, (3) language use reflects identity, and (4) language is often the basis for judgments about people. The course was piloted at a number of universities across the United States in 2014.

This paper examines data from three public American universities: two Southern and one Midwestern to begin to assess how regional differences affect PSTs' knowledge and development of sociolinguistic perspectives on linguistic diversity. Specifically, we examine how being Southern shapes language ideologies in PSTs' online discussions of sociolinguistic content knowledge and pedagogy, including teaching writing and literature.

The data consists of 548 online discussion board postings. We examine the data from a variety of angles, including applying Haviland's (2008) taxonomy of discourse strategies for maintaining white power and being evasive in recognizing whiteness as powerful. The posts were also coded for the presence of implicit and explicit commentary on how regional identity shapes how a PST imagines responding to social and regional dialects for both authentic and literary dialect.

We find that Southern PSTs employ fewer "white talk" discourse strategies than their non-Southern peers (Haviland, 2008). Further, Southern PSTs are more willing to engage authentic dialect. These findings suggest that Southern PSTs are more comfortable (or at least more used to) discussing stigmatized dialects; Southern PSTs' greater exposure to diverse and stigmatized dialects may also have better equipped them to positively-frame discussions of authentic dialect. However, Southern

identity simultaneously results in pride and shame as PSTs negotiate tensions between embracing and using their regional dialect while also experiencing pressure to conform to standardized English norms in teaching.

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Place and Language: A Flexible Metric for Rootedness

Paul Reed #261

The relationship of place to language has been recognized since Labov (1963), where speakers' feelings about Martha's Vineyard were crucial in understanding vowel centralization. Since then, many studies have incorporated place (e.g. Bailey et al. 1993; Johnstone et al. 2006; Dodsworth 2008; Johnstone & Kiesling 2008; Hall-Lew 2009). However, the use of differing methodologies and measures makes comparison and contrast of the importance of place across different communities and social contexts problematic, and drawing overarching conclusions challenging. To resolve this, I present a way to quantitatively measure place-attachment using a Rootedness Metric (RM) that is both adaptable and comparable, permitting more nuanced understandings of place and language.

For many years, linguistic investigation in rural areas, such as Appalachia, has found that traditional sociolinguistic categorization failed to completely explain the variation present. Metrics created primarily for urban areas, such as SES (Labov, 1966) or social network (Milroy & Milroy, 1985), were ill-suited for these communities. Recognizing these difficulties and the importance of regional and local affinity in Appalachia (Jones, 1994), I adapted the RM from sociological place-attachment surveys (see e.g., Williams & Vaske, 2003; Williams, 2004). Using the RM, I found that variation of both intonation and monophthongization was better accounted for once rootedness was incorporated into analysis. Other scholars have recognized similar difficulties in communities with strong regional and/or local identities (Schoux-Casey 2013 and Carmichael 2014 for New Orleans; Haddican et al. 2013 for York, England); thus I propose that the complex relationship of place to identity in these communities and others could be explored and compared using the RM.

The RM measures the strength and breadth of participants' allegiance to a place using three question types. First, based on ethnographic knowledge and/or observation, the 'adherence' portion poses locally-relevant questions about membership in and devotion toward local groups, communities and geopolitical entities. Each membership is scored a 1. Additionally, the participants are asked to rank on a numerical scale how closely local, regional, and broader labels fit their own self-identification; each answer receives its rank score. Second, Likert-type scales of attachment to locally significant social activities and organizations are included. Third, open-ended questions about feelings toward the local area, labels for self, etc., permit a nuanced picture of the individual's rootedness. Positive, neutral, and negative responses of place-affiliation are scored +1, 0, and -1 respectively, following work by Haddican et al. (2013). This combined score (adherence, Likert, open) is the RM, which can now be included in analysis.

The strength of the RM is flexibility because it accurately measures local ties while remaining able to compare different communities. Each community can be approached on its own locally-relevant terms. Local, regional, and supraregional ties can be compared, even if the groups/entities have different labels. Rural regions may have close county level ties, while urban areas may have neighborhood ties. With the RM, these can now be compared, recognizing how place helps construct a linguistic individual.

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Pre-Velar Raising in the Northwest: Language Change and Reanalysis

John Riebold #376

'Pre-velar raising' is the raising and fronting of the /æɪ, eɪ/ wordclasses (e.g. "bag", "beg"), and the associated lowering of the /eɪ/ wordclass (e.g. "pagan") (Wassink, 2015; Wassink et al., 2009). Studies of pre-velar raising in the Northwest (Oregon, Washington, Idaho) have found that middle-aged and younger speakers produce a near-merger between /Eɪ, eɪ/, with variable raising of /æɪ/ (Freeman, 2014; Riebold, 2014; Wassink, 2015). Interestingly, middle-aged speakers appear to be the most advanced (Freeman, 2014; Riebold, 2014), however, until recently it was not clear why this should be the case.

This study is a sociophonetic analysis of pre-velar raising leveraging all five ethnic subsamples of the Pacific Northwest English Study corpus, along with several innovative analytical techniques. The corpus is comprised of 71 Washingtonians from five ethnic groups known to have a long history in the region: African Americans, Caucasians, Japanese Americans, Mexican Americans, and the Yakama Nation. Together with vowel plots, VOIS3D software is used to assess vowel overlap in three dimensions (F1 x F2 x duration) (Wassink, 2006), Smoothing Spline ANOVAs are used to plot formant trajectories (Gu, 2002; Wassink & Koops, 2013), and linear regression is used to test sociolinguistic variables against composite measures of raising/fronting and trajectory shape.

Graphical and statistical results show that although middle-aged speakers do indeed lead in the fronting and raising of /æɪ, Eɪ/, the youngest speakers' non-pre-velar wordclasses have shifted and monophthongized, leading to separation between pre-velar and non-pre-velar wordclasses at all timepoints. This suggests that younger speakers have reanalyzed the wordclasses as being separate, creating a phonological split with the resulting system contrasting /æ/, /æɪ/, /E/, /Eɪ~eɪ/, and /e/. The results of this study contribute to the growing body of literature on pre-velar raising in the Northwest, and resolve an issue that has puzzled researchers in the area, while making important predictions about the future of the Northwest English front vowel space.

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A third third dialect of English: Vowel patterns in Vermont

Julie Roberts, Sarah Belevance, Aidan Holding, Julia Moreno, Nicholas Chappel, Rebecca Wheeler and Jessica Suriano #81

As most variationists are well aware, the Third Dialect of North American English (Labov 1991) is characterized by a low back merger, a stable short a, and a general lack of a major vowel shift. Fronting of tense back vowels /o/ and /u/ may also be present. Two of the arguably most well known responses to this proposal, stating that vowel shifts can occur in LBM varieties, have been the work on the Canadian Shift (Clarke, Elms and Youssef 1995) and the California Shift (Kennedy and Grama 2012). These researchers have reported similar, but not identical, vowel patterns: Both varieties are characterized by a lowered /ɪ/ and /ɛ/ and fronting of /o/ and /u/. The Canadian Shift alone features a retracted /æ/. In other words, it is the movement of the front, short vowels, albeit differently, that provides support for chain shifting within Third Dialect varieties and, in the Canadian Shift, forms an exception to the generalization of a stable short a being a primary characteristic of Third Dialects.

The current study seeks to explore these features in another example of a Third Dialect: that found in Vermont. 19 undergraduate students, all native Vermonters, were recorded reading a 220-word list. The 4180 tokens were then analyzed using Praat (Boersma and Weenick 2014), FAVE (Rosenfelder, Fruehwald, Evanini, and Jiahong 2011), and NORM (Thomas and Kendall 2007), and t-tests were applied to the F1 and F2 measurements, and the ANAE (Labov, Ash, and Boberg 2005) guidelines for vowel placement were utilized. The results revealed that all speakers had a low back merger, the first characteristic of a third dialect. Further, these speakers also showed a stable short a (nasal system) with no evidence of retraction, as found in California, but not Canada. Most strikingly, however, was the lack of evidence of /ɪ/ or /ɛ/ lowering, unlike both of the other varieties. For 18 of 19 speakers, /ɛ/ was merged with the nucleus of /e/ (but lacked the glide found in /e/). Finally, Vermonters showed fronting of both /u/ and /o/ with /o/-fronting trailing that of /u/.

These findings from middle-class young adults support previous reports that there are variations within the Third Dialect, primarily involving the front and front short vowels. Future research includes determining whether it is a movement of /e/ or /ɛ/ that has precipitated the partial merger. In either case, however, Vermonters demonstrate neither front lax vowel stability (Third Dialect) nor the predicted falling of these vowels (Canadian and Californian Shifts). General implications based on this small study are difficult, but the current study, previous studies, and the geographical diffusion of dialects with the LBM suggest that the Third Dialect is more likely an umbrella term for a constellation of varieties and that the LBM itself does not disfavor the shifts and mergers found in other, non-LBM dialects.

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Sociolinguistics in an alien language: A laboratory simulation of linguistic behavior in a South Philadelphia neighborhood

Gareth Roberts and Betsy Sneller #160

Many studies have shown speakers' linguistic behavior shifting to match groups they feel positively affiliated with (e.g., Eckert 2000, Moore 2003). While it is well recognized that such shifts do not always involve positive affiliation, and may be the result of frequency of interaction alone (Labov 2001, 506), it is less expected for appropriation of linguistic variants to be associated with negative attitudes. Such a situation was recorded in a Philadelphia neighborhood (*Author citation*).

Interviews conducted in 2012–2013 with white residents of Grays Ferry, a low-income neighborhood in Philadelphia with a high degree of racial segregation and a history of racial tension, found white speakers exhibiting TH-fronting. TH-fronting is a feature of African-American English, but not of white Philadelphian English. Surprisingly, higher rates of TH-fronting were found in speakers who expressed aggressive negative views about their African-American neighbors. The author hypothesized that appropriation of TH-fronting by these speakers was due to an association with toughness and “street” (Anderson 1999) culture rather than African-American identity.

While this hypothesis is compatible with the data, it is hard to test. Case studies are hard to replicate, and the variables involved hard—not to mention unethical—to manipulate. Over the last decade, however, experimental methods have been developed that allow language change to be modeled in the laboratory (for a review, see *Author citation*). In particular, [*Author citation*] used an innovative artificial-language paradigm to investigate new-dialect emergence.

Here we present an experimental study in this paradigm. Teams of participants played a computer game in which each player was assigned to one of two alien species, one of which (the Burl species) was depicted as tougher than the other (the Wiwo species). Players first learned an artificial “alien language”, consisting of twelve made-up words, which differed slightly for Burls and Wivos (e.g., *fuzuki* vs. *buzuki*). Then they played a series of rounds in which they were paired with each other and could chat (by typing messages in the alien language), trade resources and fight. There were two conditions. In the *Burl Talk* condition, Wivos were shown alternative forms for some words, and told that these forms tended to be used by Burls. In the *Tough Talk* condition Wivos were shown (the same) alternative forms and told that these tended to be used by tougher aliens. The conditions did not differ in any other way. (In both conditions, the alternative forms were the only forms taught to Burls.) Consistent with the hypothesis, Wivos appropriated the Burl forms more in the Tough Talk condition than the Burl Talk condition.

These results support the original hypothesis by (*Author citation*). Furthermore, they demonstrate the usefulness of this experimental paradigm to test hypotheses about language contact and change that are not feasible or ethical to test in natural data.

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Contact-induced Differential Object Marking in Basque: different bilinguals, different processes of influence

Itxaso Rodríguez-Ordóñez #274

In the language-contact literature, numerous studies have investigated the influence of one language into another, providing descriptive analyses on outcomes that are products of contact-induced influences (Thomason, 2001; Aikhenvald, 2002; Meyerhoff, 2009; Poplack & Levey, 2010). Relatively little research has been conducted, however, on the *process* by which syntactic features are integrated into the minority language (Heine & Kuteva, 2010), or on *how* linguistic attitudes can affect those processes in linguistic scenarios of intense contact. Starting from studies that characterize Basque *Differential Object Marking* (DOM) (1a-b) as the product of intense contact with Basque-Spanish *leísmo* (2a-b) (Austin, 2006; Fernández & Rezac, 2013; Odria, 2014) and as a stigmatized feature (Rodríguez-Ordóñez, 2013) due to language planning efforts for Basque purism, the present study follows a usage-based approach to explore the process of influence by which Basque DOM has emerged in the speech of different Basque- Spanish bilinguals.

Building upon methodologies in SLA and sociolinguistics, 70 different Basque-Spanish bilinguals and a control group of 19 Basque-French bilinguals participated in a) an elicited production task (EPT) containing 30 target verbs, b) oral interviews (Labov, 2001) both in Basque and Spanish (or French) and c) a matched-guise experiment to retrieve attitudes towards Basque DOM. Speakers were stratified according to BILINGUAL TYPE (native bilinguals, early sequential bilinguals and L2 Basque speakers). 60 hours of spontaneous speech in Basque and Spanish/French were transcribed and coded for ANIMACY, SPECIFICITY, PERSON, NUMBER, NULL OBJECTS and BORROWED VERBS into Basque. An analysis of variance and multiple mixed-effects models (with random-effects) were performed in R.

The EPT results show that Basque DOM is not present neither among Basque-Spanish nor Basque-French bilinguals, conforming to prescriptive rules of Standard Basque. However, preliminary results of spontaneous speech show that Basque DOM is only found among Basque- Spanish bilinguals supporting the hypothesis that Basque DOM is an effect of Spanish contact. More importantly, quantitative and qualitative differences are found according to BILINGUAL TYPE: L2 speakers rarely produce Basque DOM, showing only an interaction between animacy and specificity, as shown for Basque-Spanish *leísmo* (Ormazábal & Romero, 2013). In contrast, native speakers of Basque produced significantly more Basque DOM, also affected both by animacy and specificity, but include borrowed verbs from Spanish and when the object is null.

The matched-guise results show that while Basque DOM is stigmatized among Basque-Spanish bilinguals, it is not among French-Basque bilinguals.

Based on these results, it is argued that while the emergence of Basque DOM in L2 speech is an example of direct transfer or polysemy copying, its emergence in native speech is a case of *replica gramaticalization* (Heine & Kuteva, 2010) from Spanish. Furthermore, it is argued that these two processes, although different, both lead to convergence between Basque DOM and Spanish *leísmo* (Matras, 2010). Finally, linguistic attitudes are discussed as playing an important role in the processes by which contact phenomena emerge, advocating for the study of language attitudes as an

integrated part of a theory of contact-linguistics.

EXAMPLES: DIFFERENTIAL OBJECT MARKING (DOM) IN BASQUE AND SPANISH

Standard Basque (canonical – non-DOM)

(1a)	Ni-k	Mikel- \emptyset	ikusi	d-u-t
	I-ERG.I	Mikel-ABS	see	ABS.3sg-have-ERG.I
	'I have seen Mikel'			

Standard Basque (innovative DOM)

(1b)	Ni-k	Mikel- eri	ikusi	d-i- o -t
	I-ERG.I	Mikel- DAT	see	ABS.3sg-have- DAT.3sg -ERG.I
	'I have seen Mikel'			

Standard Spanish

(2a)	<i>lo</i>	<i>he</i>	<i>visto</i>	<i>(a Mikel)</i>
	ACC.3sg	have-I	see-PART	DOM Mikel
	'I have seen Mikel'			

Basque-Spanish *leísmo*:

(2b)	<i>le</i>	<i>he</i>	<i>visto</i>	<i>(a Mikel)</i>
	DAT.3sg	have-I	see-PART	DOM Mikel
	'I have seen Mikel'			

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There's a New Ethnolect in Town: Vowel Patterning of Filipino English in Winnipeg

Nicole Rosen, Sky Onosson and Lanlan Li #53

Ethnicity, although a robust variable in the study of variation in American English, has only in recent years begun to be investigated as a factor in variation in Canadian English, where its role remains less clear. Boberg (2004) finds ethnophonetic variation in Montreal English, explained by the minority status of English and the social and geographic segregation of ethnic groups. Hoffman & Walker (2010), on the other hand, find that features of language transfer do not persist past the first generation, and that evidence of ethnicity as a factor in variation is somewhat sporadic. It is in this vein that we investigate the heritage Filipino population in Winnipeg, Canada, an important yet previously unstudied group in the city.

The first wave of Filipino immigration into Winnipeg began in the late 1950s when primarily medical professionals arrived in Manitoba from the Philippines. A second wave consisted primarily of garment industry workers in the 1970s, and there has been a steady flow since. Filipino-Canadians today make up 9% of the overall Winnipeg population (Statistics Canada 2013), and are the most important visible minority in Winnipeg. The population is furthermore geographically concentrated in the West of the city, with strong familial, religious and community ties, and occupies a prominent position within Winnipeg. The combination of a distinctive social situation and possible first-generation language transfer effects (Hoffman & Walker 2010) suggests that we might expect some particular linguistic variation in this emerging identity.

The data come from a wordlist corpus of Winnipeg speech collected in 2014-2015. The corpus is controlled for age and location (all speakers born between 1975-1995 in Winnipeg), and stratified by gender and ethnicity, with 14 Filipino and 14 non-Filipino speakers, all speaking English as a first language. The vowel formants were extracted using a combination of hand-alignment and FAVE (Rosenfelder et al. 2011). A total of 3248 vowels were analyzed using mixed effects modeling in R (R Core Team 2015).

Fixed effects tested include *ethnicity, gender, age, following segment, preceding segment* and *stress*, while random effects include *lexical item* and *speaker*.

Statistical models reveal that ethnicity is a strongly significant factor across a number of dimensions within the dataset. First, ethnicity is the most important predictor of vowel duration, where Filipino Winnipeggers have significantly shorter vowels across the board (see Figure 1). Furthermore, ethnicity is a significant predictor of variability in the Canadian Shift vowels /ɪ/ and /ɛ/, where the Filipino vowels are significantly lower and more retracted. What is more, the non-short vowels /iy/ and /ey/ are also significantly retracted and lowered (see Figure 2). Note that in these cases, the Filipino Winnipeg vowels appear to be consistently further along in the Canadian Shift, although these results are also consistent with the possibility that language transfer effects seen in first generation Canadians are at work here. In this presentation, interactions between participation in phonetic change in progress and language transfer effects will be discussed, as well as the the social and linguistic dimensions of these ethnophonetic differences.

Figure 1 Vowel Duration by Ethnicity

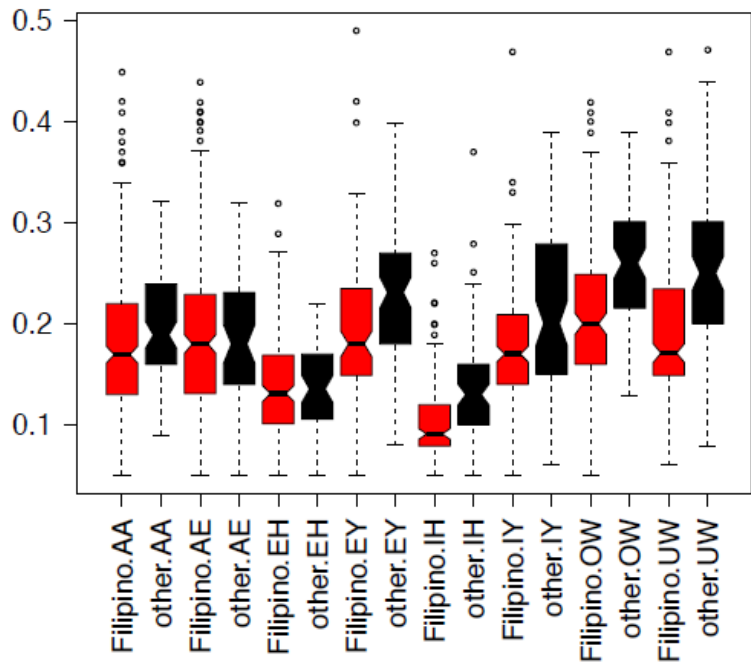
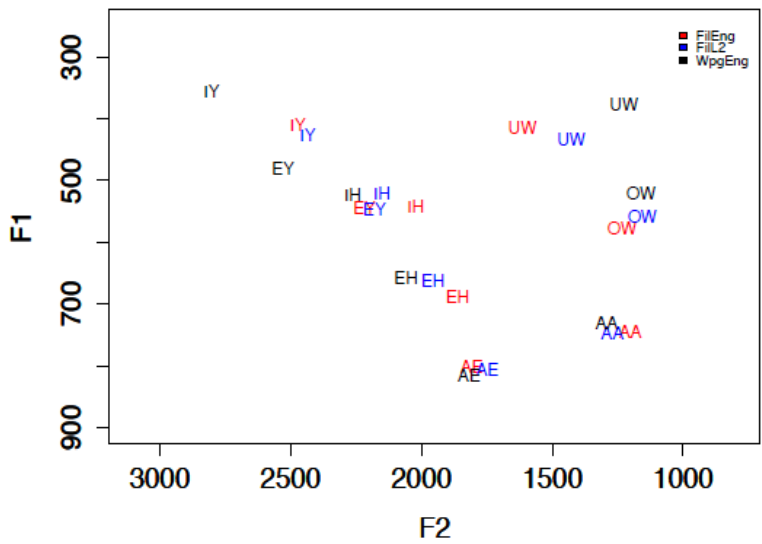


Figure 2 Vowels by Ethnicity and First Language



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Bilingualism effects in Subject Pronoun Expression: Evidence from Basque and Spanish

Lorena Sainzmaza-Lecanda and Itxaso Rodriguez-Ordoñez #36

The study of variable subject pronoun expression (SPE) in the Hispanic Linguistics tradition has rendered increasing attention to the effects of bilingualism and language contact (e.g. Flores-Ferrán 2004, Otheguy & Zentella 2012, Travis & Torres Cacoullos, 2011, Carvalho, Orozco & Shin, 2015). Whereas most scholars have focused on the influence of English on Spanish SPE, very little is known about the outcomes of contact between languages that are both pro-drop. Inspired by Sorace's (2011) *Interface Hypothesis*, which suggests that structures involving an interface between syntax and other domains (e.g. null-subject parameter) are more prone to simplification, Michnowicz (2015) found that Maya-Spanish bilinguals produce significantly more overt pronouns than monolingual speakers do and likewise simplify their constraint system. Nevertheless, such results have not been replicated neither among Spanish-Catalan bilinguals (Prada Pérez, 2015) nor Spanish-Portuguese bilinguals (Carvalho & Bessett, 2015). With the goal of contributing to this debate, we present a comprehensive quantitative examination of variable SPE in Basque among speakers of Basque in contact with Spanish, two null-subject languages.

