

# **UKLVC15**

## **Book of Abstracts**



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## Changes in Indexicality at the End of a Sound Change

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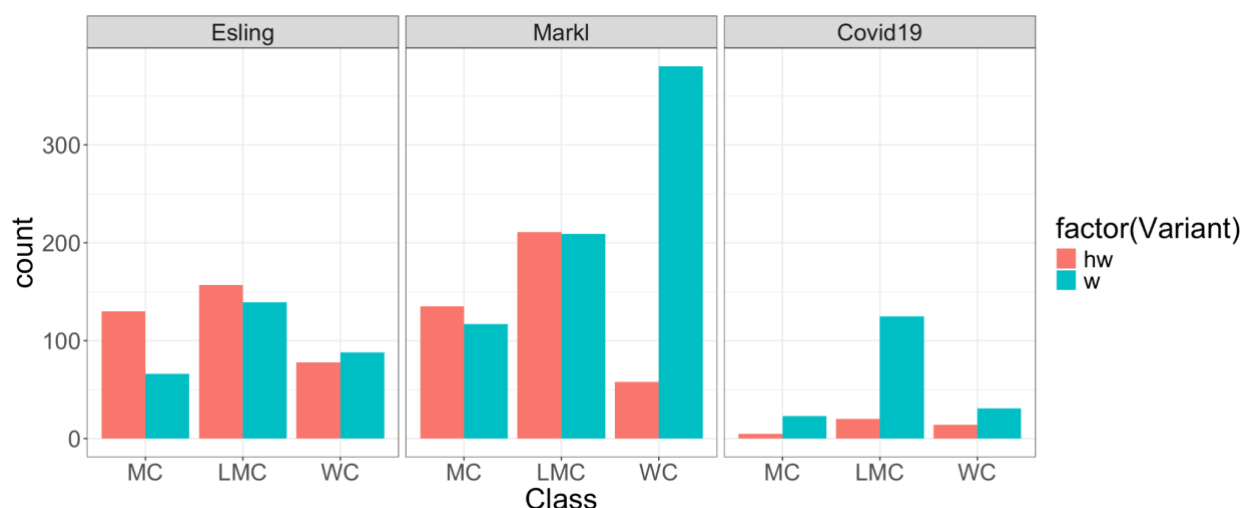
The English sound change known as (HW), or the *which-witch* merger, has gone to completion across many varieties (e.g., Labov, Ash & Boberg 2008), such that words containing the digraph <wh> are usually pronounced with [w] rather than [ɹ]. Completion of the change seems inevitable, even in Scotland, where the [ɹ] variant has been retained the longest (Giegerich, 1992; Jones, 2002), but largely among older speakers (Chirrey 1999, Schützler 2010). However, Markl (2023) found that, in Edinburgh, (HW) merger stopped before going to completion, instead showing stable variation with respect to social class. Is this synchronic variation likely to continue, or is this just a step on the path to merger completion?

To investigate this further, we draw a comparison between three datasets. The data from Markl (2023) come from sociolinguistic interviews with Edinburgh local women from 2019. This is compared to data from sociolinguistic interviews with Edinburgh local men recorded in 1975 (Esling, 1978). In an attempt to tease apart effects of time from effects of gender, we added a third corpus for comparison, which contains both men and women and contains self-recordings by Edinburgh locals made during the COVID-19 pandemic (Hall-Lew, et al., 2021).

While Markl's (2023) data show no correlation with (HW) production and year-of-birth, nor in Esling's (1978) data, we do find a significant correlation in the COVID-19 corpus (Hall-Lew, et al., 2021), which also includes recordings from children. This, and the fact that a robust year-of-birth correlation also emerges when all three corpora are combined, suggests that Markl's data might have caught (HW) at a moment when it was more of a social class marker than an active sound change, but that overall the variation is still advancing towards completion. In Esling and Markl, [ɹ] is favoured by the middle class and [w] by the working class, but in the COVID-19 data, [w] is favoured by all groups, and seems to be the variant of the future.

To better understand the class indexicality of (HW), we also coded for variation in the classic sociolinguistic variable, (ING), for comparison. In the Esling (1978) data, (HW) correlated with social class, but not as robustly as (ING) did. In contrast, in the Markl (2023) data, (HW) correlated with social class to a *stronger* extent than (ING) did. But then for the COVID-19 corpus, (ING) again is a stronger correlate of social class than (HW). In our talk, we will discuss the factors that differentiate the three corpora and that likely account for these differences, including probable effects of neighbourhood, gender, and style. These results demonstrate the complex social life of [ɹ], at the end of its life.

Figure 1: Distribution of (HW) by Social Class and Corpus



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# **The CAT's Out the Bag: A study of real-time sound change in the socially stratified Glaswegian CAT vowel**

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Sociolinguistic studies of language change have traditionally employed apparent-time methodologies, capturing differentiation between social categories at a single time point (Labov, 2006). From this, variationist studies view linguistic variation as a stylistic tool to construct and interpret social meaning and stance (Moore & Montgomery, 2018). More recently, real-time analyses, comparing speech across distinct time points, have examined shifts in phonetic variation as a response to ongoing social change (Harrington, 2006; Stuart-Smith, José, et al., 2017). This study adopts a real-time methodology to examine the social stratification of the CAT vowel in Glasgow over a 60-year period (1970s-2020s).

Third-wave perspectives, emphasising style as a vehicle for indexing social meaning, suggest that linguistic variation can evoke multiple identities (Eckert, 2018). This research employs Generalised Additive Mixed Models (GAMMs) to capture the non-linear trajectories of sound change and their evolving social meaning, to examine trajectories of CAT vowel quality by the working-class (WC) and middle-class (MC) speech communities of Glasgow. Previous research (Macaulay, 1977) highlighted significant social stratification in Glaswegian speech, attributed to the city's complex sociolinguistic landscape, with super-local variations reflecting deeply embedded local ideologies (Stuart-Smith et al., 2007). The CAT vowel, equivalent to the TRAP/BATH/PALM sets in Southern British English varieties, has been found to be a salient marker of social identity in Glasgow (Lawson, 2011). A total of 7,760 CAT tokens were examined from 77 speakers (M: 48, F: 29), across six decades. Speech data, sourced from SPADE (Stuart-Smith, Sonderegger, et al., 2017) and current sociological interviews, was force-aligned (Mielke et al., 2019) to extract F1 and F2 formant measurements. GAMM modelling examined the effects of social class and decade on normalised F1 and F2 values, while controlling for vowel duration, gender, and phonological context.

Preliminary results revealed stable vowel height but significant F2 variation across social classes and time. In the 1970s, MC speakers exhibited a more backed CAT quality, contrasting with the fronted WC CAT (Macaulay, 1977). Gradual backing of the WC CAT led to convergence in the 1990s. Post2000s trajectories observe MC speakers producing a significantly more fronted CAT, subsequently resulting in a substantial divergence between the social classes in the 21<sup>st</sup> century. This paper explores potential drivers of this sound change, including MC motivations to diverge from pejoratively perceived WC Glaswegian identities, potentially influenced by the emergence of the 'Ned' sub-culture and identity (Brewis, 2025). The role of media in accelerating meta-discursive activity and enregistering social personae, such as the ridiculed MC 'Kelvinside' identity (Johnston, 1985), is also examined, alongside motivations for anglicisation among Standard Scottish English speakers. This study highlights the importance of investigating standard varieties, often overlooked in favour of vernacular focus (MacFarlane & Stuart-Smith, 2012). Furthermore, the utility of real-time analysis and GAMM modelling is presented by this research, as valuable tools in capturing sound change and how the socio-indexical properties of linguistic variation is in constant flux as speakers are in constant re-negotiation of social identity across place and time.

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## **“Townies try to pretend they’re hard”:**

### **Affect and the social history of FACE and GOAT in Bolton, England**

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While variationists have attended to the role that vocalic variation plays in conveying affect (Eckert 2010, Pratt 2019), scholars have not theorized how locally significant social types (personas) mediate the indexical connection between variants and their affective meanings. In this paper, we examine how a local instantiation of the ‘chav’ character type (the ‘townie’) mediates the connection between northern monophthongal variants of FACE and GOAT (Watt and Milroy 1999; Haddican et al. 2013) and their affective meanings. We show that regional vowel features construct persona distinction between the communities of practice (CofPs) most polarized for rebelliousness, the Townies (anti-school, rebellious) and the Eden Village Girls (EVG; elitist, non-rebellious) in a Bolton school. More significantly, we show that other CofPs in the same broader community, the Populars (cool, sporty) and the Geeks (sensible, practical), use advanced regional vowel features alongside lexical expressions of sentiment to convey negative affect.

The data are audio-recorded conversations among 27 girls in four distinct CofPs, recorded in the early 2000s, totaling approximately 50 hours. Recordings were transcribed and force-aligned, and formant measurements were taken at points 25%, 50%, and 75% into all vowels. Degree of diphthongization for FACE and GOAT was taken as the trajectory length (TL; Euclidean distance in Lobanov-normalized vowel space) from the 25% to 75% marks. For each vocalic variable, mixed-effects linear regression models were stepped up with speaker and word as random effects and duration, preceding segment, CofP, and word sentiment as fixed effects. For the sentiment analysis, the valence of each word was represented as a value from 0 (negative) to 1 (positive), following Mohammad (2018).

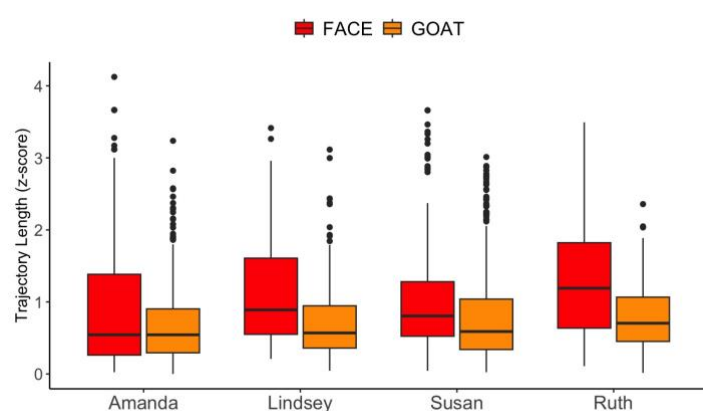
Results indicate that Townies monophthongize FACE and GOAT to a greater extent than others ( $p < 0.01$ ), while EVGs produce the most conservative (i.e. most diphthongal) variants ( $p < 0.01$ ). Figure 1 contrasts a prototypical Townie with prototypical speakers from other CofPs.

Figure 2 shows that advanced variants of both vowel features are predicted by words with more negative valence ( $p < 0.05$  for FACE,  $p < 0.001$  for GOAT,) for all speakers pooled. However, as our prototypical Townie has near categorical use of monophthongs, lower valence words do not occasion more monophthongal variants in her speech. This suggests that, when variation patterns are at ceiling (like Townies) or floor (like EVGs), persona-level social meanings will dominate. However, non-townies, who do not have negative affect as a defining characteristic of their personhood, vary their use of monophthongal variants to perform fleeting expressions of negative affect during stance-taking.

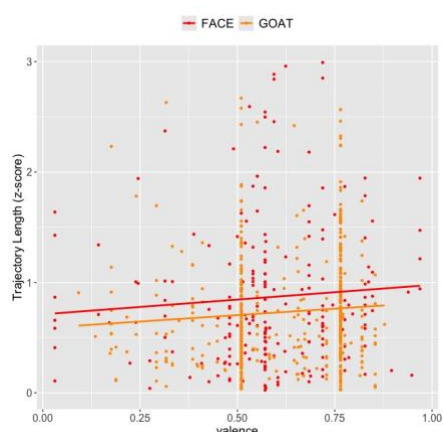
In sum, our paper presents evidence that vowel features characteristic of northern England are associated with working-class character types, like the ‘townie’. This association imbues local mid-vowels with the indexical potential to express toughness and negative affect. These regional features are recruited to express social meaning in durative ways to construct the



Townie persona, but also ephemerally to take affective stances by other speakers. In this way, we show that affective meanings may be rooted in the social history that variants carry.



**Figure 1.** Trajectory length for (left to right) Amanda (Townie), Lindsey (Popular), Susan (Geek) and Ruth (EVG), showing Amanda to be most monophthongal and Ruth most diphthongal for both FACE and GOAT.



**Figure 2.** Correlation between greater monophthongization (lower TL) and negative sentiment (lower valence) for FACE and GOAT for all speakers pooled.

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## Dialect-specific pathways to vowel nasalisation in the North West of England

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In many languages, anticipatory nasalisation in vowels preceding nasals may at some stage be reanalysed, leading to the loss of the original nasal consonant and the emergence of phonemic nasal vowels, a pathway attested in Italian (Busà, 2007), Korean (Jang et al., 2023), Lakota (Scarborough et al., 2015) and others. Today, roughly a quarter of the world's languages contrast oral and nasal vowels (Hajek, 2013). English occupies an intermediate stage in this trajectory (Bell-Berti & Krakow, 1991; Cunha et al., 2024; Zellou & Tamminga, 2014): vowels before nasal codas are variably nasalised (often depending on vowel quality; Carignan et al., 2011), and the degree of this coarticulation can differ across individuals (Kim & Kim, 2019; Pouplier et al., 2024; Zellou et al., 2024) and lexical items (Scarborough, 2013). While comparisons of the VN →  $\tilde{V}$  trajectory exist for distantly related dialects (Bongiovanni, 2021a, 2021b; Cunha et al., 2024), this study aims to address calls for further sociophonetic treatment of nasality (Carignan & Zellou, 2023) by clarifying how coarticulatory nasalisation is progressing towards phonologisation in two closely related dialects of northern British English.

Twenty-two speakers aged 16-19, equally split between Greater Manchester and the Blackpool Urban Area were recorded using the Nosey nasometry system (Dewhurst et al., 2025). Speakers read a wordlist containing 24 words representing eight monophthongal vowels in three phonological environments (CVC, e.g. BAD; CVN, e.g. BAN; NVN, e.g. MAN). The first analysis aimed to observe global trends in nasalance rates between dialects, followed secondly by more fine-grained observation of features affecting vowel nasalisation. The second analysis adapted methods previously used for dialects of Spanish (Bongiovanni, 2021b), focusing on BAN tokens and using nasalisation onset time, nasal consonant deletion and consonant-to-vowel oral energy ratio (CV ratio). All measurements were extracted via a Praat script (Boersma & Weenink, 2025) written by the author. Amplitude was extracted at 11 equidistant points across the duration of each vowel and proportional nasal amplitude at each point was calculated to obtain the trajectory of nasalance. To determine nasalisation onset, amplitude was extracted at 20 equidistant points across the vowel-nasal sequence and nasalisation onset was defined as the first point in the vowel-nasal sequence at which nasalance was greater than or equal to 15% of the range in a given token. CV ratio was calculated as the ratio of oral energy in the nasal consonant to oral energy in the preceding vowel. Nasal deletion was operationalised as the duration of the nasal consonant.

Comparison of generalised additive mixed models (GAMMs) revealed overall higher nasalance rates for Manchester speakers in BAD and MAN tokens but no significant dialect difference in BAN tokens. A mixed-effects model was applied to BAN tokens to analyse the relationship between nasalisation onset with nasal consonant deletion and CV ratio, as well as dialect and vowel. The model included interaction terms for dialect with all other predictors. Dialect was found to interact significantly with all three phonetic predictors: in Manchester, larger CV ratio and longer nasal consonant duration both delay nasalisation onset, and onset is also variably determined by vowel. These results suggest that although overall coarticulatory patterns in the BAN environment remain comparable across the two dialects studied here, phonetic precursors of nasal vowel change exert stronger influence on Manchester speech. This constitutes evidence that the VN →  $\tilde{V}$  innovation is proceeding more rapidly in the larger urban centre, Manchester, underscoring the importance of local sociophonetic context in the path to phonologisation of vowel nasality.

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## **Foreign Accent in a Sign Language: Insight from the RSL-accented Israeli Sign Language**

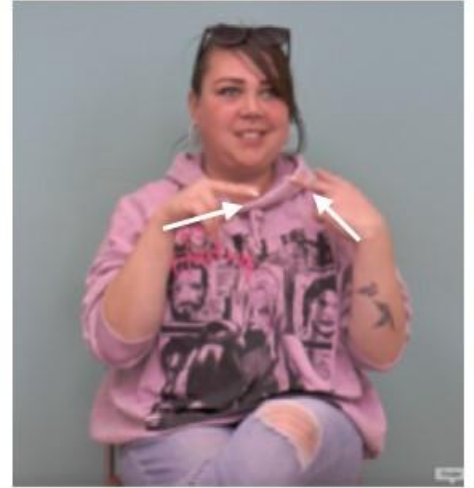
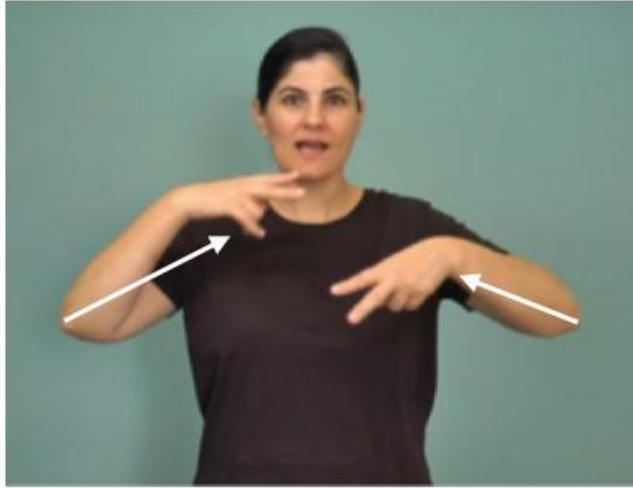
Wendy Sandler and Svetlana Dachkovsky  
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In an early comparison of Israeli Sign Language (ISL) as used by a small number of deaf signers who use Al-Sayyid Bedouin Sign Language, we were able to document a foreign accent (Sandler et al. 2020). In Israel today, we are able to document the accent of the large community of, at least, 800 deaf immigrants from the Former Soviet Union who use Russian Sign Language (RSL). When those immigrants acquire ISL, we have an opportunity to discover regular and widespread features that characterize foreign accent.

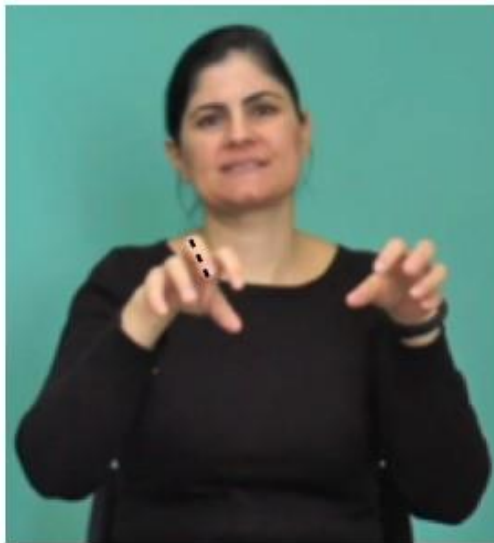
RSL signers who emigrated to Israel appear to ISL signers to pronounce “differently” from standard ISL, but the lay person is at a loss to describe the differences. Our project has nailed down and described in detail a large number of specific differences and generalizations in RSL-accented ISL. In so doing, we are able for the first time to describe the phonetics and phonology of different sign languages.

By videotaping 25 RSL immigrants who were asked to repeat (imitate) a large number of lexical items and sentences of a native ISL signer, we found several widespread and regular differences. For example, in the ISL signing of RSL immigrants to Israel, among other characteristics, we found that: (1) smaller signing space in the RSL-accented ISL than in the native ISL; (2) RSL handshapes typically bend all the finger knuckles (the distal interphalangeal knuckle together with the proximal interphalangeal knuckle), while in ISL, only the proximal interphalangeal knuckle is bent, and (3) distalization one joint further than in ISL at every joint selected for the sign (see figures on page 2). Examples of (3) include signs that recruit joints that are more distal from the body, instead of the joints closer to the body that are selected by ISL native signers. These examples are fine but regular and systematic differences that contribute to the description of foreign accent in second language signers. At the same time, they contribute for the first time to compiling a phonetic description of each sign language.

a)



b)



**Figure 1.**

**Systematic differences between the RSL-accented ISL and the native ISL:**

a) smaller signing space and distalization one joint further – from the elbow joint to the hand joint, in the production of the RSL-accented sign RESTAURANT in comparison with that in the native ISL; b) all the finger knuckles bent in the production of the RSL-accented sign ANGRY instead of only the proximal interphalangeal knuckle bent in the native ISL.

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Sandler, W., Belsitzman, G., & Meir, I. (2020). Visual foreign accent in an emerging sign language. *Sign Language & Linguistics*, 23(1-2), 233-257.

## Reflex or Index? Using dialect poetry reading data to untangle the motivations for vowel space area effects in the Black Country.

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When considering what motivates the effect of speech style on the overall size of the vowel space, two broad possibilities emerge from the literature. On the one hand, where increased vowel space area (VSA) correlates with “clear” or “careful” speech styles, some have proposed that speakers are hyperarticulating vowel realisations in order to increase discriminability between vowel classes for listeners (Lindblom 1990; Moon & Lindblom 1994). The consequence of this increased discriminability is an enlarged VSA (Holmes-Elliott & Levon 2024: 158). On the other hand, some sociolinguists have proposed that VSA can be leveraged as its own sociolinguistic sign, for example to index affective orientation to an interlocutor or topic (Gratton 2023), or affiliation with a particular Californian partying scene (Pratt 2023).

The present paper represents a preliminary attempt to interrogate and disentangle these two possible sources of VSA variation in Black Country speech. To do this, the analysis leverages speech data from two different corpora as well as the association between reading and “careful” speech styles (Pratt 2023: 528). The first represents sociolinguistic interview data (n.12:7F,5M) and allows comparison between careful speech (word list and reading passages) and conversational speech. The second comes from the conditioning block of a perceptual experiment (Packer-Stucki, 2023) wherein participants (n.8:3F,5M) were asked to perform a standard style while reading a news bulletin and a dialectal style while reading dialect poetry.

Crucially, the differences between these two corpora emphasise one of the two possible motivations for vowel space differences. If stronger VSA effects are found in the first corpus, it is more likely that the effect is a hyperarticulatory consequence of *reading* (similar to Lindblom 1990). Conversely, if stronger VSA effects are found in the second corpus where participants read throughout while performing to stylistic extremes, it is more likely the effect is result of participants’ socioindexical associations with VSA (similar to Pratt 2023).

Normalised (Nearey 1977) vowel formants for the four most peripheral Black Country vowels were used to calculate an average VSA per-style for each participant using Gauss’ formula in the phonR package (McCloy 2016). For example, Figure 1 shows the two extracted vowel space areas for a speaker from the interview corpus. Figure 2 represents per-participant difference scores for VSA; the left panel shows speakers from the first corpus where the score represents the difference in VSA between reading tasks and 20 minutes of conversational speech, while the right panel shows participants from the second corpus where the score represents the difference between the news bulletin and dialect poem reading tasks.

These results are interpreted as showing evidence for *both* sources of VSA variation in the Black Country. In the first corpus, VSA is more reliably expanded when speakers are reading, which lends support to an articulatory account. In the second corpus, some scores represent more *exaggerated* differences while scores are also more variable between participants overall. These differences are best understood by an account in which *some* participants use VSA indexically to do stylistic work.

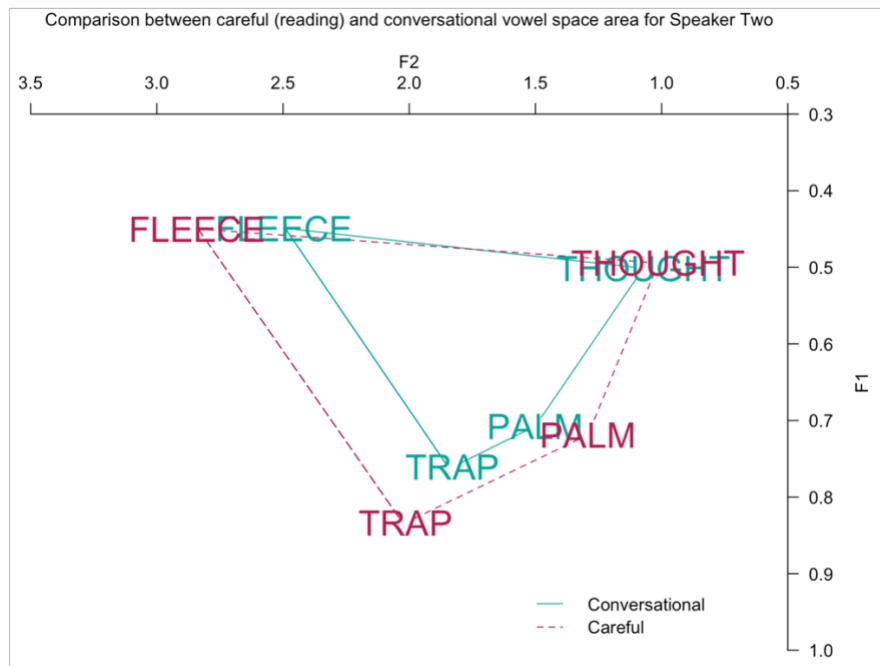


Figure 1: An example to visualise the two extracted vowel space areas for a speaker in the sociolinguistic interview corpus. In this example, the smaller polygon shows the average VSA for conversational speech. The larger polygon shows the average VSA for careful speech in reading tasks.

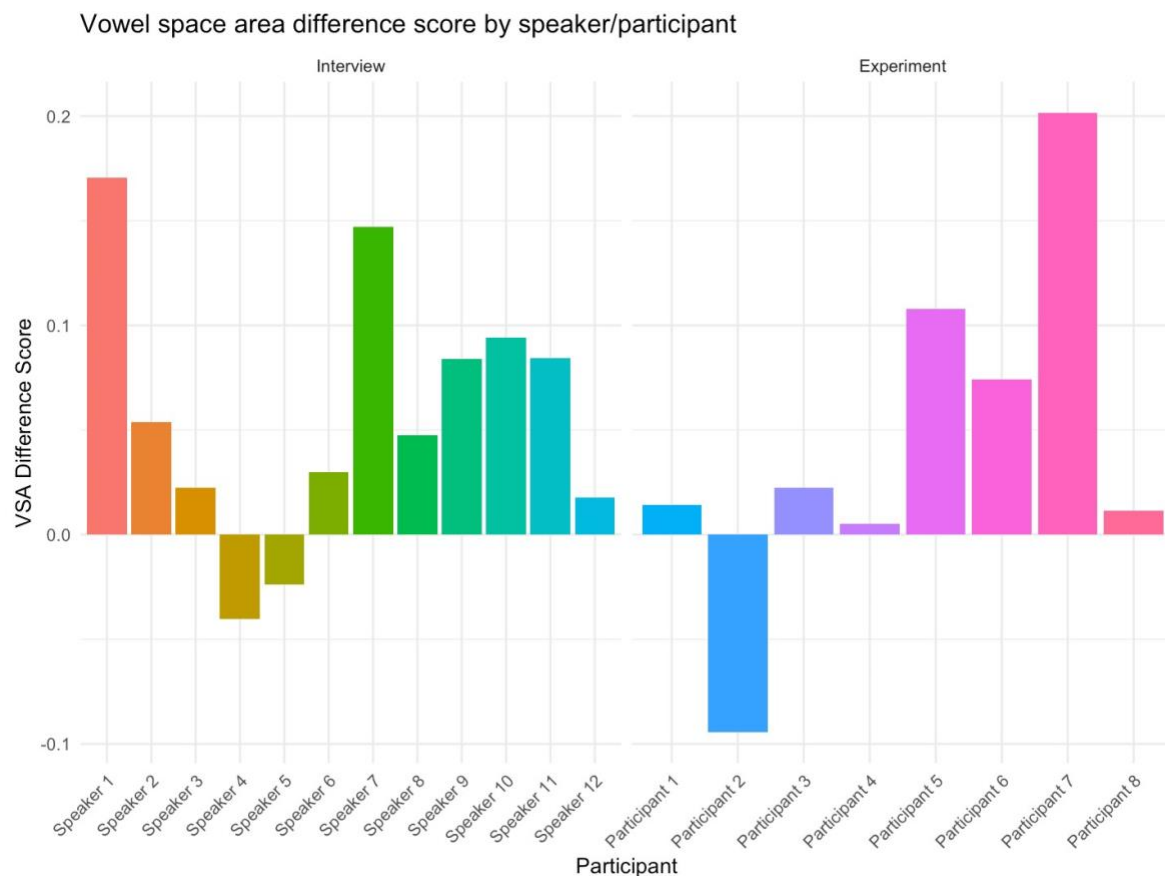


Figure 2: A plot showing the VSA difference score for speakers in the sociolinguistic interview corpus and participants in the experiment corpus. Scores are calculated by subtracting the



*average VSA for conversation or dialect poetry speech from the average VSA for careful or news bulletin speech.*

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# Measuring grammaticalisation cross-modally: Aspect markers in Creoles and sign languages

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Since the 1970s, researchers such as Woodward (1973), Adone (2012) and Bakker (2015) have drawn attention to apparent similarities between sign languages (SLs) and Creole languages (CLs). Such claims are often based on observations of a few languages per type, without a systematic comparison based on data from a large sample of languages to prove or disprove these claims empirically. Meanwhile, large-scale typological studies on grammaticalisation have barely included CLs, and SLs are absent entirely (Bisang & Malchukov 2020, Narrog & Heine 2018): consequently, the current state of the art on grammaticalisation is incomplete and in need of substantial additional evidence from CLs and SLs.