This study analyses the spontaneous speech of 25 Basque-Spanish bilinguals, stratified according to BILINGUAL TYPE (6 Basque natives, 6 early-sequential-bilinguals, 6 advanced learners and 7 intermediate learners) and DIALECT TYPE (rural vs. urban). Over 2,100 tokens have been extracted and coded for PERSON & NUMBER, PRIMING, SWITCH REFERENCE, VERB SEMANTICS and TENSE. Data was analyzed using mixed effects models in *R* (R Development Core Team, 2008) and further submitted to hierarchical analysis of linguistic constraints.

Results show a main effect of BILINGUAL TYPE, indicating that Basque-Spanish bilinguals do not constitute one homogeneous group. Regarding overall frequencies, the data indicate a gradual decrease of overt SPE as Basque proficiency increases (intermediate 22.5% vs. native 11.8%). Additionally, separate analyses for each bilingual group reveal that SPE in Basque is conditioned by different constraints within each group. On the one hand, SPE is conditioned by PERSON/NUMBER, SWITCH REFERENCE and VERB SEMANTICS among native Basque bilinguals and early sequential bilinguals. On the other hand, advanced and intermediate learners feature a main effect of PRIMING in addition to all three aforementioned factors. SWITCH REFERENCE and VERB SEMANTICS behave uniformly across groups, but PERSON/NUMBER does not: 3rd Basque plural subjects favor overt pronouns among native bilinguals, but they do not among intermediate learners.

Constituting the first variationist study of SPE in Basque, results show a divergent behavior between highly proficient and low proficient speakers of Basque. In line with Sorace's prediction, less proficient Basque speakers use more overt subjects than highly proficient ones, suggesting possible processing alleviating effects. Yet, we argue that rather than simplifying their constraint system, non-native speakers of Basque transfer their Spanish pragmatic constraints into their Basque, producing a creative system not found among native speakers of Basque, and slowly separate their system along their developmental process.

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Thai men who identify with non-normative male roles and their choice of self-reference terms

Pavadee Saisuwan #217

The study investigates the construction and presentation of gender identity among men who identify with non-normative male roles in Thailand, including both gay men and *kathoey* - male-to-female transgenders (e.g. Jackson 1997 and 2004, Winter 2006a and 2006b). Gay men and *kathoey* are considered belonging to the “third sex/gender” and marginalised from normative conceptualisations of gender and sexuality in Thailand. The goal of the study is to identify how Thai non-normative men use language to position themselves within the Thai sex/gender inventory and to describe how language participates more broadly in the indexation of gender identity.

Data are drawn from the eight months of ethnographic fieldwork in Bangkok. During this time, 14 participants were observed and recorded in a variety of interactional contexts, including individual sociolinguistic interviews and unstructured casual encounters with friends and work colleagues. Here I focus on self-reference terms in Thai, a highly articulated system consisting of pronouns, kin terms, names, occupational titles and zero self-referencing. Thai gay men and *kathoey* are stereotypically associated with femininity. They are believed, in both academic research (Winter 2003) and anecdotal accounts, to be using feminine linguistic forms consistently. The analysis reveals that that is not the case for self-referencing. Zero self-referencing accounts for 45.96% of all 2807 tokens of self-reference terms. Its large amount of use agrees with previous literature arguing for the pervasiveness of pro-drop in Thai (e.g. Intratat 2003, Phimsawat 2011), although it can be interpreted as sociolinguistically marked for certain participants indicating the avoidance of social identification (Chirasombutti & Diller 1999). Pronouns are the most frequently used overt self-reference terms covering 68.89% of 1517 overt forms. Epicene pronouns are used significantly more frequently than feminine pronouns ($\chi^2=9.85$, $p<0.002$) due to their wider range of use and meaning. The analysis shows that the participants do not use either feminine or masculine forms regularly in every situation. Gendered forms of self-reference terms are used, and expected to be used, only in certain situations depending on the formality of the situation, the intimacy and the power, especially that caused by the relative age, between interlocutors. Self-reference terms are used by the participants both to construct gender and avoid presenting gender. For example, the feminine pronoun *nu* is used by some participants to show their identification with femininity while names are chosen instead by some other participants in the same situation. Thai gay men and *kathoey* make use of self-reference terms for gender purposes but not so straightforwardly that they always use feminine forms in every situation as generally perceived to be the case.

The findings are significant as they show that although gender is one of the social factors determining the self-referencing choice, it is not more important than other factors. Like other Thai speakers, Thai gay men and *kathoey* have to consider several social factors to choose appropriate self-reference terms, which are one of the linguistic tools available for their gender construction and presentation.

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Attitudes, Generations, and Varieties of Kriol in Postcolonial Belize

William Salmon and Jennifer Gómez Menjívar #234

In the Central American-Caribbean country of Belize, the question of language attitudes is an exceedingly complex one, which grows out of an exceedingly complex interaction of national and ethnic histories. The official language of postcolonial Belize is English, but the everyday language of the country is *Kriol*—an English-lexified creole originating with the Afro-European descendants of slaves in the 18th and 19th centuries. Belize gained its independence from Great Britain three decades ago in 1981. Since independence, and the subsequent shift away from British language and traditions, the Kriol language has risen to prominence as a marker of a true, postcolonial Belizean identity. This picture is complicated, though, by the existence of regional variation of the Kriol, which is the topic of this present study.

We investigated attitudes toward Kriol among two age groups: i.e. those born into the English colony prior to independence (35-60 age group), and those who were born subsequently and who have only ever known an independent Belize (18-34 age group). Within these groups we tested attitudes toward two regional varieties of Kriol as spoken in Belize City and Punta Gorda. We employed a verbal-guise test with 131 participants, which were closely divided by city, age, and gender, and collected both quantitative and qualitative data for each participant. Attitudes were assessed using a semantic differential survey, evaluating 15 individual personal attributes, such as *attractive, educated, eloquent*, etc. These individual traits were then combined into the two summative groups, *status* and *solidarity*, which form the basis for our results and statistical analyses.

We relied upon one-way ANOVAs to test for significant differences between each grouping of language variety and age group. In general, we find a stronger preference for BC Kriol than PG Kriol among all groups. We attribute this to the fact that BC Kriol is considered to be the more traditional variety (S&GM, Forthcoming), and that this tradition translates into status and prestige at a time when the newly independent country is faced with fashioning a postcolonial identity. Interestingly, however, we see a stronger preference for BC Kriol in *status* among the 35-60 group than the 18-34 group, which marks a clear difference between the two generations. We interpret this as evidence of a broader national identity among the younger postcolonial group, which recognizes the more traditional BC Kriol as higher status, but which also recognizes the less prestigious PG Kriol as still representative of the contemporary Belizean identity. This latter observation is especially interesting now, as the waning influence of colonial English has been overshadowed by large-scale immigration from neighboring Spanish-speaking countries. Amid these tensions, as S&GM and others have argued, it is the Kriol language that has emerged among Belizean and immigrant alike as a symbol of Belizean identity.

There has been little previous work on language attitudes toward regional variation of Belizean Kriol. S&GM is the first such attempt, though it makes no mention of generational differences and so leaves much room to be explored in the present paper and future research.

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Grammatical code-blending in Australian Sign Language (Auslan)

Adam Schembri, Trevor Johnston and Jane Van Roekel #134

In this paper, we will discuss a unique type of language contact: *code-blending* in sign languages involves aspects of a signed and a spoken language being combined simultaneously, and is thus distinct from sequential code-switching and code-mixing which may occur in both signed and spoken language contact situations. Specifically, code-blending refers to lexical items from a spoken language being silently mouthed during the production of signs from a signed language. This phenomenon has been explored for a number of sign languages (Boyes-Braem & Sutton-Spence, 2001; Nadolske & Rosenstock, 2007), but there is a little agreement about its role. Some researchers suggest that at least some mouthings ought to be considered part of the lexical entry for the co-occurring sign (e.g., Boyes-Braem, 2001), while Ebbinghaus & Hessman (2001) argue mouthings are instead independently meaningful. Recent experimental research, however, provides evidence for the code-blend analysis, as mismatches between the production of mouthing and signs in British Sign Language suggest that they have separate mental representations which are accessed independently of each other (Vinson et al., 2010). In a recent study of mouth actions of a dataset of 17,002 signs produced by 38 deaf signers from the Australian Sign Language (Auslan) corpus, we found that 57% of all signs were accompanied by the mouthing of English words. Although frequent, the use of mouthing varies considerably between individual signers, with rates of mouthing varying from a low of 5% to a high of 82%. In an Rbrul analysis of this dataset, however, we found that none of the social factors we coded for (signer's sex, age, region, and age of sign language acquisition) predicted the use of mouthing, but linguistic factors, such as grammatical class, were significant. For example, some grammatical classes (such as nouns, prepositions, adjectives, and conjunctions) favoured the use of mouthing, while others (such as verbs and pronouns) disfavoured mouthing. In a follow-up study, we investigated the use of mouthing in pronominal and verbal signs, focussing on grammatical code-blends. Unlike English, pronouns in Auslan are not marked for case or gender – they involve pointing gestures directed towards present referents or towards locations around the signer's body associated with absent referents. Similarly, Auslan verbs are not marked for tense. In both cases, however, such signs may occur with mouthings of English pronouns (e.g. the sign PRO3 can co - occur with mouthed 'she') and with irregular past tense forms of verbs (e.g., the sign SEE co - occurring with mouthed 'saw'). Our analysis suggests that this subset of the data is in fact influenced by a single social factor – signer's age – with younger signers significantly favouring the use of English mouthing with Auslan pronouns and verbs. It is likely that this grammatical code-blending represents the legacy of the use of manually encoded English systems, such as Australasian Signed English, in late 20th century schools for deaf children, as well as other aspects of increased language contact between English and Auslan.

Functionality and Standardization: *nós* and a *gente* 'we' in Brazilian Portuguese

Marta Scherre, Lilian Yacovenço, Anthony Naro, Shirley Mattos, Camila Foeger and Samine Benfica #66

We investigate the embedding and dynamics of first-person-plural expression with subject pronouns *nós* (1st-plural morphology) and *a gente* (3rd-singular morphology) in four varieties of Brazilian Portuguese. We analyze three constructions: *nós*-with-concord (*nós moramos* 'we live'/'lived'); *nós*-without-concord (*nós mora* 'we live'/'*nós morava* 'we used to live'); *a-gente*-with-concord (*a gente mora* 'we live'/'*a gente morava* 'we used to live'). The fourth alternative, *a-gente*-without-concord (*a gente moramos* 'we live/lived'), is vanishingly rare in our samples. The remote origin of *nós* is the proto-Italic/Latin pronoun *nos* 'we', used with 1st-plural morphology, while *a gente* is derived from the nominal *gens gentis* 'family' or 'clan', used with 3rd-singular morphology. Based on Naro, Görski & Fernandes (1999), we identify three trends: resolution of standard present/preterit ambiguity by favoring *-mos* in preterit (*nós moramos* 'we lived') and disfavoring *-mos* in present (*nós mora* 'we live'); favoring of *-mos* for both preterit and present with *nós* in forms highly distinctive from corresponding third-singular forms (*fomos/foi* 'went'; *vamos/vai* 'go'); avoidance of antepenultimate stress through ellipsis (*nós morava* instead of *nós morávamos* 'we used to live'). (1) and (3) set up a non-standard system in which explicit expression of tense and paroxytone stress are favored over standard concord, while (2) favors standard concord, which previous research has shown to be increasing in general (Naro & Scherre, 2013; Yacovenço et al, 2012:794-7). We demonstrate that this conflict is resolved through the increasing replacement of constructions such as *nós mora* 'we live'/'*nós morava* 'we used to live' by *a gente mora* 'we live'/'*a gente morava* 'we used to live', reestablishing concord (Zilles, 2005).

We analyze 1521 tokens from Vitória city, Espírito Santo state, Southeast region; 1763 tokens from rural Santa Leopoldina, same state; 2150 tokens from the urban area of Goiás state, Center-West; 755 tokens from Baixada Cuiabana, Mato Grosso state, same region.

These varieties show similar overall use of *nós*-with-concord (VI: 27%; GO: 21%; BC: 26%; SL: 22%). Vitória and Goiás show low frequency *nós*-without-concord (VI: 4%; GO: 6%); Baixada Cuiabana and Santa Leopoldina show higher frequencies (BC: 29%; SL: 24%). Vitória and Goiás use *a-gente*-with-concord more frequently (VI: 69%; GO: 73%); Baixada Cuiabana and Santa Leopoldina have lower frequencies of *a-gente*-with-concord (BC: 45%; SL: 54%).

Favoring of *a-gente*-with-concord is clear for present with the same form as preterit (VI: 91%; GO: 93%; BC: 53%; SL: 71%) compared to infrequent use of *nós*-with-concord in this environment (VI: 8%; GO: 3%; BC: 11%; SL: 3%). The same pattern is found in the imperfect, which exhibits more frequent use of *a-gente*-with-concord (VI: 82%; GO: 80%; BC: 46%; SL: 49%) than of *nós*-with-concord (VI: 5%; GO: 10%; BC: 7%; SL: 0,2%).

Furthermore, present, when potentially identical to preterit, as well as imperfect in general, favor use of *nós*-without-concord over *nós*-with-concord. Ever increasing insertion of *a gente* into the pronominal system, and consequent decreasing use of *nós*, avoid this context of non-concord because *a gente*

heavily favors the third person form of the verb.

In summary, the trend toward favoring of *a gente mora* 'we live' and *a gente morava* 'we used to live', together with *nós moramos* 'we lived', follows the ;low toward increased use of concord. Lower use of *nós*-without-concord follows the same trend.

Thus, internal structural shift solves sociolinguistic conflict caused by rejection of variable concord within the speech community. In the end, both functional tense expression and formal concord win out.

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World War II and the origins of community-wide variation: a century of present-tense *is* concord in the South Atlantic Ocean

Daniel Schreier #76

In this paper, I provide a quantitative analysis of a special type of present *be* concord with pivot *is* (as in *I is, we is, the old dogs is*) that emerged in 19th century Tristan da Cunha English (TdCE), a variety of South Atlantic English that developed in geographic isolation and under extensive (mostly dialect, to some extent language) contact conditions. There are reports of *is* with grammatical environments other than the third person in various Englishes around the world (in North America, the British Isles and also the Caribbean; see e.g. Studer 2006, José 2007), but present *be* leveling is rather sporadic and subject to internal variation (found most often with third person plurals and existential constructions; Britain & Sudbury 2002, Walker 2007, Hay & Schreier 2004). Given that diagnostic *is* leveling rates are high in comparison (over 90% for some speakers), TdCE presents an ideal setting to address patterns of variation and change here.

The study is based on data (N=1137) from a total of 45 speakers, born throughout the 20th century. Its goal is to retrace the British dialect origins of present *is* (Tagliamonte 2012) and also to investigate community-wide variation in relation with the social history of the island population; speakers are divided into four different phases (born: before WW II, 2) from 1945 until a wholesale evacuation in 1961, 3) from the return to Tristan in 1963 to the late 1970s, and 4) from 1980 till 1989 (increased off-island schooling for adolescents)). Whereas TdCE speakers born before WW II (both male and female) had remarkably high leveling rates, the opening-up phase in the early 1940s triggered an increase of a more standard-type pattern with *am/is/are* agreement. In the early 20th century, present *be* was subject to (near-)categorical leveling (*I is, we is*, etc.) but then became highly variable, particularly in the community's outliers, which are discussed prominently. Their non-vernacular usage of *am* and *are* is interpreted as a sociolinguistic reflection of exonormative orientation and outward mobility. Internal constraints (preceding grammatical person, following environment, intervening material), on the other hand, remained relatively robust throughout the 20th century.

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Ethnic variation of /t^ʕ/ in Aswan Arabic

Jason Schroeffer #172

Located near the Egyptian-Sudanese border, the previously undocumented Aswan Arabic variety is considered an Upper Egyptian or Şa'īdī Arabic dialect (Ethnologue). The author (2015) provides evidence of a voiceless implosive in Aswan Arabic with the distribution of /t^ʕ/ → [ɗ]/_V. He also reports [ɗ] contains a mean lead VOT of 35ms, while an /t^ʕ/ shows a mean VOT lag of about 10ms. This allophone has been impressionistically described as a socio-linguistic variable in Upper Egypt over the last 80 years (Winkler, 1936; Khallafallah, 1969; Behnstedt and Woidich 1985; Nishio, 1994). Khallafallah (1969) describes an allophone of /t^ʕ/ that speakers produce to show they are Şa'īdī, but avoid around outsiders since it is stigmatized elsewhere in Egypt. Based on ethnographic observations, the [ɗ] pronunciation is typical of the Şa'īdī ethnicity which indexes toughness, while native Arabic speakers of Nubian ethnic background prefer the more "relaxed" /t^ʕ/. However, Nubians do sometimes produce [ɗ]. This paper argues that the case in Aswan not only documents a change in progress, but also provides more evidence to modify ethnolect approaches to language variation (Eckert, 2008; Benor 2010).

Thirty speakers were recorded with Marantz solid-state recorder and a Shure head-mounted microphone for a total of 30 hours. The author translated Labov's (1984) sociolinguistic interviews into colloquial Aswan Arabic with proofreading from a local educator. He dispensed with any readings considering some speakers are illiterate, and others code-switch to Modern Standard Arabic when reading. The author then conducted a natural sociolinguistic interview (Labov, 1984). The dependent measure for this study is VOT since /t^ʕ/ and [ɗ] differ significantly in this aspect. VOT is measured from the burst of the stop to the first glottal pulse in the waveform (Lisker and Abramson, 1967). Stress, POA, and speech rate all effect VOT and are controlled by encouraging informants to feel at ease and only measuring /t^ʕ/ syllable initially in the stressed position. The independent variables are Female (1,0), Şa'īdī (1,0) and Age. Preliminary results from multiple regressions reveal a significant correlation for Female, which demonstrates longer VOT lag for females of all groups. Şa'īdī speakers also demonstrate a significant correlation, which shows Şa'īdīs produce longer VOT lead than Nubians. Finally, Age brings to light a significant correlation, which illustrates that older participants produce longer VOT lead.

These findings provide evidence that young Şa'īdī women are leading a change in progress since they avoid the "stigmatized" [ɗ] almost altogether, while their male counterparts of all ages produce [ɗ] much more frequently (Labov, 2001). Furthermore, since Nubians tend to produce /t^ʕ/, this supports the interpretation of a Nubian ethnic repertoire, while Şa'īdīs prefer [ɗ], which represents the more tough Şa'īdī repertoire (Benor, 2010). Ethnographic observations coupled with lower rates of [ɗ] indicate that Nubians are not indexing a desire for Şa'īdī group membership, but rather that [ɗ] indexes a contextual toughness for the Nubians (Silverstein, 2003). This study provides further evidence to modify an ethnolect approach to analyze such variation.

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Examining the Performance of FAVE for Automated Sociophonetic Vowel Analyses

Nathan Severance, Keelan Evanini and Aaron Dinkin #303

The Forced Alignment and Vowel Extraction suite (FAVE) (Rosenfelder et al, 2011) is a relatively new tool for sociophonetic research. It combines a forced aligner with an automated vowel formant extractor to substantially reduce the time required to conduct vowel analyses using large speech corpora compared to the manual approach. Several studies used this tool in the past few years (e.g. Stanford et al, 2014; Wanjema et al, 2013; Toefy, 2014). Additionally, a new system for fully automated vowel analysis with a speech recognition front-end component, DARLA (Reddy & Stanford, 2015), relies on FAVE's vowel formant extraction. Despite widespread adoption of FAVE for sociophonetic vowel analyses, there has been little research done to examine the empirical accuracy of the automated vowel measurements beyond the initial tests conducted by the development team (e.g. Evanini et al, 2009). Additional empirical evaluations of the accuracy of automated vowel formant measurements are therefore necessary as linguists increasingly utilize computational methods.

MacKenzie & Turton (2013) have compared FAVE's alignment function with other forced aligners; in this paper we compare its vowel extraction with human measurements. Our study provides guidance to practitioners regarding when they should be careful using automated vowel analysis. In doing so, we provide detailed comparisons of measuring differences between a human analyst and FAVE.

Our study used FAVE to measure 1,033 vowel tokens from sociolinguistic interviews of three American English speakers and compared the automated measurements for each speaker to manual measurements extracted by an experienced sociophonetician (Dinkin, 2009). The vowel formant measurements were extracted using the default FAVE-extract LPC settings and measurement point algorithm. We found 33.7 Hz, 19.3 Hz, and 34.4 Hz absolute mean differences in F1 measurements and 115.3 Hz, 56.7 Hz, and 92.5 Hz absolute mean differences in F2 measurements across all vowel phonemes. The absolute mean differences in measurement point time for these speakers were 0.018, 0.018, and 0.019 seconds across all vowels. When the data were divided by vowel phoneme, four vowel dimensions out of 80 showed a statistically significant difference between FAVE measurements and manual measurements. Speaker One (64 y.o. female) showed a statistically significant difference for F1 of /a/ (N=30, $p=0.007$).

Speaker Two (23 y.o. male) showed a statistically significant difference for F2 of /ow/ (N=30, $p=0.026$). Speaker Three (18 y.o. female) showed a statistically significant difference for F2 of /ow/ (N=44, $p=0.002$) and F2 of /uw/ (N=16, $p=0.002$). All other vowel dimensions, with $N>4$ tokens, showed no statistically significant difference. These few differences suggest inaccuracy with FAVE's measurements of back rounded vowels.