We share the findings of our cross-modal project on grammaticalisation by a mixed deaf/hearing research team that addresses this gap. We aim to produce a systematic comparative analysis of CLs and SLs for processes of grammaticalisation in the domain of aspect by comparing substantial amounts of data on CLs and SLs systematically in the context of the world's languages.

For SLs, we are examining aspect markers in several SLs, including British SL, Italian SL, Israeli SL, Japanese SL, South Korean SL, Indonesian SL, Kata Kolok (Indonesia), Sain (Jamaica) and Adamorobe SL (Ghana). We use data on over 50 CLs from the Atlas of Pidgin and Creole Language Structures (APiCS, <https://apics-online.info/>). We measure the grammaticalisation of aspect markers in CLs and SLs by applying the parameters devised by the Mainz Grammaticalisation Project (Bisang & Malchukov 2020) for studying non-Creole spoken languages:

- |                        |                 |                          |
|------------------------|-----------------|--------------------------|
| i) semantic reduction  | iv) bondedness  |                          |
| ii) phonetic reduction | v) paradigmatic | vii) decategorialisation |
| iii) Paradigmaticity   | vi) variability | viii) allomorphy         |
|                        | vi) syntagmatic |                          |
|                        | vi) variability |                          |

Our analyses are currently underway, and will enable us to test the widespread claims that CLs and SLs are analytic or isolating languages lacking inflectional markers as opposed to their synthetic inflectional marking lexifier languages (McWhorter 1998, Aronoff, Meir & Sandler 2005, Velupillai 2015, Bakker et. al 2017).

Ultimately, we aim to determine whether it is true that CLs and SLs show more instances of early-stage grammaticalisation (auxiliaries, free morphemes) and fewer examples of late-stage grammaticalisation (affixes, stem change) compared with non-creole spoken languages. Our findings so far suggest that both CLs and SLs have more late-stage grammaticalisation than is commonly assumed, and we look forward to sharing our findings in their entirety in September!

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## **Oh my goodness, this thing's fucking brilliant – On recent changes in the use of expressive intensifiers in British English**

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Intensifiers (as in totally empty, seriously ill) start to lose expressive force basically as soon as speakers start using them (Bolinger 1972). As a result, the intensification system is known for its innovative character, as there is a constant need for newer, more expressive items to replace the ones that already have been blunted with use (Bolinger 1972). This means that any intensifier will experience a fall and rise in frequency of use, sometimes even repeatedly (Ito & Tagliamonte 2003, Bordet 2017). Also, because of their becoming more widespread in the speech community, their semantic profile changes. To start with, new intensifiers combine with a very limited number of lexical items, but as they gain in frequency, their semantic content, along with their expressive force, bleaches – a process known as delexicalization (Partington 1993, Lorenz 2002). While studies abound concerning intensifiers like very, really and so (Tagliamonte & Roberts 2005, Bordet 2017, Aijmer 2018a, among others), expressive intensifiers like fucking or bloody are still understudied. They are transgressive in nature, breaking culture-specific taboos or norms (Farquaharson et al. 2020, Storch & Nassenstein 2020), and thus serve to express strong emotions or attitudes (Andersson & Trudgill 2007). You're fucking clever, for instance, is perceived as stronger and more expressive than you're really clever.

What we know about swearing in general is that male speakers have less inhibitions to use taboo language than female speakers (Jay 1992, Mehl & Pennebaker 2003), and that the use of expressive intensifiers appears to be characteristic of younger people (Palacios Martínez & Núñez Pertejo 2012, Aijmer 2018a).

Used as intensifiers, bloody and fucking should exhibit the same characteristics observed elsewhere in the intensification system. Particularly the blunting aspect should become apparent, which would be evidenced by an increase in frequency, a spread to older and middleaged speakers, regardless of socio-economic status. Furthermore, the collocational profile of these expletives should change away from a predominantly negative (fucking stupid) semantic prosody toward a more neutral and even positive one (bloody brilliant; Aijmer 2018b).

This paper will include a follow-up study to McEnery & Xiao (2004, based on the spoken section of the BNC1994) and Aijmer (2018b, based on a sample version of the BNC2014 Spoken), addressing the following questions:

- (1) Who uses bloody and fucking as adjective intensifiers and what changes can be detected concerning their use in spoken British English in the past 30 years?
- (2) What can their collocational patterns tell us about their state of delexicalization in modern spoken British English?
- (3) How has their profile of expressivity (with respect to their perceived offensiveness and the attitudes conveyed) changed in the past 30 years?

The analyses will be based on data drawn from the demographically sampled spoken subset of the BNC1994 (5m words) and the full version of BNC2014Spoken (11m words). The analysis will consider both intra-linguistic (syntactic position, semantic prosody, collocational profile, etc.) and speaker-related variables (speaker age and gender, socioeconomic status). In addition, a survey will provide data for RQ3.

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## Reconciling Divergent Findings on Age, Gender, and Locality: Sociolinguistic Variation of Rhotacisation in Beijing Mandarin

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This study investigates the social stratification of rhotacization/rhoticity (érhuà) in Beijing Mandarin, a hallmark feature of the local dialect in Beijing, China. Rhotacisation [ʐ] operates across multiple linguistic levels in this particular dialect:

- Semantic: 花 [xua] “flower” → 花儿 [xue], “small flower”, forming diminutives.
- Morphosyntactic: 盖 [kaɪ] “cover” → 盖儿 [kɛ], “lid”, enabling forming nouns from verbs.
- Pragmatic: 圆圆儿 [yɛn yɛ], “yuanyuaner”, as an endearment nickname.
- Stylistic: 有趣 [jou tɕhy] “fun” (formal) → 有趣儿 [jou tɕhyɛ] (casual), showing informality.

While these linguistic functions constrain possible realisations, speakers’ use of rhotacisation – whether to amplify, neutralise, or suppress it – varies systematically across social groups.

Previous studies have examined this feature; however, their findings diverge, particularly regarding the effects of gender and locality. These discrepancies are often linked to differing methodologies, including word lists, scripted speech, formal interviews, and perception tests. To reconcile these divergent findings, this variationist study offers a unified approach that integrates spontaneous speech data, rigorous coding, and statistical analyses.

Previous research has found that (1) young speakers used fewer rhotacised words than their old counterparts (Zhou, 2005; Hu, 2022); (2) women lead both standardisation and stylistic flexibility (Peng, 2004), while other researchers believe no gender differences (Zhang, 2023); and (3) suburban speakers use significantly less rhotacisation than urban residents (Jin, 2005). While existing studies have productively documented realised rhotacised tokens, their methodological approaches have typically not accounted for unrealised possible patterns in optional contexts. This variation in data collection protocols may affect the statistical analysis.

The present study analyses over 2,400 rhotacisation tokens from semi-structured interviews with 18 Beijing residents, balanced for age, gender, socio-economic status, and locality. In terms of exploring the cues of identifying rhotacisation by Praat and using ELAN for transcription and coding, I annotated rhotacisation for (a) possibles: realised patterns; (b) actuals: unrealised patterns; and (c) linguistic constraints (compulsory, optional, or forbidden contexts). Various statistical tests were used to assess social and linguistic conditioning based on three approaches: corpus linguistics-based approach, contemporary variationist sociolinguistic method and previous methods conducted by raw data.

In contrast to prior studies positing a pronounced age-based divergence in rhotacisation – wherein older generations reportedly favour rhotic variants more frequently than younger speakers – my analysis reveals no statistically significant variation in rhotic usage across age cohorts once both realised and unrealised patterns are accounted for. These findings challenge the established view that rhotacisation is inherently tied to generational shifts, necessitating a more nuanced interrogation of the interplay between social and linguistic variables in conditioning variation. Crucially, the results underscore the methodological significance of incorporating unrealised variation in sociophonetic analysis to circumvent reductive interpretations of speaker behaviour. Moreover, this study resolves earlier discrepancies in the literature by demonstrating how methodological frameworks influence the sociolinguistic patterns observed.

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## Historical Shifts in Child-Directed Broadcasting: A Sociolinguistic Perspective

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Child-directed speech (CDS) is widely recognised as a specialised register characterised by prosodic modifications like higher pitch, increased pitch variation, and slower articulation rate [1]. While cross-cultural variation in CDS has been explored [2], little is known about how CDS has evolved over historical time. This study leverages the similarity between child-directed broadcasting (CDB) and CDS [3] to explore potential historical changes. We analysed prosodic features of 134 monologue story-telling sessions of the long-running German children's program *Unser Sandmännchen* (1959– present), where actors address an imaginary child audience. To compare this to adult-directed broadcasts (ADB) we selected 194 weather forecasts from the same period. Crucially, this unique corpus spans not just six decades but also captures a major sociopolitical transformation: German reunification in 1990. *Unser Sandmännchen* originated in East Germany and continued after German reunification as a broadcast for the entire German transmission area. Given that East Germany adhered to a collectivist ideology with an emphasis on directive child-rearing, while post-reunification Germany followed Western liberal-democratic values, we hypothesised that a shift toward greater childcenteredness may be observable in an amplification of certain CDS characteristics in CDB post-1990.

Linear mixed-effect regression discontinuity models assessed changes over time in two key prosodic features: articulation rate and pitch variation. Pre-1990, the model showed no significant difference in the estimated marginal means of articulation rates between CDB ( $M=4.44$  syll/sec,  $SE=0.174$ ) and ADB ( $M=4.18$  syll/sec,  $SE=0.163$ ;  $t(275)=-1.03$ ,  $p=0.305$ ). However, post-1990, the model estimated significantly slower articulation rates in CDB ( $M=3.53$  syll/sec,  $SE=0.274$ ) compared to ADB ( $M=4.51$  syll/sec,  $SE=0.100$ ;  $t(275)=3.29$ ,  $p=0.001$ ). The fact that a slower in comparison to ADB articulation rate was not evident in pre-1990 East German CDB, but emerged post-1990 may indicate a sociocultural shift towards accommodation in child-directed communication. For pitch variation, the model showed higher estimated marginal means for female ( $M=43.4$  Hz,  $SE=3.63$ ) compared to male speakers ( $M=29.1$  Hz,  $SE=1.19$ ;  $z=6.47$ ,  $p<.001$ ). Furthermore, estimated marginal means for CDB ( $M=49.4$  Hz,  $SE=3.92$ ) were higher than for ADB ( $M=29.7$  Hz,  $SE=1.44$ ;  $z=5.04$ ,  $p<.001$ ). These findings align with expectations about differences in pitch variation between genders [4] and between ADS vs. CDS [1]. Model-estimated trends showed a significant change in pitch variation over time in ADB ( $\beta=0.100$ ,  $SE=0.038$ ,  $z=2.66$ ,  $p=0.008$ ), corresponding to a 0.64% increase per year (95% CI: +0.17% to +1.16%), likely indicative of a shift towards infotainment, but no change over time in CDB ( $\beta=-0.031$ ,  $SE=0.055$ ,  $z=-0.57$ ,  $p=0.57$ ), attesting to a potential universality of higher pitch variation in CDS.

These findings demonstrate that speech registers can undergo shifts in response to rapid cultural transformations and changing social norms. Specifically, greater childcenteredness, associated with the sociocultural shift after German reunification, manifested itself in slower CDS, an indicator of speech accommodation, but not in change in pitch variation, an indicator of positive affect expression, which appears to be more universal. Our study raises questions about the universality of CDS features and emphasises the value of historical data for sociolinguistic research.

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# **Acts of Complementary Identity: an analysis of variation in pop song singing styles**

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Singers often stylise their voice in ways that differ from their natural spoken style (Trudgill, 1983) frequently adopting American English accent features (Simpson, 1999).

While previous studies explored songs in the music charts performed by famous singers (Morrissey, 2008; Coupland, 2011) and semi-professional singers (Cleveland et al., 1997; Stone et al., 1999), the present study is innovative in examining singers' production with no target singer to imitate. Instead, singers perform novel songs created specifically for the purposes of this research. Furthermore, whereas many existing studies focus only on one individual singer (e.g. Beal, 2009), or a cohort of single-sex singers (Caillol and Ferragne, 2023), here differences between male and female singers are compared.

Previous research has also concentrated on songs from singers' own repertoire (Gibson, 2010), and this research expands this by featuring songs from five different genres: rock, indie, acoustic, R&B and synth-pop. These were deliberately chosen to test the contention that it is more appropriate to produce American features in some pop genres than others (Gibson, 2024).

Three male and four female self-identified singers from England took part in a sociolinguistic experiment, singing the five genre-distinctive novel songs with lyrics featuring two of the most commonly-attested features of American English found in pop music singing: monophthongal PRICE vowels and presence of non-prevocalic /ɹ/. Spoken data was also collected to provide a baseline against which the sung data could be compared, and perceptual insights into the singers' music-listening habits and attitudes were also recorded. PRICE monophthongisation was measured by calculating vowel vector length between onglide and offglide position (Fox and Jacewicz, 2009), and rhoticity was measured by an F3-F2 calculation (Turton and Lennon, 2023).

The results show that both sexes significantly shift PRICE and /ɹ/ in at least one genre compared to their spoken data; the singers became more rhotic, and PRICE more monophthongal, in line with earlier findings suggesting British singers adopt Americanised pronunciation in song (Trudgill, 1983; Simpson, 1999). The male singers shifted most considerably in the rock genre in both variables, whereas the female data is differentiated by genre and variable: PRICE monophthongises in all genres except synth-pop, with the opposite pattern for /ɹ/, where synth-pop is the only significantly rhotic genre. Perceptual data showed that the male singers were much more homogenous in their musical preferences, overwhelmingly self-identifying as rock singers and listening most frequently to rock bands with male singers. In contrast, the female singers' shifts across multiple genres can be explained by their more varied mix of influences beyond just rock singers. This finding suggests that while some genres of pop music do contain genre-appropriate modes of singing (Werner and Ledermann, 2024; O'Hanlon, 2006), identity factors are also relevant to performers (Trudgill, 1983), e.g. the role of "rock singer" is a more readily available/accessible identity for male singers due to the social history of the maledominated domain of guitar-led bands (Whiteley, 2010).

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## **‘So we was goin’ kangaroo shooting’: was/were variation in Australian Aboriginal English**

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Past tense *be* is variable in English varieties across the world. While different patterns exist in diverse locales, variability is so widespread across Englishes that it has been described as a ‘primitive of vernacular dialects’ (Chambers, 1995: 242). *Was/were* variation has been widely studied in the United Kingdom, the United States, Australia, New Zealand, as well isolated coastal communities and islands including Tristan Da Cunha (e.g., Eisikovits, 1991; Hay & Schreier, 2004; Moore, 2010; Schilling-Estes & Wolfram, 1994; Schreier, 2002; Tagliamonte, 1998; Tagliamonte & Smith, 1999). However, whether this is indeed a ‘primitive’ feature remains an empirical question until all varieties are considered. An undescribed variety in this respect is Australian Aboriginal English (AE), a post-invasion contact-based variety spoken by First Nations people in Australia (Author). While a tendency towards *was* levelling has been attested in descriptions of AE (e.g., Malcolm, 1996; Malcolm, 2018), quantitative sociolinguistic studies are yet to be offered.

In this paper, we draw on the speech of 31 First Nations women aged 12-17 from across Western Australia and the Northern Territory, collected as part of a sociolinguistic ethnography with young women at a boarding school in Nyungar Country, southwest Western Australia. In line with the literature, all tokens of past tense verb *be* were extracted and coded for polarity, grammatical subject, clause type (copula declarative, auxiliary declarative, quotative *be like*, quotative auxiliary, Wh question, Yes/No question and phrasal verb), clause status (main or subordinate clause), and adjacency (measuring the distance between the noun and the verb). The social constraints included home region and remoteness (the geographical region individual students hail from and their corresponding classification by the Australian Bureau of Statistics (2023)), linguistic home environment (monolingual vs. multilingual), whether the speaker was from a Kriol or non-Kriol speaking area (Kriol is a new Aboriginal language spoken across northern Australia), and their membership status in the six social groupings identified during ethnographic work at the school.

Our results reveal that when *were* is prescriptively required, the rate of the standardised form is about 40% with non-existential subjects, and only about 9.8% for existential subjects (examples 1-4). There is no apparent effect of polarity, revealing that the AE *was/were* system differs from *wasn’t/were* systems found elsewhere. We find some differences between sentence, clause, polarity types and adjacency following the expected direction. However, most of these linguistic factors are not significant when other social factors are included. In fact, subject type is the only significant linguistic constraint, with the first plural pronoun *we* favouring levelled *was*, an effect that is only operational for those from monolingual homes. Crucially, whether a speaker has grown up in a monolingual or a multilingual home emerges as the best social predictor of *was/were* use. We also find that the girls’ transient engagements in boarding school (where absenteeism is common) do not provide enough opportunity for them to draw on this variable to construct localised styles to signal social differentiation. Instead, *we was* is indexical of enregistered varieties of AE.

## Examples

1. There **were** three girls. (Maria, b. 2008) – Existential context, standardised form.
2. And there **was** white people and all. (Jane, b. 2009) – Existential context, nonstandardised form.
3. Like we **were** - weren't friends before. (Kylie, b. 2011) – Non-existential context, standardised form.
4. We **was** like 'Come down here, then.' (Frankie, b. 2007) – Non-existential context, nonstandardised form.

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## **‘Unstructured’ intra-speaker variation in read speech: The case of SSBE monophthongs**

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Most research on phonetic variation has focused on inter-speaker variation or ‘structured’ intraspeaker variation, such as style-dependent shifts. Comparatively little is known about ‘unstructured’ intra-speaker variation, while it is commonly asserted in phonetics courses that speakers *cannot* produce a sound exactly identically twice, even if they try. As Audibert & Fougerson (2022) point out, few studies to date have addressed how much ‘granularity’ is needed to measure the resulting variation. This study addresses this general question for formant measurements of monophthongal vowels produced by speakers of Standard Southern British English. It builds on several studies of American English vowel productions (Heald &

Nussbaum 2015; Whalen, Chen, Tiede & Nam 2018; Whalen & Chen 2019), which suggest that individual speakers are highly consistent in their productions within and across recording sessions, but differences between vowels can be discerned: for example, close vowels appear less variable than open vowels. These studies have not probed in detail whether differences between speakers can also be discerned: that is, whether some speakers are more variable than others.

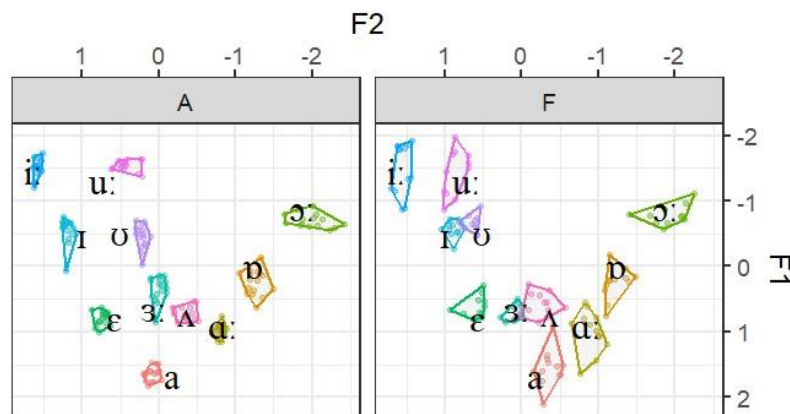
The data for this study come from a recently recorded 16-speaker corpus of SSBE speech.

Speakers performed a series of commonly employed speech production tasks repeatedly, in 6 to 8 near-identical sessions over several months. All speakers are female. Read productions of *bead*, *bid*, *bed*, *bird*, *bad*, *barred*, *bud*, *bod*, *board*, *good* and *booed* were extracted and subjected to formant analysis using *FastTrack* in *Praat*. Midpoint F1–F2 centre frequencies were plotted and normalised following Ferragne & Pellegrino (2010). Convex hulls were fitted to relevant groups of data points and hull area sizes were taken as measures of observed variation in the F1–F2 vowel space (see Figure 1). Ongoing analysis focuses on the following research questions:

1. *What is the extent of intra-speaker variation in F1–F2 centre frequencies across word productions?*
2. *Does the extent of intra-speaker variation vary significantly between (a) vowels and (b) speakers?*

In relation to question 2, SSBE is an interesting case given the ongoing fronting of /u:/ (GOOSE) and /ʊ/ (FOOT) (e.g. Strycharczuk & Scobbie 2017; Lawson, Stuart-Smith & Rodger 2019). Many studies have confirmed that ongoing sound change is associated with a high degree of inter-speaker variation. Few studies have asked whether it is also associated with a high degree of intra-speaker variation, as individual speakers respond to the variability they perceive around them. This study will therefore also report on the correlation between inter-speaker and intraspeaker variation in this data set.





**Figure 1:** Two speakers' F1–F2 measurements with convex hulls fitted by vowel

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# Endogenous Regularization vs. Cross-Modal Contact: Typological Dynamics in the Standardization of Chinese Sign Language Lexicon (1959–2018)

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Chinese Sign Language (CSL) has evolved dynamically since the founding of China's first deaf school in 1887, yet its historical trajectory remains understudied due to fragmented documentation. This study addresses this gap by conducting a diachronic analysis of five nationally recognized CSL dictionaries published between 1959 and 2018: Sign Draft for Deaf-Mute Communication (1959), Standard Signs for Deaf-Mute Communication (1979), Chinese Sign Language (1990), Chinese Sign Language (Revised Edition) (2003), and Lexicon of Common Expressions in Chinese National Sign Language (2018). By analyzing 1,259 signs consistently attested across all editions, we identify five typological pathways of lexical evolution: (1) phonological parameter modifications (e.g., handshape, orientation, location, or movement shifts), (2) morphological restructuring (compound simplification and derivational changes), (3) fingerspelling adaptations (reduced initialization and parameter assimilation), (4) symmetry shifts (unimanual-to-bimanual transitions), and (5) holistic reconfiguration (full-form replacements).

Quantitative findings reveal a dual evolutionary pattern: core lexicon stability contrasts sharply with general lexicon fluidity. Multifactorial analysis uncovers divergent drivers: external pressures from societal modernization, shifting deaf education paradigms, and Mandarin Chinese lexical borrowing operate alongside internal motivations for systemic regularization through grammaticalization (iconicity erosion toward arbitrary form-meaning mapping) and articulatory economy (joint displacement minimization).

Our findings demonstrate how standardization processes simultaneously suppress variation (via endogenous regularization of core signs) and stimulate innovation (through cross-modal contact with Mandarin). These dynamics are periodized into three phases: dialectal convergence (1959–1979), parameter codification (1990–2003), and technology-driven expansion (2003–2018). By revealing modality-specific retention of spatial morphology alongside spoken-language-like phonetic erosion, this research provides the first longitudinal framework for sign language standardization studies, with direct implications for CSL lexicography and inclusive language policy design.

**Key words:** core lexical signs; regularization; cross-modal language contact; sign language standardization; diachronic typology

## **Emergent varieties of London English in primary school: A longitudinal study**

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Most studies of children's acquisition of sociolinguistic variation have examined children growing up in monolingual homogeneous communities (Smith, 2021). This work has shown that children initially acquire speech patterns that reflect their caregivers, with school exposure leading to peer influence. In London, the ambient environment is much more complex – the input at home and in school can include an enormous range of accents and languages. Multicultural London English (MLE) appears to behave differently as a result: Cheshire et al. (2011:189) argue that young children reject caregiver and local adult models, unlike non-contact situations. In the present study, we build on this early work and track children longitudinally across a range of social class backgrounds. This 'wide net' allows us to ask: Is there minimal home influence for London children? How early does social class differentiation emerge? Which children develop broad or narrow repertoires, and why? We are tracking the English speech production patterns of two cohorts of children in an East London primary school, starting from the first year of school. Our aim is twofold: 1) to investigate the influence of environmental factors (e.g., home language/accent, social class, ethnicity) on developing speech patterns; 2) to explore developing speech repertoires in different situations, to establish both how early children start filtering out selected features in their environment to align with specific identities, and which children do this more. Our sample includes 43 children and their caregivers. For a spread of ages, we begin with the first year of school ( $n=21$ , 4-5 years) and the third ( $n=22$ , 6-7 years). Children are being recorded every six months using a range of child-friendly activities (picture naming, spot-the-difference, free play) to elicit vowels and consonants that cover a range of London English accents (e.g., PRICE, GOAT, and FACE, coda /l/, which can distinguish MLE, London Asian, and Standard London). To track the emergence of speech repertoires, children are recorded during a school-like activity, a group play session, and at home. To capture the home environment, caregivers are completing a background questionnaire covering language/accent exposure, siblings, caregiver background; and providing speech recordings of themselves.

We report on auditory and acoustic analysis of speech produced during the first year of longitudinal tracking (2 timepoints). Preliminary age-group comparisons show that at the start of school (4-5 years) children's speech does in fact contain phonetic features that reflect their home variety and reflect much more individual variability than that of slightly older children. The older group (6-7 years) already display phonetic features that reflect recognisable class and ethnically-marked features. The longitudinal sample allows us to see that children do begin with caregiver influence, like children in non-contact studies, but at an earlier stage filter features in their environment to align with specific ethnic and class positions, despite sharing most features in their school and peer environment. The detailed profile of phonetic development in East London English shows that the ages of 4-8 years lay the critical foundation for speech production repertoires in later adulthood.

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## The phonetic role of the postvocalic consonant in Old English vowel breaking

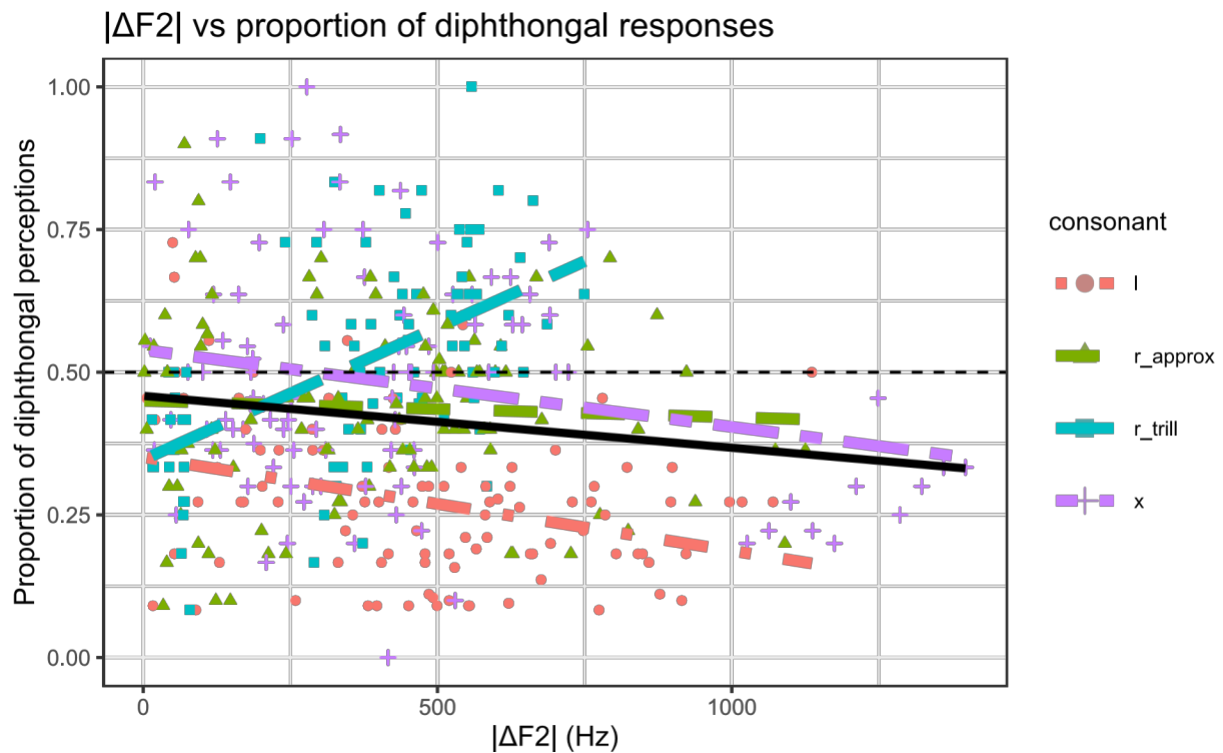
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This experiment is part of a phonetic examination of vowel breaking, a sound-change in the West Saxon dialect of Old English. It utilizes Ohala's listener-driven model [1], where apprehension of the phonetic signal may result in phonological change, and uniformitarianism, the principle that historic peoples had the same faculty for language as modern speakers [2]. Vowel breaking occurred in the following environments: Proto-Germanic /a e i/ > /ea eo io/ before /l r/ + any consonant or /x/ by itself (e.g. Proto-Germanic \**alda* > Old English *ea/d* 'old'; \**elhaz* > *eolh* 'elk'). Scholars disagree on whether the resultant digraphs were phonetic diphthongs [2], largely due to contention about the qualities of the conditioning consonants. In standard grammars e.g.

[3], it is claimed that a shared [+back] feature was responsible for conditioning the OE diphthongs. However, other studies (e.g. [4]) assert that the role of backness in diphthongization is overstated. This experiment therefore investigates the extent to which postvocalic consonant backness influences the perception of diphthongs.

To tackle these inquiries, a perception experiment was conducted using continua of gradient pronunciations, simulating Proto-Germanic pronunciations, and varying in postvocalic consonant quality and backness, e.g. clear to dark laterals [l – ɫ], rhotics [ɹ – ɻ], [r – ʀ] and fricatives [x – h] [5]. Stimuli used a combination of proxy recordings of Proto-Germanic words [6], comprising words synthesized from textual prompts [7], sound-clips from freely available sources such as forvo.com and by recording phoneticians reading aloud IPA transcriptions. 396 tokens from multiple points along the continua were played one at a time to each of 12 SSBE listeners, e.g. [alda] and [aɫda], who classified the preconsonantal vowels they heard as either monophthong or diphthong. For each stimulus, the spectral change was quantified in unsigned delta F2 ( $|\Delta F2|$ ), measured from 20% into the vowel to 20% before the end of the postvocalic consonant. A larger  $|\Delta F2|$  indicates a greater F2 formant frequency change between the front vowel and the postvocalic consonant.  $|\Delta F2|$  was plotted against the proportion of diphthongal responses for each conditioning consonant, as visualized in Figure 1. I predicted that greater  $|\Delta F2|$  would lead to a higher proportion of diphthongal responses.

Results suggest that while there was no significant relationship between  $|\Delta F2|$  and the proportion of diphthongal responses across combined stimuli, significant effects were found within individual groups. Unexpectedly, front vowels before trilled /r/ were more readily perceived as diphthongs compared to those before approximant /r/. Additionally, front vowels before /l/ and /x/ were perceived as more monophthongal as  $|\Delta F2|$  increased. These findings contradict some of the philological accounts that associate greater postvocalic backness with diphthongization. Instead, I interpret the higher proportion of monophthongal perceptions as reflecting retracted vowels, rather than diphthongal ones. Overall, results perhaps more closely align with retraction in the Anglian dialects – the backing of front vowels – than with West Saxon vowel breaking. I conclude that the phonetic cause of West Saxon vowel breaking appears not to be simply accounted for by changes in F2.



**Figure 1.**  $|\Delta F2|$  vs. proportion of diphthongal responses, by consonant group. The solid black line considers all combined stimuli.

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# **What triggers linguistic bias against second-language accents? Examining the roles of accent strength, language, and group membership**

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Second-language (L2) accents of English face negative stigma in the United States (Bresnahan et al., 2002; Dragojevic & Goatley-Soan, 2022; Lindemann, 2005). However, the nuances of these attitudes are underexplored, in part because much research has used English monolingual subjects. In this paper, I examine attitudes towards Standard American English (SAE) and four L2 accents: weakly and strongly French-accented English, and weakly and strongly German-accented English. I target French-English and German-English bilingual participants, which enables an investigation of the role of group membership in guiding negative bias. Findings offer insight into how varied linguistic backgrounds influence bias toward L2 accents of different strengths.

A more exploratory aspect of the current research was to examine how adults judge adults based on accent versus how adults judge children. We know that adults form rapid facial impressions of both adults and children and make assumptions about their character (Collova et al., 2019). These first impressions can play a large role in real-life behavior of adults towards children in teacher-student interactions (Armitage & Conner, 2001; Clifford & Walster, 1973; Kenealy et al., 1988). Presumably the same is true for adults judging children's voices. Studies on how adults judge children based on accent are lacking in sociolinguistic literature, which underscores the need for the current investigation.

Using a Verbal Guise Technique (Lambert et al., 1960; Markel et al., 1967), the social evaluation of five accents was compared: SAE, weak German accents, strong German accents, weak French accents, and strong French accents. Speakers were 5 adults (22-30 years old) and 5 children (11-15 years old), one speaker per combination of age group and accent type; all speakers were female to control for sex. The raters were 111 US residents. Participants rated the guises across eight positive and negative traits (e.g. intelligence, friendliness, rudeness, aggressiveness, etc.).

This study finds that stronger L2 accents were evaluated significantly more negatively than weak L2 accents and SAE ( $p < 0.001$ ), and weak L2 accents were evaluated significantly worse than SAE ( $p < 0.001$ ). This mirrors previous work on accent strength (Dragojevic et al., 2017; Hendriks et al., 2021). Furthermore, the general pattern emerged that weak German accents were preferred over weak French accents ( $p < 0.001$ ), but strong French accents were preferred over strong German accents ( $p < 0.001$ ). There was no main effect of group membership ( $p = 0.411$ ). All three linguistic groups (French L1, German L1, and English L1) rated the guises similarly. In terms of speaker age (adult vs. child), child speakers were evaluated significantly more positively than adult speakers ( $p = 0.001$ ), although they were not exempt from negative bias.

This study's main aim was to localize the source of negative bias, and the paper concludes that both accent strength and the specific language trigger linguistic stigma. The paper notes that accent strength effects were more robust than language effects. Overall, these findings provide evidence for the theoretical claim that language attitudes are influenced by both national stereotypes and processing ease of the accent.

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## Attitudes in context: Stereotypes in evaluations of Lebanese voices in Australia

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For decades, language attitudes research has documented the close relationship between evaluations of language and speakers' perceived social identities, often reflecting stereotypes (Giles & Powesland, 1975). Speakers of non-standard varieties have consistently been evaluated more negatively than standard-accented speakers (Fuentes, Gottdiener, Martin, Gilbert, & Giles, 2012), with recent work highlighting the potential impact of accent bias, including in employment contexts (e.g., Levon, Sharma, Watt, Cardoso, & Ye, 2021). In Australia, studies in the 1980s demonstrated similar attitudes toward Australian English speakers from immigrant backgrounds, particularly Italian and Greek as major groups at the time (e.g., see Callan & Gallois, 1987 for overview). However, other major groups within Australia's contemporary sociopolitical landscape have received less attention.

The Lebanese community has a long history of immigration and settlement in Australia, and remains one of the country's largest ethnic groups today (Australian Bureau of Statistics, 2021). Its high visibility in Sydney's western suburbs, amplified by public discourse on Lebanese youth crime, has profoundly impacted the diaspora's image (Collins, 2005). This can be seen in reports of ongoing prejudice and discrimination experienced by Lebanese Australians (O'Donnell, 2023), as well as in persistent negative stereotyping, suggested in a small amount of attitudes and perception work. For example, one study found negative attitudes towards an ethnically marked way of speaking associated with Lebanese Australians referred to as "Lebspeak" (Rieschild, 2007), and more recently, a perception study found that Lebanese-Australian men (but not women), were rated significantly lower than AngloAustralian women in employability (Gnevsheva, Bou Orm, & Travis, 2025).

This paper reports on a perception experiment conducted to better understand the role of stereotypes in evaluations of Lebanese Australians. The experiment gathers information about listener attitudes to spontaneous speech stimuli from two age groups of Lebanese Australians (teenage and young adults in their 20s), and from young adults of Anglo, Chinese, and Italian backgrounds. Here, I present results from mixed-effects regression analyses, based on responses from 94 Sydney-based listeners, including ratings across three evaluative dimensions (*status*, *solidarity*, *confidence*), and listener comments explaining the scores.

First, the Lebanese teens were the most accurately identified (71%) group, compared to 37% accuracy for Lebanese young adults, and a range of 19% to 54% for other groups. The Lebanese teen males were the lowest rated group on *status*, and the Lebanese men of both age groups were the most negatively judged on *solidarity*, while the Lebanese young adults received the highest ratings for *confidence*. Listener comments revealed stereotypical perceptions of Lebanese Australians, describing them as having a "heavy *Leb* accent" and "limited vocabulary", sounding "like a [troublemaker] guy from western Sydney", and having an "overly confident voice". Importantly, for Lebanese-background speakers, inaccurate identification generally showed trends toward higher ratings on the negatively evaluated dimensions of *status* and *solidarity*, while downgrading positive ratings on *confidence* for young adults, suggesting that ethnic identification patterns can either reinforce or contradict social stereotypes. Collectively, these findings highlight the stigmatisation of Lebanese Australian men, particularly teens, underscoring the need for more research to help address linguistic prejudice in multicultural contexts, especially given that youth voices remain under-represented in policy and systemic reform in Australia (Dellal, Nyuon, & Castley, 2024).

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# **Language Variation and Change: A Study of Border Communities in the Golan Heights**

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## **Abstract**

Arabic is characterized by considerable lexical variation and a diglossic nature - which refers to two distinct varieties: Standard and colloquial Arabic (Ferguson, 1959; Haeri, 1997). Such variation might be prone to change as a result of societal changes. This may be more apparent in border communities in which speakers might be exposed to other languages or dialects. One such place is the Golan Heights located at the borders of Israel, Lebanon, and Syria. Between 1946 and 1967, the Golan Heights native-Arabic residents lived under the Syrian governance. Syrian Arabic was the dominant language and locals were monolingual Arabic speakers. However, when it was occupied by Israel in 1967, this led to a shift in language dominance - from Syrian Arabic to Hebrew and Palestinian Arabic dialects. The change in borders also led to increased contact between Arabic dialects and this can ultimately result in language change (Manfredi, 2012; Trudgill, 1986; Giles & Powesland, 1997; Hachimi, 2018). These changes motivated the examination of two key aspects of language variation and change in this study: first, to investigate lexical variation and change in the spoken Arabic dialect in the Golan Heights, and secondly, to investigate the impact of Standard Arabic on the use of colloquial Arabic in the Golan Heights.

Five native Arabic speaking communities in the Golan Heights were investigated in this study: Ghajar, Majdal Shams, Buqa'atha, Ein Qinya, and Masa'da. Fifty-six participants who grew up in Arabic-speaking homes were recruited. Participants were involved in two main tasks: a lexical elicitation task and an interview about metalinguistic awareness towards variation. The results showed that education is a significant predictor for the amount of variation used by speakers in Ghajar, indicating that those who attended higher education produced more variants. Furthermore, it was found that the instruction language of Arabic is a significant factor in predicting the usage of more standard forms - those exposed more to Arabic as their dominant instruction language produced more standard forms. In contrast, in the Hills, there were no significant factors predicting language variation or change.

This study served to indicate that there is a distinct variety of Arabic in the Golan Heights compared with other Arabic Palestinian varieties across Israel. While we expected to see evidence of language change, this study found no clear loss of lexical variants across the age groups. The importance of education in predicting language variation can be interpreted as a proxy for mobility reflecting increased mobility among educated individuals (Al-Wer, 2013). In addition, the spread of standard Arabic in formal education in Israel appears to influence the use of the local Arabic (Amara & Mar'i, 2006). The unique geographical location of the Golan Heights can provide insights into language variation and change of other Arabic-speaking minorities living at borderlines in the Middle East.

**Figure 1:** The Golan Heights



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## **Style repertoire in political discourse: phonetic variation in the speech of Jonathan Reynolds MP**

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This paper explores phonetic variation in the speech of a prominent British politician who has competing influences on his style. The member of parliament Jonathan Reynolds was born in North East England, currently represents a constituency in North West England, and is a member of the Westminster government in London, meaning that three distinctive English accents (Sunderland, Greater Manchester and Received Pronunciation [RP]) bear influence on his production.

Realisations of a series of vowel (STRUT, FACE, GOAT in Wells' 1982 lexical sets) and consonant variables (/p, t, k/), which are shown to vary across these three varieties, are compared across four qualitatively distinct discourse types, comprising: political speech, head-to-head political interview, political panel interview, and a podcast interview about a computer game – all collected from BBC political television programmes and a YouTube podcast. This permits an analysis of Reynolds' overall style and the degree to which the different regional and social influences on his speech compete with each other, and also an exploration of the extent to which Reynolds style shifts according to different discourse types.

The results show that Reynolds mixes northern forms from the areas where he grew up and currently resides alongside standard variants more often found in RP. A style repertoire approach (Sharma 2011) is adopted to explore differing variant usage across context. Certain variables (FACE) undergo canonical style shift according to the formality of the interaction, with standard diphthongal forms most frequently produced in the most formal political speech, and showing significantly declining usage as the discourse becomes more conversational, and less political. The GOAT vowel shows the opposite pattern, with high levels of northern monophthongal variants, suggesting identity factors related to either Reynolds' upbringing or current place of residence, and which be politically useful in indicating relatability (Fetzer & Bull 2012). Furthermore, /t/ is rarely glottalled, and shows no style shift at all, which can be analysed as a desire to index competence and articulacy in line with other studies of political speech (Podesva, Reynolds, Callier & Baptiste 2015). Specific words appear to accelerate the wider trends with politically iconic lexis in words like 'government' demonstrating more significant shifts – a finding in line with other studies of political figures, including Reynolds' cabinet colleague Ed Miliband (Kirkham & Moore 2016) and former leader Tony Blair (Rosewarne 1998). The overall effect extends existing indexical orders to construct a political identity which balances relatability with competence.

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## Sarcasm in Improvised Performance: A Socioprosodics Lens

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Sarcasm is a complex communication tool where there is a mismatch between what is said and what is meant. Previous research has focused on various features of sarcasm in isolation (e.g. Jorgensen, 1996; Bryant & Fox Tree, 2005; Branowska et al., 2023) although it requires speakers and hearers to rely on varying pragmalinguistic cues to resolve the mismatch. Because its high dependency on the context, there is no conventionalised formulae for its delivery. This research aims to **understand how speakers and hearers negotiate power, im/politeness and identity** by focusing on the varying lexical and prosodic cues within the **context** sarcasm is produced. The study explores sarcastic remarks in Turkish which aims to expand the lens of socioprosodic and sociopragmatic variability in a language other than English.

It is difficult to capture sarcasm in daily interactions (see Tannen, 1984). Therefore, the data comes from an improvised Turkish comedy show, where there are abundant examples of sarcasm. The show imitates real-life discourse through inviting members of the audience to the stage to perform a role in the story.

I identified sarcastic remarks based on the presence of: 1) criticism, 2) humour, and 3) an underlying message different from the lexical message. Using the sarcastic remarks in the first 10 episodes of the show, I examined the following prosodic measurements at segmental level: mean f0, standard deviation of f0, speech rate, and intensity.

In addition to the above prosodic measurements to describe the variation in conveying sarcasm, I used Relational Work (RW) as the theoretical framework to examine how prosodic and lexical choices are at play in the negotiation of power. Because RW captures all the “work invested by individuals in the construction, maintenance, reproduction and transformation of interpersonal relationships” (Locher & Watts, 2008, p. 96), it provides an understanding of how prosodic variation is used as a relational tool in the context.

The analysis has underscored how these cues are utilised by a sarcastic speaker as a stylistic tool to signal sarcasm to the addressee and audience(s) as well as to draw a line between character-level and interpersonal-level sarcasm - either exacerbating or disguising the message through vocal and lexical cues. Where there is less potential for face aggravation, the sarcastic speaker would opt for a higher mean f0 along with bolder lexical choices (e.g. religiously condemning words). Where there is more risk of a ‘negatively marked’ behaviour, he would prefer a ‘murmuring tone’ utilising a lower pitch and a fastened speech rate. These cues illustrate that the host of the show uses these variations as an RW tool – operationalising prosody as part of his identity as a fictional character or an experienced real-life actor. RW comes to the fore in examining negotiation of power and the face-aggravation potential of sarcasm at play in the duality of this context.

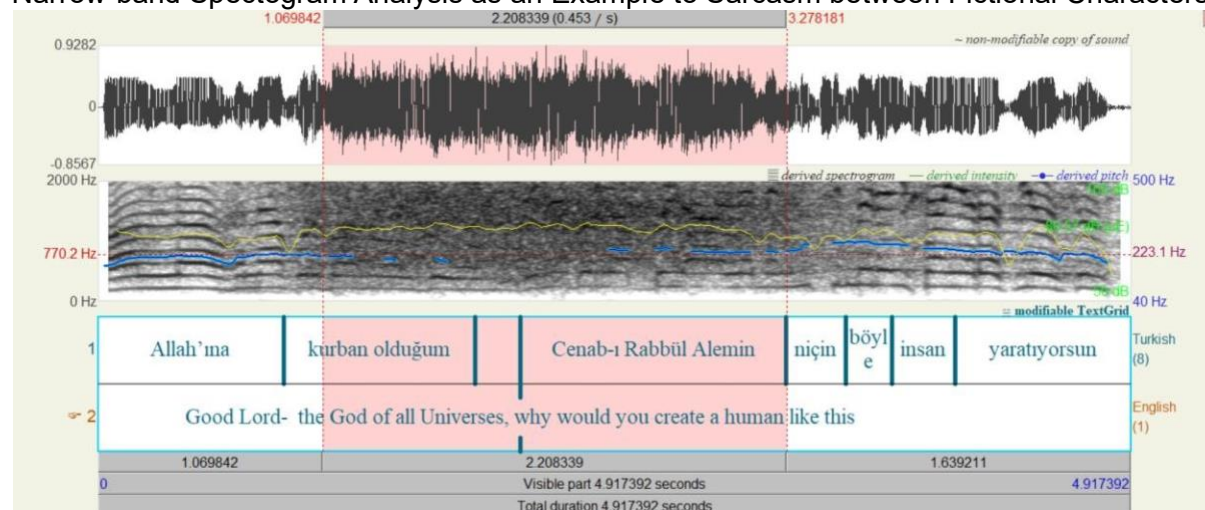
By bringing investigations of spontaneous sarcasm in Turkish, RW, and audience design, the research is a work towards expanding the scope of socioprosodics - a new field suggested by O’Rourke and Baltazani (2023).

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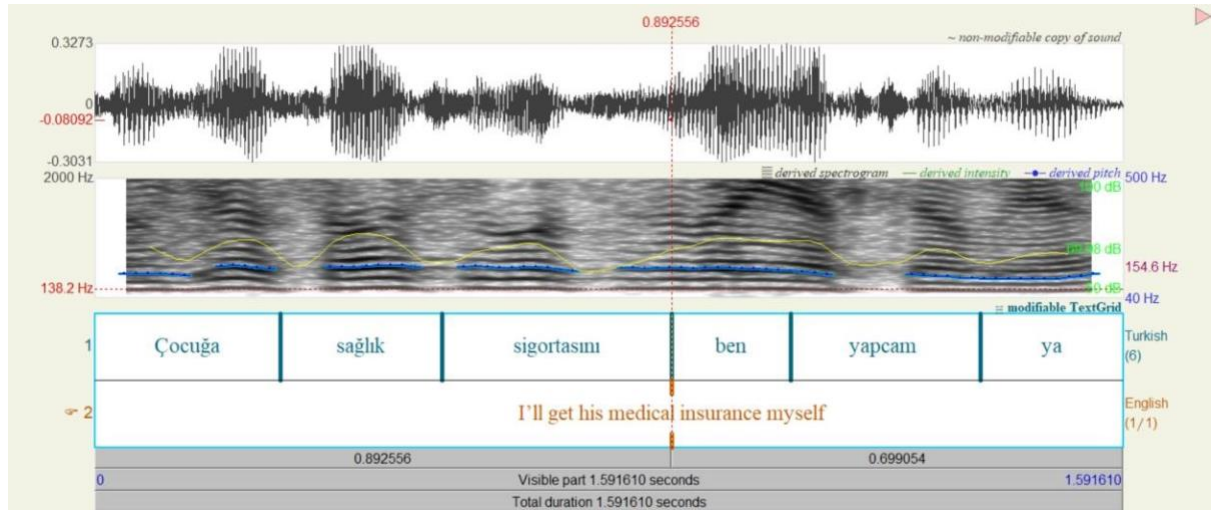
Examples:

#### Narrow-band Spectrogram Analysis as an Example to Sarcasm between Fictional Characters



#### Narrow-band Spectrogram Analysis as an Example to Sarcasm towards a Real Persona





# **A SOCIOPHONETIC INVESTIGATION INTO VOWEL REALISATIONS ACROSS SINGING AND SPEECH IN A MIDDLESBROUGH COMMUNITY CHOIR**

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This paper is an investigation into how various accent features alter between speech and singing in a Middlesbrough choir. This is part of a wider project investigating the interplay between identity, singing, and membership of a choir community which is taking a documentary approach. The interest for sociophonetics is the potential to explore the relationship between singing and speaking in a specific community navigating a range of influences.

Previous studies suggest that choral singing is associated with standard southern standard British English (SSBE) (Marshall et al., 2024; Morrissey, 2008; Wilson, 2017). It is important to note that choir singing is a broad genre containing many musical styles. The present data is unique in being taken from a choir that isn't classically trained and has a repertoire of songs which include gospel, pop, and hymns. The choir is also led by two individuals, one is from Middlesbrough, and the other is from New York – both of whom will influence the style and sociophonetic variation of the choir's singing.

Trudgill (1997) describes a trend where British popular music singers modify their accent between singing and speaking, specifically by adopting various American speech features when singing, something Simpson (1999, p.345) refers to as the 'USA-5 model'. The following are relevant for the present study: (i) fronting and shortening of /ɑ:/ to [a] (irrespective of whether this is PALM or BATH), (ii) monophthongisation of PRICE to [aː], (iii) merging of LOT and CAUGHT vowels. Our participants are based in Middlesbrough, suggesting an accent with the following vowel features: monophthongal FACE and MOUTH, a lack of a STRUT/FOOT split, a wide PRICE diphthong, and merged TRAP and BATH (Beal, 2008, p.135; Hughes et al., 2012, pp.119-125; Llamas, 2007). Therefore, we contrast the realisation of vowels across speaking and singing, considering how participants align between USA-5, Middlesbrough and SSBE predictions. Overall, it is predicted that the participants will speak with Middlesbrough features but sing using both SSBE and USA-5 features. It is also predicted that participants will move closer together in their singing, aligning with a shared choir 'style'.

Four individuals were recorded over multiple sessions in 2024: two females and two males. All have been members of the choir for at least two years. Individuals were recorded speaking in interviews, chatting informally, and singing in the choir setting. Recordings were segmented manually in Praat (Boersma & Weenink, 2022). Vowel normalization, which was completed using the Watt and Fabricius modified method, using the *vowels()* package in R (Fabricius et al., 2009; Kendall & Thomas, 2022).

Preliminary results suggest that participants aligned more with SSBE when singing in the following ways: a wider FOOT/STRUT and BATH/TRAP split, a more monophthongal GOAT, and a more open MOUTH onset. Some alignment away from USA-5 can be seen in a maintenance of a LOT/THOUGHT split across speaking and singing, and monophthongal sung FACE. Participants also moved closer to one another in terms of overall vowel space when singing (see Figure 1) which suggests a co-creation of a sung choir style.

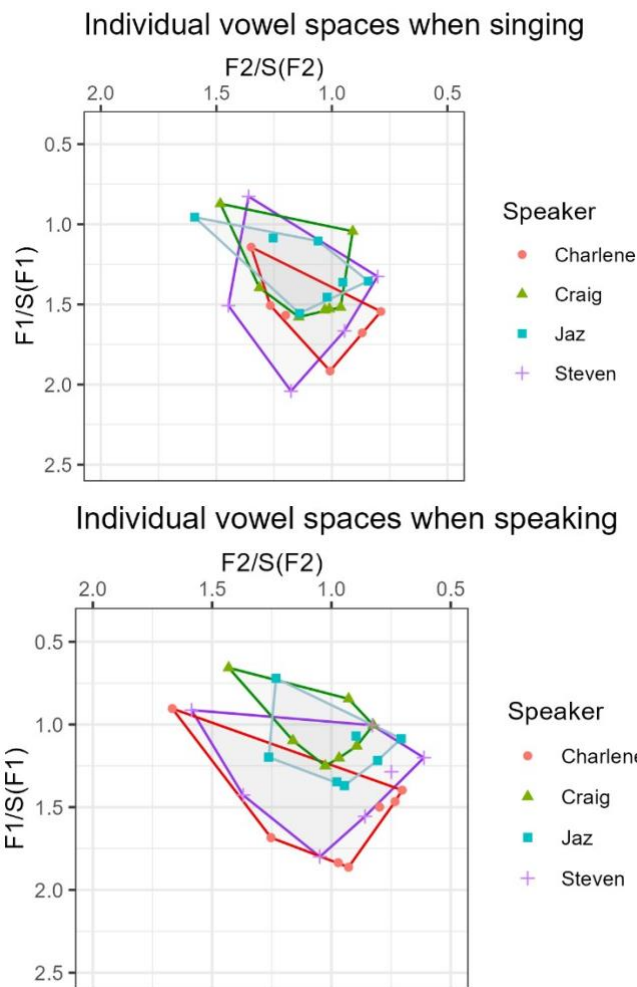


Figure 1: Normalized F1~F2 plots showing individual vowel spaces across singing (top) and speaking (bottom).

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## How Vocal Characteristics Influence Listener Perceptions of Personality

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Listeners form judgments about a speaker's personality after minimal exposure to their speech [1]. Previous studies have shown that regional accents can significantly influence listeners' social evaluations of speakers – even when indexical differences are controlled for by using a matched guise technique [2]. There is also clear evidence that pitch height, as well as formant height and dispersion (reflecting different vocal tract lengths), influence personality attribution, e.g. [3]. However, how accent, pitch, and formant characteristics interact to influence listener judgments is not known. The two studies reported here systematically explore listeners' personality attributions by varying the accent, pitch, and formant height of the speakers they judge.

The first study investigated changes in personality attribution for speech that only differs in accent. For the speech stimuli, 12 male Dundonian bidialectal speakers were recruited. These speakers could comfortably produce Scottish Standard English (SSE) and Dundonian Scots (DDN). Each speaker recorded 12 statements: six SSE sentences along with the DDN equivalent. E.g., '*She wore a brown jacket*' versus '*She wore a broon jaiket*'. 111 native English speakers were recruited via Prolific, randomly assigned to one of two perception studies, and were either asked whether the speaker sounded empathetic or manipulative. Results showed a significant effect of accent on both empathy and manipulation attribution.

The SSE versions of the stimuli were judged as both significantly more empathetic ( $t(55) = 3.53, p < .001, d = .47$ ), as well as more manipulative ( $t(54) = 3.12, p = .003, d = .42$ ) than the DDN versions.