This study investigates to what extent FAVE replicates the measurements of an experienced sociophonetician, and our findings show few statistically significant differences between the F1 and F2 mean values for each vowel produced by FAVE and manual expert measurements. The audio files contained speech overlap and background noise from the public settings in which they were

recorded. Since these are common complications in sociolinguistic interviews, the results in this study should generalize well to other data sets. These findings therefore suggest that FAVE is appropriate for most sociolinguistic studies but that additional error correction methods may be needed for analyses that rely heavily on back rounded vowels.

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Raising thoughts about /r/

Allison Shapp, Nathan Lafave and John Victor Singler #361

Even though raised THOUGHT and *r*-vocalization are two of the signature features of New York City English (NYCE), recent acoustical studies of THOUGHT-raising have systematically excluded all tokens where the vowel is followed by /r/ (Becker 2010, 2014; Coggshall and Becker 2010, Wong 2015, Newlin-Łukowicz 2015, but see Newman 2014).

Analyses of the influence of a following /r/ on vowels point to the lowering of F3 and occasionally the lowering of F2 as well (Raphael, Borden, and Harris 2007).

However, as far as we have been able to determine, no one has shown that the presence of a following /r/ affects F1. The F2 of the inglide that is posited to conclude a diphthongal NYCE THOUGHT may be susceptible to influence from a following /r/, but not the F1 of the vowel's nucleus. Some studies of NYCE THOUGHT-raising also exclude the vowel when it is followed by /l/, but Bernard (1985) argues that the effect of /l/ on preceding vowels is limited to front vowels.

Our study of THOUGHT-raising and *r*-vocalization is based on 1,371 tokens from the speech of Brooklyn-born Ruth Bader Ginsburg at the Supreme Court, both from her time as a lawyer arguing cases before the Court in the 1970s and as a Justice hearing cases from the bench from 1993 onward (www.oyez.org). In the present study, we set up the following word classes, based on what follows the THOUGHT vowel. The table lists the classes and the mean F1 at 20% for each:

		Mean F1 @ 20%	N
Following /l/	SAUL	685	273
Obligatory following /r/	SORREL	627	37
Variable following /r/	SOURCE		
When Consonantal	SOURCE-C	628	248
When Vocalic	SOURCE-V	630	253
All other THOUGHT vowels	SAUCE	699	562

Using a linear regression in the R statistical package (R Core Team 2013), the present study shows that the F1 of SAUCE is significantly higher than that of any of the other classes. (Thus, SAUCE is **less** raised than the other classes.) The finding that SAUCE is less raised than SOURCE-V corroborates the argument of Labov, Yaeger and Steiner (1972).

A question regarding the opposition between SOURCE-C and SOURCE-V is whether the rhotic and non-rhotic variants contain the same vowel or different ones. To test this, we mapped tokens of the same lexical item. For example, in the data set from the Justice years, Ginsburg uses *court* 61 times. The 26 rhotic tokens and the 35 non-rhotic tokens occupy the same area in the vowel space. Parallel studies of other lexical items yield the same result: the vowel is the same in the two variants.

Citing Campbell-Kibler (2011), Haddican *et al.* (to appear) argue that all variants are not equal in force. When Ruth Bader-Ginsburg is at the Supreme Court, her use of non-raised THOUGHT or SOURCE-C is

unexceptional. In contrast, her use of either raised THOUGHT or SOURCE-V in a word may be noteworthy, and using both of them at once? Fuhgeddaboutit.

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Individual differences in listener perceptions: personality or cognitive processing?

Madeline Shellgren #369

Research on sociolinguistic perceptions shows that speaker characteristics affect the way speech is evaluated (Campbell-Kibler 2011; Drager 2010; a.o.) and that listeners' broad demographic characteristics influence speech perception (Labov et al 2011; Preston 2010; a.o.). Beyond this, however, we know little about the effects of listener characteristics (i.e. individual differences) on sociolinguistic perception (e.g. cognitive processing style and personality). Wagner & Hesson (2014) and Buchstaller & Levon (2014) show that sociolinguistic perceptions depend on social and cognitive factors (specifically the ability to contextualize variation in sociolinguistically meaningful ways). Beyond cognitive processing style, however, little is known about what makes one individual's interpretation of sociolinguistic input different than another's. This paper extends the current trend to consider individual differences and their impact on linguistic behavior, specifically listener perceptions of discourse marker *like* (DML).

336 undergraduate students completed a likert scale perception task similar to Labov et al (2011). Participants heard eight audio clips, which differed only by DML frequency. For each clip, participants rated the speaker for professionalism, friendliness, and intelligence. Participants also completed a demographic survey, post task survey, and three domains (Openness to Experience, Agreeableness, and Conscientiousness) of the Revised NEO Personality Inventory (NEO-PI-R), which is used to measure the Big Five personality traits (John et al. 2008). Each domain consists of 60 questions, which assess 6 facets pertinent to their respective broader domain.

Overall, the broad personality domains were generally not significant. However, individual traits (or facets) were found to be significant. Surprisingly, the results countered expectations. For instance, as Emotionality scores increased, professionalism and intelligence ratings decreased. In other words, the more emotionally-sensitive you are, the harsher (more negative) your ratings of DML. Similar results were found for the Sympathy, Altruism, and Trust facets. These findings seem to contradict intuitions surrounding typical social behavior; we would predict that increased sympathy would lead to nicer (or more positive) ratings. However, if we interpret facets as representative of cognitive processing skills (like pragmatic language ability), the story begins to make sense: higher emotional sensitivity could reflect greater sensitivity to societally-based ideologies surrounding DML (e.g. DML is 'bad,' and even more DML is worse).

In personality research, measures like the NEO-PI-R have been shown to predict various social behaviors/tendencies. For instance, low agreeableness scores are associated with social rejection by peers (Newcomb et al. 1993), which seems intuitive. The present study predicted that linguistic perception would be among the set of behaviors intuitively predicted by differences in personality traits. However, the results were only interpretable when personality scores were considered to be reflective of cognitive processing skills rather than social behaviors/tendencies. As a result, we must question the extent to which behavioral norms like one's general concern for other's and tendency to tend to/anticipate the needs of others (i.e. Altruism) impact linguistic perception, or if they simply reflect abilities pertinent to cognitive

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Bilingual children's patterns of morphosyntactic variation: Variable clitic placement in Spanish

Naomi Shin and Pablo Requena #32

Language acquisition scholars have proposed that bilingual children's syntax differs from that of monolingual children particularly when syntactic variation is governed by discourse- pragmatic and/or semantic factors.¹ Yet, we know little about when and how children become sensitive to factors that probabilistically constrain morphosyntactic variation,² and, by extension, we do not yet know whether/how monolingual and bilingual children differ in this regard.

The current study compares bilingual and monolingual children, and examines their variable use of proclisis and enclisis in the [finite + nonfinite verb] construction in Spanish.

- (1) PROCLISIS: *Carlos lo estaba vie-ndo*
Carlos **him** **was** looking-
PROG 'Carlos was looking at
him'
- (2) ENCLISIS: *Quiero envia-r=lo*
Want-1sg send-
INF=**it**
'I want to send it'

Corpus studies of adult Spanish show that proclisis is favored when the **finite verb** is grammaticalized ('GrammaticalizedVerb') and when the **object** referent is animate ('CliticAnimacy'), as in (1). Enclisis is favored when the finite verb is not grammaticalized and the object referent is inanimate, as in (2).³ Previous experimental research on bilingual children suggests that influence from English results in increased enclisis.⁴ Yet, variationist studies of adult Spanish indicate that bilinguals and monolinguals produce similar rates of enclisis and are sensitive to the same constraints on variation.⁵

In the current study we test the hypotheses that, compared to monolingual children, bilingual children (i) produce higher rates of enclisis and (ii) display decreased sensitivity to GrammaticalizedVerb and CliticAnimacy. Third-person direct object clitics in variable contexts (N=113) were extracted from narratives/sociolinguistic interviews with 20 Spanish-English bilingual children of Mexican descent in the U.S. Northwest and 71 monolingual children in Mexico. All were between 6 and 11 years old.

A logistic regression performed in Rbrul⁶ indicated that GrammaticalizedVerb and CliticAnimacy significantly predicted clitic placement, while Bilingualism did not (see Table).

Indeed, the children’s rates of enclisis were similar (monolinguals: 30%, bilinguals: 28%) [$\chi^2=.09$, $p=.84$]. There were no interactions between predictors. We interpret the lack of interaction between Bilingualism and the other variables as evidence of no difference between the monolingual and bilingual children’s clitic placement patterns. Enclisis rates support this conclusion: Both groups of children produced higher rates of enclisis (i) with not-grammaticalized verbs than with grammaticalized verbs (monolinguals: 40%, 22%; bilinguals: 48%, 12%), and (ii) when the clitic referent was inanimate rather than animate (monolinguals: 36%, 29%; bilinguals: 53%, 13%).

In conclusion, we find no clear differences between monolingual and bilingual children with respect to variable clitic placement. Our study diverges from experimental research on bilingual children, which found evidence of an increase in enclisis,⁸ but is consistent with variationist research on bilingual adults, which has found no evidence of English contact effects.⁹ We conclude by suggesting that variationist studies may call into question assumptions about the extent to which bilingual and monolingual children differ with respect to morphosyntactic variation.¹⁰

Table. Predictors of enclisis, 91 children

	FW	N	%enclisis
FiniteVerb ($p=.003$)			
Not-	.67	51	43
Grammaticalized	.33	62	18
CliticAnimacy			
($p=.009$) Inanimate	.65	31	45
Animate	.35	82	23
[Bilingualism]			
Monolingual	.52	66	30
Bilingual	.48	47	28

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Parenting style: from preschool to preadolescence in the acquisition of variation

Jennifer Smith #75

Labov (2001:437) observes that 'children begin their language development with the pattern transmitted to them by their female caretakers, and any further changes are built on or added to that pattern.' More specifically, 'Linguistic variation is transmitted to children as stylistic differentiation on the formal/informal dimension....Formal speech variants are associated by children with instruction and punishment, informal speech with intimacy and fun' (ibid). The further development in sociolinguistic norms arises when 'children learn that variants favoured in informal speech are associated with lower social status in the wider community' (ibid) and 'later acquisition of superposed dialects' (Labov 2013:247).

Our previous research on preschool children (2-4 year olds) in interaction with their primary caregivers (Smith et al 2007, 2009, 2013) showed that the caregivers used systematic patterns of styleshifting from vernacular to standard with some variables (1-2) but not with others (3). These patterns of (non)styleshifting were transmitted to the children who faithfully replicated the patterns in their own speech.

- (1) (child) Are we gan to Isla's? (caregiver) Uhuh. (child) Are we? (caregiver) Later on, *aye*. (child) Say yes or no. (caregiver) *Aye...yes*. (child) No, say yes or no.
- (2) (child). Mammy ma tr[ʌ#]sers is fa'in d[u:]n.
- (3) (child) *Is* there pens in there? (caregiver) *Aye*, there *is*. (child) My paints *are* in there.

What happens to these patterns of (non)styleshifting once the children move from the vernacular dominated norms of the home to the standard dominated norms of the school?

To tackle this question, we returned to a subsample of the original preschool children now in pre-adolescence (11-13 years old, 8 females, 8 males). In order to test the effects of wider community norms, we tapped the boundaries of styleshifting between vernacular and standard by recording the preadolescents with a) a community insider who uses the local vernacular and b) a community outsider who uses a standard Southern English dialect (e.g. Bell 1984). We replicated the analyses of a number lexical, phonological and morphosyntactic variables carried out eight years earlier on this new corpus of c500,000 words. Mixed effects modeling in R of over 4000 contexts of use indicate that the patterns evident in preschool remain in preadolescence: statistically significant styleshifting according to interlocutor with lexical and phonological variables, but not with morphosyntactic.

In interpreting the (lack of) development of styleshifting from preschool to preadolescence, we appeal to the concept of salience, and specifically Labov's (1993, 2008) *sociolinguistic monitor* where 'members of the speech community evaluate the surface form of language but not more abstract structural features'. Our results suggest that this monitor is set from an early age, with little impact from the standardizing processes of school on 'abstract structural features' in the grammar. We discuss how these results from preschool and preadolescence can shed light on the

effects of initial caregiver input on variable forms, and how this may impact on the limits of styleshifting demonstrated in later life.

Stability and change in Scottish stops: a real-time study of three acoustic cues in Glaswegian vernacular

Morgan Sonderegger, Jane Stuart-Smith, Rachel Macdonald, Thea Knowles and Tamara Rathcke #269

The Germanic stop voicing contrast is thought to be fundamentally stable over time, but to have shifted its phonetic realization from voicing to aspiration-based (Iverson and Salmons, 2003). The voicing contrast itself in varieties of English is thought to be fairly stable, even though the cue measured in most work (*VOT*, reflecting aspiration) varies substantially in spontaneous speech and across varieties (e.g. Yao 2009). Varieties of the Scottish English continuum are ideal for examining the tension between stability and variation in the voicing contrast: Scottish English is reported to be less aspirated than Anglo varieties, but there are hints from studies of *VOT* in read speech of change towards greater aspiration (positive *VOT*) and less frequent occurrence of phonetic voicing (negative *VOT*) over time (Masuya 1997, Scobbie 2003, Docherty et al. 2011). Little is known for Scottish English about other acoustic cues, or vernacular spontaneous speech. This paper examines three acoustic cues to the voicing contrast (*VOT*, *voicing during closure: VDC*, *closure duration: CD*) in spontaneous Glaswegian, to ask: how is the voicing contrast realized across multiple cues, and how stable is it over time?

The data come from 23 speakers in 6 groups ({1970/2000 recordings} x {old/middle/young age cohorts}) spanning real- and apparent time from 1890s- 1990s. Measurements were obtained for /p t k b d g/ for content words for all primary-stressed syllables (for *VOT*: n=7335) or following vowels and fricatives only (for *VDC*: n=3194; *CD*: n=1748) using automatic measurement followed by fast manual correction (Anonymous, 2014). The effects of contextual factors (including voicing) were modeled using mixed-effects regression for each cue; estimates of each speaker's use of each cue were then extracted to examine how the contrast is realized within and across speakers.

Alongside expected contextual variability in use of each cue (e.g. depending on phonological context, speaking rate), each cue also shows clear separation of voiced and voiceless stops ($p < 0.001$), including within every speaker. Thus, the voicing contrast is **stable at a phonological level over time, across three cues**. This stability coexists with significant variability in how speakers realize the voicing contrast. Use of each cue by speakers is also correlated (c.f. Shultz et al., 2012): speakers with higher *VOT* rely less on *VDC* ($r=-0.68$, $p < 0.001$) and more on *CD* ($r=0.54$, $p=0.0072$) to differentiate voiced and voiceless stops. Thus, speakers roughly lie along a continuum of more voicing-based to more aspiration-based (Scobbie 2003). Along this continuum, there is real-time **change in the realization of the contrast at the phonetic level**, for old and potentially middle-aged speakers, with lengthening of *VOT* and reduced/increased use of *VDC/CD* to signal voicing; there is also subtle apparent-time evidence for this shift in the earlier recorded group. These results demonstrate subtle but clear change in stop voicing over time, and suggest that Glaswegian is following centuries-old trends in Germanic: the voicing contrast remains stable but its phonetic realization slowly shifts.

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The noemen/heten alternation: ongoing change in Colloquial Belgian Dutch

Dirk Speelman #213

Colloquial Belgian Dutch (CBD), often dubbed 'tussentaal' in the literature, emerged in the last decades of the previous century as a new variety of informal Belgian Dutch taking up a position 'in between' dialects/regiolects and standard Dutch (hence the name 'tussentaal' which literally means 'in between language'). Most of its typical characteristics are morphological features borrowed from dialects in the center of Flanders (Brabantic dialects). Through Colloquial Belgian Dutch many of these features have spread across the whole of the Dutch-speaking area of Belgium (Plevoets et al. 2007; Vandekerckhove 2007).

In general, CBD is much less characterized by lexical or syntactic features, or by features borrowed from non-central dialects. In this paper, however, we zoom in on one of the exceptions to the rule. We discuss the position in CBD of the variation exemplified in (1) and (2):

(1) Hij **heet** Tom. (*He's called Tom.*)

(2) Hij **noemt** Tom. (*He's called Tom.*)

In CBD, the verb *noemen*, which in standard Dutch means TO CALL, can also have the meaning TO BE CALLED (2) so that it becomes a competitor for the (standard Dutch) verb *heten* (1). Although this additional meaning of *noemen* originates from more western dialects, it has nevertheless found its way to CBD and through it seems to be spreading across the whole of Flanders.

In the present study, two research questions are asked. First, to which extent has the new variant (2) merged with CBD, in the sense that its distribution has become comparable to that of other CBD features? Second, within CBD, can we discern the emergence of a lexical/semantic/pragmatic division of labour between the competing variants (1) and (2)?

For this study, we have collected all instances of *heten* as in (1) and *noemen* as in (2) from the Spoken Dutch Corpus (Corpus Gesproken Nederlands, Schuurman *et al.* 2003). The data were tagged for speaker characteristics (sex, age, region of birth and occupation level), situation (conversation type, etc.), and linguistic properties (sentence type, semantic classes, lexical items, morphophonological context). Diachronic change was modeled using the apparent time construct. The choice between *noemen* and *heten* was analysed with a mixed-effect logistic regression model as well as with conditional inference trees (results from both methods are compared in detail). The new variant was found to indeed have acquired a typical CBD distribution across contexts, but at the same time, within these contexts, to exhibit a specific lexical/semantic/pragmatic usage profile.

From a theoretical perspective, our paper illustrates the merits of embedding *variationist analysis* in the (broader) tradition of *corpus-based analysis within corpus linguistics*. The combination of methods/practices from both traditions allows us to simultaneously investigate two (interacting) dimensions of the emergence of *noemen* as a competitor for *heten*, viz. a semantic/pragmatic dimension (i.e. the evolving semantic/pragmatic division of labor between

both variants) and a sociolinguistic/lectal dimension (i.e. the evolving position of the new variant in CBD).

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Acquiring social evaluation in Singapore: identification and perception of regional varieties by local and foreign-born children

Rebecca L. Starr, Andre Joseph Theng, Natalie Tong Jing Yi, Kevin Martens Wong, Nurul Afiqah Bte Ibrahim and Alicia Chua Mei Yin #143

Singapore is an economic hub that has attracted large numbers of immigrants across the socioeconomic spectrum from a wide range of nations, with foreigners making up 43% of the low-skilled workforce and 21% of the mid-to-high-skilled workforce (National Population and Talent Division 2015). English is dominant in school and the workplace and is becoming the primary home language (Singapore Census 2010); while Singapore English is the local norm, residents in today's cosmopolitan environment are exposed to a variety of Englishes of both high and low prestige through foreigners and media. As greater numbers of foreign-born children grow up in Singapore, and increasingly enroll in local rather than international schools, questions arise as to what extent children of different backgrounds acquire local community norms and develop an understanding of this diverse sociolinguistic landscape.

The Voices of Children in Singapore (VOCS) project investigates how local and foreign-born children's acquisition of sociolinguistic knowledge and language use are shaped by their home and school environments. This paper reports the results of two VOCS tasks: regional identification and perceived occupation of speakers of four English varieties commonly heard in Singapore: Singaporean, Australian, Mainland Chinese, and Filipino English.

74 children ages 6-18 completed a game involving identifying the regional origins and occupations of speakers. In the region task, participants selected which of two speakers were from some country. In the occupation task, participants decided whether or not a speaker did a particular job: English teacher, coffee shop worker, or 'helper' (maid). Participant responses and reaction times were recorded for both tasks. Participants were also assessed for English expressive vocabulary using the Pearson EVT2.

Participants performed well on the region identification task, ranging from 80.7% accuracy under age 9 to 94.5% accuracy for children above 14. Mixed-effects modelling in Rbrul finds that performance improved significantly with age and age-normalized vocabulary level. Foreign-born children attending international schools were worse at identifying Filipino English and slower to identify Singaporean English than foreign-born peers in local schools.

Participants' responses to the occupation task were mainly congruent with societal trends. Children from all backgrounds stratified English teacher likelihood consistently, with high ratings for Australians (90%), intermediate for Singaporeans and Filipinos (48.8%, 36.1%) and low for Chinese (14.4%). All agreed that Australians and Singaporeans were most likely to be teachers of the three occupations, while Filipino speakers were most likely to be helpers. However, although there are virtually no Chinese domestic helpers in Singapore, participants (and particularly international school students) labeled Mainland Chinese speakers as likely to be helpers. This phenomenon suggests that participants used occupation as a general proxy for prestige, rather than matching varieties to occupations based on prior experience.

These findings contribute to our understanding of how sociolinguistic meaning is acquired and negotiated in dialect contact settings. Children growing up in Singapore's cosmopolitan environment are found to develop sophisticated knowledge of variation. While foreign-born children largely match the performance of local peers, those attending international schools show less integration into the local speech community.

It's, like, Canadian Raising in Kansas City

Christopher Strelluf #29

This research examines two phonetically similar innovations in the vowel in words like PRICE in Kansas City.

First, productions of *like* are examined. While the discourse particle *like* has been described by linguists in terms of its semantics, syntax, and social meanings (e.g., Dailey-O'Cain 2000; Siegel 2002; Fuller 2003; D'Arcy 2006; Fox Tree 2007), the phonetics of discourse-*like* are not well documented. This research fills that gap with acoustic measurements from 4,119 tokens of *like* in verbal, comparative, adverbial, discourse, and quotative functions, drawn from sociolinguistic interviews with 67 Kansas Citians born between 1955 and 1999.

Consistent with research on the rapid emergence of discourse-*like* in Englishes, this research finds that use of discourse-*like* has spread quickly in Kansas City. The relative frequency of the particle has roughly doubled each decade since 1955, from 1 occurrence for every 174.7 words for speakers born in the 1950s to 1 occurrence for 18.7 words for speakers born in the 1990s. Discourse- and quotative-*like*, though, are also shown to have a unique phonetic profile. They are produced with a mean F1 of 729.4 Hz, compared with a mean F1 of 782.0 Hz for verbal, comparative, and adverbial *like* ($p < 0.001$). Discourse-*like* also shows a shorter duration and reduced glide relative to other forms of *like*. These findings add to knowledge of *like* by suggesting that it has a unique phonetic profile, in addition to its semantic, syntactic, discourse, and social functions.

After examining the specific case of *like*, this research expands to consider all other productions PRICE in Kansas City. Raising of the nucleus of PRICE before voiceless consonants appears to be a new and vigorous innovation in the community. Speakers born before 1970 show almost no difference in F1 between PRICE followed by a voiceless consonant and PRICE followed by a voiced consonant or in free position. Females born in the 1970s begin producing PRICE with following voiceless consonant with lower F1 (raised in vowel space). Females born in the 1990s have increased the difference to 68.7 Hz, exceeding the threshold set by Labov, Ash, and Boberg (2006:206) for Canadian Raising. Males also participate in Canadian Raising, but appear to trail their female peers by about 25 Hz. This innovation, which is traditionally associated with the US North and Canada, may mark an erosion in Kansas City of one marker that Labov, Ash, and Boberg (2006) use to distinguish the Midland dialect region from the North.

These combined findings provide a phonetic description of discourse-*like* and identify Canadian Raising in Kansas City, but they also offer a useful methodological implication for researchers working with automated measurement programs like FAVE (Rosenfelder et al. 2013). In the case of Kansas City, failing to note the specific phonetics of discourse-*like* would overstate the degree of Canadian Raising occurring in Kansas City and suggest a greater time depth for the change. This speaks to the importance of combining close attention to specific types with approaches that rely on massive datasets.

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Modulation of the following segment effect on coronal stop deletion

Meredith Tamminga #183

When coronal stops in consonant clusters are eligible for deletion (CSD), the segment at the beginning of the next word influences the deletion rate, with increased retention before vowels. Although this effect is large and well-replicated (Labov et al. 1968, Guy 1980, Patrick 1991, Santa Ana 1992, Tagliamonte & Temple 2005, *inter alia*), there is no clear consensus on how or why it arises. Different models of the mental representation of variation make different predictions about how such cross-word conditioning effects should interact with other aspects of language structure and use. In this paper we ask whether the following segment effect interacts with three other factors: word frequency, speech rate, and intervention of a clause boundary.

Given the **exemplar theoretic** prediction that allophonic biases should accumulate over time in high-frequency words, as spelled out in Pierrehumbert 2002, the magnitude of the following segment effect should increase as frequency increases. If CSD is primarily a fast- speech reduction process resulting from **gestural overlap**, as suggested in Ernestus 2014, increased speech rate should exaggerate the effect of the pre-consonant context by forcing greater amounts of overlap. Models emphasizing **production planning**, such as that proposed by Wagner 2012, predict that phonological following segment effects should be weakened across stronger syntactic boundaries (such as clauses) because in those cases the triggering segment may not always have been planned early enough to affect the variable.

The data were coded auditorily from 122 interviews with white working class speakers in the Philadelphia Neighborhood Corpus (Labov & Rosenfelder 2011). In order to simplify the analysis by controlling other relevant factors, we extracted from the larger dataset 1,289 monomorphemic, monosyllabic CSD tokens followed by a vowel or an obstruent. With reference to the transcript text, we coded whether a clause (CP) boundary intervened between the CSD token and the following word. Word frequencies were taken from SUBTLEX (Brysbaert & New 2009) and speech rate was calculated as vowels per second in the 7-word window surrounding the target word. We fit a logistic regression with, in addition to speaker gender and preceding segment, interaction terms for following segment by each of: log word frequency, log speech rate, and intervening clause. The regression results indicate that of these three factors, only speech rate shows a significant interaction with following segment ($\beta=0.88$, $z=-2.8$, $p=0.005$).

The direction of the interaction is that as speech rate increases, the distinction between the pre-vowel and pre-obstruent contexts decreases.

Our results are not consistent with any of the predictions we outlined above from various models of CSD. The interactions we predicted based on exemplar theoretic and production planning approaches to variation were not significant, and while there is a significant interaction between speech rate and following segment it is not in the predicted direction. Rather, we suggest that these results may point to CSD as a phonological process with a grammatically- specified following context sensitivity that is only able to be fully realized in slower speech.

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Comparing the Use of Sociophonetic Variables in Speech and Twitter

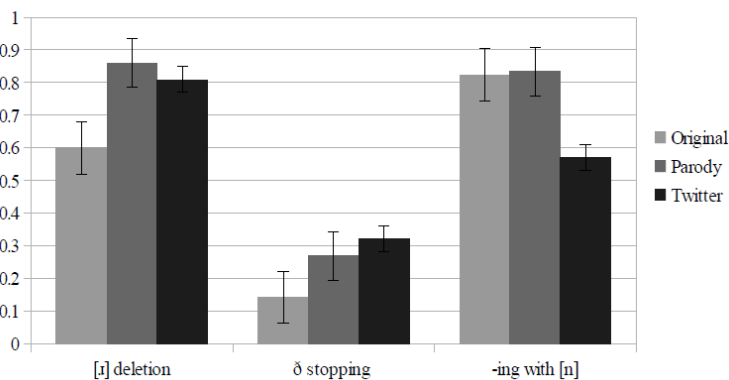
Rachael Tatman #212

Recent work on sociolinguistic variation on Twitter suggests that it follows many of the same patterns as speech data, including racial variation (Eisenstein 2015), accommodation (Johnson 2013) and style-shifting (Schnoebelen 2012). One question that remains unsolved, though, is to what degree the use of non-standard spellings on Twitter directly mirrors a speaker's sociophonetic variation.

This study uses information from a unique Twitter community in order to investigate this problem. New York radio sports pundit Mike Francesa has a large fanbase on Twitter, though he himself does not have an account. These Twitter users make use of many social markers to display their affiliation with this community, including using eye-dialect to represent Francesca's speech patterns (Curtis 2015). One central member—Bill Buchanan, also a New Yorker—has also made a number of videos parodying Francesca. Since Francesca is a radio personality, this offers three parallel data sets: speech data from Francesca's radio show, speech data from Buchanan's parody videos and finally tweets from Buchanan which make use of variant spellings. This allows for the direct comparison of the same sociolinguistic variables in speech and tweeting.

Three sociolinguistic variables associated with New York City English (Labov 2006) were selected: deletion of [ɹ] word-finally and before consonants, stopping of /ð/ word-initially, and word-final g-dropping on verbs. The rate of use of each of these three variables were calculated for a segment from Francesca's radio show uploaded to Youtube (Francesca 2013), one of Buchanan's parody videos (Buchanan 2013) and fifty tweets with non-standard spellings sampled from Buchanan's Twitter (@BigActionBill, formerly @BizzaroZaun).

Rate of use of Variable by Source



For New York City English—[ɹ] deletion and ð stopping—both the parody video and Twitter had a similar rate of use, which was higher than the rate of occurrence in the original data set, $\chi^2(2, N = 161) = 11.53, p < .01$ and $\chi^2(2, N = 124) = 7.89, p = .019$ respectively. Given that Buchanan is also from this dialect area, this over-production suggests that his use of these variables in his parody video and Twitter spellings may be part of a performance register (Schilling-Estes 1998).

G-dropping, however, patterns differently, with almost identical levels of use in both Francesca and

Buchanan's speech, $\chi^2(1, N = 36) = 0.003, p = 0.95$. Further, Buchanan's use of this variable on Twitter was far rarer than it was in his speech, which replicated similar findings by Tagliamonte and Denis (2008). This suggests that -ing is a less salient linguistic variable for Buchanan, since his use of this variable is not exaggerated in speech and is under-reported in his tweets.

This study provides evidence that, at least for stereotyped variables in performance registers, the occurrence of phonetic variables in tweets and speech do pattern together. This does not appear to extend to less salient sociolinguistic markers, which follows with research on the representation of dialect in non-Twitter writing (e.g. Honeybone & Watson 2013).

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Aspiration vs. Deletion of /-s/ in Contemporary Eastern Cuban Spanish: Differing Constraints

Jeff Tennant, David Heap, Angelica Hernandez and Jorge Emilio Rosés Labrada #358

In coda position, the Spanish voiceless sibilant /s/ can be word-internal or word-final (e.g. *frescos* “fresh.M.PL”), and often undergoes aspiration ([s] -> [h]/ \$) or deletion ([s] -> [∅]/ \$) in a number of varieties, including those spoken in the Caribbean (Lipski 1999:198). This “highly variable process” (Hualde 2005) is subject to different constraints in different speech communities as evidenced in previous studies (cf. Cedergren 1973, Panama; Alba 1982, Dominican Republic; Cepeda 1995, Chile; Lipski 1985, several Central American countries; and Terrel 1977, 1979, and Lynch 2009 for the Spanish of Cuban immigrants in the U.S.). However, these studies do not focus on distinguishing the different factors which condition aspiration as opposed to deletion of /-s/ in syllable final position. The present study focuses on factors conditioning /s/ aspiration vs. deletion and thus constitutes an important contribution towards our understanding of these variable processes.

Other studies of /s/ aspiration and deletion in Cuban Spanish (e.g. Terrell 1977, 1979; Lynch 2009) have focused on the speech of Cuban immigrants residing in the United States. Our corpus, however, was gathered *in situ* from speakers who have lived all their lives in Cuba (more specifically in the eastern province of Holguín) and who, therefore, represent more accurately the speech of the island, specifically the variety spoken in and around the city of Holguín. Another important characteristic of our corpus is that it includes speakers from both rural and urban areas, a factor which turns out to have a significant effect on aspiration but not on deletion of /-s/.

Our variable rule analysis considers stylistic (interview, reading passage, word list), social (sex, age, education, rural vs. urban), and phonological (position, pause, stress, word length, features of the following segment) factor groups. In addition, we code possible functional dimensions of lexical vs. morphemic /s/ as a factor in variation (Poplack 1980a, 1980b; Hochsberg 1986; Guy 1981). The results are based on over 3000 tokens from the speech of 30 speakers in our corpus (balanced for gender). Interviews, a reading passage and word list were orthographically transcribed in *Praat* to facilitate the coding and acoustic verification of (s) realization (as [s], [h] or [∅]), prior to extraction of the coded tokens for *GoldVarb* analysis.

Our analysis shows that aspiration is favoured in word-internal and word-final position before a consonant, and by rural speakers. On the other hand, /s/ deletion is favoured in word-final position before a consonant, in polysyllabic words, and by speakers with the lowest levels of formal education. Previous studies of this corpus suggest stable sociolinguistic stratification of (s): men show higher rates of deletion and aspiration than women, and style shifting goes in the expected direction, with more [s] retention in formal styles.

Using a novel corpus and expanding the pool of conditioning factors, the primary contribution of our research lies in the finding that aspiration and deletion are conditioned by different factors, thus suggesting that they should be considered independent processes.

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La liaison en français ontarien : contact, restriction et langue seconde

Jeff Tennant and François Poiré #242

Nous proposons de présenter les résultats d'une étude de la réalisation de la liaison dans le français parlé en Ontario chez trois catégories de locuteurs: les locuteurs natifs en situation locale majoritaire, les locuteurs natifs en situation locale minoritaire, et les apprenants anglophones du français langue seconde.

Les recherches récentes sur la liaison basées sur les données du projet Phonologie du Français Contemporain (PFC) (Côté 2010; Durand et Lyche 2008; Durand, Laks et Lyche 2011, entre autres) montrent comment des données empiriques provenant d'un grand nombre de points d'enquête dans le monde francophone éclairent la complexité de ce phénomène bien connu et montrent l'importance de son conditionnement lexical. En même temps, des études sur la production de la liaison par les apprenants du français langue seconde (Mastromonaco 1999, Thomas 2002, De Moras 2011, entre autres) mettent en lumière les difficultés que ces derniers peuvent avoir dans son acquisition.

Dans cette étude, nous employons les données de deux enquêtes PFC menées en Ontario (Windsor, milieu minoritaire; Hearst, milieu minoritaire), ainsi que celles de l'enquête du projet Interphonologie du Français Contemporain (IPFC) menée auprès d'apprenants anglophones au niveau universitaire résidant dans la ville de London, pour éclairer l'étendue de la variabilité des liaisons en Ontario, compte tenu du continuum de contact et de fréquence d'emploi du français qui existe entre ces trois populations de locuteurs de la province (Mougeon et Nadasdi 1998).

Nous analysons à l'aide de *GoldVarb* la réalisation des liaisons dans la lecture à voix haute d'un passage ainsi que dans la parole spontanée chez 12 locuteurs de chacun des trois sous-corpus (N total =36).

Les résultats pour les locuteurs franco-ontariens montre des tendances semblables à celles des autres enquêtes PFC (Durand et al, 2011; Côté 2010) en ce qui concerne le taux général de liaison, une tendance à faire plus de liaisons dans la lecture à voix haute que dans la parole spontanée, la fréquence relative des consonnes de liaison, et le taux de réalisation de la liaison dans les mots liaisonnants spécifiques (p. ex. clitiques, formes monosyllabiques du verbe *être*). Par ailleurs, nous constatons une plus grande variation interindividuelle en situation minoritaire (Windsor) qu'en situation majoritaire (Hearst). Chez les anglophones, la tendance stylistique attendue est inversée, la difficulté de la tâche étant sans doute la raison pour laquelle ils font moins de liaisons dans la lecture que dans la parole spontanée. En outre, les locuteurs anglophones montrent des taux de liaison semblables à ceux des locuteurs franco-ontariens après clitique et après adjectif, des contextes de liaison « obligatoire », tandis qu'ils font moins de liaisons après les verbes, des contextes de liaison « facultative ». Là où les apprenants anglophones se démarquent le plus des Franco-ontariens c'est dans la fréquence plus élevée des liaisons non enchaînées et la substitution de consonnes de liaison inattendues.

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Variation in Singapore English: Preliminary Study of Usage Differences between Ethnic Groups

Ming Chew Teo #73

Singapore is a multi-racial country with 3 main ethnic groups – Chinese (74.2%), Malay (13.2%), and Indian (9.2%). Most studies of Singapore English assume that there is negligible or no variation along these ethnic lines and the few studies that do look at ethnic differences largely focus on variability in pronunciation (Deterding and Poedjosoedarmo 2000, Lim 2000).

Nevertheless, some recent studies like Leimgruber (2009) and Smakman and Wagenarr (2013) show that various ethnic groups differ quantitatively in their use of discourse particles. In this paper, I argue that the difference is not only quantitative but also qualitative.

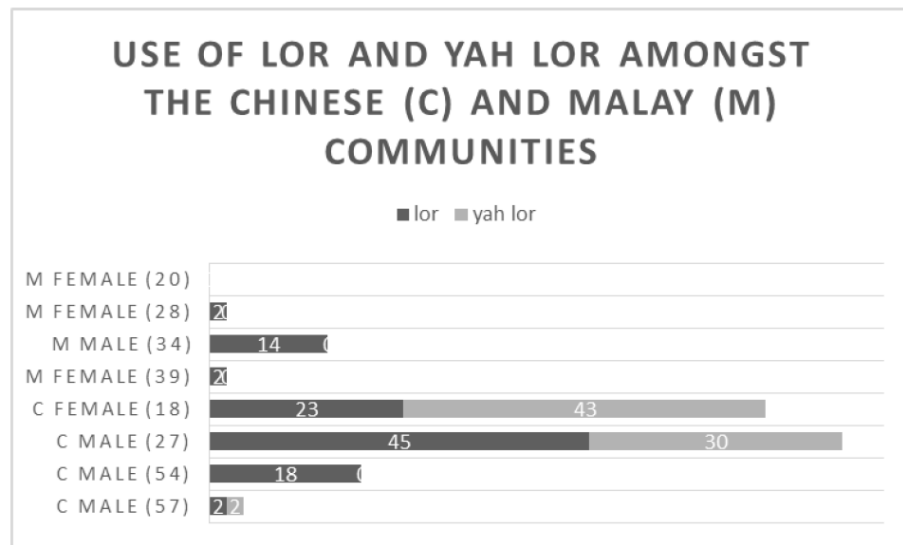


Figure 1.

Using sociolinguistic interview data from 4 Chinese and 4 Malay individuals (Total duration = 398 min), I provide quantitative evidence to illustrate how Chinese and Malay speakers differ in their use of discourse particle *lor*. Discourse particle *lor* comes from Cantonese and its main function is to assert upon the listener either direct observations or obvious inferences. For example, *he so clumsy lor* 'He is obviously so clumsy.' Moreover, discourse particle *lor* also combines with English *yeah* to give *yah lor*, which is modelled after Cantonese *hai lor* 'yes, it is'. The variant *yah lor* is used to either express agreement or serves as "self-presentational display" (Wong 2000:60). Wong (2000) found that non-native English speakers often use *yeah* to mark transitions, to confirm, to elaborate or to comment on preceding utterances, and this is similar to how *yah lor* functions in Singapore English. For example, *but then, my dad say, yah lor must go overseas also* 'But then, my dad said, and I shall elaborate, that I would need to go overseas too.'

As previous studies collapsed these two *lors* into a single category, these studies only found a quantitative difference between how Malay and Chinese speakers use *lor*. Such a quantitative difference is also reflected in our data ($\chi^2 = > 100$, $p = < 2.2 e^{-16}$) (following Lemigruber's (2009) method). However, lumping these two *lors* together masks the fact that there exists a qualitative difference between Chinese and Malay Singaporeans. Not only do Malay speakers use *lor* less often, they actually do not use *yah lor* at all, despite it being highly frequent in the speech of younger Chinese speakers (see Figure 1).

As Singapore English starts to develop and mature, linguistic features marking ethnicity are beginning to emerge and stabilize. In our case, *yah lor* marks someone as being young and Chinese (43 and 30 tokens for the 18 and 27 year old Chinese respectively).

To conclude, even though the same form is used by two groups of people, it does not necessarily mean that it is used in exactly the same manner by both groups. As such, fine-grained analyses of lexical items are important in teasing out subtle usage differences between different social groups. Crucial information will be lost if we fail to attend to such subtle variation in usage. In the context of our study, an upcoming marker of Chineseness would have gone unnoticed as in previous studies.

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ความเป็นไทย k^hwa:m pen t^haj ‘To be Thai’: Phonetic conservatism in the LA Thai diaspora

Kanjana Thepboriruk #106

Standard Thai has five lexical tones. Tones are one of the generational markers in Standard Thai. Younger speakers (25 or younger) have higher overall tone pitches, different tone shapes, and a later tone peak/trough than older speakers (60+) (Teeranon 2007). Tones are also the most effective way to distinguish between different varieties of Thai (Gedney 1989, Tingsabadh 2001). Regional speakers of Standard Thai share similar tone shapes with each other but not with speakers from Bangkok (BKK), because BKK speakers lead in tonal innovations (Anivan 1988, Tienmee 1992). Additionally, tones are the most salient feature by which Thai speakers judge the level of accuracy, above all other phonetic features (Wayland 1997).

Over 200,000 respondents reported themselves to be Thai or partly Thai in the 2010 US Census (Commerce 2011). Los Angeles, California (LA) has the largest concentration of Thais outside of Thailand and local organizations estimate that up to 60,000 to 80,000 Thais live in LA County alone (Martorell and Morlan 2011). This study is the first linguistic study to include Thai speakers living outside of Thailand. A total of eight mother-daughter pairs, four in LA and four in BKK, read thirty-five words spanning all five places of articulation and all five lexical tones in identical frame sentences then discussed their views on Thainess, Thai culture, and the Thai language in an interview.

The phonetic results show that Thai speakers in the LA diaspora have conservative tones. The LA mothers who are all in their 40s, for example, have tonal characteristics similar to BKK speakers in their 50s and 60s. The LA teens, meanwhile, have tonal characteristics similar to their mothers and are not the linguistic innovators in their Thai-speaking community. Unlike their LA peers, the BKK teens are linguistic innovators and have the expected generational differences in their tones when compared with their mothers as well as new tonal features not yet found in other groups of speakers.

Conservatism in the LA diaspora is also evident in the linguistic attitudes of the LA speakers. The LA teens ranked linguistic proficiency as the most important aspect of being Thai, over lifestyle choices and physical appearance. Linguistic proficiency, in fact, is the pillar of Thai identity construction for the LA teens whereby older community members, like their mothers and not their peer group, serve as their linguistic role model. Despite consuming the same Thai language media as the BKK speakers, the LA speakers do not seem to be modelling their speech after speakers in the ‘homeland’.

The results from this study demonstrate that the Thai diasporic speech community in LA is linguistically conservative when compared to ‘homeland’ speakers in BKK. Further, teen speakers in the LA diaspora are not linguistic innovators, unlike the BKK teens; rather, they model their speech after older community members, particularly their mothers. The diasporic Thai speakers are conserving tonal features no longer being used by BKK speakers in their age group.

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Retraction or Raising? A comparison of /æ/ among Vancouver, B.C. and Seattle speakers

Julia Thomas Swan #70

Boberg (2008) identifies /æ/ allophones as “one of the most intricate and regionally diagnostic variables in North American English.” The current study provides an empirical account of /æ/ related to social identity in an under-studied dialect region, the Pacific Northwest. The study compares realizations of /æ/ in two neighboring cities: Seattle, Washington and Vancouver, B.C. Despite the presence of a national border, Washington State and B.C. English dialects are fluid; they share many features and may be distinguished by only a few isolatable linguistic variables (Labov, Ash, and Boberg 2006). Among features distinguishing the two dialects are the distinct changes in progress reported for /æ/. Retraction of /æ/ is cross-continentially common in Canadian English including in B.C. English (Esling and Warkentyne 1993, D’Arcy 2005, Boberg 2008 and 2012, Sadlier-Brown and Tamminga 2008, Pappas and Jeffrey (in press)).