The second study is currently under way. First results will be presented at the conference. As with Study 1, Participants were recruited via Prolific and asked to listen to the speech stimuli from Study 1. This time the SSE and DDN versions of the utterances were resynthesized a total of 5 times: with their original F0 and vocal tract length, and a combination of a low F0, high F0, short vocal tract and long vocal tract. Values for low and high F0 as well as long and short vocal tracts were chosen with reference to published distributions of post-puberty male speaking F0 and formant dispersions [4]. Lower pitch and longer vocal tracts are, of course, normally associated with more masculine traits, while higher pitch and shorter vocal tracts are associated with more feminine traits [5]. As in Study 1, listeners were randomly allocated to one of two versions of the study and either asked whether the speakers sounded empathetic or manipulative.

Our findings clearly indicate that individuals are judged differently depending on whether they use their more local or their more standard accent. This is in line with the mounting evidence of the everyday presence of accent biases [6], [7]. Our results will also indicate if judgments based on accent interact with judgements based on more physiologically determined characteristics like F0 height and vocal tract length.

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## **What you saying? – Enregisterment and Visibility through Community-driven Commodification of London dialects**

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This presentation explores the experiences and findings from the Real Talk East London project, a collaboration between linguists at Queen Mary University of London and the East London community. East London is a region of incredible linguistic diversity, historically home to speakers of Cockney and now hosting a range of ethnic and national backgrounds as well as many speakers of Multicultural London English (MLE) (Cheshire et al. 2011). These varieties, however, remain low in prestige and visibility compared to other varieties spoken in London such as Received Pronunciation or Standard Southern British English (Kircher & Fox 2019; Cole 2021).

The project had two goals: to elevate the diversity of East London ways of speaking, from Cockney to MLE and beyond, bringing about greater pride in the ways of speaking amongst local people (Beal 2009; Johnstone 2009) and to study the enregisterment, i.e. the social and discursive construction of ways of speaking (Agha 2003; Johnstone 2017), in London speech communities. The researchers received a grant for this project through Queen Mary University of London's Centre for Public Engagement. In a series of workshops with a local community centre, local designers and community members, we designed and manufactured badges, tote bags, hats and t-shirts proudly displaying lexical items that community members deemed important, emblematic or meaningful. This merchandise was then given away at community festivals, in which a diverse range of local people were also engaged in language games and further creative exercises. The informal engagement and interaction enabled by these activities yielded valuable data on the social meanings, repertoires, and ideologies enregistered for London dialects. This metadiscursive data provides insights into folk spellings of non-standard lexical items, different social indexicalities for individual shibboleths, and the process of assessing local terms for their emblematic function and commodification potential.

In this presentation, the researchers reflect on the achievements and limitations of the project, its significance for the ethnographic study of enregisterment in the speech community, what future investigations of a similar type might learn from Real Talk, and how projects like this might be successful in the future.

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## **‘I want a big sign above my head saying “I’m from Libya” ’: Fitting in and standing out for young migrants in Glasgow**

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University of Glasgow

Emma Moore  
University of Sheffield

Joe Pearce  
University of York

In our first-learned languages, sociolinguistic norms are acquired in early childhood through interaction with our caregivers (Smith et al 2007). But which factors determine a young person’s ability to acquire the intricate sociolinguistic norms of a new community they enter after early childhood? We know that factors such as community of practice engagement play a role (Nance 2013; Howley 2015), such that shared engagement with community members will result in increased exposure to sociolinguistic norms. But to what extent are migrants able to construct new sociolinguistic identities for themselves by agentively positioning themselves in the social landscape?

The outcome of shared engagement with community members has been shown by [Anonymised] (2018; 2019; 2021) in her exploration of the acquisition of sociolinguistic variation patterns by young Polish migrants in a Glasgow secondary school. These participants had been born in Poland and moved to Glasgow between the ages of 3 and 13, and were, at the time of the study, aged 11-16. Across four sociolinguistic variables (lexical, morphophonological, phonetic and morphosyntactic) they showed very similar sociolinguistic behaviour to a group of their locally-born classmates, including exhibiting style shifting patterns across different speech contexts.

Expanding on these findings, the ‘My Voice, My Glasgow’ project again explores the sociolinguistic behaviour of young migrants attending secondary school in Glasgow; however, this time the core participants are a friendship group made up of Muslim girls from the Middle East, North Africa and South Asia (MENASA) region. Unlike the Polish group, who were all White, with no visual markers of difference from their majority-White Scottish classmates, the MENASA group are all kids of colour who wear the hijab. They also share migration experiences that differ from the Polish group: most are forced migrants from formerly wealthy families, and have experienced downward social mobility alongside their geographical mobility. Although currently only in the fieldwork phase, the overall sociolinguistic patterns emerging appear to be very different, and potentially surprising. Generally, unlike the Polish group, the MENASA group appear to be keeping ‘transfer’ features from their first language(s), and showing limited adoption of Glaswegian features.

In exploring the apparent difference between these two groups of young migrants to Glasgow, the new project seeks to understand how ethnicity, race, religion, social class, language background, and social practice intersect (Kirkham 2015) to explain sociolinguistic acquisition in a new language. Our ability to understand and analyse this intersectionality is enhanced by our participatory methodological approach, which we describe in this paper. It provides insight into young migrants’ understandings of language, and their motivations and agency in the acquisition process. In this paper, we describe some early findings and hypothesise that the

young migrants' lack of acquisition of sociolinguistic norms is not just about exposure, but may be an act of resistance in the face of societal pressure to assimilate.

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# **The influence of language environment on English speech production and perception by Somali heritage children in East London**

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Multilingual children, who predominantly speak their heritage language, display developmental shifts in speech processing and production during early childhood – initially displaying L2 patterns that reflect their heritage language (L1), and later demonstrating changes in the direction of the wider community with increased exposure to the societal language (L2) (Kirkham & McCarthy, 2021; Lee & Iverson, 2011; McCarthy et al., 2014). Individual children also follow different developmental trajectories depending on language exposure and their social environment (Quay & Montanari, 2016). In addition to learning to navigate the sound systems of multiple languages, children in urban multilingual communities are also developing unique ways of speaking influenced by the various languages, dialects and accents that surround them. For example, some bilingual children produce English speech that contains a combination of regional British English accent features and features influenced by their heritage language (Khattab, 2007). The current study employs a longitudinal design to track the developing English speech system (perception and production) of Somali heritage children in East London primary schools. Specifically, the project aims 1) to investigate the structural influences of the Somali language on the speech production and perception of children at different stages in their English development; 2) to explore the influence of language environment and communicative network on children's individual developmental trajectories.

Thirty children aged 4-8 years from Somali-speaking families in East London are taking part in three tasks in Spring 2025: 1) a picture naming task; 2) an XAB sound discrimination task; 3) a spot-the-difference task (Diapix task, Baker & Hazan, 2011) completed with a friend or sibling. Tasks 1 and 2 will measure the extent to which children have acquired English voiceless/voiced contrasts that are not present in Somali (/p-b/, /s-z/, /f-v/) and investigate L1 influences on these children's production and perception of less familiar L2 sounds. Task 3 investigates speech production patterns in natural interactions with their bilingual peers and explores the different linguistic features (e.g. features typical of Somali-accented English or East London English) they have acquired. Information about each child's unique language environment and communicative network will be collected from their caregivers using an interview-based questionnaire.

Results from Tasks 1 and 2 are expected to show English sounds not found in Somali (/p, z, v/) to be acquired later than sounds that are found in both languages, with younger children and children with less English experience demonstrating greater influences from Somali. Children who receive increased and more diverse linguistic input and exposure are expected to demonstrate more advanced production and perception of English sounds. Data from Task 3 will allow us to observe how the natural English speech of Somali-dominant children sounds at different developmental stages and to explore the extent to which their speech features reflect their language environment. Together, results will help to identify patterns in the English acquired by children with L1 Somali, an understudied yet prevalent language in East London, and to consider how individual differences in linguistic experience influence their unique developmental trajectories.

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## **Delineating the sociophonetic variation of vowels in Scottish primary school children**

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Mridhula Murali, Amy Smith, Joanne Cleland and Anja Kuschmann  
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Polychronia Christodoulidou and Lauren Taylor

Unlike many other English dialects, the sociolinguistic constraints on Scottish English vowels are rather less well understood than for consonants. What exists for adults and/or adolescents shows differentiation in vowel quality by social class, gender, and regional dialect, especially for the BOOT (~GOOSE/FOOT), BIT (~KIT), and CAT (~TRAP/BATH/PALM) vowels (e.g. Macaulay, 1977; Johnston, 1997; Hall-Lew et al., 2023) alongside real-time changes to COT, GOAT and BOOT in Glasgow (Stuart-Smith et al., 2017). Sociolinguistic theory predicts that as children leave their caregivers and join their peers in primary school, their linguistic variation will shift from caregivers' patterns and undergo 'vernacular reorganization' towards changing community norms (Labov, 2001). Whilst this is confirmed for T-glottalling in Scottish English (Smith/Holmes-Elliott, 2022), previous work on vowels in Scottish children suggests more complex patterns (Romaine, 1984; see also Black/Clark 2024 on New Zealand English preschoolers). To date, there has been no systematic acoustic analysis of Scottish children's vowels as they negotiate their primary school years (5-11 years).

Here we present results from a study of Scottish child speech, from 275, 5-11 year-old children in three age cohorts corresponding to Scottish primary classes 1/3/5 (~5-6/7-8/9-11 years), identifying as female/male (148/127). We examine FLEECE, KIT, FACE, DRESS, CAT, STRUT, COT, GOAT, BOOT, as produced in a picture-naming task. Recordings were auto-transcribed by WhisperX (Bain et al., 2023), manually corrected, then force aligned using MFA (McAuliffe et al., 2017). The aligned target vowels were handchecked before using Polyglot (McAuliffe et al., 2017) to extract static mean first/second formant measures, which were trimmed (Brand et al., 2021) and Lobanov-normalised. F1 & F2 were jointly modelled in a multivariate Bayesian regression model (Bürkner 2021) with gender, age, region, age:gender, and age:region fixed-effect predictors, and random {F1,F2} speaker intercepts.

Our results to date, from 132 children (n = 6181), do not clearly align with expected adult community norms, nor do they show evidence for age-grading for the anticipated vowels, even for the oldest cohort. For example, BOOT and KIT show no differences by gender, age or region, whilst CAT is more retracted and lowered for all older children, with only additional lowering in cohort2 (F1:

CrI=[0.03,0.5]; F2: CrI=[-0.22,-0.02]; Figure 1). At the same time, variation by age and region is seen in vowels not typically considered (though cf Schützler, 2015 on possible diphthongal FACE/GOAT in Standard Scottish English), including more peripheral FLEECE/STRUT/GOAT in older children (FLEECE:

F1 CrI=[-0.22,-0.08], F2 CrI=[0.21,0.51]; STRUT: F2 CrI=[-0.25,-0.02]; GOAT: F1 CrI=[-0.24,-0.06], F2 CrI=[-0.32,-0.11]). Figure 1 also reveals a general shift by age which results in a more clearly delineated vowel space, with no regional differences, in the oldest children.

Our findings so far neither clearly point to community adult norms, nor do they reflect previously observed changes. This may partly be due to speech style: picture naming elicits citation forms, which may reflect less usual and/or hyperarticulated qualities (Black/Clark, 2024). They may also reflect the possibility that patterns of sociolinguistic variation across the

primary school years are less predictable than has been anticipated (Romaine 1984; Black/Clark, 2024).

Delineating the sociophonetic variation of vowels in Scottish primary school children

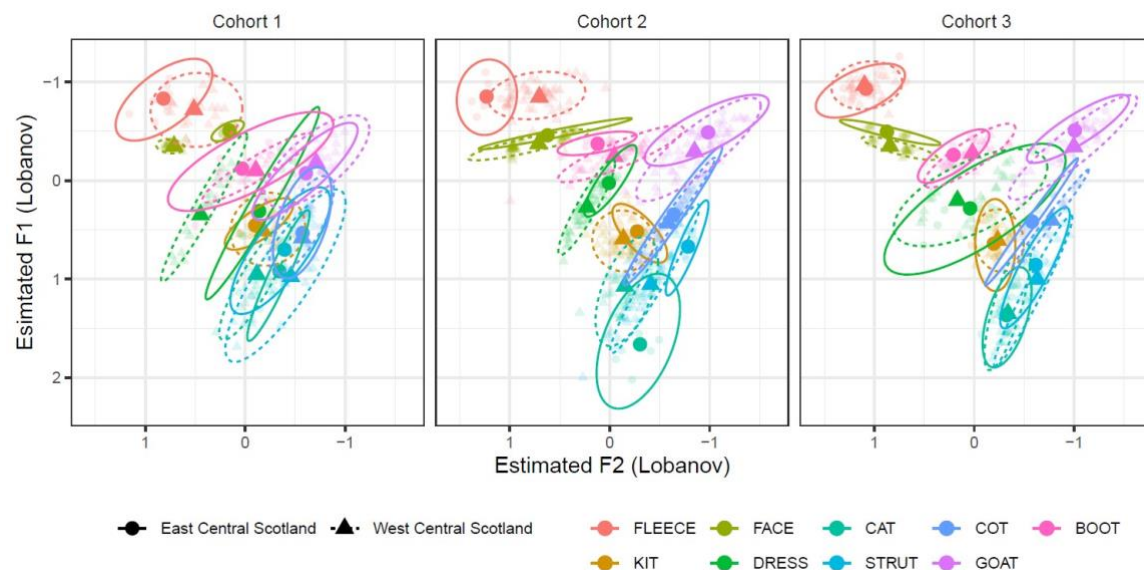


Figure 1: Model-estimated F1 & F2 by vowel, faceted by cohort. Large points indicate the marginal posterior medians (circles = East Central, triangles = West Central). Smaller points indicate speaker posterior medians (with ellipses reflecting 95% multivariate confidence intervals).

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## **100 years of spoken English: the Regional English Dialects Diachronic (REDD) corpus project**

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Much of the research into language variation and change involves apparent-time analyses of younger and older speakers within a particular speech community. Due to the parameters of these datasets, time-frames, funding, and privacy issues, recordings from these studies are usually unavailable to other researchers and only transcribed and annotated insofar as needed by specific research questions. An alternative is to gather existing data from several time points, and various projects have shown how useful accessible diachronic corpora are in analysing variation and change in local areas e.g. Sounds of the City (Stuart-Smith et. al. 2017), Newcastle Electronic Corpus of Tyneside English (Allen et. al. 2007).

These corpora highlight the potential of real-time studies to test the findings from apparent-time research that have informed fundamental work in sociolinguistics. However, numerous issues - including lack of access to suitable recordings - make it difficult to do on a larger scale (Love 2020; Pöldvere et. al. 2021). Despite advances in computing tools to analyse international English datasets (Stuart-Smith, Sonderegger and Mielke 2020), there is currently no available national diachronic corpus for more than two time periods in spoken British English. Compiling local linguistic studies may also pose challenges, due to inconsistent methodologies and gaps in coverage (Leemann et. al. 2016). The REDD project has therefore initiated a new diachronic corpus for sociolinguistic analysis of spoken English in England, spanning the 20<sup>th</sup> century. This talk will introduce the REDD corpus and demonstrate some of the research it makes possible.

The REDD corpus is being developed in partnership with the British Library, using their unique sound archives. Aiming for a 100-year time depth across major regions of England, recordings were identified from national oral history collections and supplementary sources to ensure comprehensive and representative coverage. Criteria for inclusion included both technical (e.g. length, sound quality, access rights) and demographic (i.e. a balanced representation of sex, age, region and time) considerations. Due to the nature of the project, the metadata is more detailed than typical corpora. At region level, 12 locations were selected based on changing socio-economic and demographic factors, using the *PopChange* resource (Lloyd et. al. 2017). At speaker level, greater insight was often possible from the recordings themselves, as speakers discussed their life histories. The process of region selection, sample files, transcription scheme, and demographic profiles will be available at the end of the project. All data – audio recordings and time-aligned transcripts - will be accessible through the British Library. Storing this information within the existing British Library catalogue's framework allows for greater accessibility and discoverability, and also reduces the computationally intensive activities needed for similar future research (Baillot et al. 2024).

The first stage of REDD corpus creation has focused on London, Nottinghamshire, Merseyside and Tyne & Wear. These were selected for their contrasting sociological composition, to explore theories of the impact of population density and growth on variation and change. This talk will present snapshot findings for several linguistic variables including past-tense BE, and intensifiers. We will demonstrate how the REDD corpus can be utilised to explore these across regions and time.

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## Northern roots: Random forests and northern English dialect levelling revisited

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Dialect levelling has formed a focal point of much sociolinguistic and dialectological research conducted on the varieties spoken in England (e.g. Wa; 2002, Kerswill 2003). In recent years, methodological advances have shed new light on this phenomenon, such as the machine-learning approach adopted by Strycharczuk et al. (2020) and the use of geospatial statistics to model crowd-sourced dialect survey data by MacKenzie et al. (2022). This paper brings these two recent studies together by applying the machine-learning methods of the former to the *Our Dialects* survey data from the latter, focusing on the same five northern cities of Manchester, Liverpool, Leeds, Sheffield, and Newcastle. Specifically, this method involves training random forest models to predict whether speakers are from one of these northern cities based on their responses to a dialect survey questionnaire.

This semi-replication differs in two key ways: the classification here is based on responses to survey questions targeting phonological, lexical, and morphosyntactic features, rather than solely acoustic vowel measurements. The dataset is also larger and from a more diverse population sample (over 18,000 speakers aged 11–96; approximately 4,000 from these five northern cities), which allows for a direct investigation of apparent-time change by fitting separate models to younger and older speakers. Higher rates of successful identification from the models trained/tested exclusively on older speakers (born before 1970) would suggest a decrease in the distinctiveness of local dialects over time, representing the effects of dialect levelling.

The results show that successful identification rates are consistently higher than those reported by Strycharczuk et al. (2020), though similar trends do emerge. For example, the models trained for identifying Newcastle and Liverpool speakers were most accurate (93% and 87%, respectively), suggesting that these dialects remain particularly distinctive, and the most common identification errors involve Leeds speakers being classified as Sheffield (and vice versa). Similar within-region confusability is seen elsewhere, with a higher-than-expected rate of Liverpool speakers being incorrectly classified as Mancunian. In terms of the age-specific random forest models, the identification rates were surprisingly very similar between older and younger speakers. These results might indicate that the magnitude of dialect levelling, at least in the features and time frame considered here, may be lesser than previously claimed. However, differences do emerge in the *variable importance*

scores of individual dialect features, a measure that represents how useful a given feature is in the classification process. This suggests that while machine learning methods can still reliably distinguish these northern dialects equally for older and younger speakers, some particular features *have* become less useful, representing the effects of levelling. Furthermore, older speakers were found to be classified more accurately than younger speakers when the models were restricted to only using phonological dialect features, which again points to a process of dialect levelling in specific linguistic domains.

Other factors are also explored, such as how easily speakers are classified when they were geographically mobile during childhood, and what this indicates about the relationship between migration, dialect contact, and levelling.

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## **Accent bias in UK healthcare settings**

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Much previous research has explored accent bias in the UK, finding that non-standard regional and Outer Circle English accents receive less favourable evaluations than standard accents such as Standard Southern British English (SSBE) (Giles, 1970; Bishop, Coupland & Garrett, 2005; Sharma, Levon & Ye, 2022) , but this present study is the first to explore accent bias against healthcare professionals in the UK.

This paper presents the results of a verbal guise listening experiment. 163 participants listened to short recordings of eight female mock doctors, each with a different accent (Scottish, Indian, Nigerian, Filipino, Polish, SSBE, Essex, Yorkshire) speaking aloud advice from the NHS England website relating to minor medical ailments such as flu and knee pain. Accents were chosen to reflect regional, workingclass accents from different areas of the UK and the countries other than the UK with most NHS staff members – an important consideration as a third of NHS staff were trained overseas (Cross & Smallridge, 2011). The participants, who were all UK healthcare users, provided comments and rated on a sliding scale (0-100) how knowledgeable, helpful and suitable the “doctors” sounded for potential employment at their local GP surgery. The block structure ensured an even distribution of medical condition and accent. Participants were also asked to provide background demographic information such as their home region, gender and ethnicity.

We ran three Generalised Linear Models with each attitudinal measure as the dependent variable.

Independent variables were: speakers’ accent (reference level: SSBE), medical condition (to control for differences in the sentence that participants heard) and demographic data relating to the participant: if they grew up in the UK (binary), ethnicity, gender, region of the UK they grew up in. Results were that the speakers with Essex, Nigerian, Polish and Nigerian accents (with the addition of Yorkshire for the “suitable” measure) were evaluated significantly less favourably on all three measures compared to the SSBE speaker (see figure 1). SSBE was the highest rated across all three measures, followed closely by the Indian accent, perhaps due to UK healthcare users’ familiarity with South Asian medical professionals. Essex and Nigerian accents were interchangeably the lowest rated on all three measures. There were also significant effects relating to the participants’ gender and their home region, with women making more positive judgements than men and those from more urban regions making more positive judgements than those from rural regions.

These results highlight a concerning issue: healthcare workers with non-standard accents, particularly Outer Circle English and working-class, regional UK accents, may experience accent-based discrimination in the UK. Accent bias in healthcare settings could have profound consequences on healthcare practitioners, including in recruitment and hiring decisions (as found in other sectors: Spence et al., 2024; Levon et al., 2021), but also on how seriously patients take the medical advice they are given, how likely they are to book further appointments, and the overall trust they have in the healthcare system.

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# **New town koineisation and the effect of multiple migration waves: The case of Pingdingshan Vernacular Mandarin**

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Pingdingshan, a Chinese mining city built in 1957, has experienced three key migration waves, providing a unique setting for studying dialect contact and koineisation that is different from Kerswill and Williams' (2000) new town koineisation setting where the speech community is relatively stable. Previous studies by Duan (2007) and Li (1998) have found evidence of variation in vowel and tonal systems between Pingdingshan Vernacular Mandarin (PVM) and both the supralocal norm Putonghua and the Central Plains Mandarin (CPM), the regional prominent dialect, suggesting that PVM is a new koine based on CPM but heavily influenced by Putonghua. The current paper reports on the first study to examine the rates of the merger of alveolar affricates/fricatives [tʂ, tʂʰ, s] and alveolo-palatal affricates/fricatives [tʃ, tʃʰ, ʃ] before high front vowels/glides in PVM, a key feature that is found in Putonghua but not in CPM.

The paper analyses a dataset of 20 sociolinguistic interviews (which constitutes a subset of 74 interviews in my project) with Pingdingshan-born speakers. Rates of merger are considered in relation to five social factors: age group, gender, generation, family origin and primary school type. Age group divisions reflect migration waves such that the first wave consists of migrants from remote regions while the following two waves are predominantly migrants from nearby areas. A total of 982 tokens from casual speech were coded and analysed using ordinal logistic regression in R. Apart from the supralocal variant (merger) and the regional variant (maintaining a split), an intermediate variant (maintaining a split but the alveolars are slightly palatalised) was recorded and analysed acoustically.

The results suggest that age group and gender are the significant factors ( $p < 0.01$ ). Female speakers use the supralocal variant significantly less than male speakers. Older age groups use the supralocal variant significantly less than younger ones, except for the 42-51 age group who produce the highest rate of the supralocal variant (see Figure 1). I argue that the high rate of the usage of the supralocal variant (merger) among this age group happened independently of the influence of Putonghua (which also has this merger) since the promotion of Putonghua in the local education system only started in the 1990s. I argue further that PVM is likely a result of dialect contact rather than a direct influence of Putonghua (cf. Duan 2007 and Li 1998). Following this stable phase, we notice an increase in variation in the age group 34-41.

A possible reason is the configuration of the corresponding migration wave for this group (mainly from nearby areas rather than remote ones). In the youngest age group, it is likely that the increase in the usage of the supralocal variant is a direct influence of Putonghua.

These results highlight the dynamic nature of koineisation, where dialect contact from multiple migration waves contributes to the formation of an emergent urban variety in a nonlinear way.

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#### Appendix:

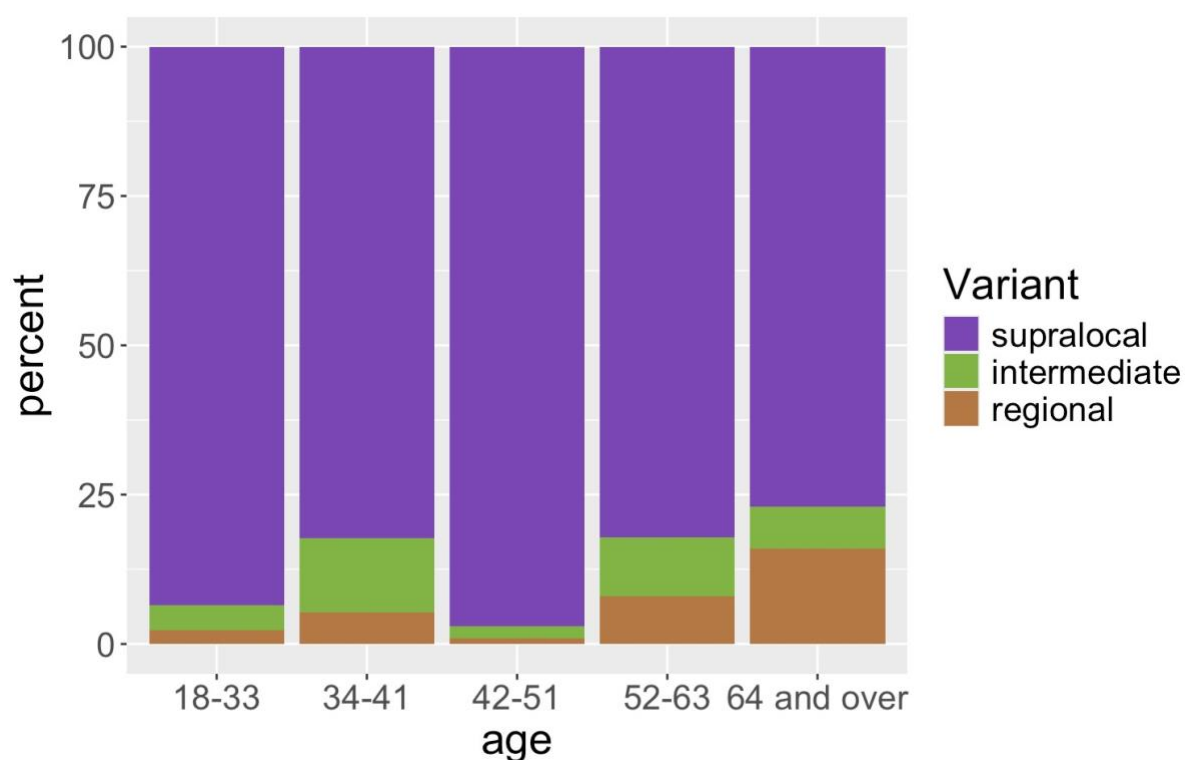


Figure 1 percentage of variants by age group

## Multicultural London English in real time: Change and stasis over 20 years

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Queen Mary University London

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University of York

A generation ago, some of the most significant innovations in British English took place in London. In Phase I, monoethnolectal varieties formed in Caribbean and South Asian communities, with speakers often bidialectal with traditional London vernacular (Kerswill and Sebba 2011; Sharma 2011). Caribbean varieties became particularly influential among young Londoners (Rampton 1995). In Phase II, migration from more diverse locations, group second language acquisition, and koineisation, led to the formation of a new multiethnolect, Multicultural London English (MLE, Cheshire et al. 2011; Kerswill and Torgersen 2021; See Figure 1).

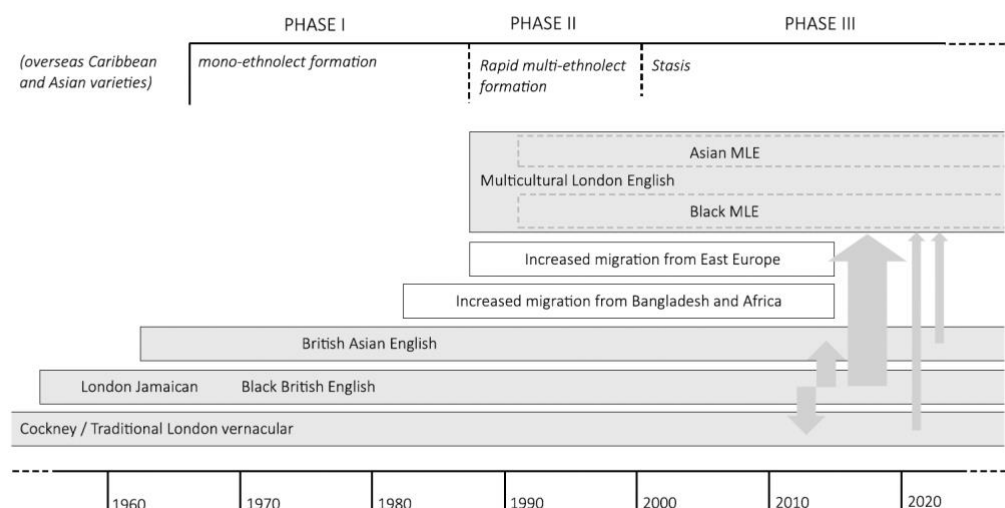
In this talk, we examine the present day: Phase III. The first MLE generation is now middle-aged and the second is adolescent or younger. *Generations of London English* (ESRC 2023-2026, [generationsoflondonenglish.org](http://generationsoflondonenglish.org)) investigates dialect and social change over real and apparent time in a new London English Corpus that spans children, teenagers, and adults. In this talk we focus on adolescents, presenting a real-time trend analysis of 75 teenagers recorded in 2024 and 53 recorded a generation earlier (*Linguistic Innovators*, ESRC 2004-7). We ask:

1. Does the addition of South London data help to identify an older and more focused founder variety of Black British English (BBE) that formed the core of MLE?
2. Can we identify further distinct sub-varieties (micro-lects) of the superordinate category of MLE? How do these align with different scales of community, ethnicity, and race?
3. Have these differences increased, decreased, or remained stable over 20 years?

We use a range of analyses, including combinatorial patterns, relative frequencies, and individual ranges of variation to assess dialect focusing within sub-groups. Preliminary analyses indicate that, after a dramatic formative period one generation ago, MLE has remained stable in its phonological and social profile. BBE among South London adolescents appears to be an older and more focused variety, one that emerged in a more homogeneous sub-community and that is subtly distinct from – and formed the base for – East London MLE. We also show that sub-strands by ethnicity were present from the early stages of MLE. These have subtly distinct phonetic profiles, but also share classic MLE traits, hence our treatment of these as sub-varieties of a superordinate dialect. We explore the potential for both community-specific ethnic distinction – e.g. between Caribbean and West African groups (e.g. hiatus resolution), between Anglo and Other-white groups (e.g. FACE vowel), and between Asian and Black speakers (e.g. coda /l/) – as well as levelling towards higher-level indexicality, for example, signifying Black identity (e.g. DH-stopping). Social class, gender, and social networks still structure variation: innovative forms have not spread across the whole population and many Anglo teens retain non-MLE variants. We also discuss the crucial new factor of generational English depth, namely the length of use of English as a main language in the family or community. In closing, we briefly note support from other levels (syntax, prosody) and reflect on the overall picture of dialect formation, with demographic tipping points



(Kerswill 2018) triggering abrupt innovation, followed by periods of stasis (punctuated equilibria: Kuteva 1999; Nevalainen et al. 2020).



**Figure 1:** Phases of dialect formation in 20<sup>th</sup> and 21<sup>st</sup> century London. Grey boxes indicate focused varieties. Grey arrows indicate asymmetric influence between varieties.

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## Covariation, implicational scales and windows of coactivation in a borderland variety

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Although not always explicitly addressed, a long-standing challenge in (variationist) sociolinguistics is establishing the mechanisms through which variables co-occur, co-vary and cluster to form *coherent* units. Regardless of the unit, be it a whole lect or moment-to-moment interactions, features combine to convey meaning.

However, what constitutes linguistic coherence varies depending on the theoretical perspective and is the subject of active debate. For example, the principle of orderly heterogeneity predicts that variants associated with specific social categories should co-occur (Guy and Hinskens 2016), and speakers associated with these social categories are expected to be frequent users of these variants (sociolectal coherence). Yet, such sociolectal coherence is rarely found in practice (e.g., Guy 2013). At the opposite end, the practice of bricolage (Eckert 2004) involves speakers combining different resources, often from different registers or varieties. Some see this as distinct from sociolectal covariation, while others see it as achieving similar coherent social work (e.g., Becker 2016), just with differences in the nature of combinatorial meaning.

This paper joins this growing body of work and examines the dynamics of linguistic coherence in a 'borderland' variety, in a context of standard dialect ideology and stigmatisation of regional features. To do this, I use speech data from 21 sociolinguistic interviews conducted in 2022. On a continuum between two broad varieties of French, the variety spoken in Bordeaux (France) incorporates phonetic features from supralocal French and from Southern varieties. Southern varieties are mainly distinguished from supralocal varieties via the Dominant Southern Pattern (DSP, Pooley 2007): the quality of the six mid-vowels ([e] ~ [ɛ], [œ] ~ [ø], [ɔ] ~ [o]) depends on the syllable structure (Loi de Position, LdP), schwas in all word positions are frequently retained, and nasal vowels are realised with a consonantal nasal coda ([ã<sup>n</sup>], [ɔ̃<sup>n</sup>] and [ɛ̃<sup>n</sup>]).

Based on auditory coding of DSP on ELAN, I find the following implicational scales, supported by Pearson's correlations, both at community and individual levels (figure 1):

### LDP > SCHWA RETENTION > SOUTHERN NASAL VOWELS

In other words, speakers producing southern nasal vowels are more likely to retain schwas and follow LdP. Yet, these observations are at a very high level of data aggregation and provide a limited picture about coherence. Do these variables form an implicational relationship because speakers cannot control them separately at all, i.e. are they linked at a deep level of activation, or do they even cluster at all? In short, how tightly bound, in terms of activation and deployment, are these features in real time?

Building on findings on cascading activation and co-activation (e.g., Alderete et al. 2021), I present a new method to investigate whether bricolage practices might be cognitively constrained within small time-windows. That is, do (dialectal) features get co-activated in realtime speech? Windows of co-activation suggest the implicational scales observed at the aggregated levels are likely the result of probabilistic rates of uses, with low inter-dependency across features. In other words, speakers might be able to recruit features belonging to different lects freely within small time-windows.

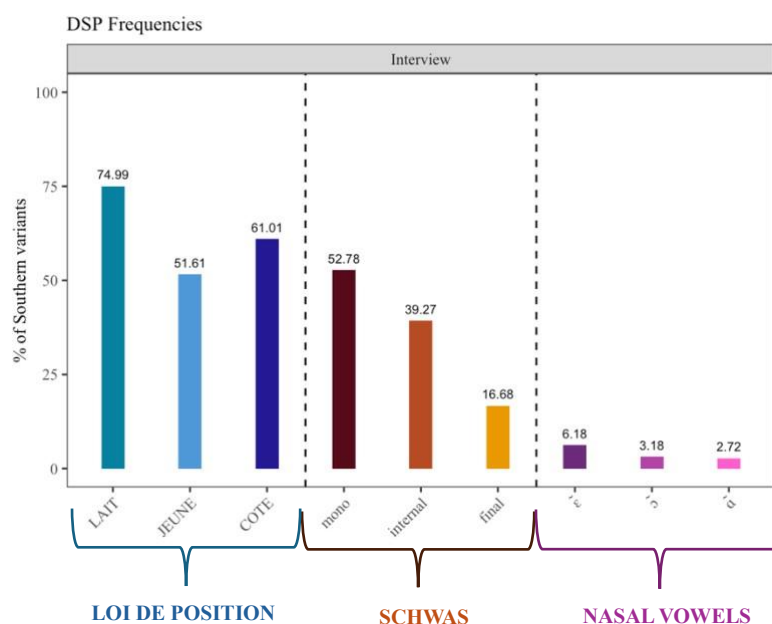


Figure 1. Overall distribution of Southern variants in interview (community level)

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## Classification and Variability of the Northern Malay Dialects

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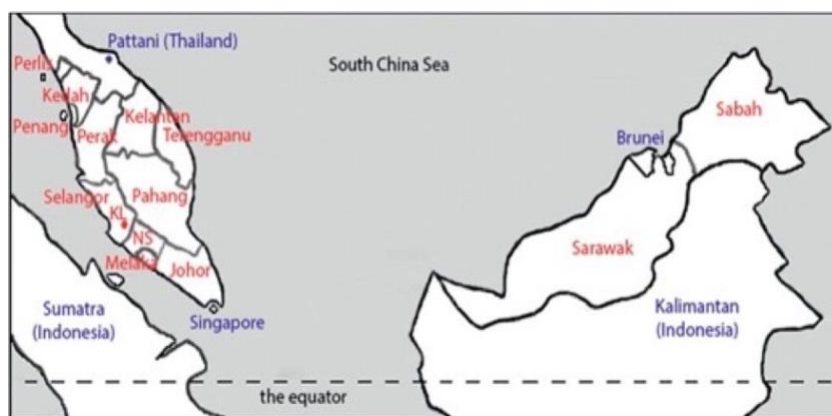
Documentation of the Malay language and its varieties is still scarce and rather patchy, and Malay dialectology and dialect geography are underdeveloped sub-fields (Boberg, Watt & Nerbonne, 2018). This is surprising, given that the Malay language is the national language of Malaysia, Brunei, and Indonesia, and a national language for Singapore. It is also the mother tongue of about 1 million Malays in Southern Thailand, as well as diaspora communities in Cambodia, Sri Lanka, the Netherlands, and Australia (Adelaar, 2018). Current classifications of the varieties of the Malay language in Malaysia are over-generalised and do not reflect real-time linguistic practices. Among the many dialects of Malay in Malaysia, *loghat utara* or the Northern Malay Dialects (NMDs) are among the most recognisable Malay varieties, with distinct linguistic features – but the relationship between these varieties is largely unexplored. The three northern states of Malaysia – Kedah, Perlis, and Pulau Pinang – are considered home to Northern Malay, yet the extent to which they vary from Standard Malay and from each other has not been the subject of empirical linguistic research.

In this talk, I draw on new empirical data to explore variation – both perceived and produced – between the NMDs by focusing on language used in the capital cities. Drawing on dialectology, perceptual dialectology, and variationist sociolinguistics methods, I explore (i) native speakers' attitudes towards variation among the NMDs and (ii) how these attitudes reflect actual linguistic practices in terms of lexis.

The attitudinal study collected data from 43 native Kedah speakers. Participants' responses consistently suggested a belief that the NMDs can be divided into three state-based dialects, and that they differ with respect to pronunciation, intonation, and vocabulary. The region's history as well as social and cultural contact were cited as the main contributing factor to the perceived variability. The speakers also expressed the belief that there is a "correct" way of speaking Northern Malay with association to the capital city of Alor Setar in Kedah. Some lexical examples provided also point to an urban-rural prestige division. In diglossic terms, it seems that the urban variety has the locally perceived H(igh) status, while other local varieties carry L(ow) status (Ferguson, 1959). These attitudinal data suggest a new hypothesis for a revised classification of the Northern Malay Dialects Continuum.

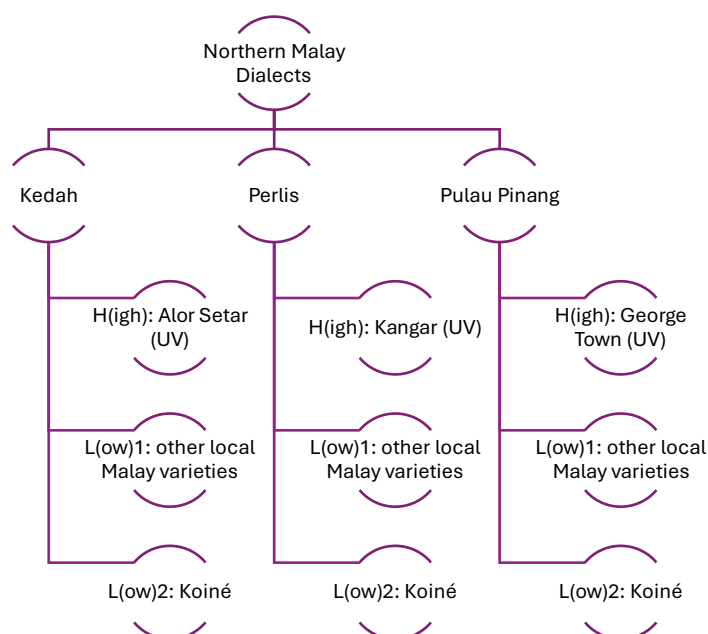
The lexical evaluation study collected data from 60 native speakers of all three states, Kedah, Perlis, and Pulau Pinang. The results show patterned lexical variation between the NMDs, and also with respect to Standard Malay. Overall, Pulau Pinang had the highest usage of non-standard and loanword variants, while Perlis had the highest usage of standard variants. Between genders and age groups, older male speakers had the highest usage of non-standard variants. Female speakers, both young and old, had the highest usage of standard variants with the younger age group having more than 20% standard usage. Younger female speakers also had the highest usage of loanword variants and the lowest usage of non-standard variants across both genders. The high rates are surprising, as the questionnaire was constructed to specifically elicit non-standard variants.

Initial data show the prestige division within a state which supports the newly proposed classification of the NMDs Continuum. However, data from the second study show that there is a shift from the nonstandard to standard and loan-word usage rather than urban-rural division. Aspects of language standardisation, lexical borrowing, and identity will be discussed which show the changing patterns of language ideologies and practices related to the standard, and identities where an urban-rural divide seems critical.



**Map 1:**

The locality of Malay varieties spoken in Southeast Asia (*taken from Deterding, Gardiner & Noorashid, 2022*)



**Diagram 1:** Proposed Classification of the Northern Malay Dialects Continuum

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## **Showing language change:**




### **Examining the sociolinguistic distributions of depicting signs in Israeli Sign Language**

Rose Stamp  
Bar-Ilan University

Signers can show meaning through mimetic bodily enactment (Figure 1a) or depict meaning through depicting signs (Figure 1b & c). One type of depicting sign, known as a whole-entity handshape, is used to classify referents according to their semantic class and can represent an upright animate referent during discourse (McDonald, 1982; Supalla, 1982; Zwitserlood, 2012). There are two frequent variants of whole-entity handshape: the 1-handshape variant with an extended index finger (Figure 1b), and the 2-handshape variant with an index and middle fingers pointing downwards (Figure 1c). Studies suggest that the choice of depicting sign, between 1 or 2 handshape, may exhibit systematic variation depending on the generation of the signer (McKee et al., 2021) and the different stages of a sign language lifecycle (Kegl et al., 1999; Aronoff et al., 2003).

The aim of this study is to look at the social and linguistic predictors of these two distributions: overt constructed action vs. depicting signs with whole-entity handshapes, and within the class of depicting signs with whole-entity handshapes, the 1-handshape vs. 2-handshape. Our dataset includes signers of a young sign language, Israeli Sign Language (ISL), which is about 90 years old. Using the Corpus of ISL (Stamp et al., 2021), the results show five main significant findings. Among the effects of social factors, we find that (1) an increase in depicting signs across generations, (2) more use of overt constructed action by female signers, (3) more use of 1-handshape variants by signers who were born hearing. Among the effects of linguistic factors, we find that (4) movement direction is a significant predictor of 1-handshape use, and (5) there is a strong association between handshape choice and lexical meaning. In this presentation, we discuss the importance of these findings for understanding language change in a young sign language.

**Figure 1. Examples of body enactment, and 1-handshape and 2-handshape whole-entity depicting signs**

a) Overt constructed action	b) Depicting sign: 1handshape	c) Depicting sign: 2handshape
		

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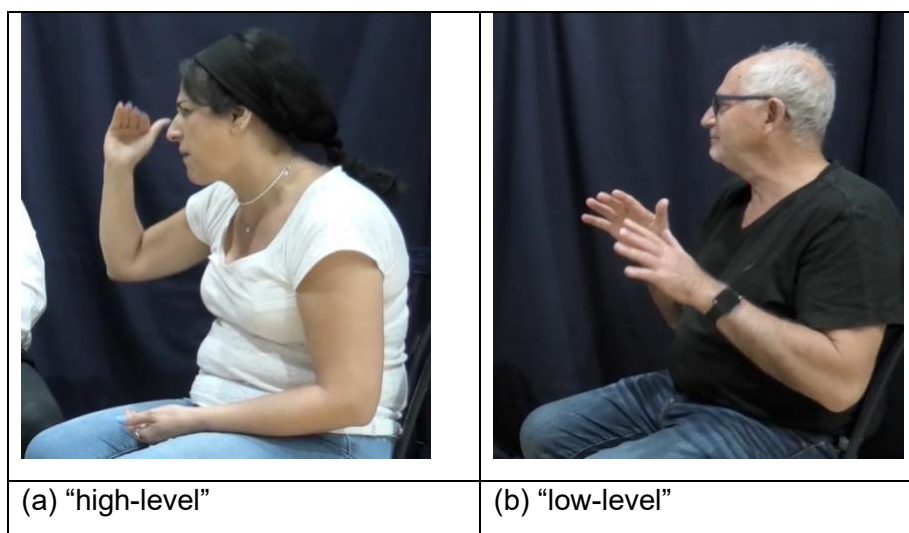
## **Language attitudes towards variation in the Israeli deaf community**

Sara Lanesman and Rose Stamp  
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Production data has uncovered a great deal about sign language variation and change (Lutzenberger et al., 2023; Stamp et al., 2014, 2015, 2016); yet very little is known about deaf people's attitudes towards this variation. Recent attitudinal studies show that signers are proud of regional variation, and even express disappointment when regional variants disappeared or new variants were introduced from outside the region (Rowley & Cormier, 2023). Moreover, some regional variants were perceived more positively than others (Baer et al., 1996); for example, varieties associated with educational institutions (Player, 2023), pointing to the importance of schools in language attitudes. In contrast, varieties which are related to the surrounding spoken language (e.g., Signed English) are viewed more negatively (Hill, 2012), often described as bureaucratic and arrogant, compared to other varieties. It has been suggested that participants tend to ascribe high solidarity towards their own varieties (Ma, 2020).

Using interview data elicited as part of the Corpus of Israeli Sign Language (Stamp et al., 2022), this study examines language attitudes produced by 64 signers. In the current study, a thematic analysis of the data was carried out, following Braun and Clarke (2006). Two themes emerged from the data: attitudes towards fingerspelling and attitudes towards regional variation. The results show that ISL signers hold strong beliefs towards variation. Similar to Rowley and Cormier (2023) finding, signers argued in favor of the existence of regional variation. Signers view regional varieties in different ways, with many signers describing Tel Aviv and Haifa signing as 'high level', 'attractive' and 'elegant' (see Figure 1a), compared to Jerusalem and Be'er Sheva (Figure 1b). Fingerspelling, a contact-induced phenomenon which represents letters of the written alphabet with certain handshapes, is generally viewed negatively by signers, with signers associating it with Signed Hebrew, literacy, and education. Responses reveal that use of fingerspelling is associated with younger signers and deaf people in the south, with many signers giving examples of initialized forms which are distinct to the Be'er Sheva region, e.g., the sign for 'cake'. Attitudes differed based on the age of the respondent with younger signers evaluating fingerspelling in a more positive way compared to older signers. In this presentation, we argue that language attitudes are essential to understand the full picture of language variation and change.





**Figure 1:** Signers in Jerusalem expressed that (a) Jerusalem signing is 'low-level', and (b) Haifa signing is 'high-level'

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## **Sociolinguistic variation in British Sign Language: St Vincent's sign variant**

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Elizabeth Lafferty

This paper describes St Vincent's sign variant as a sociolinguistic variant of British Sign Language (BSL). Data is observed from a community archive project on YouTube (St Vincent's Centre for the Deaf Glasgow) which hosts video recorded interviews from Deaf ex-pupils of the now-closed St Vincent's School for the Deaf and Blind in Glasgow. St Vincent's School was a residential school until 1988, when the residence closed and pupils continued as day pupils. The day school was closed in 2014, with pupils relocated to other mainstream schools in Glasgow.

The participant narratives are in response to semi-structured interview questions about their memories and experiences of attending St Vincent's School and the St Vincent's Deaf Club. The data has, therefore, not been elicited for research purposes but rather is a natural discussion that has been recorded to preserve the history and stories of this social group of deaf community members. 30 individuals appear in the films, aged from 52 to 95 years old.

The St Vincent's BSL variant has been observed in the BSL Corpus (Stamp, et al., 2014) but there is very little detail in literature describing the features of the variant. School and educational environments always had a huge impact on deaf children's language (Rowley and Cormier 2024). Catholic signing includes many initialised signs that are based on the Irish manual alphabet (Sutton-Spence and Woll 1999). However, all participants used BSL two-handed fingerspelling throughout their narratives for any fingerspelled words. Irish alphabet initialised signs are observed in signs for colours; BLUE, YELLOW, BROWN, GREEN, PURPLE and also signs for terms such as NEED, NICE, GARDEN, HISTORY, HAPPY, GLAD, DAUGHTER, FAMILY, WATCH, DYING, KEEP, FOR, TRY.

St Vincent's signers use a YES sign with a Scots mouthing of 'AYE' suggesting the influence of Scots pronunciation through language contact in the Glasgow area. Several signs for religious terminology are observed that are lexically different from BSL, such as SIN, SUFFERING, FATHER, CONFESSION, FAITH, RELIGION. There is also internal variation in the data for some signs, such as NUN/SISTER. Different age groups sign this differently, depending on whether the nuns who taught them wore a cornette or wimple.

In the data there are a number of signs highlighted in a separate playlist on the channel, that are labelled as

'multichannel' signs. These signs use manual signs on the hands, mouth gestures, and intense facial expressions and bodily movements. These are unique to St Vincent's signers, and not signs that are part of any other regional variant observed in BSL in the UK. These are difficult for people unfamiliar with the variant to comprehend and are also difficult to provide a single word gloss, as they convey complex meanings.

In terms of language attitudes, the participants in the data describe being proud of being a St Vincent's signer; several say how beautiful the signing is and that it should be preserved for the future.

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## Effects of focus condition on f0 range in Nanning Mandarin, Nanning Cantonese, and Standard Mandarin

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Closely related Sinitic languages can exhibit markedly different focus intonation patterns: Standard Mandarin primarily uses f0 to mark narrow focus [1, 2], typically through on-focus expansion and outof-focus compression [2–6]; in contrast, Cantonese in Hong Kong and Guangzhou hardly uses f0 to mark focus [1, 7, 8] and lacks post-focus compression (PFC) [1, 7, 9, 10]. Moreover, PFC was absent in L2 Mandarin spoken by L1 Min speakers, as in Min, despite its presence in Standard Mandarin [11, 2]. In this study, we investigate the focus realisation in Nanning Mandarin (NM), a fossilised intermediate variety serving as the lingua franca of Nanning, a multilingual city in China. Shaped by Nanning Cantonese (primary source language; NC) and Standard Mandarin (target language; SM), Nanning Mandarin is expected to exhibit stronger similarities to Nanning Cantonese given the historical language contact.

The production study included Broad Focus (BF), Initial Focus (subject-focused; IF), and Final Focus (object-focused; FF) conditions. Participants included 31 native bilingual NM and NC speakers (F=15, age 27–67) and 10 fluent SM speakers (F=3, age 25–61). The experiment involved question– answer pairs: participants responded to a pre-recorded *wh*-question with a five-syllable target sentence. This sentence had the structure: <Name prefix + Subject + Modal verb + Verb + Object>, where each S–V–O set shared the same lexical tone (see Table 1). Three target sentences were created for each tone in Mandarin and Cantonese, with lexical equivalence across languages. The f0 minimum and maximum were automatically extracted from the sonorant portion of the subjects and objects, standardised by speaker-specific f0 ranges, and transformed into Chao tone numbers (0–5) using the Log T-value formula [12].

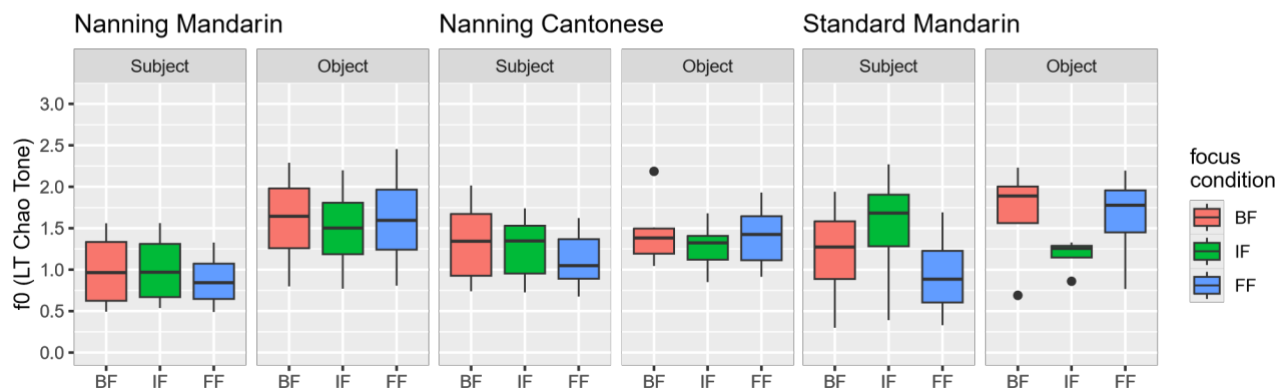
Figure 1 displays the average Chao tone f0 range across focus conditions in subject and object positions. Mixed-effects analyses tested the effects of Initial and Final Focus against Broad Focus on the f0 range, min, and max in the subject and object of each language. **NM**: Initial Focus compressed the object f0 range, while Final Focus compressed the subject f0 range. **NC**: Initial Focus compressed the f0 range in both subject and object, while Final Focus compressed only the subject f0 range. **SM**: Initial Focus expanded the subject f0 range and compressed the object f0 range; Final Focus compressed the subject f0 range.

Differences between NC and NM were primarily in the subject under both narrow focus conditions. Differences between SM and NM were observed across all measures under Initial Focus, but were limited to the subject under Final Focus. Numerically, Nanning Mandarin was closer to Nanning Cantonese than to Standard Mandarin.

Overall, unlike Standard Mandarin, neither Nanning variety showed on-focus f0 range expansion under Initial Focus. Final Focus, however, compressed the out-of-focus f0 range in all three languages. The absence of PFC in the Nanning varieties resembles that of Mandarin by L1 Min speakers. Across the six measures, Nanning Mandarin was more similar to Nanning Cantonese than to Standard Mandarin. These findings suggest potential NC influence on Nanning Mandarin. Future research should further investigate f0 contours and tonal effects.

**Table 1.** Structure of target sentences across each of the Mandarin and Cantonese tones with English glosses. Numbers in brackets refer to Chao tone numbers from [13]. Tones are aligned according to their historical correspondence. Semicolons separate the IPA transcriptions for Mandarin and Cantonese.

Tone			Target sentence				
NM	SM	NC	Name prefix	Subject	Modal verb	Verb	Object
1 (44)	1 (44)	1 (55)	阿/a/;/a/	英/jiŋ/;/jiŋ/	要/jau;jiu/ will	煲/pau;pu/ cook	汤/tʰaŋ;tʰaŋ/ soup
2 (34)	2 (24)	2 (31)		莹/jiŋ/;/jiŋ/		还/xʰan;wen/ return	钱/tɕʰien;tsʰin/ money
3 (41)	3 (212)	3 (35)		影/jiŋ/;/jiŋ/		洗/ei;lei/ wash	碗/wan;wun/ bowl
		4 (34)		敏/min/;/men/		买/mai;mai/ buy	马/ma;ma/ horse
4 (52)	4 (53)	5 (43)		翠/tsʰuei/;/tsʰui/		寄/tei;ki/ send	信/ein;len/ letter
		6 (31)		曼/man/;/man/		练/len;lin/ practice	字/tsɿ;tsi/ writing



**Figure 1.** Average f0 range in log-transformed Chao tone numerical units across each focus condition in the subject and object positions averaged across phonological tone.