Studies of /æ/ among Seattle speakers have focused on pre-velar raising and fronting of /æ/ (and other front vowels) and have not assessed retraction in other phonetic contexts (Wassink et. al. 2009, Evans 2010, Freeman 2013). No known studies compare /æ/ realizations within these speaker populations. Seattle and Vancouver also offer an opportunity to examine this variable in relation to nested social identities (neighborhoods, urban centers, regionalism, and nationality).

The analysis presents findings from a production study that collected over 27,000 vowel tokens of Vancouver, B.C. speakers and Seattle speakers. Different phonetic environments of /æ/ are analyzed (relative to /ɛ/ and /e/) using linear regression. The data are taken from a word- list reading task constructed to elicit tokens of /æ/, /ɛ/ and /e/ in a wide range of phonetic environments, while also surveying the 40 participants on questions related to their socio- cultural identities and networks. The .wav interview files were transcribed in PRAAT (Boersma & Weenink 2015). Phonetic tokens were force aligned using the Penn FAVE aligner (Rosenfelder 2011), all were hand-checked, and formant data were extracted using FAVE- extract. The data were imported into R for normalization, statistical analysis and plotting.

The results show that Seattle and Vancouver speakers are behaving similarly with respect to raising in voiced pre-velar environment as indicated by higher F1 values at mid-point, but they show distinct patterns for /æ/ in other environments. Specifically, Vancouver speakers show more retracted variants of /æ/ before fricatives like /θ/, as indicated by lower F2 measurements at mid-point. This confirms the findings of previous studies focused separately on Seattle and Vancouver, unifying these with a single methodology, while also identifying a divergent feature of the two dialects. A contrast is illustrated between what appears to be a phonetically-motivated change (pre-velar raising) occurring in both dialects and what appears to be a dialect-specific one (retraction). The level of metalinguistic awareness for these /æ/ variants differs considerably between speakers in the two cities: while many Seattle speakers expressed awareness or stigma around the pronunciation of /æɡ/ as /eyɡ/, retraction of /æ/ as in /baθ/ was not cited by any Vancouver speakers as a feature they were aware.

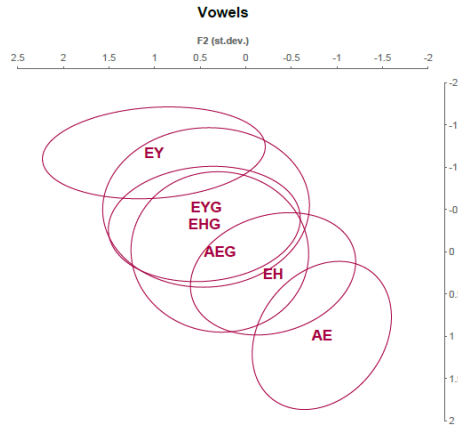


Figure 1. Vancouver /æ/, /ɛ/, and /e/ with pre-velars separated. Lobanov-normalized, Hertz-scaled.

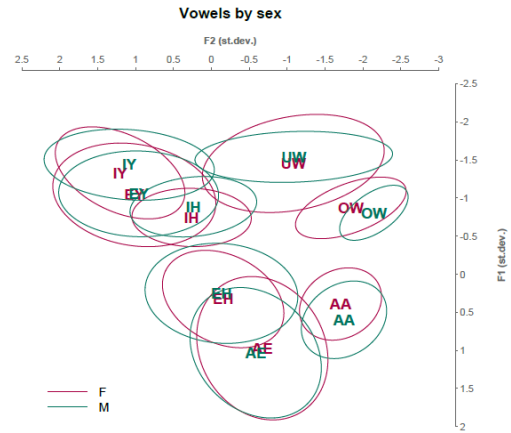


Figure 2. Vancouver vowel space by male and female speakers. Lobanov-normalized, Hertz-scaled.

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“I sound Irish, like”: Investigating the acquisition of local phonology by new migrants to Northern Ireland

Jennifer Thorburn and Karen P. Corrigan #211

The acquisition of local variants by migrants in the British Isles has become more prominent in recent sociolinguistic research as a result of the unparalleled in-migration the region has experienced in the past decade (e.g. Verma et al. 1992, Schlee et al. 2011, Drummond 2012, Nestor et al. 2012). This influx of migrants can be attributed primarily to the European Union enlargement in May 2004, when Malta, Cyprus, and the “A8” countries (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia) joined. In the wake of this enlargement, many member states imposed labour restrictions on nationals from these countries though the United Kingdom and the Republic of Ireland did not, resulting in a dramatic rise in immigrant numbers.

In this paper, we focus on a region of the British Isles that has not been discussed in recent literature on language and migration: Northern Ireland (NI). Specifically, we describe how pre-adolescent and teenage migrants are acquiring English in three communities across NI: Belfast, the capital city and urban centre of the region; Armagh, a medium-sized town; and Donaghmore, a rural village. Drawing on sociolinguistic interviews collected in schools in these communities, we analyse the following variables in the speech of NI, Polish and Lithuanian youngsters:

1. (ING), a “staple” (Hazen 2006:581) sociolinguistic variable often used as a baseline for cross-community and cross-dialect comparisons (Labov 2001);
2. The realization of interdental fricatives, a “key [variable] for distinguishing between the English dialects of Ireland” (Corrigan 2010:41);
3. Schwa epenthesis in clusters of two sonorants (e.g. *film* realised as [filəəm]), a salient feature of Irish dialects (Corrigan 2010, Kallen 2013).

An examination of these variables in the speech of locally born young people and their migrant peers allows us to determine if and/or how newcomers are acquiring NI English and whether there is evidence of transfer from their first languages (L1).

Analyses of the speech of 24 Armagh teenagers (stratified according to sex and L1/ethnicity) show significant variation among the NI, Polish and Lithuanian groups. Regarding the realisation of interdental fricatives (N=734 for (TH), N=1424 for (DH)), NI and Lithuanian participants have similar rates of use though mixed-effects models reveal differing social and linguistic constraints in the selection of [t, d] over standard variants; Polish teenagers are split into two groups, one favouring [f] and the other [t], also with different constraints. Interestingly, epenthetic schwa (N=548) is infrequent in all three groups. Local participants are able to epenthesise in a wider variety of clusters while the Poles and Lithuanians’ use of [əə] appears to be restricted to particular clusters/lexemes. For (ING) (N=1146), the three groups have different distributions of variants and constraints. While some of this variation may be due to L1 transfer in the speech of non-locals, these initial analyses demonstrate that the linguistic landscape of NI is becoming increasingly complex, and that newcomers are both similar and dissimilar to their local

peers.

Variationist typology: Structure of variable subject expression in English and Spanish

Rena Torres Cacoullas and Catherine Travis #197

Functionalist typologists and formalist syntacticians largely converge on a classification of language types according to the expression of pronominal subjects (e.g. Dryer 2011; Roberts & Holmberg 2010: 5). Asking how the postulated language types are distinguished in actual speech, we apply the variationist comparative method (Poplack & Meechan 1998) to compare a “non-null subject language”—English—with a well-studied “null subject language”—Spanish, and put forward *variationist typology*, according to which cross-linguistic types are distinguished by the structure of intra-linguistic variability. The database is first- and third-person singular verbs with specific human subject referents extracted from the Santa Barbara Corpus of Spoken American English (SBCSAE, Du Bois et al. 2000-2005) and the Corpus of Conversational Colombian Spanish (CCCS), N=701 and N=2,423, respectively.

Along with patently different rates of expression (approximately 4% unexpressed in English compared with 60% in Spanish), English has a narrower envelope of variation. Prosodically-based transcription of these conversational data confirms that, in English, outside the context of coordinating conjunctions (as in (1)), unexpressed subjects are restricted to prosodic-initial position in declarative main clauses (as in (2)) (cf. Harvie 1998: 21; Leroux & Jarmasz 2005: 4; Roberts & Holmberg 2010: 90; Weir 2012). Spanish, contrarily, has no such prosodic restriction (and in fact prosodic-initial position favors pronominal subjects), and has variability in both main and subordinate clauses.

- (1) a. .. she laughed and \emptyset said, (SBCSAE 28:837)
b. (H) So this man walked up to him and **he** said, (SBCSAE 08:1224)
- (2) ... (H) my wife had fallen in lo=ve,
... with a,
... Mexican artist by the name of ... Nierman.
... \emptyset Forgot his first name. (SBCSAE 60: 109–112)

Within the variable context, however, a locus of similarity between English and Spanish is coordination. Though this has been assumed to constitute a discrete category for English as a non-null subject language (under notions such as “VP coordination” or “conjunction reduction”), instead, we find gradience, that is, higher rates of unexpressed vs. pronominal subjects the tighter the link between the target and the previous coreferential subject, where linking is both prosodic (when both verbs are on the same prosodic unit or separated at most by a continuing intonation contour), and syntactic (when a coordinating conjunction, usually *and*, is present, as in (1)).

Further comparison of the linguistic conditioning within each language’s variable context reveals remarkable similarities in the structure of variability. Unexpressed subjects in both English and Spanish are favored when linked prosodically and syntactically with the preceding coreferential subject (*subject continuity-linking*) and with a temporal relationship between corresponding verbs (*temporal linking*) as well as when the preceding coreferential subject was also unexpressed

(*Coreferential Subject Priming*), though the complementary disfavoring effects—switch reference and absence of a temporal relationship—are stronger in English. These can be characterized as discourse and cognitive factors, which have been found in other so-called “null-subject” languages and are therefore candidate cross-linguistic constraints (cf. Cameron 1994). The structure of variability may provide greater insights into universals than do abstract classifications.

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Perceptual characteristics of speech produced by self-identified gay and heterosexual male speakers

Erik Tracy and Keith Johnson #3

Numerous research studies have clearly demonstrated that listeners are able to distinguish between self-identified gay and heterosexual male talkers of American English (Gaudio, 1994; Linville, 1998; Munson, McDonald, DeBoe, and White, 2006). The results of these studies are less clear as to which acoustic cues listeners rely on when forming their sexual orientation judgments and whether listeners from different geographic regions rely on the same repertoire of acoustic cues. The present series of experiments examined these two issues.

One purpose of Experiments 1 and 2 was to investigate the perceptual weights given to four different acoustic cues (e.g., f_0 , and the acoustic information contained in bursts, formants, and fricatives) as listeners identified the sexual orientation of talkers. To accomplish this objective, we created a series of continua by resynthesizing the voices of a gay and heterosexual male talker. A similar procedure was also employed by Mack and Munson (2012). Each continuum morphed between one voice and the other. One set of continua was created from the word *cigarette* and the other continua was created from the word *absent*. These two words were chosen because each word contains similar acoustic properties, and five continua were created for each of the two words. Within four of the continua, one acoustic cue varied while the other cues remained constant, and within the fifth continua, all of the acoustic cues varied.

A second purpose of the experiments was to examine whether listeners from different geographic areas, such as California and North Carolina, relied on the same or different repertoire of acoustic cues to form their sexual orientation judgments. Listeners from these two regions were presented with both the *cigarette* and *absent* continua.

The results demonstrated that listeners were better able to differentiate the talker's sexual orientation when all of the acoustic cues varied; their ability to identify the talker's sexual orientation decreased when only a single cue varied. Furthermore, with respect to the *cigarette* continua, listeners relied on the fricative cue to identify the talker's sexual orientation along the *gay-sounding* end of the continuum. With respect to the *absent* continua, listeners relied on the formants cue to identify the speaker's sexual orientation along the *gay-sounding* end of the continuum. The size of these two acoustic cues' impact on perception was dependent on which word a listener heard. The results described here were similar for both the California and North Carolina listeners.

We concluded that listeners rely on multiple acoustic cues, and not a single cue, when forming their sexual orientation judgments. Moreover, listeners from different geographic regions rely on the same repertoire of cues. These findings provide important information about which acoustic cues different groups of listeners rely on when distinguishing between self-identified gay and heterosexual male talkers of American English.

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Is Heritage Language Phonology Conservative?: Evidence from Variation and Change in Toronto Heritage Cantonese Vowels

Holman Tse #237

Some researchers and language teachers have observed that HL (Heritage Language) speakers sound “native-like” in their phonology (Polinsky and Kagan 2007) in contrast to their “incomplete acquisition” of morpho-syntactic features (Montrul 2008). Yet, these impressions of conservatism in phonology have largely been anecdotal. Only a handful of studies have specifically examined HL vowel systems using acoustic data (cf. Godson 2003 for Western Armenian; Chang et al. 2011 for Mandarin; Ronquest 2013 for Spanish).

In this talk, I present data from a study of intergenerational (GEN 1 vs. GEN 2) vowel change in Toronto Heritage Cantonese to address the question of conservatism in HL phonology. Can we find evidence for conservatism through acoustic analysis of vowels in sociolinguistic interview data?

The data examined comes from the Heritage Language Variation and Change (HLVC) in Toronto Project (Nagy 2011), which includes recorded and transcribed hour-long sociolinguistic interviews and responses to an Ethnic Orientation Questionnaire (EOQ). The F1 and F2 of 75 vowel tokens were measured and normalized across two phonetic contexts (pre-velar-coda and open-syllable) for each of four vowel categories (/i:/, /u:/, /ɛ:/, and /ɔ:/) from each of 17 speakers (1,020 vowel tokens). Rbrul (Johnson 2009) was used to run mixed effects models with phonetic context, generational background, sex, age, and Ethnic Orientation (EO) continuum scores (Nagy et al. 2014) as independent variables to model variation in the continuous dependent variables F1 and (in separate analyses) F2. This presentation will focus on the following results:

- (1) There is a significant lowering effect (higher F1) of /i:/ and /u:/ in pre-velar context (compared to open syllables) across the speech community ($p < 0.001$). This lowering effect has also been described in Homeland Cantonese (Yue-Hashimoto 1972; Bauer and Benedict 1997).
- (2) There is a split pattern based on generation in the realization of /ɛ:/ across phonetic contexts ($p < 0.01$ for F2) and a similar split based on generation and sex for /ɔ:/ ($p <$ for F1). Unlike GEN 1 speakers, GEN 2 speakers produce allophonic splits in these two vowel categories. These allophonic splits have not been described as a feature of Homeland Cantonese (Yue-Hashimoto 1972; Bauer and Benedict 1997).
- (3) Both sex ($p < 0.01$) and Ethnic Orientation scores ($p < 0.05$) are significant predictors of variation in the F2 of /ɛ:/, but only for GEN 2 speakers. Female speakers produce significantly more centralized variants of /ɛ:/ than male speakers, while higher EO scores (more Chinese-oriented) correlate with more fronted variants of /ɛ:/. The fronting of /ɛ:/ also occurs along with the alveolarization of syllable-final /ŋ/, which is an innovation that has also developed in Homeland Cantonese (Matthews and Yip 2011).

Overall, the results show more evidence for innovation (likely due to contact with Toronto English) than for conservatism in the vowel system of Toronto Heritage Cantonese. Still in its infancy, the study of HL variation and change has much to contribute to developing a better understanding of the various mechanisms motivating linguistic change.

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A social explanation for a gender difference in the size of terminal rising pitch

Joseph Tyler #252

This study analyzes variation in rising pitch in everyday conversation from the Santa Barbara Corpus of Spoken American English (henceforth SBC). Previous studies of final rises (aka HRT, uptalk) in English have found gender differences in rise production, with women producing more, larger, and later-starting rises than men.

Studies have also shown a discourse function effect, with question rises produced differently from statement rises, though the difference depended on dialect (Fletcher and Harrington 2001; Ritchart & Arvaniti 2013). These results lend themselves to the following predictions: 1) question rises will be larger than statement rises, and 2) women's rises will be larger than men's rises. Results from other dialects show evidence of interactions between gender and utterance type, but not in consistent ways. A tentative hypothesis 3) is that there will be an interaction between gender and utterance type on rise span.

The spoken data used as the basis of this corpus analysis come from Disc 1 of the SBC, which captures a wide cross-section of everyday American English from the early 1990s, from many regions of the United States, in everyday settings. The SBC comes with all sound files transcribed using a system that codes final pitch contour (rise, flat, fall) for every intonation unit. The set of all rises (n=949) was reduced to just those

deemed phonetically analyzable (n=636). Each rise interval was then annotated to a TextGrid and then queried with a Praat script extracting rise start (f0 valley), rise end (f0 peak) and rise duration measures. Outliers were checked manually, and 58 unanalyzable tokens were excluded, resulting in a final set of 578 tokens. f0 measures were converted to semitones for analysis. Questioning was independently coded by three coders, with tokens marked by at least two deemed questions.

Results (modeled with linear mixed effect models, with random effects for speaker and conversation) showed question rises were larger than non-question rises (t=2.28), but no effect of gender on rise span. There was, however, an interaction between gender and questioning on rise span, with women producing larger rises on their questions than non-questions, while men did not (see Figure 1). Research on language and gender has moved to understand gender as constructed

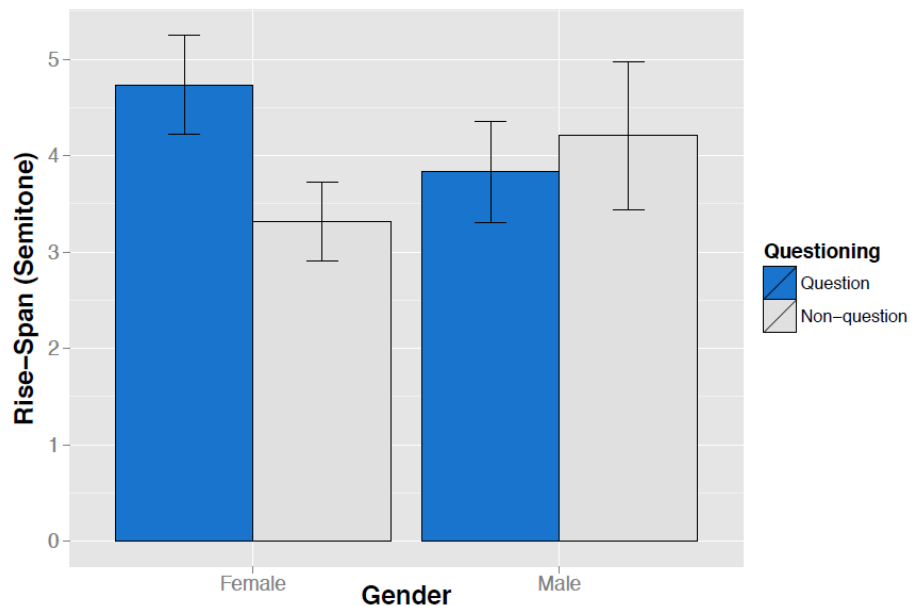


Figure 1: Bar graph of rise-span for questions and statements, clustered by gender.

out of locally relevant stances and styles (Eckert and Podesva 2011; Cameron 2011). While a micro-analysis of each rise in its interactional context is beyond the scope of this study, the descriptions of each conversation suggest a split between conversations between intimates (friends, family) and others being more task-related. A binary variable capturing this contrast significantly predicts rise span ($t=2.01$), with more social, intimate interactions showing larger rise spans. By creating an expectation for a response, questions involve an interlocutor in ways statements do not. If more social intimacy leads to larger rise spans, then the gender difference in rise spans on questions vs. non-questions could be explained either as an inhibition by men to fully express the social nature of questions, or an embrace of the sociality of questioning by women.

All My Natives: The use of Native as an In-Group Term in the Aboriginal Hip-Hop Community

Chimwemwe Undi and Veronica Loureiro-Rodriguez #218

This paper is part of a larger research project in which we look at how Aboriginal rappers use hip-hop as a means with which to experience and engage Aboriginal Canadian identities, while simultaneously asserting authentic membership to global hip-hop culture. In this presentation, we will focus on how the address term *native* is being used and perceived by self-identified Aboriginal rappers and college students, as well as on its use in social media. Our study will reveal a connection between the use of *native* and participants' identification and interaction with hip-hop culture, especially rap music.

Rahman (2012, p. 159) identifies the use of *nigger* by young Black people, who she deems the hip-hop generation, and who reclaim the slur by using the repurposed *nigga* as an "expression of a proactive and independent attitude founded in hip-hop identity". The use of this form of address is central to the projection of an authentic and autonomous hip-hop identity, one which replaces *nigger* and its racist connotations with *nigga*, which is used as an in-group term and expresses a sense of pride and cool solidarity, especially among Black males (Smitherman, 1994). However, *nigga* is only available to Black rappers, who can use it as a positive in-group solidarity marker with one another and with non-Black rappers, but non-Black rappers cannot reciprocate (Cutler, 2009), leaving them to find an alternative way to address one another. Among Aboriginal Canadian rappers, *native* appears to function as a culturally appropriate substitution for *nigga*, occurring in rap lyrics where *nigga* might otherwise, as in examples (1) and (2):

(1) "Lemme show you how a real *native* go and do it" – Paper Music, Team RezOfficial

(2) "I'm shootin' like I'm Ovechkin, you *natives* can get to steppin'" – Winnipeg Boy, Winnipeg's Most

Drawing from the lyrics of Aboriginal Canadian hip-hop acts (including Wab Kinew, Eekwol, Hellnbak, Jon C, Team RezOfficial and Winnipeg Boyz), social media (see examples 3 – 5), and interviews with self-identified Aboriginal Canadian post-secondary students, our paper will show how the term *native* has been reclaimed as a positive in-group term of address, specially among speakers who identify and interact with hip-hop culture.

(3)

TO ALL MY NATIVES OUT THERE WHO REPRESENTING, STAY UP!

#NATIVE #NATIVEAMERICAN #NATIVEPRIDE #POSTIVITEINFLUENCE

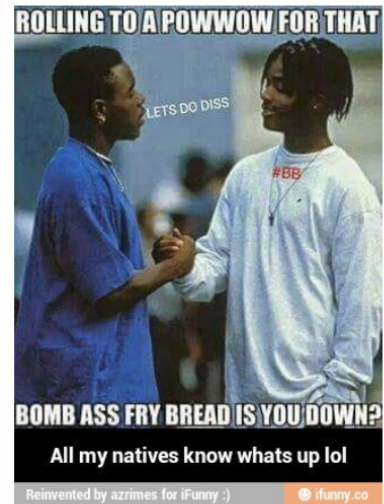
(4)



January 13 at 8:10am

Attention All My Natives I need Your Help
YOU CAN VOTE ONCE A DAY ***I'm going to be
Representing #Oklahoma & #Iowa. I'm Also

(5)



While not strictly analogous to the reclamation and repurposing of *nigga*, due to the lack of similar historically racist connotation, *native* is nonetheless used to express pride in their marginal racialized identity, an identity navigated through and alongside belonging to the hip-hop nation. The use of *native*, along with code-mixing and the indexing of global varieties, serves to shift hip-hop from its prototypical Black American expression and towards a variety which better illuminates the unique cultural experiences of the Aboriginal peoples of Canada.