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## **The status of the LOT-THOUGHT merger in Barbadian English**

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This paper discusses the status of the LOT-THOUGHT contrast in Barbadian English, using evidence from apparent time comparison and stylistic variation. In this variety, LOT and THOUGHT are said to be distinct only in duration, realised as [ɒ] and [ɒ:] respectively (Wells 1982; Blake 2008). However, contrary to these reports, findings from the present study suggest that the merger in quality may still be ongoing, while the distinction in duration is reducing.

Sociolinguistic interviews were conducted with 14 speakers (8 female; 6 male), aged 20-86 (Labov 1984). They were also asked to read a wordlist, a passage, and complete a minimal pair test. Formant values were normalised using Johnson's (2020)  $\Delta F$  method. Two methods of measuring mergers were used: Euclidean distance (ED), and the Pillai-Bartlett trace (a measure of overlap) (Hay et al. 2006).

All speakers show a considerable degree of overlap in vowel space, manifested as reduced ED (Figure 1) and Pillai scores. However, younger speakers (20-21) show more phonetic overlap than older speakers (55+) – the LOT-THOUGHT merger in quality appears to be ongoing. It may therefore have begun more recently than was anticipated given previous descriptions of Barbadian English (Wells 1982; Blake 2008). Speakers have also been found to use duration in production and perception to distinguish between two vowels showing spectral overlap (Labov & Baranowski 2006; Wade 2017; Fridland et al. 2014). The present data support this: THOUGHT is consistently longer than LOT (Figure 2). Additionally, there is evidence for an ongoing merger in duration: younger speakers have a smaller durational difference between the two vowels, in certain styles.

The degree of phonetic overlap between LOT and THOUGHT is also sensitive to style. ED increases with attention paid to speech; LOT and THOUGHT are most distinct in minimal pairs. Speakers also show a

larger duration difference between the vowels in minimal pairs and wordlists, compared to spontaneous speech. In both quality and duration, the older speakers are most sensitive to the effect of style. This variation provides further evidence that the merger is not complete: since contrast is maintained in more formal styles, speakers must not yet have lost the phonemic distinction between the two vowels.

This study provides an update on the status of the LOT-THOUGHT merger in Barbadian English. The distinction between the two vowels appears to be reducing in apparent time, in both quality and duration. This contrasts with findings from several varieties of American English, where the durational difference is maintained, especially for speakers with a merger in quality (Fridland et al. 2014). Further research may explore whether the two types of mergers will continue in tandem, or if the durational distinction will outlast that of quality. The data reported here will soon be complemented with results from a larger number of speakers. This will enable more systematic statistical analysis to confirm if the stylistic patterns observed here also hold in a wider population. Potential effects of other social factors will also be investigated.

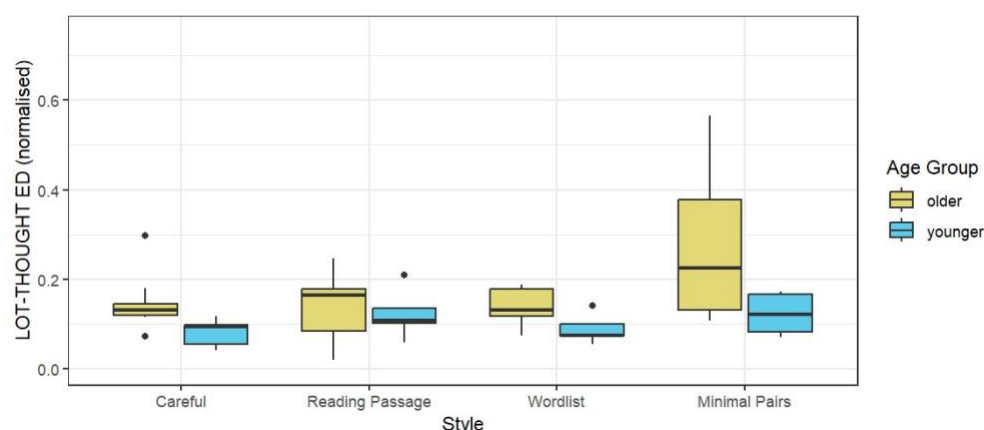


Figure 1: LOT-THOUGHT ED by age group and style

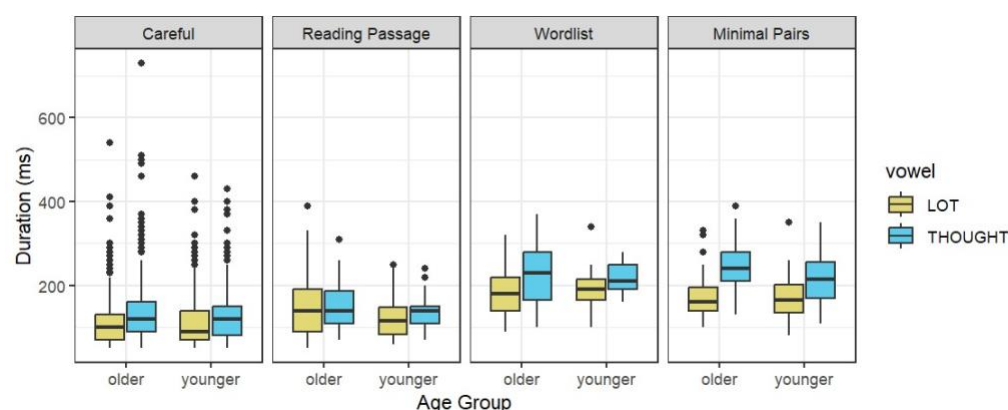


Figure 2: Duration in milliseconds of LOT and THOUGHT by age group and style

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## **What can multi-componential analysis tell us about PALM-UP and its functions in sign language across text types?**

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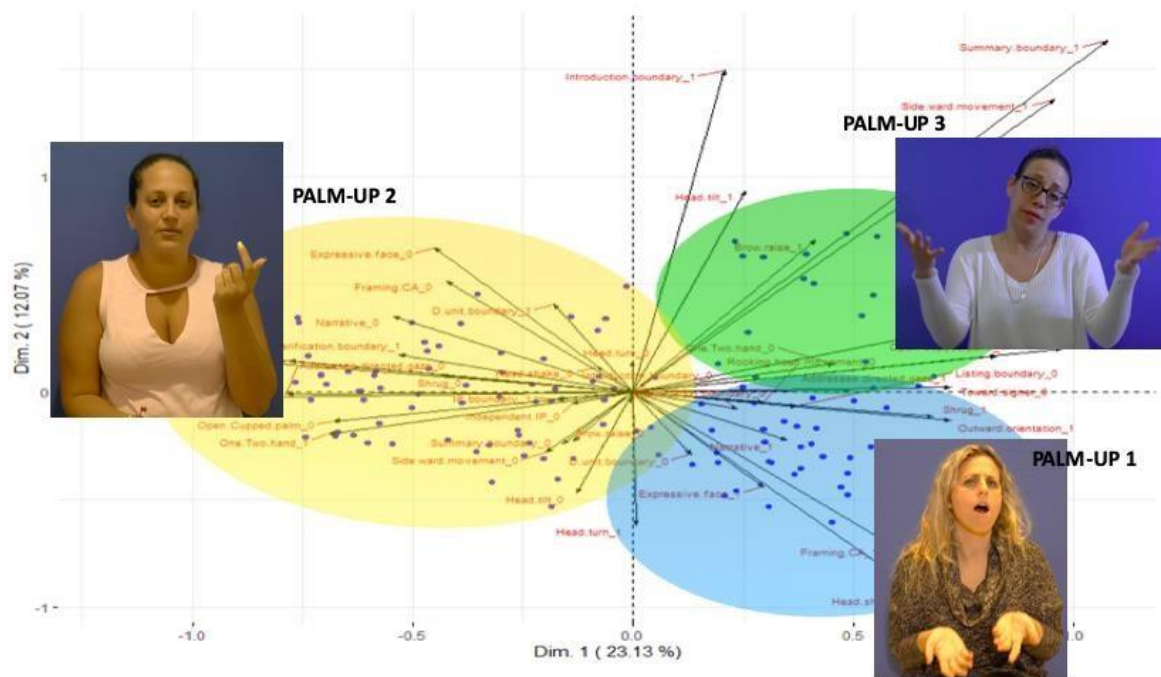
Rose Stamp  
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PALM-UP is one of most pervasive discourse-oriented multifunctional expressions both in spoken and signed languages, yet its specific functions are usually described as illusive and obscure. Previous studies have suggested a variety of idiosyncratic PALM-UP functions, ranging from gestural expressions of uncertainty or obviousness (Cooperrider et al. 2018) to highly grammatical functions of interrogativity and epistemic modality in signed languages (see Gabarró-López 2024 for a recent overview). Here we take a distributional and functional sociolinguistic approach to study PALM-UP in order to shed light on its functions in the context of two different genres – narrative and expository texts, produced in Israeli Sign Language (ISL).

The goal of the study is to obtain both a “panoramic” and a “micro” view on the functions of PALM-UP, by zooming onto global as well as specific features of PALM-UP in sign language. First, using a multi-componential clustering method, we analyze 165 PALMUP tokens [ $n = 10$  ISL signers] in our corpus of narrative and expository texts produced by the same signers. The distribution of features for these tokens allowed us to identify three distinct types of PALM-UP variants. These are distinguished by phonetic, prosodic and discoursal features (Fig. 1). For instance, PALM-UP1 is typically accompanied by an open addressee-oriented palm-up handshape, and highly expressive facial and body movements, whereas PALM-UP2 is more likely to be accompanied by a more closed handshape, and more neutral face and body expression. The formational format of PALM-UP3 is very distinct from the other two: it is produced with the lateral movement of open hands, accompanied by a shrug and raised brows.

In addition to this novel analysis of PALM-UP clusters, we applied contrastive discourse analysis to our data (Nir 2015), to determine the function of each PALM-UP cluster in each of the two genres (narrative and expository). Our analyses show that although all PALM-UP variants serve the same structural functions in both genres, the frequency of their distributions is different for each type of text. For example, while PALM-UP1 appears at the boundaries of minor discourse units almost exclusively in the narrative texts, PALM-UP2 appears at the boundaries of discourse structure segments (intermediate discourse units) more frequently in the expository texts. In contrast, PALM-UP3 appears at the boundaries of introductory and summary units in both genres.

Thus, the specific clustering of PALM-UP multi-dimensional features illuminates its function as a discourse marker (Maschler & Schiffrin, 2015) impacted by both macro- and micro-discourse characteristics. We conclude our paper by discussing the importance of combining distributional and functional analyses in order to elucidate how the interpretation, scope and the formational features of PALM-UP are constrained by distinct discourse contexts and their characteristics.



**Figure 1. Features of three PALM-UP variants**

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# The prosodic construction of ethnicized personae on Israeli Television

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“Mizrahi” and “Ashkenazi” are two broad umbrella terms which construct a pseudo-dichotomous distinction between Jews of Middle Eastern and North African descent and Jews of European descent respectively. Due to a history of systemic marginalization of Mizrahis, the terms now encompass not just an ethnic distinction but also vocational, geographic and socioeconomic stratification (Swirski, 1989; Tzfadia & Yiftachel, 2008, Lewin-Epstein & Cohen 2019). Linguistically, the Mizrahi-Ashkenazi distinction is most strongly associated with three consonants that were historically produced only by Mizrahi speakers (Yaeger-Dror, 1988). However, these consonants are largely absent in contemporary Modern Hebrew, and as such their absence does not suggest Ashkenazi heritage (Gafter, 2019). This raises the question of whether other features are associated with current Ashkenazi and Mizrahi speakers. In this paper, we explore this question by comparing mediatized performances of Mizrahi and Ashkenazi personae portrayed by the same actresses. Through an acoustic analysis of the performances, we show that an overlooked prosodic marker of ethnic identity is used for ethnic differentiation; and through an analysis of the social discourse around the same performances, we illustrate that this prosodic variable is being reanalyzed as a marker of social status.

We focus on two actresses: one Mizrahi (Orna Banai) the other Ashkenazi (Keren Mor), each playing two characters. The “self-aligning” ethnic performance is coded explicitly as “Mizrahi” or “Ashkenazi”. In the “cross-ethnic” performance, ethnicity is not explicitly mentioned but invoked through a range of social characteristics, making the characters somewhat ambiguous. In fact, the ethnic identity of the “Mizrahi” character played by Keren Mor is a hot topic among fans and television critics; some attribute her performance to ethnicity, while others attribute it to socioeconomic status.

Following Berrebi and Peperkamp (2024), who argue for the importance of rhythm as a marker of ethnicity in Modern Hebrew, we examined two prosodic features: (i) pre-tonic lengthening, measured by the ratio between the stressed vowel and the vowel preceding it; (ii) pitch range. The results show that for both actresses, the “Mizrahi”-coded characters exhibit pre-tonic lengthening ( $p < 0.05$ , Figure 1). Additionally, Orna Banai used a significantly broader pitch range when portraying the “Mizrahi”-coded character ( $p < 0.01$ , Figure 2).

Our results demonstrate the use of prosodic means in the differentiation of personae. However, due to the interconnection of ethnicity and social class in Israeli society, the relevant dimension of differentiation becomes ambiguous, as the social discourse around Keren Mor’s portrayal illustrates. Nevertheless, we propose that the prosodic features imitated in these mediatized performances are ultimately derived from Mizrahi and Ashkenazi speech patterns. With respect to timing, Bolozky (2002) proposed a connection between Mizrahi speakers and pre-tonic lengthening, though this has not been shown empirically before. With respect to pitch, our results align with Lefkowitz’s (2004) claim about Mizrahi intonation patterns. We discuss the current contested meaning of prosodic variables as markers of ethnicity vs. socioeconomic status, drawing on television reviews and social media posts on Keren Mor’s performance.

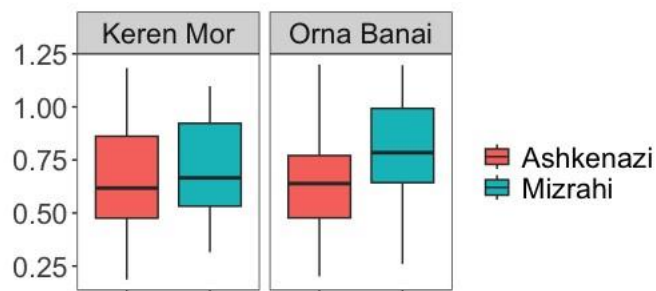


Figure 1. Proportion of pretonic vs. stressed syllable in Ashkenazi vs. Mizrahi characters.

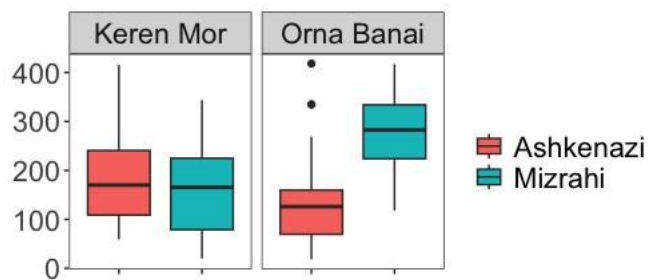


Figure 2. Pitch range for Ashkenazi vs. Mizrahi characters for the two actresses.

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## Continuity and change in the correspondence of 19th century Scottish immigrants to New Zealand

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Sociolinguistic research has demonstrated the potential of language features to perform national or ethnic identity (i.e. Babel 2010) and this can be observed even in historical, written form (van Eyndhoven 2023). Emigration scenarios offer a unique window into this interaction, given the conflicting loyalties experienced by migrants, which may have encouraged processes of language shift or maintenance (e.g. Dossena 2013). The large number of Scottish immigrants arriving on New Zealand's shores during the nineteenth century represent a particularly prominent example. Recent literature has highlighted their strong and ongoing links to the 'homeland' and the dense social networks they established and maintained with other Scots upon arrival in New Zealand (McCarthy 2008; Bueltmann 2011), particularly in the Scottish enclaves of Southland and Otago, which saw a Scots-influenced regional variety emerge (Bauer 1996; Villarreal et al. 2021). Such links with 'home' and their fellow kinfolk were frequently facilitated by correspondence, establishing informal networks that spanned regions and hemispheres (McCarthy 2011). At the same time, the Scots were coming into contact with migrants from various British destinations, or those already established in New Zealand, as well as the indigenous Māori population (Wanhalla 2013). This may have encouraged Scottish migrants to select from an expanded pool of New Zealand English (NZE) and Māori linguistic features in line with Schneider's (2007) Dynamic Model for new dialect formation. Yet it is currently unclear whether they adopted new lexis in their writing, or whether writing 'home' would in fact promote greater use of Scots features, and if this was encouraged by external factors such as recipient and location, or internal factors such as the writer's social and stylistic goals. Indeed, early New Zealand written English has remained largely unstudied in general (though see Hundt 2012, 2015; Hundt and Szmrecsanyi 2012, 2015 on the English, and Bonness 2017, 2019; Avila-Ledesma 2019 on an Irish migrant family), with the Scottish settlers curiously overlooked from a linguistic perspective. In part this has been inhibited by the lack of a diachronic, text-searchable corpus of ego-documents with which to explore linguistic variation and change within the written sphere. To address this current gap, the *Scottish Corpus of Original Texts from Immigrants to Aotearoa* (SCOTIA) is being created, comprising of 159 records of manually-digitised correspondence and diaries from first-generation Scottish immigrants to New Zealand between 1848-1918. Utilising SCOTIA, quantitative statistical analysis into the vestiges of Scots, NZE and Māori features these writings contain and how this correlates with region and gender, is presented. In particular, settlers from the Scottish enclaves in the South Island are compared with the loosely scattered communities in the North Island, to assess whether the density of their Scottish social network influenced and facilitated Scots language use. This is complemented with qualitative examinations into the use of these features in discourse, to consider agentive and performative factors influencing their use. Together, these results highlight the complexity of migration settings when exploring the intersection between language, identity and dialect formation within a historical setting.

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## **Ethnic Identities Expressed in Phonetic Production**

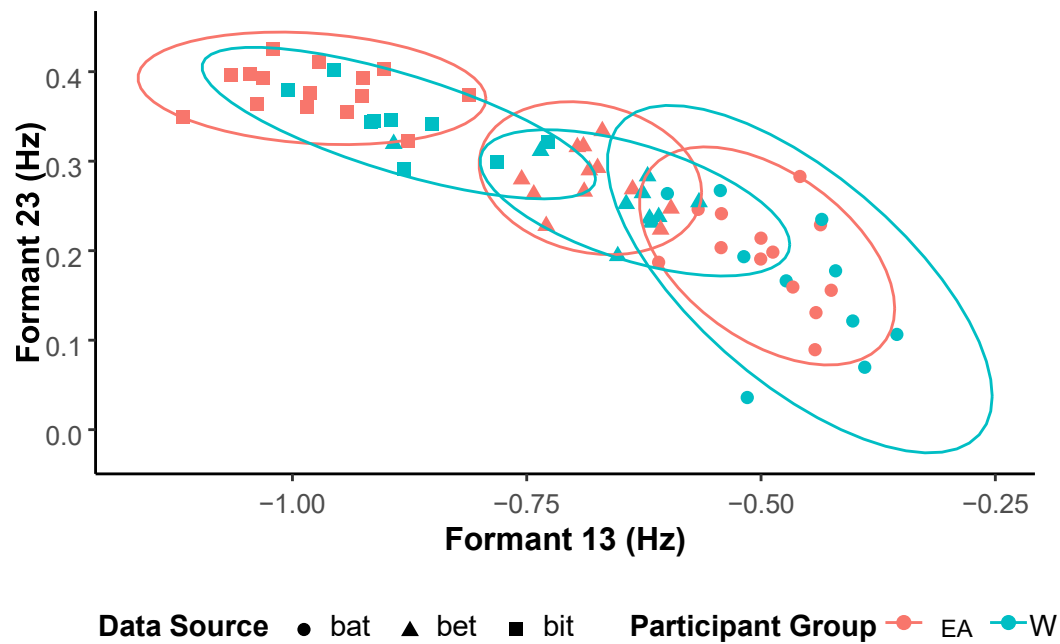
Ryan C McMurry  
University of California, Davis

Variation within language can be found in the communication of social identity and selfcategorization. This self-categorization forms an individual's identity which is then mediated with the use of language particularly between two or more interlocutors (Ochs, 1993). This is all done by the interlocutors communicating by shared conventions that signify their identity and generate social meaning. One of the many forms of communicating conventions is through the production of concrete sounds (Eckert & Labov, 2017) and stylistic choices in speech (Eckert & Podesva, 2011). This study identifies production differences found within ethnic groups of California.

After normalizing the vowel formants taken from 29 native English speakers from California and running a linear discriminant analysis followed by a series of hotelling tests, preliminary evidence suggests the presence of phonetic differences between those who identified as being East Asian descendant and those who identified as European descendant specifically the nucleus on the vowel in the word "bit". When compared to the other vowels studied, those found in the words "bet" and "bat", the p-value of the overlap for "bit" were .01 suggesting that there exists a significant difference between the two groups (Plot 1).

Future research will involve a larger sample size and a larger analysis of more vowels, particularly along the edges of the formant trajectories to analyze potential differences found in the spectral shift inherent in North American English vowels.





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# Phonetic parallels in Diphthong Variation in Greater Manchester: FACE and GOAT

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Manchester Voices is a project exploring language variation across Greater Manchester, a ceremonial county created in 1974 comprising 10 metropolitan boroughs which were previously parts of Lancashire, Cheshire, and the West Riding of Yorkshire. The data in this paper is a combination of recorded interviews from the Accent Van (Author, 2022) and a separate pronunciation task. Only speakers who have lived the majority of their life in one borough are included.

The data cleaning and analysis followed the order of functions in Stanley (2022). The recordings were aligned and formants extracted using the Montreal Forced Aligner (McAuliffe *et al.*, 2017) and FAVE-extract (Rosenfelder *et al.*, 2024).

It is generally accepted in the literature that the supraregional norm in the north of England is monophthongal for both FACE and GOAT. However, it is generally accepted that the urban centres of Liverpool and Manchester have diphthongs in both (Ferragne and Pellegrino, 2010; Baranowski and Turton, 2015; Barras, 2015; Strycharczuk *et al.*, 2020). We investigate how this variation interacts with the newer borders of Greater Manchester. We propose two research questions:

1. Which regions of Greater Manchester show monophthongal vs diphthongal FACE and GOAT?
2. Where monophthongal-diphthongal variation is found in FACE and GOAT, do the two pattern together?

We took a two stage approach to the analysis. First, we built a GAMM for each borough, of F1 and F2 of FACE and GOAT; from each of these we extracted a predicted trajectory (figures 1 & 2). Second, we applied measures of spectral change based on dialect comparison work by Tanner *et al.* (2022), to the predicted values: Trajectory Length, Vector Length, and Vector Offset

(figure 3). We focus on Vector Length (VL – figure 4) as the most important indicator of diphthongal nature of a vowel, since it indicates the overall vowel space movement.

We find that Bury has the most monophthongal FACE and GOAT, and Trafford has the most diphthongal FACE and GOAT. Between these, Wigan, Bolton, and Oldham have slightly less monophthongal FACE and GOAT than Bury; Rochdale, Manchester, Tameside, and Stockport have more diphthongal FACE, without much change in GOAT; and Salford has more diphthongal FACE and slightly more diphthongal GOAT.

The grey line in Figure 4 is  $VL_{\text{difference}} = VL_{\text{max}} - VL_{\text{min}}$ . If the two were patterning together this line would be straight. However, we see that the difference is higher in Rochdale, Manchester, Tameside, and Stockport, where FACE is more diphthongal than GOAT. The black line is  $VL_{\text{max}} - VL_{\text{difference}}$  and hence accounts for both the overall diphthongal nature and the difference between FACE and GOAT. This line can be interpreted as a distance from the monophthongal supraregional norm.

These results demonstrate that when there is community variation away from the monophthongal supraregional norm, FACE is more likely to be diphthongal than GOAT. We can conclude that the GOAT/FACE variation in the region is not as simple as diphthongal in the urban centre and monophthongal in the surrounding areas and that the variation contradicts previous literature that suggests that FACE and GOAT always pattern in parallel.

## Phonetic parallels in Diphthong Variation in Greater Manchester: FACE and GOAT

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## Investigating the role of attention and experience in regional accent categorisation

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Sociophonetic research has established that listeners associate the acoustic input they encounter with social categories. Exemplar theoretical models are usually used to explain these cognitive links between social and phonetic information, suggesting that a listener's exposure to variation is central to the strength of these connections. Many exemplar-based models also suggest that the social salience of a variable can influence its encoding, and that this is dependent on the amount of attention listeners pay to these forms (Drager & Kirtley, 2016; Sumner et al., 2014).

However, sociophonetic work has rarely examined whether individual differences in a listener's ability to direct their attention towards task-relevant information, 'attention control', influence how they notice and encode sociolinguistic information. This is despite evidence that it plays a role in phonological processing (Ou & Law, 2017) and lexical retrieval (Lev-Ari & Peperkamp, 2013). The current study aims to address this gap, by asking how attention control might similarly influence the processing of phonetic variation in an accent categorisation task. Specifically, we were interested in how individual differences in attention control might interact with exposure and variable salience to influence participants' ability to discriminate between two regional accents.

Alongside three measures of attention control (Burgoyne et al., 2023), 259 participants took part in a forced-choice accent categorisation task inspired by Ruch (2018). To assess the role of relative exposure, British English participants were from one of three regional backgrounds: Northern non-mobile (88); Southern nonmobile (86); Northern mobile (Northerners living in the South of England; 85). They were given 3 seconds to categorise naturalistic stimuli into "Northern English" or "Southern English". Stimulus items either contained one of four regional variables of differing salience: BATH, STRUT, word-initial /l/, or the presence of /g/ in <ng> sequences; or contained no regional variable. Discrimination ability was modelled using a logistic mixedeffects model.

The results provided evidence that attention control plays a role in how listeners associate social and phonetic information, but that this is strongly conditioned by exposure. Non-mobile listeners with higher attention control were significantly better at discriminating between Northern and Southern stimuli than those with lower attention control (see Figure 1). However, mobile participants were equally adept at the task regardless of attention control score. This suggests that attention control could influence how individuals notice and encode variation, but only in cases where they have limited exposure to these forms. Finally, separate byvariable model results showed that attention control did not affect mobile participants' ability to categorise any variable. Post-hoc tests showed that the effect of attention control was stronger and more significant among more salient variables.

The results contribute to a growing body of work aiming to incorporate cognitive factors in sociolinguistic research (e.g., Levon & Buchstaller, 2015), providing the clearest evidence to date that attention control influences accent categorisation performance. That this effect is conditioned by exposure and salience has implications for exemplar theory, where the interaction of these factors is undertheorised. It also informs our models of how changes diffuse through a population.

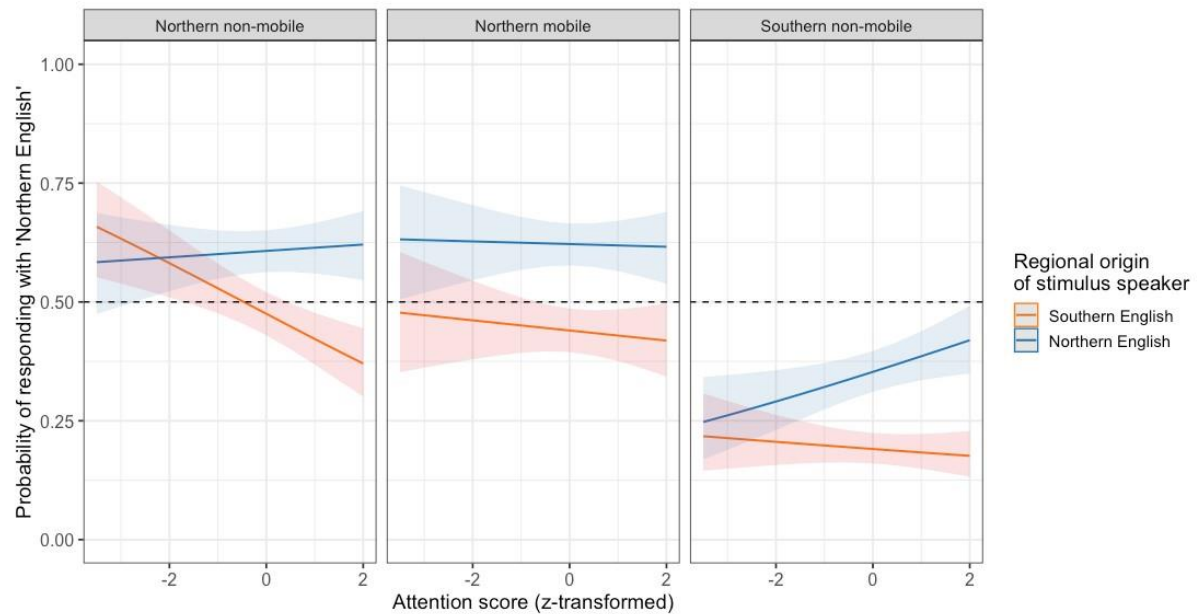


Figure 1: Predicted effects from the main logistic mixed-effects model. Plots show the predicted probability of responding with “Northern English” for listeners with different attention scores, when they heard Northern English and Southern English stimuli. Data are split by participants’ region group.

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# **A preliminary investigation of vowel lowering in Wellington, New Zealand**

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Vowel lowering is an ongoing change occurring in multiple English varieties, having been documented in SSBE (Bauer 1985; Fabricius 2007; Upton 2012), Irish English (Hickey 2003), South African English (Chevalier 2016), and Australian English (Cox and Palethorpe 2008). The change typically involves lowering and retraction of DRESS and TRAP vowels, and often interacts with other elements of the vowel system.

One of the most salient phonological features of New Zealand English is the chain shift of the short front vowels, with raising of TRAP and DRESS, and centralisation of KIT (Gordon et al. 2004). This change began during early colonisation in the 19th Century, and until recently was argued to be still progressing in younger speakers (Maclagan and Hay 2004, 2007). However, recent research (Ross 2018, 2024; Ross et al. 2023; Watson et al. 2018, 2019) on speakers in Tāmaki Makaurau / Auckland, the country's largest city, has found evidence that young New Zealanders may be showing the beginnings of TRAP and DRESS lowering, alongside lowering of NURSE, another innovation previously undocumented in New Zealand English.

Aotearoa New Zealand has in the past been considered to have very little in the way of regional variation, with the exception of rhoticity in the south of the country, commonly understood to be the result of Scottish settlement in the area (Bartlett 1992, 2002; Bayard 1990). Investigating whether Auckland's vowel lowering is a developing regional feature, Ross (2024) studied speakers in Whakatū / Nelson, a much smaller regional centre in the South Island, and found preliminary signs of vowel lowering, with TRAP significantly lower in younger speakers, and DRESS at an intermediate quality between older Nelson speakers and younger Aucklanders. However, the question remains as to whether larger urban centres in the country are undergoing the same change.

This paper presents an apparent-time study of speakers in Te Whanganui-a-Tara / Wellington, the country's capital and third largest city. Despite large-scale sociophonetic studies in the late 1990s and early 2000s such as the Wellington Corpus of Spoken New Zealand English (Holmes, Vine, and Johnson 1998) and New Zealand Spoken English Database (Warren 2002), little investigation has taken place into the speech of today's young adults. In this preliminary investigation, 37 speakers with ages ranging from 19 to 84 were interviewed, with a mean of 18 minutes of spontaneous speech per speaker. *Praat* (Boersma and Weenink 2025) was used to annotate and extract formant frequency vowels from monophthongs. Linear mixed effects models were fitted using the *RStudio* package *lme4* (Bates et al. 2015).

Evidence is presented that vowel lowering is occurring in the speech of young Wellingtonians. However, this vowel lowering does not appear to be progressing in an identical manner to the lowering previously shown in Auckland and Nelson. Whilst TRAP and NURSE are lowering, DRESS is not. Furthermore, changes to START and KIT provide additional evidence that salient features of the NZE chain shift may be 'reversing', and raise questions about the ordering and geographic diffusion of vowel lowering in NZE.

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## Variation in the use of silent pauses in Aboriginal and Mainstream Australian Englishes in Warrnambool, Victoria

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Martin Duckworth

The variety of Australian English which is both the most widely spoken and most phonetically researched is Mainstream Australian English (MAE), predominantly spoken by speakers of AngloCeltic background. By contrast, Australian Aboriginal Englishes (AAE) are varieties spoken by First Nations Australians who form 3.2% of the population of Australia [1]. AAE differs from MAE to varying degrees in phonetics and/or phonology, grammar, semantics, pragmatics and lexicon [2-5].

A growing body of research highlights differences in intercultural communication which have the potential to lead to misunderstandings of AAE speakers in legal contexts [e.g. 5, 6, 7]. Among these is the observation that MAE and AAE speakers use and perceive silences in different ways in conversation.

The present study investigates the production of silent pauses in AAE and MAE in sociolinguistic interviews recorded in Warrnambool, a coastal town in regional Victoria, Australia [see also 8, 9, 10]. Participants were 10 AAE (6F, 4M) and 10 MAE (4F, 6M) speakers aged 18-72 years. This paper reports findings on silent pauses, as part of a larger scale project investigating a range of disfluency features in AAE and MAE [see also 11, 12], using a version of TOFFA profiling [13].

180s of concatenated “net speech” material per speaker was analysed. The speech of each interviewee was transcribed orthographically, using *Praat*. On a separate tier the durations of two types of silent pauses were annotated:

**Response Latency (RL):** a silent pause immediately following a speaking turn of the interviewer

**Turn-internal Silent Pause (SP):** a silent pause occurring elsewhere during an interviewee’s turn.

A *Praat* script was used to extract occurrences and durations of RLs and SPs, and rates of occurrence of features were calculated. The dataset yielded 292 RL and 1055 SP tokens.

Based on previous observation [5, 7], it was hypothesised that silences would be used more frequently in AAE than MAE. In the present data, this was confirmed for RLs, but not SPs (see Figure 1). Durations of both RLs and SPs were descriptively but not statistically greater in AAE compared with MAE.

A further analysis was conducted to evaluate how frequently RLs occurred relative to the opportunities for an RL within each interview. Responses to RL opportunities were coded as Delayed

(= an RL is present), Immediate or Overlap. Delayed responses occurred significantly more often in AAE than MAE, while Immediate and Overlap responses were used (descriptively but not statistically) more frequently by MAE than AAE speakers.

These findings have important implications for Australian legal contexts, for which the majority of professionals conducting interviews and court proceedings, and also jury members, are likely to speak MAE. Given that silence in legal contexts can be interpreted as “evasion, ignorance, confusion or even guilt” [5: 114], an awareness of small differences in cross-cultural use of silent pauses in AAE is very important. Cultural differences are acknowledged by initiatives such as the Koori Court in Victoria [14], although this is only available for Aboriginal and Torres Strait Islanders who have pleaded guilty to a criminal offence.

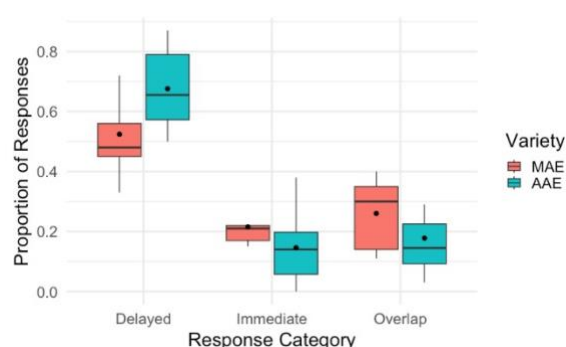
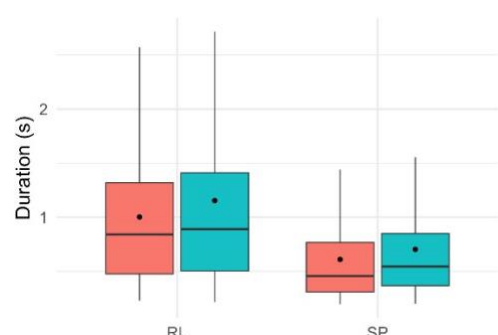


Figure 1: Rates of occurrence of response latencies and silent pauses in MAE and AAE. Black dots indicate the mean for each distribution. Figure 2: Boxplots of proportions per speaker of response latency opportunities responded to with a Delayed response, an Immediate response or an Overlap.

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# Misheard and Misgendered? The Accuracy of Speaker Gender Identity Attribution

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Phonetic and sociolinguistic studies have explored how a speaker's sex influences their speech patterns, as well as other social factors like age, social class, and sexuality [1], [2], [3]. Previous research on speaker identification or perception has predominantly used cisgender individuals, tending to overlook speakers whose gender identity does not align with their sex assigned at birth [4], [5], [6]. The present study builds on previous research that found a transgender speaker was most accurately identified in a voice parade

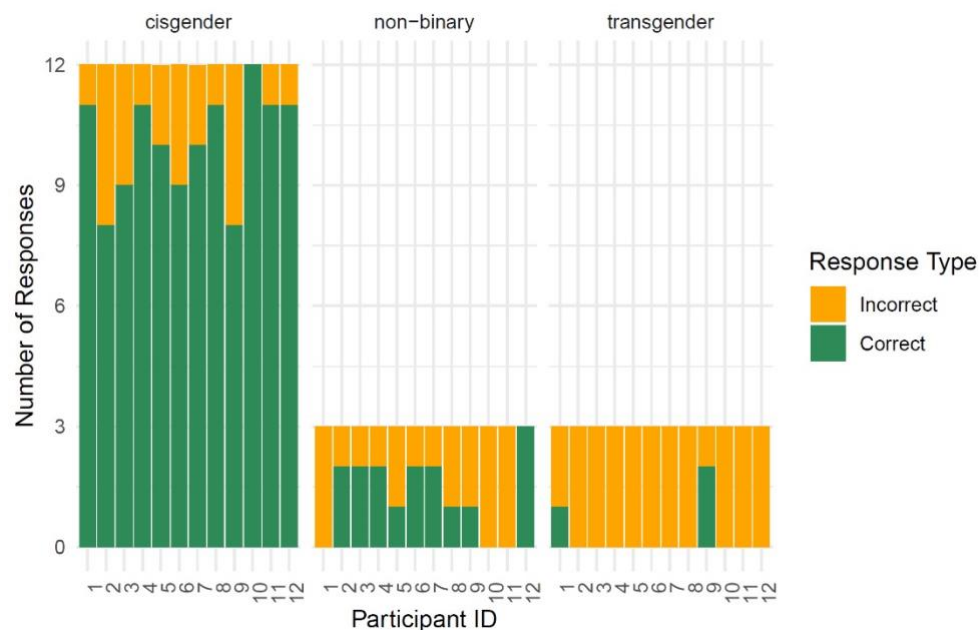
(containing 7 cisgender and 1 transgender speaker) by both familiar and unfamiliar listeners [7]. A key question that emerged from this work is whether listeners can accurately determine gender identity from speech.

The present study aims to assess how accurately listeners can identify a speaker's gender identity from short speech samples. In the pilot phase, six speakers of Southern Standard British English were selected: four cisgender, one non-binary, one transgender. Each speaker was recorded reading ten sentences, from which their mean fundamental frequency ( $f_0$ ) was determined. A listening test was constructed in which listeners were asked to determine whether the speaker was cisgender, non-binary, or transgender, as well as to rate their confidence in their decisions, for three speech samples per speaker. The stimuli speakers were grouped by their mean  $f_0$ , with lower-pitched speakers appearing in the first half of the test and higher-pitched speakers in the second half. Twelve listeners participated in this pilot study and were invited to provide comments on specific features of the speakers' voices that influenced their decisions.

It was hypothesised that the non-binary speaker would be most accurately identified as gender queer due to their lower  $f_0$ , whereas the transgender speaker might not be correctly identified as transgender due to their higher  $f_0$ . Overall, listeners were more successful in identifying speakers as cisgender, as opposed to non-binary or transgender, as can be seen in Figure 1 which shows the number of correct and incorrect responses to the listening test stimuli in each speaker category. Statistical analyses revealed that listeners' success rate was significantly greater than chance level, and a one-way ANOVA showed a significant effect of gender identity on the likelihood of speakers being categorised as gender queer. Post-hoc tests further demonstrated that non-binary and transgender speakers were more likely to be marked as gender queer compared to cisgender speakers with the odds of the non-binary speaker being marked as gender queer being 26.3 times higher than for a cisgender speaker, and 4.7 times higher for the transgender speaker. Further, there was a

significant difference in the listeners' confidence levels when marking a speaker as nonbinary or transgender compared to cisgender.

The results suggest that listeners are not randomly assigning gender queer labels to speakers but are systematically categorising non-binary and transgender speakers as gender queer more often than by chance. This indicates that phonetic cues likely influenced these judgments, and listeners may rely on them to distinguish non-cisgender speakers from cisgender ones.



*Figure of speaker1: Number of correct and incorrect , by participant responses to the listening test for each category*

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Author publication

## Mapping dialectal variation in Welsh English: Speak for Yersel - Wales!

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Although there has been some discussion about dialectal variation in Welsh English (most notably Garrett, Coupland and Williams (1999) who group the English dialects of Wales into six areas), much of the research on Welsh English, not to mention the linguistic awareness of people outside of Wales, is restricted to South East Wales, particularly the Valleys (Durham 2016). This is particularly the case for lexical items and morphosyntactical features.

*Tidy, tamping, lush, daps, now in a minute* and other features are therefore recognized as part of Welsh English, but how much are they used outside of South East Wales? What features are used in other areas? Are words like *cwtch* (cuddle), *twp* (stupid), *dwt* (dinky) which come from Welsh used more in areas with a higher percentage of Welsh speakers? And, more generally, to what extent do age and ability to speak Welsh affect the selfreported use of certain features?

We examine these questions and provide insight into Welsh English lexis and morphosyntax using the nearly 1500 responses from the Speak for Yersel – Wales survey (Authors 2024). This crowd-sourced survey has collected responses from all over Wales with questions focusing on morphosyntax, pronunciation, and lexis. For this paper, we will present a broad selection of syntactical and lexical features that either are reported to be restricted to South East Wales or are not (Table 1). As well as the regional distribution we will consider age, gender and language background where it is possible.

*Table 1: Some of the features to be examined*

Level	Feature	Region
Morphosyntax	It's brilliant, it is	SE Wales
Morphosyntax	Where's your ticket to?/Where to is my ticket?	SE Wales
Morphosyntax	I done it	All Wales
Morphosyntax	Them books in the kitchen	All Wales
Lexis	Plimsols/Daps	SE Wales
Lexis	Welsh lexis: Cwtch, dwt, twp	All Wales
Lexis	grandmother/grandfather	All Wales

Our analysis of geographical distribution shows that while many of the features are indeed restricted to South Wales, the boundaries of the linguistic regions in this area do not fully overlap with Garrett at al. (1999), with the South East Valleys region spreading further westwards. We also find that while there are differences in rates between Valleys locations and more urban South East Wales areas (e.g. Cardiff, Barry and Newport), most of the Welsh English features are found throughout, which contrasts with suggestions that the differences are due to differing historical patterns of language contact and industrialisation (Mees and Collins 1999: 186).

We also find features which have a wider geographical spread (e.g. *cwtch*) and items which reflect dialectal boundaries in the Welsh language (e.g. variants of grandmother and grandfather). We will also present what we uncovered with respect to social factors. Ultimately, we will argue that while dialect classification based on historical patterns partly explains variation, modern methods with a focus on social variation hint towards dynamic processes which are affecting Welsh English dialects.

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## **Caught in the act: capturing interactional style-shifting in bidialectal speakers through improvisation**

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How individuals engage with and express their identity in relation to the speech communities with which they have contact is the focus of a wide variety of studies falling into what is often termed the third wave of sociolinguistics (Eckert, 2018). Such studies emphasise speech style (Bucholtz, 2012; Coupland, 2007) as an agentive process of expressing identity and belonging (eg. Eckert, 1991; Pratt, 2020) as well as stance (Du Bois, 2007; Johnstone, 2009, 2007; Kiesling, 2022; Sharma, 2018) through the use of available linguistic resources or repertoires (Becker, 2014; Cheshire et al., 2011; Sharma, 2011).

In the case of mobile individuals who have access to more than one variety of the same language, style-shifting between these varieties, or repertoires, is frequently a necessary adaptation when moving between the associated speech communities. However, factors affecting the degree to which different individuals shift and in what context, and to what extent these shifts are agentive as opposed to automatic processes (cf. Sharma, 2018), needs further research.

In this study, we aim to contribute to this topic by introducing a novel, interdisciplinary approach to collecting interactional speech data in a controlled laboratory setting, and further modifying the LFI method (Sharma and Rampton, 2015) real-time analysis method, to investigate the impact of factors such as accommodation, audience design, stance, identity work, and cognitive and affective load on intra-speaker variation within and across interactions.

To do this, eight participants were recruited, all of whom are professional actors whose firstlearned dialect (D1) is a Scottish-English variety, and who relocated to London where they were exposed to their D2, SSBE. Two further professional actors were recruited as confederates and interlocutors. Working with actors, we were able to explore the effect of interactional circumstances on style-shifting by eliciting emotionally truthful speech data through four structured improvisation scenarios (Meisner et al., 2012). Each scenario was designed to investigate the influence of specific factors, as mentioned above, on intraspeaker variation.

Participants then read a short passage in each variety to compare conscious, performative shifting processes with the organic, situationally motivated shifting within the interactional tasks. Conversational data was gathered between tasks to gain participants' own insights into the topic as well as biographical and attitudinal data.

This dataset was analysed using the LFI method, modified to incorporate acoustic measures, building on previous work in this area ([Blinded]; cf. Hinrichs, 2011)

Here we will present initial results from four participants, revealing how gradual shifts within the improvised interactions (see figure below) follow specific interactional events; the extent to which the factors introduced within the experimental design of the scenarios affected the style-shifting of individual participants; and the potential influence of their differing biographical experiences, attitudes and perspectives on this process.



We will also discuss the implementation and effectiveness of this speech data collection and analysis process, and its potential contribution to the development of a more comprehensive understanding of style-shifting in context.

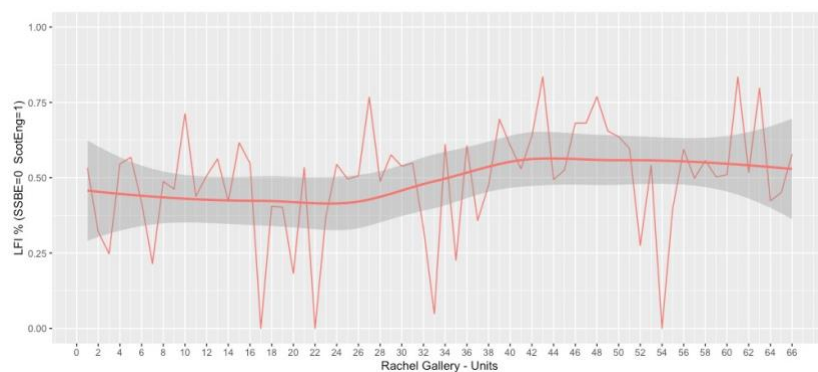


Figure (1e\*) shows how a participant's speech shifts between SSBE (lower on the y-axis) and Sco?sh-English (higher on the y-axis) during one of the four improvisation scenarios. Note: 'Units' along the x-axis

serve as a proxy for 2me.

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## Age-related trends in attitudinal ratings: an auditory affective priming (AAP) study in Baku, Azerbaijan

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Azerbaijan's independence and the fall of the Soviet Union in 1991 brought changes in ideology and language policy, most notably with official promotion of Azerbaijani, decreased importance of Russian, and an increased presence of English (Garibova, 2009; Mammadova, 2013). However, with some exceptions (e.g., Magerramova, 2016), there has been little investigation of the effect of these shifts on Bakuviens' language attitudes, particularly using more implicit methods. This study implicitly elicited Bakuviens' attitudes towards Azerbaijani, Baku Russian, Moscow Russian and British English and considered how these vary according to participants' age.

Participants (N=115) were auditorily presented with short utterances (primes) in the four varieties and, 250ms after the prime's onset, categorised target images as positive or negative. Short utterances, rather than two-syllable words as employed by Speelman et al. (2013), ensured that Baku Russian's distinctive intonation (Suleymanov, 2017) was captured.

Participants respond faster to affectively congruent prime-target pairs than incongruent ones; therefore, reaction times are hypothesised to indicate automatic responses to the prime varieties. Preference scores were calculated for each participant to indicate their relative attitudes to the varieties. For each variety, each participant's mean response latency for positive images was subtracted from their mean response latency for negative images; therefore, higher scores indicate more positive attitudes.

Linear mixed effects models were constructed. Model comparisons revealed a significant *prime variety\*age* interaction. Post-hoc pairwise comparisons showed Group 2 (born 1975-1989) to have significantly more favourable ratings of Azerbaijani and Baku Russian ( $p < 0.05$ ) than Group 3 (born 1990 onwards) (see **Error! Reference source not found.**). No significant age-related findings were found for Moscow Russian or English.

The emergence of the hypothesised *prime variety\*age* interaction corroborates Speelman et al.'s (2013) optimism that AAPs can elicit language attitudes, and the use of longer prime utterances may suggest that AAPs can investigate a wider range of linguistic phenomena than can be captured in word-length primes. A lack of familiarity with Moscow Russian and English, meanwhile, may explain the null results here, as stronger priming effects often occur with stronger primes and easily accessible attitudes (Fazio, 2001; Perloff, 2024).

Considering the age-related trends, Group 2, born and raised in the lead up to independence, showed a greater preference for Azerbaijani and Baku Russian than their younger counterparts. Three interpretations are posited. First, since implicitly elicited attitudes may be more persistent than explicitly accessed ones (Lai et al., 2016), this positivity may indicate *attitude change in progress*, reflecting Group 2's upbringing at a time of increased national consciousness and appreciation of the Azerbaijani language, yet also understanding of the continued presence and importance of Russian in the region. Second, findings may reflect patterns of *age-grading* and an appreciation of Azerbaijani and Russian as tools for career progression. Third, the stimuli speakers were of a similar age to Group 2; Group 2's elevation of the varieties may reflect a *perceived affinity* with the speakers given their proximity in age (Marcinko, 2023).

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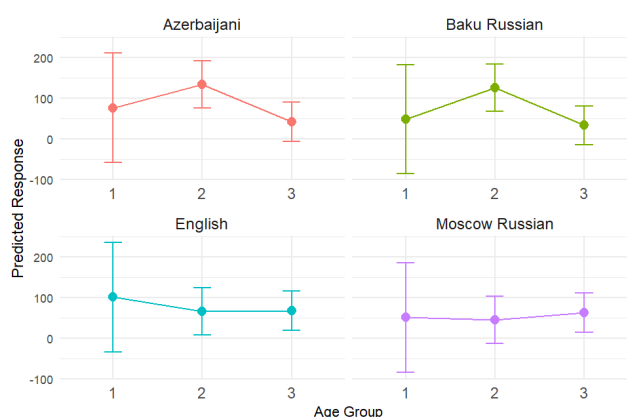


Figure 1 Interaction plots based on estimated marginal means for the AAP created using emmip() in the emmeans package (Lenth, 2024). Higher predicted responses indicate more positive attitudes (Birth years: Group 1 – 1974 or earlier; Group 2 – 1975-1989; Group 3 – 1990 or later).

## **Acquiring sociolinguistic competence: how 9-11-year old children in a London suburb use and perceive variation.**

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This paper presents findings from a project looking at the acquisition of sociolinguistic competence in 9–11-year-old children. Focusing on a state primary school in southwest London, we use interview data with 42 pupils (20 girls; 11 bi/multilingual) to examine what socio-cultural meanings children link with phonetic variation ('Study 1'), and how they use variation themselves ('Study 2'). Of particular interest is the role that local context plays in acquisition and whether children's sociolinguistic skills are shaped by living in a suburban and middle-class community where standard features may have emphasised value (Dickson and Hall-Lew, 2017)

Data collection for this project began with 6 weeks of informal fieldwork. This involved shadowing year 5 and 6 classrooms twice a week to gain a better understanding of the sample and the school environment, whilst allowing participants time to become familiar with the researcher. Semi-structured interviews were then conducted in groups of 3 to discuss what socio-cultural meanings children associate with 3 local accents: Southern Standard British English (SSBE), Popular London English (PLE) and Multicultural London English (MLE). Prior to each interview, participants completed a task at home where they listened to an audio clip of either an SSBE, MLE or PLE speaker and were asked to draw or write what they thought the person was like (age, appearance, personality, job etc.). They were asked to bring this with them to the interview where it formed the basis of the discussion.

Study 1 examines what social meanings children infer from accent, and what this tells us about their developing sociolinguistic competence. Transcripts of the interview data were analysed using thematic analysis in NVivo (Version 14, 2023). A clear pattern emerged where the SSBE speaker was evaluated positively: as kind, intelligent, and well-spoken ("I feel like they speak nicely"). Conversely, the PLE speaker was often evaluated negatively: as not friendly, not intelligent, and badly spoken ("They're not pronouncing it properly"). In particular, children commented on features such as /t/-glottaling and TH-fronting as examples of incorrect speech ("He wouldn't pronounce the T's and like, I would find it so annoying"), suggesting that standard language ideologies act as important early reference points in children's understanding of phonetic variation

Study 2 examines children's production of non-standard features by using the recorded interview data for auditory analysis. Here, rates of /t/-glottaling, TH-fronting, /l/-vocalisation, and alveolar (ING) were coded for two purposes: (1) to build a broad picture of how pre-adolescent children in this community use non-standard variation, and (2) to examine how variants pattern within interaction, seeing to what extent children of this age use variation to "do social work" (Labov, 1966). Whilst analyses are still ongoing, this work provides a detailed insight into the ability to use sociolinguistic variation prior to adolescence.

Word count: 472

Dickson, V., & Hall-Lew, L. (2017). Class, Gender, and Rhoticity: The Social Stratification of Non-Prevocalic /r/ in Edinburgh Speech. *Journal of English Linguistics*, 45(3), 229–259.

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## Tracking dialect change in London-based New Zealanders: A real-time study of variation and change in the short front vowels

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Dialectologists have extensively studied the outcome of dialect contact in long-term contact settings (e.g. Trudgill, 1988; Britain, 2018) and short-term interactions (e.g. Coupland, 1984; Giles & Ogay, 2007), yet the effects of dialect contact in medium-term settings have received comparatively less attention. The current real-time study addresses this gap by examining variation and change in the short-front vowels (KIT, DRESS, and TRAP) of 30 New Zealanders living in London on their Overseas Experience (OE). The “big OE” is a period of up to 3 years spent living and working abroad that has long been a rite of passage for young New Zealanders (Bell, 2002). This provides an ideal context in which to examine the effects of medium-term dialect contact.

More concretely, I present the results of an acoustic analysis of KIT, DRESS, and TRAP, the realisations of which are characteristic of New Zealand English (Bauer & Warren, 2008). The corpus contains sociolinguistic interviews with 29 speakers of New Zealand English who were recorded in early 2024 (0-6 months after arrival in London) and again one year later in early 2025. Speakers were all aged 21-34 at the time of the first recording and acknowledged the temporary nature of their stay. In addition to social and demographic data, social networks were assessed for each speaker using an ego-centric network approach (cf. Robins, 2015).

To analyse change in real time, 30 tokens each of KIT, DRESS and TRAP were manually extracted from the first and second interviews for each speaker and mean F1/F2 values were measured using a script in Praat (Boersma & Weenink, 2025). Preliminary findings from a mixed-effects linear regression model indicate significant changes in the short-front vowels over time including raising and fronting of KIT and backing of DRESS, with inter-speaker variation subject to differences in social network. Speakers with a dense social network containing more New Zealanders appear less likely to exhibit change in the short front vowels, while those whose social networks contain a greater proportion of Brits and non-New Zealanders are more likely to exhibit change.

In addition, I present two case studies of individuals who do not conform to this pattern, illustrating how additional factors such as identity positioning may also contribute to variation. Here I draw on a qualitative analysis of interview content to argue that individual social positioning and identity construction may also explain a shift away from more typically ‘New Zealand’ realisations of the short front vowels.

I conclude by discussing the broader implications for our understanding of dialect change in medium-term contact settings, whereby changes are subject to individual social networks, identity, and experiences of migration.