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Brocatives: A pilot study of nominal forms of address in Winnipeg

Matthew Urichuk and Verónica Loureiro-Rodríguez #239

This study is part of larger ongoing project on nominal terms of address in Winnipeg (Canada). In this presentation we will discuss the results of a pilot self-report survey on the use of the vocatives or familiarizers (Biber et al., 1999) *dude*, *man*, *bro*, and *brah/bruh*. Our findings will shed light on how gender, age, and social distance influence the use of these terms of address.

Data for this pilot project was gathered through an online survey that replicated Kiesling's (2004) self-report survey on the use of *dude*. Respondents were asked how often they used the terms *dude*, *man*, *bro*, and *brah/bruh*, and whether they would use them with particular addressees (i.e. significant other, close friend, acquaintance, stranger, sibling, parent, boss) using a Likert scale (very likely – unlikely). A link to the survey was distributed through Facebook and Reddit.

Preliminary statistical analysis of 147 responses (96 males, 50 females, aged 16-63) suggests that *man* is the most used vocative, followed by *dude*, and the only one showing a statistically significant age dependence (p-value under 3%), with participants in their 30s reporting a lower use than younger and older generations. We found that use of *man* and *dude* is not affected by the gender of the speaker; it is only affected by the gender of the addressee. Males and females reported similar uses of *bro*, but statistically significant differences across genders were found in the use of this vocative depending on the addressee, with males using *bro* to address parents, bosses, professors, and strangers more frequently than their female counterparts. However, both genders were very unlikely to use this vocative to address these listeners. *Bro* is reported to be used a statistically significant amount more than its variants *brah/bruh*, regardless the gender of the speaker. *Brah/bruh* appears to be the least used vocative, with males using it more than females, a difference in use that was statistically significant. Results further showed that male speakers were more likely to use *brah/bruh* to address a female listener if they were in a close relationship.

Our preliminary findings suggest that male and female Winnipeggers use *dude*, *man*, *bro* similarly, with social distance and gender of the addressee being the most important factors determining the use of each of these vocatives. *Brah/bruh* is the only vocative to show statistically significant gender dependence, hinting at a potential covert prestige status. Additional data will be gathered during June-August 2015 by means of an updated version of this survey and natural observation to offer a more comprehensive and nuanced description of the use of these vocatives across genders and age groups.

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The susceptibility of intonation in contact situations: a case study of New Mexican Spanish

Jackelyn Van Buren #173

This study researches the susceptibility of the prosodic variable pitch peak alignment to contact-induced change. New Mexican Spanish is examined as a case study for Spanish intonation in contact with English. Pitch peak is an acoustic manifestation of stress; in non-contact varieties of Spanish, such as Mexican Spanish (and unlike in many other languages), the pitch peak follows the syllable that carries the lexical stress in broad focus declarative statements (Face 2001). In contact varieties of Spanish, however, pitch tends to peak earlier, within the tonic syllable (O'Rourke 2003; Colantoni & Gurlekian 2004; Michnowicz & Barnes 2013). The present study analyzes pitch in spontaneous speech in New Mexican Spanish and investigates the following research questions: 1) Does New Mexican Spanish pattern like other contact varieties of Spanish with regards to having early pitch peak alignment?, and 2) how does this pattern relate to sociolinguistic variables such as age, gender, and language background?

Pitch was analyzed in the speech of two groups of participants: 4 NM bilingual Spanish-English speakers (2 male, 2 female) and 3 speakers of Mexican Spanish (1 male, 2 female) who make up the control group. The data come from two sources: 1) NM speakers from the *New Mexico-Colorado Spanish Survey* (Bill & Vigil 2008); (2) Mexican Spanish speakers from *Shin's Corpus of Spanish in Washington/Montana*, which consists of sociolinguistic interviews with migrant farm workers. Between forty and fifty tokens of syllables within broad focus declarative statements were extracted from each interview for a total of 304 tokens using the acoustic analysis software PRAAT (Boersma 2001). The placement of pitch peak relative to syllable boundaries was then measured. The dependent variable was calculated as the normalized temporal distance between the pitch peak and the end of the accented syllable.

Results show that pitch peak alignment falls within the stressed syllable in NM Spanish.

The overall early peak alignment rate was significantly earlier for the NM Spanish speakers (60% in the stressed syllable) than for the Mexican Spanish speakers (38% in the stressed syllable) [$t(6)=4.46$, $p = .004$]. In a multivariate analysis using Rbrul (Johnson 2009), *Language variety* (NM vs. Mexican) was significant ($p < .003$), as well as two phonetic variables: *Voiceless segment* ($p < .01$) - the peak is likelier to fall within the stressed syllable if a voiceless segment is present in the immediate phonetic environment - and *Number of Syllables in Word* ($p < .05$) - the more syllables in the word, the more likely the peak is to fall post-tonically. The results from the variable *Language variety* indicate that NM Spanish speakers are more likely to produce early peak alignment than speakers of Mexican Spanish.

This raises questions of why it is that contact varieties of Spanish, influenced by languages as different as Italian and Yucatan, consistently align the pitch peak within the stressed syllable. Rather than attributing this to substratum influence, I suggest that a natural inclination towards aligning peak with the stressed syllable is encouraged by contact with other languages.

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(Re)defining the envelope of variation: A discussion of adjectival intensification

The first researchers to study a linguistic variable develop approaches and methodologies that are often replicated and reified by subsequent scholars. While much is to be said for standing on our proverbial ancestors' shoulders, we feel that the variationist sociolinguistic enterprise needs to be mindful of the benefits and limitations of this epistemological founder principle. In this talk we argue that reconsidering established approaches can nuance our analyses and provide added insight into the communities and varieties under investigation, as demonstrated by Walker and Meyerhoff's (2006) reinterpretation of the "following grammatical category" constraint for copula deletion, for example.

We propose a similar reinterpretation, this time of the *variable context*, for a variable diagnostic of rapid sociolinguistic change (Ito and Tagliamonte 2003; Van Herk and OIP 2006; Tagliamonte 2008; Lealess et al. 2009; Barnfield and Buchstaller 2010): the intensification of adjectives, illustrated below in (1).

- (1) a. He's **right huge**. (Molly, 3f)
- b. Oh, yes, she's a **very good** baker. (Robert, 1m)
- c. Sometimes it gets **really intense**. (Evan, 3m)

Since Ito and Tagliamonte's (2003) foundational paper, many researchers have defined the variable context as the full range of intensifiable adjectives (e.g., *red* and *cool* are in, *hand-carved* is out), whether overt intensification occurs or not. In this paper, we demonstrate the consequences of variable definitions of intensification: On the one hand, the formal definition proposed by Ito and Tagliamonte (2003) considers "all AdjPs", including unintensified zero tokens. On the other hand, a functional definition, i.e. "all of the adverbial strategies have at their disposal to reinforce or boost the meaning of the adjectival head they modify" (Barnfield and Buchstaller 2010: 4-5; see also Rickford et al 2007), considers all *intensified* adjectives.

We highlight the differences in outcome, and consequently interpretation, using two corpora which vary in terms of region, size, and medium: spoken Labrador Inuit English (N=1399, 20% intensified), in a community undergoing rapid language shift, and written data (N=9441, 34% intensified) from forums for different online subcultures. Comparing results for frequent intensifiers highlights the differences that including or excluding non-intensified tokens can make. In Labrador, *very*, *pretty* and *real* have the same constraints in both runs, though the relative ordering and weight change, while *right* and *really* show different significant factors. In the online data, *really*, *so*, and *very* show changes in ordering and weight. In both cases, the inclusion of zero forms obscures important social and apparent-time effects. As such, we argue that deciding to intensify is a different discourse/pragmatic process than choosing among intensifiers. Consequently, studies that investigate speakers' intensifier choice should take only intensified tokens as their variable context; otherwise, true effects can be masked by the preponderance of non-intensified tokens (typically over 60%), which are themselves linguistically and socially constrained.

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Wh[ʊ] is a V[ɑ]lley girl? Assessing dialect recognition with resynthesized matched guises

Dan Villarreal #176

Californians tend to view California English as relatively standard (Bucholtz et al. 2007; Fought 2002). This view contrasts with ongoing phonological changes in California, namely the California Vowel Shift (CVS; Eckert 2008), which includes front lax vowels backing and lowering (e.g., [ɑ] for TRAP) and high and mid back vowels fronting (e.g., [ʊ] for GOOSE).

California thus presents a situation similar to the Upper Midwest, where an ideology of standardness that locates the most “correct” English in the Upper Midwest is held so strongly that Michiganders mishear Northern Cities Shift vowels as their nonshifted counterparts when told that the speaker is a Michigander (Niedzielski 1999). Moreover, California is the subject of persistent folk-linguistic portrayals as the site of Valley girls and surfer dudes (Preston 1996).

This apparent contrast between Californians’ perceptions, sociolinguistic reality, and popular portrayals raises several questions. Do Californians recognize the CVS as Californian? What social meanings do Californians attach to the CVS? This paper addresses these questions through a dialect recognition task (Williams et al. 1999) with matched guises—California-shifted vs. conservative—differing by two representative CVS vowels: TRAP and GOOSE.

Stimuli were drawn from cartoon retell tasks conducted in sociolinguistic interviews with 12 lifelong California English speakers: three regions (San Francisco Bay Area, Lower Central Valley, Southern California) × two ethnicities (Latin@, Caucasian) × two genders (female, male). Two short excerpts (~10.5 seconds each) were drawn from each retell, and two guises were created from each excerpt by modifying F2 of each TRAP and GOOSE token via source-filter resynthesis. Californian guises featured backed TRAP (average F2: female 1626 Hz, male 1464 Hz) and fronted GOOSE (average F2: female 2119 Hz, male 1793 Hz); conservative guises featured fronted TRAP (average F2: female 1895 Hz, male 1765 Hz) and backed GOOSE (average F2: female 1640 Hz, male 1336 Hz). Ninety-three Californians participated in the perceptual task. In each trial, listeners identified the regional origin of the speaker and rated the speaker on 12 affective scales.

A comparison of scale ratings revealed that Californian guises were rated significantly higher than conservative for *sounds like a Valley girl*, *Californian* ($p < .01$), *confident*, and *rich* ($p < .05$). In addition, significantly fewer Californian guises than conservative guises were identified as from outside California (13.5% vs. 20.8%, $p < .005$). These results present evidence that Californians recognize the CVS as Californian, unlike Upper Midwesterners who do not recognize the Northern Cities Shift as Upper Midwestern (Niedzielski 1999). This suggests that either the CVS is emerging as the new standard (Becker et al. in press) or Californians have a less restrictive notion of “standardness” than Upper Midwesterners (Fought 2002). Evidence from the present study suggests the latter; neither guise was rated significantly higher on the question “How suitable do you think this speaker would be for a job requiring speaking to an audience?” ($p = .39$).

These results suggest a connection between language variation and variation in folk-linguistic frameworks: as Californians realign their vowel system, they’re also realigning a notion of

standardness.

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The trajectory of language shift among Vlashki/Zheyanski speakers in Croatia

Zvezdana Vrzic and John Victor Singler #207

Vlashki/Zheyanski is a severely endangered Eastern Romance language spoken on the Istrian peninsula of Croatia. Zheyanski is spoken in the village of Žejane, and Vlashki refers to the variety spoken in five villages further south. The two areas are fifty kilometers apart and do not have a tradition of contact in modern times. Today there are approximately 120 fluent and active native speakers in Žejane and the southern villages.

In previous work we considered macrosocial forces that have led to the severe endangerment that Vlashki/Zheyanski faces today. The most important of these have been the massive depopulation of the Istrian peninsula and, more recently, the loss of isolation of the Vlashki/Zheyanski-speaking villages. In the face of these larger social factors, what is the trajectory of language shift? To get at this, we developed a questionnaire that was then administered by native speakers of Vlashki/Zheyanski to 32 individuals across four age groups. The questionnaires elicited respondents' self-reports regarding their language use with particular interlocutors and in different social situations as well as their attitudes about language and about identity. In the present study, we focus on what speakers reported about their language use.

Rickford (2002) argues for the increased use of implicational scaling in the study of language variation and change. He identifies it as valuable "for revealing structure in variability" (p. 142). Through the measurement of "scalability," implicational scaling provides a metric whereby the degree of systematicity of the language phenomenon a scale instantiates can be assessed. In the present study, we follow Gal (1978) in using implicational scaling as a tool for studying language shift. Specifically, we construct implicational scales based on respondents' answers to our questions about language use.

In the remainder of this abstract, we point out some of the main points from the Vlashki scale. The scale identifies three major groups among the respondents. Members of one group, generally the oldest respondents, report speaking Vlashki at home and with neighbors while speaking both Vlashki and Croatian in the community. The second group, essentially the next-oldest group, report speaking both Vlashki and Croatian at home and Croatian in the community. The youngest speakers, the third population group, report speaking Croatian everywhere. We maintain that this overall shift in language use parallels an attitudinal shift. In Fought's (2006) terminology, members of the community are moving from local to extra-local orientation.

The implicational scaling demonstrates a strong overall correlation between a respondent's age and language use, but it also calls attention to speakers whose language use diverges from that their cohort. For example, there is a 61-year-old man who is more conservative linguistically than all but one of the oldest speakers (75-84). In contrast, there is a 51-year-old woman who patterns with participants 35 and younger. We discuss the positioning of these two exceptional individuals vis-à-vis the local vs. extra-local opposition. In addition, we evaluate implicational scaling as a tool for use in the study of language shift, particularly when the language being shifted away from is endangered.

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Variability of the (ing)-Allomorphy and Production Planning

Michael Wagner and Meghan Clayards #344

Variable phonological processes have often been accounted for by enriching the formalism and directly encoding the probabilistic application rate of a process. For example, Labov (1972)'s variable rules enrich the notation of rules by add information about other factors that affect the probability of its application; another example of this approach is more recent formalizations of probabilistic constraint ranking within OT (cf. Coetzee and Kawahara, 2013). Certain types of variability, however, may not need to be 'hardcoded' in this way, once we take into account the locality of production planning (cf. Levelt, 1999). We explore this idea by looking at the allomorphic choice between two pronunciations of the affix *-ing*. English *-ing* varies between two allomorphs [in] and [iN]. Across different varieties of English this variation has been shown to depend on gender, speaking style, and class (Fischer, 1958; Labov, 1972; Trudgill, 1972). Phonological factors also play a role (Houston, 1985, and references therein), e.g., the allomorph [in] is more likely when a coronal segment follows.

Here, we are most interested in these phonological effects.

If phonological processes are directly constrained by production planning, segments of a following word should only be probabilistically 'available'. Availability should depend on whether the first segment of the following word has already been retrieved at the point when the articulation of the final cluster is planned. We assume that the size of the prosodic boundary separating two words affects the extent to which the second word has been planned when the first word is realized. We then expect that the effect of the following segment *to be gradually modulated by the size of the boundary separating the two words*. A production study was conducted that varied prosodic boundary strength indirectly via a syntactic manipulation:

- (1) a. Transitive *the*
Whenever the boy was browsing the book the game would fall off ~~the~~ table.
- b. Intransitive *the*
Whenever the boy was browsing the book would fall off ~~the~~ table.
- c. Transitive *a*
Whenever the boy was browsing a book the game would fall off ~~the~~ table.
- d. Intransitive *a*
Whenever the boy was browsing a book would fall off the table.

Methodology: 35 native speakers of English produced 45 sentences drawn from items like (1) in a Latin-square-design. Prosodic phrasing was analyzed using forced alignment (Gorman et al., 2011), and subsequent extraction of various acoustic cues to measure boundary strength. Allomorph choice was determined by perceptual annotation, and also by looking at acoustic features of the nasal.

Results and Discussion: The results show that the effect of the following phonological environment on the choice of allomorph is modulated quantitatively by the strength of the prosodic boundary, as predicted by the locality of production planning. We also found effects of gender, in tune with previous results in the sociolinguistic literature, showing that our results might be generalizable to findings from non-laboratory speech. The results provide new insights into the understanding of the

(ing) variable, and have methodological consequences for the study of other variable processes.

Tellin' the whole story – tales of frequency and non-linearity in (supposedly) stable variation

Susanne Wagner #97

One of the old favourites in sociolinguistic analysis, the variable (ing) has been investigated (e.g. Fisher 1958) even before the discipline had been fully established. Since then, we have learnt that (ing) is one of the variants considered as a stable sociolinguistic marker, exhibiting stylistic, social and linguistic constraints: informal styles favour the alveolar /n/ variant; lower socioeconomic classes favour /n/; men favour /n/; and /n/ is most frequent in verb-derived forms (e.g. Hazen 2008, Tagliamonte 2004, Trudgill 1974). In addition, Campbell-Kibler (2007) has shown how perceptions come into play in (ing) variation in the United States.

The present paper will add to the established canon by analysing new data from a variety of English English: based on a corpus of 17 sociolinguistic interviews (stratified for age and gender) recorded in Oxford (UK) and the surrounding area, some 3,000 tokens of (ing) in one style (colloquial, informal interview style) are submitted to statistical analyses. Results from mixed-effects logistic regression confirm previously established hierarchies for grammatical distributions: verbal forms (progressive, participle) favour the alveolar variant (/n/), while nouns and adjectives are mostly realised as velar /ŋ/. Sub-models reveal different constraints per word class / part of speech for variables like phonological context (cf. Tagliamonte 2004).

Our main focus here is however on a variable that to our knowledge has not been included in studies on (ing): (lexical) frequency (but cf. Tagliamonte 2004 with significant effects of and interactions with variable “number of syllables”). Including log₁₀ transformed frequency (based on the spoken component of the British National Corpus) as well as random effects for speaker and word in the model shows that frequency is in fact consistently significant across different models.

Advancing the statistical modelling based on previous research (author ref.) beyond the typical types of frequency effects generally included (i.e. either as a categorical or a linear variable) led us to generalised additive models (GAMs). These enable visualisation and statistical modelling of a numeric non-linear predictor variable, which allows capturing such effects better than generalised linear models (GLMs). When modelling frequency in such a way, the model explains between 45% and 65% of the observed variance overall, with some 7% due to frequency alone (adjusted R^2). What is more, including age as a non-linear variable shows that age *does* play a role in (ing) variation with a similar non-linear effect, while the typical modelling of age in groups (e.g. young-middle-old) has possibly led us to believe that variation is stable in the past. Advancement in statistical modelling may thus enrich our understanding of well-researched sociolinguistic patterns.

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Reversal and re-organization of the Northern Cities Shift in Michigan

Suzanne Evans Wagner, Alex Mason, Monica Nesbitt, Erin Pevan and Matthew Savage
#310

The Northern Cities Shift (NCS) is a well-known rotation of American English vowels, characteristic of the Inland North dialect area (Labov, Ash & Boberg 2006). It is present in the dialects of approximately 34 million people, yet attracts virtually no metalinguistic commentary (Labov 2010). However, some reports in the last few years indicate that the NCS is receding (e.g. McCarthy 2011 for Chicago, Driscoll & Lape 2014 for Syracuse), leading Labov to speculate at NWAV 2014 that “the sun might be setting” on the NCS (Labov 2014).

In this paper, we report some initial findings from a study of the NCS in the Lansing metro area of lower Michigan. As in the other urban centers recently examined, the NCS appears to be undergoing re-evaluation and attrition. However, whereas others have found the NCS to be simply undergoing “exact reversals” of its vowel movements (Driscoll & Lape 2014), in Lansing we find two additional processes in addition to reversal: reorganization and continuation.

Our data are drawn from a sample of 27 speakers born 1908 to 1996. The sample combines sociolinguistic interviews conducted in 2014 with oral histories of automobile plant workers recorded 1992-2006, yielding almost a century of Lansing speech in apparent time. A total of 39,717 stressed vowel tokens were analyzed using the FAVE suite (Rosenfelder et al 2011).

Reversal affects the fronting of BOT, which has retracted more than 100 Hz from a mean of 1399 Hz in F2 for speakers born 1908-1945 to a mean of 1289 Hz for speakers born in the 1990s. Evidence from a perceptual dialectology experiment suggests that fronted BOT is now viewed negatively as “accented”, and we also find that young speakers retract BOT particularly in formal styles.

BAT, meanwhile, is undergoing *re-organization* from across-the-board raising to pre-nasal raising (cf Labov et al 2013 for the same recent shift to the nasal system in Philadelphia). We speculate that this re-organization is in line with another development in Lansing that similarly brings the local dialect closer to supra-local norms: increased fronting of coronal-initial BOOT.

Finally, we observe *continuation* of an earlier NCS process. Lowering (but not backing) of BET continues to advance vigorously in Lansing. In contrast to BOT, this NCS feature is not evaluated negatively. In fact, young speakers lower BET *more* when reading aloud than they do in spontaneous speech.

The sun, therefore, is not quite setting on the NCS in Lansing. While young speakers may be rejecting BOT-fronting, BAT-raising persists in one phonological context, and BET-lowering is robust. Our findings to date show that the steps in the NCS chain shift are not always simply reversed. Nor is the NCS devoid of social meanings, as it has been characterized in the past.

Rather, speech community members selectively reject, retain and reorganize parts of the shift, maintaining local distinctiveness even as they move toward some non-local norms.

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Advantage Accented? Listener differences in understanding speech in noise

Abby Walker #95

In listening in noise tasks, participants try to understand speech that is mixed with noise. While comprehension is negatively impacted for all dialects, non-standard, unfamiliar, and/or non-native dialects are affected more so (Nygaard et al. 1994; Stibbard & Lee 2006; Clopper & Bradlow 2008; Walker 2014). In this study, we investigate factors that might make some listeners better than others at understanding these traditionally difficult dialects.

42 native speakers of American English have taken part in this study. Participants were played 120 HINT sentences mixed with noise at -3dB SNR. The sentences had been recorded by six young males: two speakers of Standard American English (SAE), two speakers of Southern American English (STH), and two non-native, L1-Chinese speakers (NNS). Participants were asked to transcribe what they heard as best they could, and were scored on keywords correct. After completing the transcription task, participants answered a survey covering their demographics, their experiences as being (un)accented, their linguistic prescriptivism, their attitudes to Southern accents and Asian immigrants, their current mood, and the Big Five personality traits (Goldberg 1990). Note that being accented for participants in this study most likely means that they have a southern accent. Factor analysis was used to reduce redundancy across questions.

The mean proportion of keywords correct for each sentence was 53%. A linear regression model with keywords correct as the dependent variable revealed main effects of the participant's current mood (happier = better) and a strong effect of their neuroticism (more neurotic = better). There was also a significant interaction between self-reported accentedness and the dialect of the speaker; while everyone did much worse with NNS than SAE and STH, participants who self-reported being accented did significantly worse with SAE, and significantly better with both STH and NNS, than those who reported being unaccented. Additionally, those participants who agreed with statements like *People tell me they like the way I speak* did significantly better with STH than speakers who disagreed.

These results suggest that performance in a listening in noise task is affected by individual factors such as personality and mood (c.f. Campbell-Kibler 2005; Yu, Abrego-Collier & Sonderegger 2013). The dialect of the speaker also matters; unsurprisingly, non-native dialects are the hardest for listeners to understand in this difficult task. Contrary to Clopper & Bradlow (2008), we do not find a main effect that southern speakers are less intelligible than General American speakers, and we do find an interaction between speaker dialect and listener dialect. This contrast may be because of this study's location, and the fact that our critical measure of dialect background was not where participants had lived but how accented they reported being. Additionally, self-reported accentedness not only improved comprehension of a local accent, but also of a non-local (non-native) accent. This suggests that the participants' dialectal experience may not simply affect their representations, such that familiarity facilitates comprehension (Walker 2014), but may affect their listening mechanisms and strategies more generally, resulting in better understanding of even unfamiliar accents (c.f. Clopper 2004).

Modeling the Speech Community through Multiple Variables: Trees, Networks and Clades

James Walker, Michael Dunn, Aymeric Daval-Markussen and Miriam Meyerhoff #104

Variationist sociolinguistics has been criticized for analyzing variables in isolation rather than taking into consideration the multiple variables used by members of the speech community to construct a 'lect'. While recent work (e.g. Guy 2014; Tagliamonte & Waters 2011) addresses the question of such 'co-variation' by examining interaction between multiple variables using statistical tests of correlation, the results of such studies have proven inconsistent. Moreover, because they use overall rates of occurrence, which do not take into consideration the effects of language-internal conditioning, correlational tests may not be able to tap into the linguistic system underlying the variation. Finding an appropriate method for modeling the relationship between multiple variables within a speech community remains a challenge for variationist analysis.

This paper addresses the question of co-variation by taking a different statistical approach through examination of an interrelated set of grammatical variables in a potentially polylectal speech community. Bequia is an eastern Caribbean island where varieties of English and English-based creole are spoken. From sociolinguistic interviews with 18 residents of Bequia, evenly balanced for sex and village, we extracted over 10,000 verb-phrase tokens and coded them for a series of language-internal factors: the grammatical person and type of subject; the lexical and sentential aspect; the form of the lexical verb; the presence and form of the copula; the presence of creole tense-mood-aspect markers; the presence and form of negation and negative concord; and the type of clause and sentence.

In addressing the question of co-variation, we shift the analytical focus from interaction between variables to differences between speakers based on their verbal behavior.

Dividing the language-internal coding into 'formal' (structural) and 'functional' (semantic) factors, each token can be characterized as the instantiation of a type of utterance that consists of a particular configuration of factors. Calculating the number of differences between the types produced by each speaker can then be used to model the linguistic relationship between speakers in a manner similar to that used in historical linguistics and language typology to model the genetic and typological relationships between languages.

We illustrate this method by using neighbor-joining algorithms implemented in phylogenetic software (Bryant & Moulton 2004; Huson & Bryant 2006) to model the relationship between speakers in three ways: as trees, as neighbor networks, and as cladograms. The most consistent difference that emerges from all of these models is that speakers are divided primarily by the village they come from on Bequia. These results are consistent not only across models but also with those of previous studies of individual variables, suggesting that this approach may offer a more satisfactory answer to the question of co-variation.

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The role of speakers' identities and attitudes in koineization in Hohhot, China

Xuan Wang #137

In the process of koineization, where contact-induced language change leads to the formation of a new dialect, a question that has often been discussed is whether and how the outcome of dialect mixture is influenced by social factors like speakers' identity and attitudes (e.g. Trudgill 2004, 2008, Kerswill & Williams 2000, Coupland 2008, Bauer 2008). This paper explores the degree to which people's attitudes influence their speech production by presenting the case of Hohhot, a Chinese immigrant city. Hohhot is home to a complex mixture of 'traditional', local residents, who speak Jìn (晋) dialect, and migrants, who arrived in the 1950s and 1960s, encouraged by government policy. Thus, a mixed, new vernacular combining features of Jìn and Mandarin was formed, known locally as "Hohhot Mandarin". Anthropological studies of Hohhot have shown that there are intense social conflicts between the local-born and migrant communities, and that the degree of integration into the community is different for different individuals (Jankowiak 1993, Borchigud 1996). Given this, I ask whether speakers vary in the degree to which they adopt Jìn-features, and whether this variation is conditioned by their attitudes.

Data was collected in Fall 2014, during the first large scale variationist investigation of Hohhot. 67 speakers from three generations were interviewed – 35 from the migrant community and 32 who are locally born. Attitude and identity information was collected from questionnaires, using magnitude estimation (Redinger 2010), which elicited data about speaker's attitudes towards local communities and their emphasis on the migrant identity. Principal Component Analysis revealed 4 different attitudinal categories: attitudes towards Jìn dialect, attitudes towards Jìn speakers, emphasis of migrant identity, and emotional attachment to Hohhot.

Language production data were collected from interviews and an elicitation task designed to explore variation in a set of words known as "l-words" (Hou 1999), which display variation in stress: a weak-strong stress pattern is more commonly associated with Jìn dialect and a strong-weak pattern is typical of Mandarin (e.g. [xuə⁴³lɑ⁵¹] vs. [xua³⁵lɑ], *scribble*). More than 4000 l-word tokens were analysed using a binomial mixed effects models, which were hand fit with the lme4 library in R (Bates, Maechler & Bolker, 2011; R Core Team, 2013). The independent variables included were age group, sex, town, occupation, education, attitudes and identity scores. Word and speaker were treated as random intercepts.

The results suggest that the stress pattern of l-words in Hohhot is predicted by town, age group, sex, occupation and education, and, in a sub-section of the population, also with scores on the attitude questionnaires: speakers from the migrant community are more likely to use the Jìn stress pattern if they demonstrate positive attitudes towards the local community. The results are discussed in terms of the interplay between patterns of contact and speakers psycho-social orientation in models of new dialect formation. The paper thus expands our understanding of the role of speakers' attitudes in koineization, and also shows the value of viewing long standing issues in variationist sociolinguistics through the lens of non-western localities (cf Labov, 2015).

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The Development of FASE (Forced Alignment System for Español) and implications for sociolinguistic research

Eric Wilbanks #102

In recent years, advances in language modeling and speech recognition technologies have provided linguists the opportunity to dramatically increase the size and scope of their data collection and processing. Recent works in English (Labov et al., 2013), utilizing the standard Penn Phonetics Lab Forced Aligner Toolkit (Yuan & Liberman, 2008) and related Forced Alignment and Vowel Extraction suite (Rosenfelder et al., 2011), as well as parallel efforts in French (Milne, 2014), have demonstrated the tremendous potential of these new methodologies for the study of language variation. With forced alignment technologies, automatic time-aligned phone level transcriptions of speech data are made readily available, exponentially increasing the amount of data available to the researcher while conserving both time and resources. As Labov et al. (2013) note, utilizing these technologies increased the number of vowel tokens they extracted from each interview from 300 to approximately 9,000.

However, support for comparable data collection in other languages has yet to be sufficiently implemented in linguistic research. While the robust Prosodylab aligner suite currently supports the training of models for languages other than English, publicly available models exist only for North American English and Quebec French (Gorman et al., 2011). EasyAlign provides aligning for Castilian Spanish (as well as several other languages), but is built from a restricted set of laboratory speech (172 minutes, 6 speakers) and may not generalize well to a variety of sociolinguistic recording conditions or different Spanish dialects Goldman (2011).

The current paper reports on the development of FASE, a forced alignment system for Spanish. First, a pronunciation dictionary of 93,000 Spanish words was created. Then, speech training data were chosen from a subset of a corpus of 238 sociolinguistic interviews of native Spanish speakers from various dialect regions (*citation redacted*). Using the HTK suite for manipulating Hidden Markov Models (Young et al., 2006), a series of 5-state, continuous density, 4 mixture Gaussian Hidden Markov Models were trained on the corpus. Optimal acoustic models included robust silence and short pause models and adaptive speaker training to deal with the great variance in ambient noise conditions. Additionally, unsupervised linear transformation adaptation carried out concurrently with aligning improved the accuracy of the models and force-aligned output. Importantly, instead of applying external models, data from the corpus is aligned using optimal models drawn directly from the data at hand.

Novel test data aligned with the system show excellent time-aligned phone and word boundaries. Differences in agreement between the aligner output and hand-alignments are comparable to differences reported between human transcribers in Goldman (2011). Importantly, while many previous force-aligning systems have used laboratory or formal speech sources with relatively stable ambient environments (c.f. Supreme Court Justices of P2FA), the current project illustrates the feasibility of building force-aligning systems from corpora of sociolinguistic data drawn from a variety of recording environments. On a theoretical basis, this project argues for the development of aligners directly from the data at hand, rather than altering existing models (sometimes from completely different languages). Doing so can avoid possible over-generalizations, prevent sub-optimal alignments, and better model the linguistic variation present in the data.

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Deriving variation in function: A case study of Canadian *eh* and its kin

Martina Wiltschko and Alex D'Arcy #107

Despite recent advances (e.g. Cheshire 2007, Pichler 2010, Denis 2015), discourse-pragmatic variables (DPs) continue to challenge variationist theory and methods. One of the more thorny issues concerns their multi-functionality (Pichler 2010), raising difficulties for semantic equivalency—a core tenet of the sociolinguistic variable—and for the circumscription of the variable context—necessary to operationalize predictive criteria and model the variable grammar. The assumption driving variationist investigation of DPs is that, like other variable linguistic features, they are systematically constrained by a probabilistic choice mechanism. The question we tackle in this talk is the following: Is this assumption well-motivated, or can the meaning of some DPs be derived from consideration of the linguistic and extra-linguistic context (cf. Gibson 1976)? The test-case for the discussion is *eh*, a notoriously multifunctional tag that is problematic under the variationist lens for multiple reasons.

First, the focus of existing literature on *eh* concerns its functions, where it is attributed with up to 18 uses (Avis 1972, Love 1973, Gibson 1974, Columbus 2010). The challenge for such typologies is that they lack criteria for identifying and classifying the various functions, giving them no predictive power. Second, *eh* is not restricted to a single variety of English; different varieties use it in different ways. For example, in both Canadian and New Zealand English, *eh* can confirm whether the addressee agrees with a subjective judgment (1a), but only Canadian *eh* can check whether the addressee knows a fact the speaker knows to be true (1b).

- (1) a. That was a great movie, *eh*?
- b. I have a new dog, *eh*?

Third, invariant tags like *eh* are cross-linguistically widespread. They share a core function (roughly, to turn an utterance into a request for confirmation), but they may differ across multiple parameters.

We argue that these facts are interrelated and that the apparent multi-functionality of *eh* can be understood through the interaction of its core function with contextual factors. In particular, its function is derivable from the intonational contour (steep convex rise, flat concave rise, fall), the associated clause-type (declarative, interrogative, exclamatives, imperative), and the relative expertise of the utterance/speech act participants. We argue, following [author] (2014), that the seemingly simplex form *eh* has to be decomposed into its lexical form (*eh*) and its intonational contour—each of these components being associated with a particular function. The lexical form encodes the speaker's assessment of the addressee's belief set, whereas the rising intonation encodes the speaker's request for the addressee to respond, what Beyssade and Marandin (2006) refer to as the *Call on Addressee*. Cross-linguistic and dialectal variation thus suggest that the lexical entry can be modified by various factors relating to the time at which the reason to believe has been established.

In short, critical insights can be gained when variable phenomena are paired with the theoretical and empirical knowledge from other linguistic domains. For *eh*, the exponents of form and function become predictable, constrainable, and therefore systematically derivable for probabilistic

modelling within and across speech communities.

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The Sociolinguistic Legacy of Martin Luther King Jr.: Analysis and Implications for Social Justice

Walt Wolfram, Caroline Myrick, Michael Fox and Jon Forest #138.1

Dr. Martin Luther King Jr.'s oratorical status is one of his enduring legacies, and his discourse and rhetorical strategies are often cited as a model of performance style. At the same time, surprisingly few detailed sociolinguistic analyses have been conducted on how he utilized particular linguistic variables from his ethnolinguistic repertoire with different audiences and the stances he constructed through his manipulation of particular linguistic structures.

This presentation examines an array of sociolinguistic variables in Dr. King's speech in a range of settings to determine how he indexed his regional, social, and ethnic identity as he accommodated different audiences and interactions. The audiences/interactions considered are: (1) formal presentations to predominantly non-black audiences, as represented in his Nobel Prize acceptance speech in Oslo, Norway, in 1964; (2) public speeches to a predominantly African American audiences, as in the "I've been to the Mountaintop" speech in the Mason Temple in Memphis, Tennessee, in 1968; (3) speeches to mixed audiences such as his Washington, DC "I have a Dream" speech in 1963; and (4) his speech in a one-on-one interview conversation in a television talk show hosted by Merv Griffin in New York City in 1967. Linguistic variables such as unstressed *-ing/in*, postvocalic *r*-lessness, coda-final cluster reduction, copula/auxiliary absence, final *t* release, and dimensions of his vowel system are analyzed. We also measure variation in his prosody, such as syllable rhythm, pitch range and f_0 .

The analysis indicates the significant manipulation of selected variables based on audience/interaction while maintaining stability for others. For example, unstressed *-in* varies in ways that would index education, formality, and effortful stances (Campbell-Kibler 2008) in his formal speeches to non-black audiences. Furthermore, he produces significantly more flaps and trills for intervocalic retroflex *r* and releases more final *t* (Podesva, Jamsu, and Callier 2015) in formal addresses to non-black audiences. At the same time, the relative frequency of *r*-lessness, cluster reduction, and his use of Southern African American vowels (Thomas 2001) do not shift, indicating his stance as a regionalized African American regardless of audience.

But there also is a deeper symbolic social meaning in Dr. King's language variation and his dialect stance. His language performance and interaction embraced ethnolinguistic tradition and transcended linguistic diversity, modeling linguistic equality in practice. Notwithstanding his model, more than a half-century after his Nobel Prize award linguistic inequality remains elusive institutionally and socially. In fact, even well-intended academic institutions and university programs often reproduce and enable linguistic subordination rather than challenge it (Dunstan, Wolfram, Jaeger, and Crandall 2015). As universities and public institutions grow diversity programs and initiatives, they continue to exclude or erase language from the diversity canon.

This presentation argues that King's dictum "injustice anywhere is a threat to justice everywhere" applies to linguistic inequality. We demonstrate by example how a sociolinguistic justice program can be implemented in a university, in a community, and in public education in a way that celebrates Martin Luther King Jr.'s legacy.

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The exceptionality of Tyneside back vowel fronting

Katie Wozniak and Bill Haddican #366

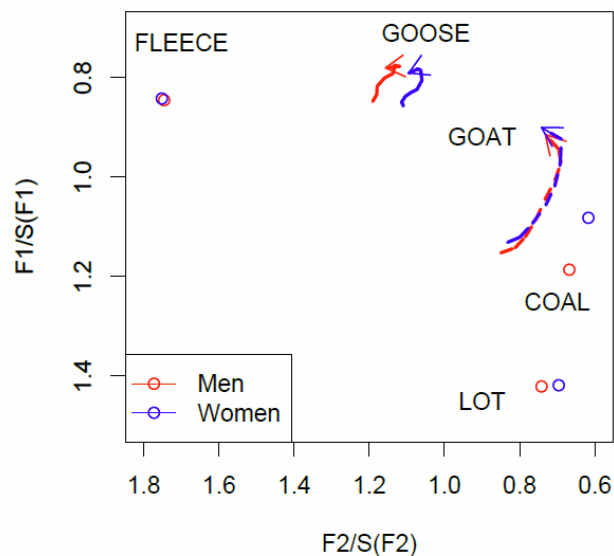
One of the most influential of Labov's (1994) generalizations about vocalic change concerns the relationship between processes of back vowel fronting, namely that fronting of /ow/ is dependent on /uw/ fronting. For English varieties, Labov's generalization entails that fronting of goat will co-occur with fronting of goose, a pattern reported in much subsequent research (Baranowski, 2008; Fridland, 2008; Hall-Lew, 2009; Thomas, 2001). An apparent exception to this generalization, however, was reported by Watt (2000, 2002) in the Newcastle upon Tyne dialect of northern England. Based on an auditory analysis of data gathered in the 1990's, Watt observed [ɪ] for goat, particularly for younger male speakers, but noted that fronting of goose was very rare within the community. Watt reported no fronting of diphthongal realizations of goat.

This poster reports on a recent study of Tyneside goat and goose designed to provide a real-time point of comparison with the 1990's data set gathered by Watt and colleagues. Word list and free conversation data were gathered in 2008 and 2009 from 20 speakers (aged 18-25, 12 women) using a sampling and interview method similar to that described in Watt (2000, 2002). This procedure yielded 471 tokens from the word list data, which we discuss, here. For each goat/goose token, nine time-normalized F1 and F2 measurements were extracted using a Praat script and then hand corrected. We normalized the data using Watt and Fabricius's modified procedure (Fabricius et al., 2009), with reference vowels fleece, lot and coal. Linear mixed-effects regression models were fit using the lme4 package.

Unlike in Watt's analysis of the mid-90's data set, the 2008 data show clear evidence of goose fronting relative to goat, coal and lot (see figure), as reported for several other northern English dialects (Ferragne and Pellegrino, 2010).

In addition, the analysis revealed a positive correlation in by-speaker mean F2s for goat and goose, as also expected from the perspective of Labov's generalization. Fronted monophthongal [ɪ] realizations for goat are observed in the data, but in our results, there is no effect of speaker sex, unlike in Watt's description of the 1990's data set. For goat but not goose, Euclidean distance measures of diphthongal vs monophthongal realizations are directly related to F2, indicating a continuum of variation between back monophthongs and fronted diphthongs for goat in the data. Dynamic formant analysis shows that fronting of both goat and goose is across the vowel, with somewhat greater fronting toward the nucleus.

F1 & F2 by lexical set and speaker sex



Hence, notwithstanding the exceptional status of goat in Watt's (2000, 2002) description, our real time comparison with Watt's results suggests that the Tyneside back vowels are undergoing a process of change similar to those described for many other English dialects from northern England and elsewhere.

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Sociolinguistic Meanings of Syllable Contraction in Mandarin: Region and Gender

Chenchen Xu #141

Syllable contraction has been found in many dialects/languages of Chinese including Mandarin (Chung 1997). For example, in Taiwan Mandarin, [tʃɿ+jaŋ] 'like this' becomes [çjaŋ] or [tʃjaŋ] in casual and fast speech. The online news reports and blogs have been using contracted words to quote (imaginary) speech of cute, childish, whiny and sometimes silly southern women. It reveals that lay listeners tend to relate speech featuring syllable contraction to a certain accent of Mandarin and to attach gendered meanings to it.

To study what syllable contraction in Mandarin indexes, a twoLpart perceptual mapping survey was conducted using Preston's (1989) 'drawLaLmap' method. Informants were given two blank maps of China, and asked to draw borders identifying the locations where differences exist. On the first map, borders were drawn where participants believed accents of Mandarin are different. On the second map, participants circled areas where they think syllable contraction exists. They were also asked to comment on the speech in the identified areas on both maps. The maps were then aggregated using ArcGIS 9.3.

The perceptual map of Chinese dialects (Figure 1) shows that participants (20 college students from mainland China) were able to identify the dialectal regions of Chinese. Similar to the perceptual dialects of the United States (Preston 1989), there is a perceptual south/north divide of Chinese dialects (Figure 3). First, participants have the basic knowledge of a southern/northern difference in dialects/accents, shown on the maps as lines drawn across middle China. Second, the comments on the maps show that participants tend to think that northern accent is tougher and manly while southern accent sound more soft and feminine. The concept of south and north lays the foundation for analyzing the maps of syllable contraction use.

The maps of syllable contraction (Figure 2, Figure 4) show that participants' beliefs about the location and gender characteristics of contraction users are in line with public opinions. First, Figure 2 shows that participants were able to identify FujianLTaiwan and BeijingLTianjin areas as major places of syllable contraction use, where dialects are salient (Figure 1). Second, dialectal region and gender of the contraction users have great influence on participants' attitudes toward their contraction use. Contraction in the northern area sounds simply casual; in the south, however, male speakers sound "sissy" and female speakers sound "sweet", as shown in Figure 4.

This project is the first study of syllable contraction using perceptual maps. It links Chinese speakers' knowledge of dialects and that of syllable contraction and reveals the sociolinguistic meanings of syllable contraction in Chinese. Broadly, by implementing perceptual maps, this study extends the methodology of sociolinguistic studies of Chinese, and contributes to a more general understanding of the nature of sociolinguistic perception.



Figure 1. Perceptual boundaries of Chinese dialects, aggregated from 20 maps.

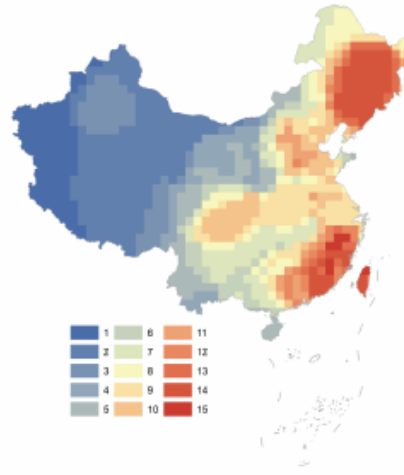


Figure 2. Perceptual boundaries of syllable contraction use, aggregated from 20 maps. Numbers in the legend indicate how many participants circled the area.



Figure 3. Map of Chinese dialects by a female northerner.

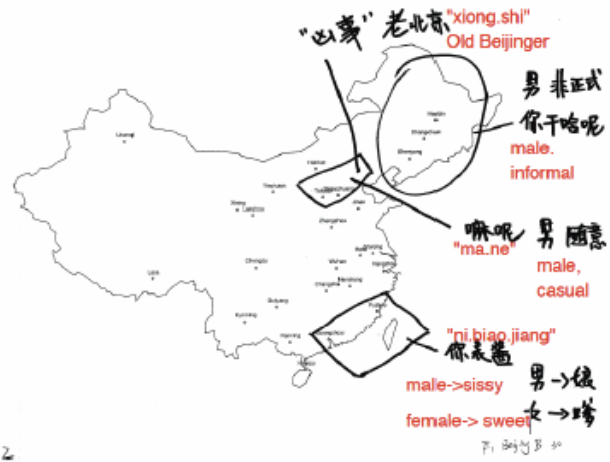


Figure 4. Map of Chinese dialects by a female southerner.

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Walter de Gruyter.

1ST PERSON PLURAL PRONOUNS: URBAN VERSUS RURAL USAGE IN BRAZILIAN PORTUGUESE

Lilian Yacovenço, Camila Foeger and Alexandre Mendonça #258

In Brazilian Portuguese there are two possibilities for express first person plural ‘we’: an older form *nós* (*nós pedimos isso* ‘we asked for this’) and a newer variant *a gente* (*a gente pediu isso* ‘we asked for this’). Here, we investigate age effect on this variable phenomenon in order to understand the diffusion of the new pronoun (Zilles, 2005) in a rural locality in the state of Espírito Santo - Southeast region of Brazil. For this, we compare data from two localities – one urban, and another rural -- in this state. In this paper, we analyzed only *nós*-with-concord vs. *a gente*-with-concord in subject position in both samples in order to obtain more comparability in the results.

Adopting the Theory of Language Variation and Change (Weinreich, Labov, Herzog, 2006, [1968], Labov, 2008, [1972], 2001), we analyze two samples: (1) PortVix (Yacovenço et al., 2012) - urban area, 40 speakers from the city of Vitória, capital of the state; (2) Santa Leopoldina – rural area, 32 speakers from Santa Leopoldina, a mountainous region. Each sample is stratified for age, gender/sex, and education.

The overall distribution of the two variants in each community is:

SAMPLES	<i>a gente</i> -with-concord		<i>nós</i> -with-concord	
Vitória (urban)	1058	72%	406	28%
Santa Leopoldina (rural)	947	71%	387	29%

The overall of two variants with concord is the same and all linguistic variables we have analyzed are statistically significant in both communities and reveal the same general tendencies. However, the effect of age in these two communities is quite different, as we can see in percentages and relative weights calculated for *a gente*-with-concord.

SAMPLES	Vitória (urban)		Santa Leopoldina (rural)	
	RW	%	RW	%
AGE				
7 to 14 years	.79	84,6	.26	49,4
15 to 25 years	.66	83,3	.56	55,0
26 to 49 years	.41	64,4	.73	84,6
49 years	.20	57,7	.34	74,9

In Vitória, age reveals an apparent time pattern of change in progress, with younger speakers favoring *a gente*-with-concord. In Santa Leopoldina, however, we see age grading.

Furthermore, in Santa Leopoldina, when a local interviewer conducts the interviews *nós*-with-concord is favored. However, when a foreign interviewer makes the interviews, *a gente* is favored as follows:

INTERVIEWERS	RW	%
FOREIGN/URBAN	.71	79,5
LOCAL/RURAL	.42	67,8

In both communities, *a gente*-with-concord is favored, but the trends are very different: in urban area, *a gente*-with-concord reveals change in the community, in but in rural area, *a gente*-with-concord is change in the individual, strongly favored by middle group, who goes to urban area sell agricultural products, and by interviews conducted by a foreign/urban person.

So, these facts can be interpreted as a sign of the spread of the pronoun *a gente* in direction of urban area. This variant *a gente*-with-concord, which is not rejected by this rural community, is evaluate as an urban feature, because only the contact with outside really favors the newer pronoun. We conclude that age factor, being a reflection of the social organization of each community, is important to understand the diffusion and the trends of linguistic change.

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When probabilities don't match: The acquisition of tense in African American English

Charles Yang, Julie Anne Legate and Allison Ellman #186

Very young children are capable of acquiring structural and statistical conditioning factors of linguistic variation [1,2]. In this paper, we compare children learning Mainstream American English (MAE) and African American English (AAE), two dialects with different tense marking systems. While children acquire all varieties of English and similar languages [3, 4] go through a prolonged stage of using non- finite verbs when the tensed form is necessary (e.g., “He go home yesterday”), AAE-learning children show considerably lower level of past tense marking than MAE-learning children. This is so despite the fact that the caretakers’ speech contains a comparable level of past tense marking. We argue that the failure of probability matching in the acquisition of tense is characteristic of abstract and overarching features of the linguistic system.

Background AAE exhibits considerable omission of copulas, auxiliaries, and third person singular present tense (3PSP) [5]. However, past tense marking is generally necessary in AAE as well as MAE [6]. If children acquire past tense as individual verbal forms, as suggested by usage-based accounts [7], one may expect MAE and AAE children to produce comparable rates of past tense marking, since the input does not differ considerably. If, however, the acquisition of tense is based on the collective data for tense marking with overt morphology [4] (e.g., *walks, drank, kicked*), then MAE children may have an advantage in their past tense marking because they receive more evidence from copulas, auxiliaries, and 3PSP.

Using the CHILDES Hall corpus, we analyzed the speech of 36 pairs of children (4;6-5;0) and their mothers from various dialect and SEC backgrounds. The children’s data is analyzed manually to determine the rate of past tense marking in obligatory contexts. The mothers’ data is analyzed to obtain the percentage of overtly tense marked forms—thus excluding forms syncretic with the infinitive (e.g., *walk* in 1/2 person present and *hit* in past—in utterances that contain a verbal form.

Results The percentages of past tense forms in mother’s speech do not differ across groups (Table 1). However, their children’s past tense marking varies considerably: AAE working class (87%) is significantly lower ($p<0.001$) than the other groups. The past tense in the mother’s speech does not correlate with the past tense rate in their child’s speech ($r=-0.046, p=0.79$; Fig 1a): comparable input leads to very different output. For the rate of overall tense marking, AAE working class mothers (40.6%) are significantly lower ($p<0.005$) than the other groups, as expected. Strikingly, this overall tense marking strongly correlates with children’s past tense rate ($r=0.594, p<0.001$; Fig 1b).

Analysis Following [4], we suggest that children acquire tense as an abstract and overarching feature of their language. This is achieved on the cumulative basis of all types of overt tense, from which the acquisition of past tense, a subordinate component of tense, can draw clear benefits. Children fail to probability match when the linguistic variable under acquisition is not directly reflected on the surface.

background	child past tense rate	% past tense in CDS	% all tense in CDS
AAE working	87.2%	19.9%	40.6%

AAE professional	93.7%	22.6%	55.4%
MAE working	94.4%	17.1%	49.8%
MAE professional	97.4%	19.9%	54.7%

Table 1. Children’s past tense marking rate in obligatory contexts in comparison with the relative amount of past tense tokens and that of overall tense marking tokens in child directed mothers’ speech.

For past tense rate in children: AAE working class children are significantly lower ($p < 0.001$) than the other three groups, which are themselves not significantly different. For past tense % in mother’s speech: no differences across groups ($p = 0.89$). For overall tense % in mother’s speech: AAE working class is significantly lower than the other groups ($p < 0.01$).

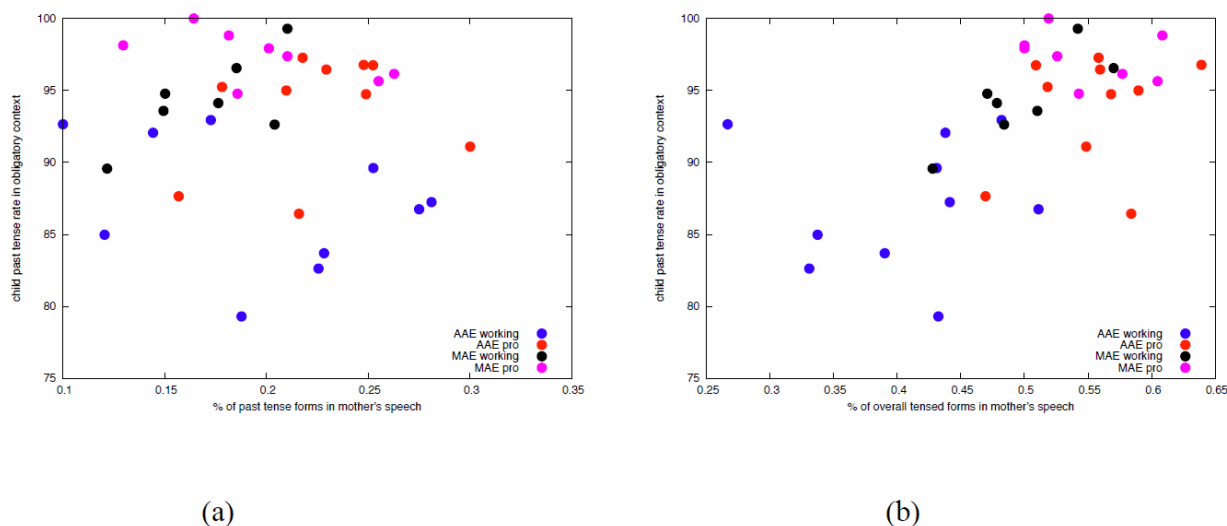


Figure 1 The correlation between child directed input (x-axis) and children’s past tense marking in obligatory contexts (y-axis). (a) shows the percentage of past tense forms out of all verb-containing utterances in mother’s speech does not at all predict the rate of past tense marking ($r = -0.04$, $p = 0.79$). (b) shows that the overall percentage of tensed verbal forms, which includes past tense as well as tense- marked present forms, strongly predicts past tense usage in children ($r = 0.594$, $p < 0.0002$). Mixed effects models show no significant effects regarding the individual child or the verb.

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Letters from the Western Front: Intersections of ‘orality’ and writing in Corporal Joseph Keable’s wartime correspondence

Serena Althea Yi #122

The First World War produced an incredible amount of written correspondence, yet many of these documents have yet to be examined by researchers outside of traditional historical studies. Indeed, linguists are only now beginning to explore the wealth of information that soldiers’ private correspondence may have to offer. A wide variety of themes have yet to be explored in depth; examining questions of censorship, interpretation, silence, language contact, change and variation are just some of the many new ways of studying these war documents under a new or different light. This is an important new field of study, especially during these centenary years dedicated to remembering a war that tore the world apart.

If the exploits of Anglo-Canadians throughout the First World War have been well documented and studied, the participation of ethnic or linguistic minorities such as French Canadians has been neglected. My study of letters written by Corporal Joseph Keable of the 22nd French-Canadian Battalion intends to address this neglect by examining some of the themes mentioned above, with a particular focus on language variation. This corpus, which has never before been studied from an academic perspective, features over 170 pages of letters written by Joseph Keable between 1916 and 1918.

The field of historical sociolinguistics offers the perfect interdisciplinary conditions to study private correspondence left behind by minority participants in the war. Researchers such as Wendy Ayres-Bennett, Shana Poplack, Anne St- Amand, France Martineau, Sonia Branca-Rosoff and the Historical Social Network have contributed an array of methodological and theoretical perspectives that can inform this case-study. Based on works such as France Martineau’s study of *hybridity* in written documents, I argue that this young semi-literate soldier from Sayabec, Quebec left traces of his ‘orality’ in his written correspondence; there are some indications of dialectal pronunciation and vernacular-influenced morphosyntactic features in his orthography, such as *ne* omission, the use of the infamous *nous/vous + autres*, and the alternating use of the pronouns *on* and *nous*. These intersections of ‘orality’ and writing may shed further light on the state of 19th and early 20th century vernacular French in rural Quebec. These are only some of many other features that may be examined in this rich corpus of letters.

Given that Franco-Canadian participation in the First World War is not a widely-explored topic, this case-study of Joseph Keable’s private wartime correspondence offers an opportunity for fruitful reflection on the impact of the war on Canadians and their linguistic identity.

Specifically, from a sociolinguistics perspective, this corpus may give us a glimpse of the state of Canadian French in the 19th and early 20th centuries. This study also contributes to the burgeoning interest from a linguistics perspective in wartime documents, and may pave the way for further studies on letters written by Franco-Canadian soldiers, nurses or family members writing from home.

¹ Will present in English, with occasional references in French

Prosodic rhythm in Swedish multiethnolect: Vowel durational variability carries significant social meaning

Nathan Young #216

This study contributes to the growing body of research on urban multiethnolect in Sweden, commonly called 'Suburban slang' or 'Rinkeby Swedish' (Kotsinas 1988; Bijvoet & Fraurud 2010, Milani & Jonsson 2012). Unlike early dialectological work, which has focused on the speech of adolescents, the current project draws on variationist methods to examine the phonology of eight working-class adult men in Stockholm. This is the first study to present quantitative evidence for the variety's 'staccato' rhythm, a common stereotype that has, until now, only been superficially handled in the literature (Milani & Jonsson 2012:54; Bodén 2007:39). It shows that vowel durational variability has significant indexical value in Stockholm as it pertains to affective judgments toward the speaker and ideas about the speaker's 'Swedishness' (on the affective reanalysis of 'Swedishness', see Eliaso-Magnusson & Stroud 2012:295-297).

Since each speaker can produce varying registers along the standard-multiethnolect continuum (see speakers 'Leo' and 'Sam' in Bijvoet & Fraurud 2012), I control for this by eliciting the affective judgments of two native-listener groups (n=27) to gauge where each speech sample falls along said continuum. 30-second excerpts from each speaker were played for each listener group. Listener group E assessed the speaker's ethnicity on a likert scale with 'Swedish' on one end and 'multiethnic' on the other. Listener group A provided affective judgments for the speaker on a likert scale with 'rough' on one end, 'neutral' in the middle, and 'refined' on the other end. Multivariate regression and logistic regression analyses demonstrate that speech rhythm, as measured by the normalized pairwise variability index (nPVI; Low, Grabe & Nolan 2000) and mean segmental duration serve together as salient cues of listener affective judgments (regression: $R^2 = 0.915$, $p < .005$, VIF=1.463; ordered log: $p < 0.000$) and listener-assessed ethnicity (regression: $R^2 = 0.791$, $p < .05$; binomial log: $p < 0.000$).

Based on the above evidence, the study concludes that Swedish multiethnolect has lower pairwise durational variability between vowels, i.e., is more syllable-timed, while modern standard Swedish has higher pairwise durational variability between vowels, i.e., is more stress-timed. The nPVI of the eight speech samples fall along a continuum as do corresponding social meanings.

Because of the unconventionally high statistical correlation between nPVI and affective judgments, I discuss the possibility that the nPVI algorithm is capturing other indexical features that are collinear with (or even caused by) speech rhythm. In light of this, I also discuss the results in the context of the vowel movement seen in the literature to date, particularly for long 'ä' and 'ö' (Boyd, Gross & Walker 2013; Leinonen 2010:96-97). For the multiethnolect speakers in this study, the more syllable-timed speech coincides with the monophthongization of long vowels. This is particularly the case with long 'e' and long 'u', whereby the monophthongization significantly minimizes their distinction from the modern standard 'ä' and 'ö', respectively. Therefore, preliminary ideas regarding a chain shift are presented.

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Chinese American accommodation to the Northern Cities Shift in Southeast Michigan

Mingzhe Zheng #78

Most dialectological and sociolinguistic work on US populations has been of European-Americans (e.g. Labov 1972, 2001); African-Americans (e.g. Wolfram, Thomas 1997, 2002); and (more recently) Mexican-Americans (e.g. Roeder 2006, Ocumpaugh 2010). Asian Americans have not been much studied by sociolinguists (Fought 2004, Wolfram and Schilling-Estes 2006). The few variationist studies that exist on Asian Americans have been of Chinese Americans on the East and West coasts (e.g. Hall-Lew 2009, Wong 2007, 2010), not in the Midwest.

The current research addresses this gap and aims to explore the nature of dialect contact by examining the extent to which the speech of Chinese Americans in Troy, Michigan is affected by an ongoing local change, the Northern Cities Shift (NCS). This study also examines the extent to which any difference in accommodation to the NCS correlates with speakers' social networks and cultural orientation.

The data of the study come from 8 college students who are 2nd generation Chinese Americans (4 male & 4 female) from Troy, Michigan, who are currently studying at a large Midwestern university. 9503 tokens were extracted from recordings of a wordlist, a reading passage and an interview (Forced Alignment & Vowel Extraction (FAVE), Rosenfelder, et al. 2011). The normalized formant data extracted by FAVE were plotted in R (R Core Team 2014). Labov's (2007) five criteria were then used to quantify speakers' degree of participation in the NCS. Participants' social networks data were gathered through a name-elicitation questionnaire adapted from Kirke (2005). The higher the social network index score is, the denser non-Chinese social network the speaker has. An adapted questionnaire based on Tsai, Ying & Lee (2000) was used to investigate participants' cultural identity. The higher the score a speaker gets, the stronger the orientation to Chinese culture the speaker has. The speakers' degree of accommodation in the NCS was then examined to see whether it corresponded with speakers' social network and cultural orientation.

Participants in this study did not show clear evidence of accommodation to the NCS in Troy, Michigan as a whole. For the analysis of all the speakers, none of the criteria were satisfied except that /æ/ is fronter, but not higher than /e/. When looking at individual speakers, the one with the most non-Chinese contact (index score=11) and the least Chinese oriented cultural identity (score=78) exhibited the highest NCS score (satisfied 3 NCS criteria) among the 8 speakers. None of the rest of the speakers, who had lower range of social network index score (0 to 0.71) and higher cultural identity score (87 to 96), got a NCS score above 2.

These results observed in 2nd generation Chinese Americans from Troy, Michigan showed limited accommodation to the NCS. In addition, cultural identity and social network are influential factors. This finding was in line with previous studies about various ethnicities' participation in regional dialect change in different areas of the US (Evans 2001, Kirke 2005, Wong 2007), while contradicts Hall-Lew (2009).

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Creak as disengagement: Gender, affect, and the iconization of voice quality

Lal Zimman #348

The gendered valence of creak has occupied a sometimes puzzling place in the sociolinguistic canon. Despite studies linking creak to masculinity among British speakers (e.g. Henton & Bladon 1989), the recent flood of research on creak in American English has documented the significant presence of creaky phonation among younger generations of women (e.g. Podesva 2013). At the same time, research like that of Mendoza-Denton (2011) has pointed to a connection between creak and the construction of certain brands of toughness, a characteristic ideologically associated with both men and emotional disengagement. This link between creak and masculinity, which persists even in some publications on the prevalence of creak in women's speech (Yuasa 2010), is undoubtedly informed by an iconization of creak's prototypically low-frequency vocal fold vibrations (Irvine & Gal 2000).

This talk offers a reconsideration of the iconic potentialities of creaky phonation, particularly as they relate to gender and affect. A good deal of evidence has undermined the reading of creak as inherently masculine. But rather than arguing that creak indexes femininity, I suggest that creak's iconic properties make it a resource for constructing certain affective stances, including a stance of emotional disengagement. Because creaky phonation restricts both the amplitude and the fundamental frequency range to which speakers have access, it makes it difficult to deploy many of the usual linguistic indices of emotional engagement, such as variability in pitch and contrast in the amplitude of pitch accents (e.g. Lieberman & Michaels 1962). This notion of affective disengagement aligns with the links previous researchers have made, explicitly or implicitly, between creak and minimized emotional expression (e.g. Mendoza-Denton 2011, Grivičić & Nilep 2004, Podesva & Callier's NWAV 44 submission).

The analytic focus of this paper is one transgender speaker who participated in a year-long ethnographic study of phonetic change in the voices of trans men and transmasculine individuals making use of masculinizing hormone therapy. This speaker, James, was an extensive user of creak in the 6 hours of interviews and conversations recorded during fieldwork. He also exemplifies creak's ability to construct emotional disengagement from a particular stance object (Du Bois & Kärkkäinen 2012). Here I focus on one discursive context in which James frequently sustained creaky phonation for prolonged periods of talk: when taking stances of emotional disengagement. This stance occurs both when James is expressing a lack of emotional investment in a particular topic and when he is negotiating a kind of distance from topics in which he is intensely emotionally engaged. As a genderqueer individual who does not see himself as strictly female or male, James also provides a perspective on the way creak can be positioned as neither entirely feminine nor entirely masculine. Ultimately, I argue that this context is crucial for understanding the frequency with which James speaks with creaky voice quality.

The analysis presented here bolsters our understanding of the complex socioindexical meanings of creaky phonation, as well as the relationship between different meanings this voice quality

can construct. By exploring the relationship between stances and identities, the talk also strengthens our understanding of why particular linguistic variables come to have the meanings they do and how linguistic variables work interactionally to constitute identity.

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