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# OMGGG: The Social Meaning of Iconic Orthographic Variation on Social Media

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This study explores socially meaningful iconic orthographic variation in the tweets of Korean pop music (K-Pop) fans on Twitter. It is well-established that orthographical representations are partially socially conditioned (Jaffe, 2000), and while some work has explored orthographic representation of phonetic variation on social media (e.g., Lamontagne & McCulloch, 2022), there has not been extensive examination of variation in words primarily found online. Namely, initialisms such as OMG (lit. Oh my God) and their orthographic variants made possible within computer-mediated communication (e.g., capitalisation and reduplication) such as *OMGGG* or *oMg*.

Fan communities are an important arena for identity performance, particularly online (Baym, 2000; Jenkins, 2013). Within a larger project exploring K-Pop fan identity and language, I integrate ethnographic insights into the valorised fan identity within K-Pop fan communities. I thus examine how OMG, and particularly its capitalised and reduplicated variants, index strong affect in attempts by fans to meet community norms which demand high emotional investment in one's favourite K-Pop performer.

Reduplication has been shown to convey emphasis in spoken language (Keevallik, 2010), while capitalisation might appear to only signal anger, work has shown it also indexes prosodic features such as increased syllable duration and higher pitch (Heath, 2021). The link between affect and iconicity has been discussed with regard to phonological variation (D'Onofrio & Eckert, 2021) but not yet with orthographic variation where the case and repetition of a word can impact its visual weight and can thus convey emphasis. Wolf (2019) argues OMG functions as a discourse marker in online communication, introducing topic changes, but little is known about its iconicity via orthography, nor how alterations to the written form of the word might communicate social meaning.

Through a corpus of 110,084 tweets from 579 Twitter users who follow multiple K-Pop groups, with 2,209 instances of OMG, I investigate how OMG varies by its position within a tweet, factors impacting the use of capitalisation and reduplication, and if these orthographic variants covary when used with OMG.

I find that OMG is most frequently tweet initial (61%) and appears at similar rates medially (20%) and finally (19%). Additionally, I find that tweet-final OMG is more likely to undergo reduplication ( $p=0.0097$ ) and capitalisation ( $p=2.25 \times 10^{-20}$ ) than tweet-initial or tweetmedial OMG. There is also evidence for the statistically significant cooccurrence of capitalisation and reduplication ( $p < 0.05$ ) suggesting these socially meaningful linguistic resources might combine via bricolage (Levi-Strauss, 1966) to index emotional intensity.

I argue that OMG indexes emotional investment in fans' reactions to K-Pop performer's activities, and the emotional investment is further enhanced by capitalisation and reduplication of the orthographic form, often in concert. These alterations to increase the horizontal (reduplication) and vertical (capitalisation) space OMG occupies on-screen, helping fans communicate the strength of their emotional investment in their favourite KPop idols. This study contributes an understanding of the role iconic variation in the written form might play in communicating social meaning.

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## Broadcast Standard (American??) English : A BBC Perspective

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In two recent presentations, Brian José analyzed the speech of American newscasters by focusing on verbs with past temporal reference (2024a) and on copula & auxiliary BE variation (2024b). Examples are provided in **(1)** and **(2)**, respectively. The data was culled from 12 hours of US national newscasts: 3 hours for each of 4 television networks in the summer of 2020 (4\*1hr) and December 2021 (4\*2hrs). Prior research on past temporal reference (PTR) has documented, among other findings, competing preferences for perfects vs preterites in British vs American English (e.g., Elsness 1997, Hundt & Smith 2009, Vanneck 1958, and others). Variation in copula and auxiliary BE has been a focus of sociolinguistic research, especially in American English and with special attention to African-American Vernacular, since the 1960s (e.g., Baugh 1980, Labov 1969, Poplack & Tagliamonte 1991, Rickford & Price 2013, Wolfram 1969, and numerous others).

The current study extends the previous analyses of the American newscasts by incorporating 3 hours of BBC news, also from the summer of 2020 (1 hour) and December 2021 (2 hours). At present, only data from the anchors (2F, 2M) is available; coding and analysis of the data from the correspondents (15F, 17M) remains ongoing.

The results reveal that BE variation by these BBC anchors patterns very much like it does in American newscasts, although null forms of BE (examples 2a.iii, 2b.ii) are noticeably more limited on the BBC. Figure **(3)**. Otherwise, both datasets (US and UK) show a majority of full forms (2a.i, 2b.i) in both the present and past tenses, some null forms in both the present and past tenses, and 0% contraction in the past tense. Figure **(3)** again. Additionally, the majority variant full forms represent a smaller proportion in the present tense than in the past tense. Still Figure **(3)**. Also in both datasets, full forms are more frequent with NP subjects than with pronominal subjects in the present tense; but the situation is reversed in the past tense. Figure **(4)**. Furthermore, in both datasets, 3PL full forms outpace 3SG full forms in the present tense (*are* > *is*); but in the past tense, 3SG full forms are more frequent than 3PL full forms (*was* > *were*). Figure **(5)**. These commonalities suggest that the variation is representative of a trans-Atlantic (and perhaps an even more general international) broadcast standard English, rather than either an American or a British broadcast standard.

Conversely, PTR variation by these BBC anchors exhibits a different pattern than it does in the American newscasts. Figure **(6)**. First, while most of the PTR verbs in the American newscasts are preterites, most of the PTR verbs in the BBC newscasts are perfects, reflecting well documented preferences for perfects vs preterites in British vs American English. Additionally, and notably, the surprising -ING form (1d) that's exhibited in American newscasts (though not on all networks) is conspicuously absent on the BBC. In PTR, then, there's some evidence for separate broadcast standards rather than the ostensibly shared broadcast standard for BE variation.

(1) past-temporal reference verb forms

- (a) The 18th century organ survived last year's devastating fire  
J. Woodruff • PBS news • 2020-08-03

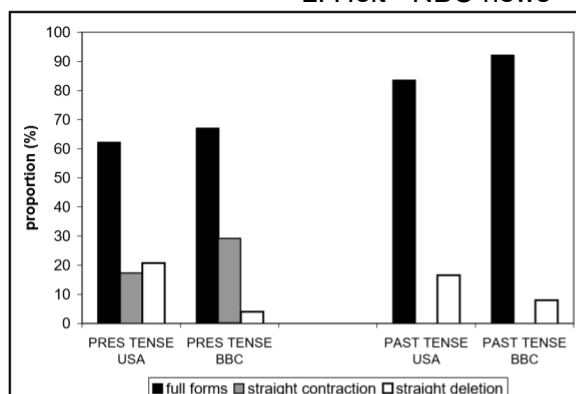
- (b) All told, the storms have left 95 people dead  
L. Holt • NBC news • 2021-12-16
- (c) Search and rescue teams recover the body of the former *Glee* actress  
N. O'Donnell • CBS news • 2020-07-13
- (d) The family matriarch dying just 3 days after she was diagnosed  
D. Muir • ABC news • 2020-07-07

(2a) present-tense BE

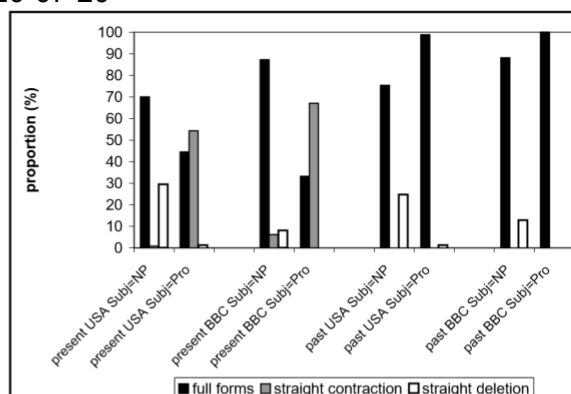
- (i) Fifty passengers were rescued, but 5 others are still missing  
J. Woodruff • PBS news • 2021-12-22
- (ii) And in Texas, Biden's within a point of the president [=Trump]  
N. O'Donnell • CBS news • 2020-07-13
- (iii) Severe storms Ø moving through the Northeast at this hour  
D. Muir • ABC news • 2020-07-06

(2b) past-tense BE

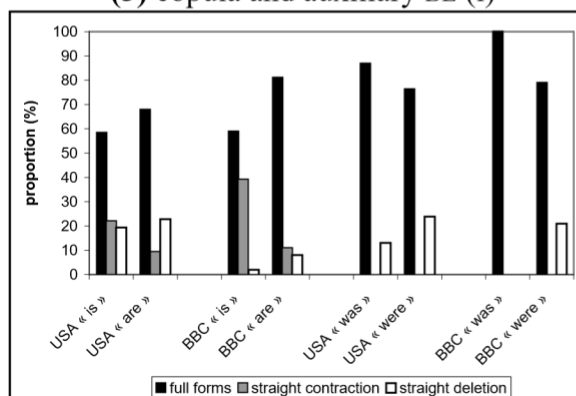
- (i) Fifty passengers were rescued, but 5 others are still missing  
J. Woodruff • PBS news • 2021-12-22
- (ii) After a manhunt, the suspect Ø found dead today  
L. Holt • NBC news • 2020-07-20



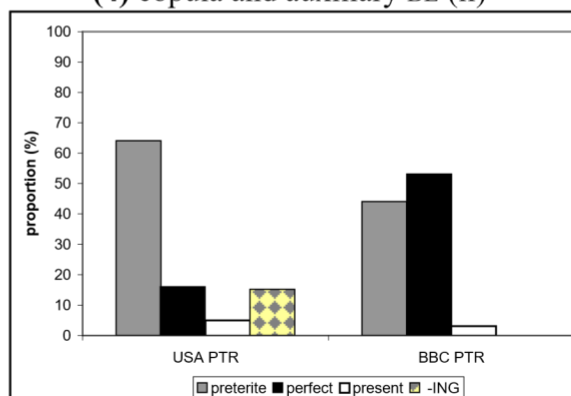
(3) copula and auxiliary BE (i)



(4) copula and auxiliary BE (ii)



(5) copula and auxiliary BE (iii)



(6) past-temporal reference verb forms

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## Gender and Age Effects on Turn-taking Behaviours in Israeli Sign Language

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In spoken conversations, conversational flows are maintained under the “one-at-a-time” principle (Sacks et al., 1974). Overlaps are rare and brief, as simultaneous speech can mask the interlocutor’s speech and obscure meaning (Edwards, 2024; Levinson, 2016; Sacks et al., 1974). However, sign languages are visual-gestural languages, which raises the question of whether signers have a higher acceptance of overlaps than speakers (Coates & Sutton-Spence, 2001). Social factors also dictate turn-taking behaviour in spoken languages with research finding that males tend to interrupt more than females in gender-mixed conversation (Atun, 2017; Krupnick, 1985; Smith-Lovin & Brody, 1989; Tannen, 1990). This study examines turntaking behaviour and the relationship with different social factors in a young sign language used in Israel, Israeli Sign Language (ISL).

By analyzing a corpus of thirty dyadic conversations and over 14,000 annotations, this study first reveals that ISL signers exhibit 19% overlap/turn ratio — substantially higher than speakers (4-8%). This higher rate suggests that signers accept and manage simultaneous input effectively and form what has been described as “collaborative” floors. Furthermore, this study found that the use of **competitive** overlaps (resulting in stopping the interlocutor) versus **cooperative** (supportive overlaps) were socially constrained - older signers produced more competitive overlaps, reflecting possible greater lexical diversity in this generation or the assertion of authority. Male signers produced more competitive overlaps in gender-mixed context, supporting the same gender effect found in spoken languages (Atun, 2017; Krupnick, 1985; Smith-Lovin & Brody, 1989; Tannen, 1990). The findings suggest that we should reconsider the “one-at-a-time” principle, showing the importance of the inclusion of sign languages in linguistic studies to inform sociolinguistic theory.

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## Introducing Northern English Pronunciations to the *Oxford English Dictionary*

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With the March 2025 quarterly *Oxford English Dictionary* (*OED*) update, we introduced Northern English IPA transcriptions and audio to the subset of *OED* entries labelled as either 'English Regional: Northern', or as from a smaller region within Northern England. This paper will provide an overview of our approach, and discusses the complexities, considerations, and public responses to the inclusion of regional pronunciations in the *OED*.

We chose to focus on Northern England for this work simply because the vast majority of the *OED* entries labelled as 'English regional' are from Northern England. Additionally, there is a large body of linguistic research on Northern Englishes on which to base our transcriptions, enabling us to develop a pronunciation model that adequately represents the variety without including features that are too distinctive to a specific area within the North. However, due to the significant differences between this more generalized Northern variety and the accents of the North-East of England, we also created a separate North-Eastern England pronunciation model for entries labelled as, e.g., 'Newcastle' or 'Durham'. Figure 1 shows an example of Northern and North-Eastern pronunciation, respectively, for the entries 'mardy' and 'howay'.

Providing Northern English pronunciations is a notable addition to our policy of giving British and US pronunciations as standard on all non-obsolete entries, and giving a World English pronunciation (such as New Zealand English, West African English, or Philippine English) where an entry is predominantly used or originates in a different part of the English-speaking world. Our World English pronunciations also cover countries and dependencies within the British Isles, with pronunciations given in Scottish, Welsh, Manx, and Irish English (with the latter model encompassing Ireland as a whole). However, the World English pronunciation models are all rooted in a distinct, standardized national or supra-regional variety of English. In comparison, the regional English pronunciations we give for Northern and NorthEastern entries are intended to reflect an *extension* of the British English model. Although this distinction may appear subtle, this approach acknowledges that many speakers in Northern England are already adequately represented by the British English pronunciation model. The Northern or North-Eastern pronunciations offer alternative, more localized examples, intended to more faithfully reflect the most commonly heard pronunciations of these words, and are potentially more useful and accurate for *OED* users.

In this paper, we discuss the above considerations in more detail, providing an overview of this new *OED* feature, the development of the pronunciation model, and how it fits with our wider editorial goals as pronunciation editors. In doing so, we explore the complexities of balancing increased representation of regional voices with the requirements of lexicographical practices. Finally, we discuss public responses to the introduction of Northern English pronunciations and the insights this can provide into the impact of providing a more diverse range of voices in dictionaries.





Figure 1: The *OED* pronunciation section of the entries 'mardy' and 'howay'

## mardy

NOUN & ADJECTIVE

Factsheet Etymology Meaning & use **Pronunciation** Frequency Compounds & derived words



BRITISH ENGLISH	BRITISH ENGLISH (NORTHERN ENGLAND)	U.S. ENGLISH
<b>/ˈmɑːdi/</b> 	<b>/ˈmɑːdi/</b>  <b>/ˈmaːdi/</b> 	<b>/ˈmɑrdi/</b> 
MAR-dee		MAR-dee

Pronunciation keys ▾

## howay

— INTERJECTION —

Factsheet Etymology Meaning & use **Pronunciation** Forms Frequency

BRITISH ENGLISH	BRITISH ENGLISH (NORTH-EASTERN ENGLAND)	U.S. ENGLISH
<b>/həˈweɪ/</b> 	<b>/həˈweː/</b> 	<b>/həˈweɪ/</b> 
huh-WAY		huh-WAY

Pronunciation keys ▾

## **Acoustic and perceptual measures of accommodation in interaction - Evidence from Danish**

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This study investigates phonetic accommodation in interaction, examining the relationship between acoustic and perceptual measures of linguistic convergence. Drawing on Pardo (2013), I argue that perceptual measures capture accommodation nuances not readily apparent in individual acoustic analyses and should be systematically employed alongside traditional acoustic metrics.

While extensive research into phonetic accommodation has been done on several languages, an overview by Pardo et al. (2017) points out that results of accommodation studies have been “subtle, variable, and inconsistent”. Most investigations predominantly focus on narrow acoustic features like vowel formants, revealing only marginal differences. This has prompted some to advocate for more holistic methodological approaches that extend beyond segmental analyses of single linguistic features.

This study presents a first look at phonetic accommodation in interactions between speakers of Danish, simultaneously contributing to broader theoretical understanding and providing empirical insights into accommodation processes within a less-studied linguistic context. By deploying multiple established acoustic and perceptual methods at both the segmental and word level, the study addresses existing methodological limitations while providing a foundation for further research.

The data for the analyses is sound recordings of controlled interactions between seven dyads as well as individual readings of word lists by all fourteen participants. The recordings were made in University Colleges in two regions of the Danish peninsula of Jutland. All participants are Teacher Education students in their early 20's and share a general regional language background with their partner, minimising any interference of dialectal difference. The study employs three methods of analysis: Linear mixed-effects modelling for measuring (difference in) distance between vowel formants (F1, F2), amplitude envelopes for comparisons of acoustic (dis)similarities at the word level (cf. Lewandowski & Jilka, 2019), and an AXB study for perceptual similarity judgments, also at the word level (cf. Babel & Bulatov, 2012).

The linear models reveal mixed results with indication of accommodation for some speakers, mainly in the F2 dimension. Comparisons of amplitude envelopes show no signs of accommodation, except for one dyad. The AXB results show that six speakers are judged as sounding more similar to their partner after interaction - and these six speakers also happen to be paired in dyads, indicating convergence.

Taken together, the findings indicate that the acoustic measures often employed in studying accommodation may not accurately reflect what listeners perceive, or, at best, should be viewed as a small part of the larger picture. While the convergence found in the acoustic analyses varied greatly across measures and dyads, perceptual measures showed consistent convergence effects in some dyads after interaction. This is important, because it shows that while many individual acoustic measures yield small or null effects, it does not necessarily point to a lack of accommodation. Perhaps what the perceptual measures reflect, is an agglomeration of a host of smaller acoustic cues that listeners use in their evaluation of phonetic likeness.

Key words: interaction, phonetic convergence, speech production, speech perception, methodology  
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## **Who's listening? How perceived listener characteristics affect speaking style variations in second-language speech**

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Social information can affect speech processing. Previous research has used photos to prompt expectations about the speaker's sociolinguistic background, which can affect how listeners categorise phonemes or transcribe speech in noise (McGowan, 2015).

Less well understood is how perceived social information influences speech production. In a recent study (Aoki & Zellou, 2023), native English speakers in the United States spoke more slowly when viewing an Asian face compared to when seeing a White Caucasian face, suggesting that they expect Asian-looking individuals to be non-native English speakers and adjust their speech to make themselves more intelligible. Of interest here is whether or not second-language (L2) English learners make similar assumptions based on the perceived social and linguistic characteristics of their interlocutor, and whether they vary speaking style in a similar way to native speakers as a result.

Twenty-four Chinese international students read sentences in a simulated video conference to two purported confederates—both native English speakers who differed in ethnicity (Asian vs. Caucasian). Participants first completed a visual-only block in which they recorded sentences whilst seeing the confederates' faces, similar to Aoki and Zellou's (2023) design. It was hypothesised that participants would infer interlocutors' language backgrounds based on their appearance with any differences in speaking style reflecting these assumptions. Participants then completed an audiovisual block, in which they heard confederates giving explicit information about their social and linguistic profile before reading a second block of sentences. This extended design tested whether explicit information would override participants' initial assumptions based on visual ethnicity. Finally, participants read sentences in casual and clear speaking styles following instructions.

Potential changes in speech were analysed and compared between confederate (Asian vs. Caucasian) and modality conditions (visual-only vs. audiovisual). Additionally, participants' speech directed toward the confederates was compared with their casual and clear speech elicited through instructions. Preliminary analyses show that, like native speakers, participants speak more slowly (number of syllables / duration) and loudly when instructed to speak clearly versus casually (Uchanski, 2005). Unlike native speakers (cf. Aoki & Zellou, 2023), perceived speaker ethnicity did not affect speech production: participants used a speaking style similar to their clear speech with both confederates, featuring comparable speaking rates and intensity. However, they demonstrated local adaptation to the Asian confederate, speaking faster after learning she was a native English speaker. Analysis of pitch range and vowel space is ongoing.

Together, these findings reveal that: (1) unlike Western participants, L2 speakers do not adopt a particular speaking style based on interlocutor ethnicity alone, suggesting they may not associate ethnicity with linguistic background in the same way; but (2) they still adjust speech based on perceived listener information, as evidenced by their local adjustment to explicit sociolinguistic information and their tendency to use clear speech with both confederates. These patterns indicate that while L2 English speakers utilise social information in speech interaction, they may prioritise explicit linguistic cues over visual ethnicity cues, reflecting their different sociocultural expectations.

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## **‘She dropped her nice reading voice and her real accent came out’: What are listeners attending to when they hear speakers?**

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This paper examines the ways in which listeners perceive, categorise, and discuss regional speech variants in Northern English accents. It highlights that listeners are perceptive and actively engage with linguistic features, with their descriptions shaped by their positionality in relation to what they hear. Examining listeners’ comments provides insights into how non-linguists navigate language, place, and identity.

The research employs the Salient Language in Context (SLIC) approach (Montgomery & Moore 2018; Montgomery, Walker & Woods In Preparation). This allows listeners to identify and comment on perceived regional features using a web-based interface that asks them to click a mouse button each time they encounter something they hear as ‘regional’ and subsequently to review each reaction and provide justification for it. Data were collected from 98 listeners (47 from Yorkshire and the Humber, 51 from the South East) recruited via Prolific. Listeners heard speakers from five Northern English cities (Leeds, Liverpool, Manchester, Newcastle, Sheffield) reading *The Boy Who Cried Wolf*, from the English Dialects App corpus (Leemann, Kolly & Britain 2018). Listeners completed the ‘click and comment’ task for each speaker, and were also asked to place the speaker’s origin from a list of the five cities.

Listeners employed various strategies to describe speech features, including explicit phonetic descriptions, general phonetic descriptions, metalinguistic commentary, phonetic respelling, and relational comparisons. Listeners from the two different locations used different strategies when commenting on features, and the number of comments for specific features was significantly different depending on listener location. For example, listeners from the South East listeners made significantly more comments for STRUT and the lenition of /k/ in Liverpool English, often using general descriptions and phonetic respelling. Yorkshire and the Humber listeners focused more on detailed phonetic and metalinguistic commentary.

The findings of this research contribute to our understanding of sociolinguistic processing and social meaning. They demonstrate that linguistic perception is not merely auditory but shaped by social and ideological factors, with listeners ascribing meanings to speech features that are influenced by regionality (cf. Montgomery & Moore 2018), identity, and expectations (e.g. Hay, Drager & Gibson 2018). Differences in listener strategies when justifying reactions highlights the role of region in metalinguistic awareness. For example, listeners from Yorkshire and the Humber engaged in more detailed phonetic analysis, while listeners from the South East listeners used broader, often stereotypical, descriptions, aligning with findings that outsiders to a linguistic community tend to rely on generalised perceptions (Beal 2009).

This research demonstrates that listeners actively engage in recognising and categorising regional speech features, as well as the way in which positionality shapes their feature attention and evaluations. This study enhances our understanding of how non-linguists perceive and discuss accent variation, contributing to broader discussions on language, identity, and sociolinguistic perception.

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## A tale of two mergers:

### Social perceptions of the SESEO and ROTACISMO mergers in Sevilla, Andalucía

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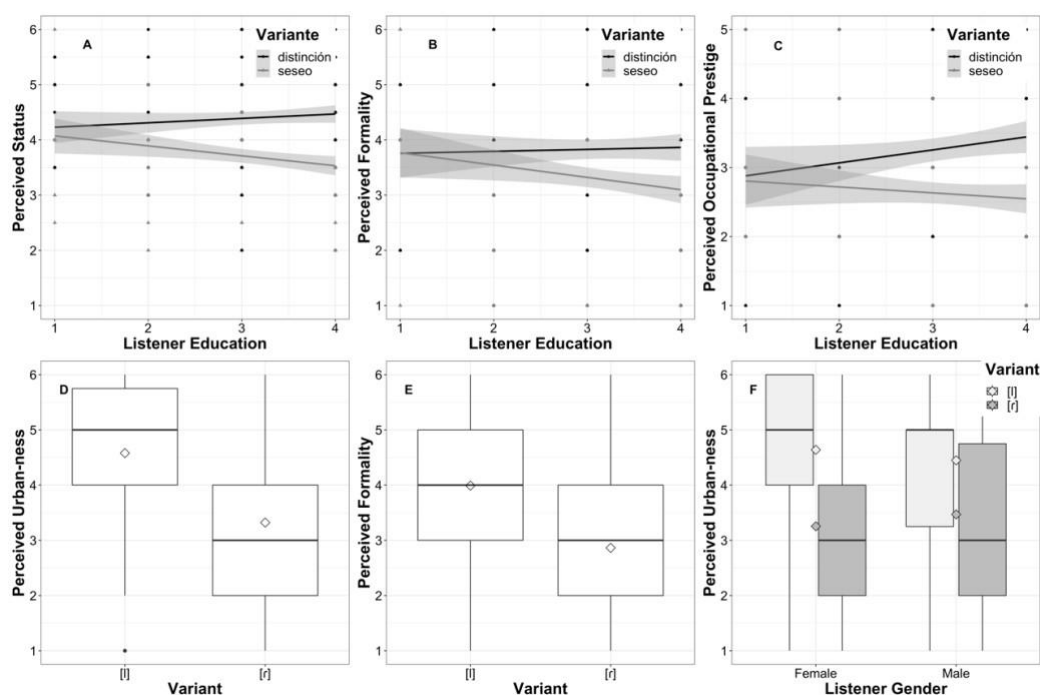
There is a growing body of literature indicating that some phonetic mergers have acquired social awareness/evaluations (Baranowski 2013; Hall-Lew 2013; Watson & Clark 2013), which some propose may promote their split (Maguire et al. 2013; Regan 2022). However, given the rarity of splits (Labov 1994; Eckert & Labov 2017), more evidence is needed to examine these claims. Andalusian Spanish in Sevilla, Spain is an ideal case study as it presents two splits-in-progress. Specifically, the SESEO merger is splitting into *distinción* among those with more education (Gyldafottir 2018; Santana 2016, 2016-2017) and the ROTACISMO merger is also undergoing a split (Harjus 2018). *Distinción* is the realization of alveolar /s/ for <s> and interdental /θ/ for <z,ci,ce>, while *seseo* is the merged realization of /s/ for <s,z,ci,ce>. *Rotacismo* is the merger of /l/ and /r/ in word-internal coda position in which *alma* is realized as [ˈar.ma] instead of [ˈal.ma], neutralizing minimal pairs *alma-arma* ‘soul-weapon’.

The aims of the study were two-fold: (i) to examine and compare the social evaluations of two mergers and their splits in Sevilla; (ii) to analyze how evaluations vary by speaker/listener characteristics. The study digitally spliced 8 utterances from sociolinguistic interviews from 8 Sevilla speakers (ages 23-40, *M*: 32.1, *SD*: 5.0) (16 total guises) in Praat (Boersma & Weenink 2020). 4 speakers (2 male, 2 female) produced the *seseo/distinción* guises varying only between [s] and [θ] for <s> and <z,ci,ce> while 4 additional speakers (2 male, 2 female) produced the *rotacismo* guises, varying only between [l] and [r] for word-internal coda /l/. The guises (and distractors) were placed online in a pseudo-random matched-guise test (Lambert et al. 1960) using Qualtrics. Participants evaluated each recording based on a six-point Likert scale for several social characteristics. 157 Sevilla listeners participated (108 females, 49 males; ages 18-69, *M*: 32.0, *SD*: 13.0). Independent variables included variant (*seseo-distinción*, [l]-[r]), speaker gender, listener gender, listener education, and listener age. In R (R Team 2022), for each dependent measure (sixpoint Likert scale), a separate mixed-effects linear regression model was fitted for each merger/split using the *lmer* function (Bates et al. 2015) with random factors of speaker and listener.

Regarding *seseo-distinción* guises, there were no overall perceptions (main effects) of variant, but rather varied by listener education in which those with less education perceived no difference between variants while those with more formal education perceived speakers with *distinción* as being of higher status, more formal, and of higher occupational prestige than those with the SESEO merger (Figures 1A-C). For the [l]-[r] guises, there were main effects of variant in which the ROTACISMO merger was perceived overall as more rural (Figure 1D) and less formal (Figure 1E).

Additionally, there were several interactions between variant and speaker and listener gender (Figure 1F). The implications are twofold: (1) two mergers within the same community may acquire social associations whose indexical fields (Eckert 2008) vary based on listener/speaker characteristics; (2) the differing social meanings for each merger sheds light onto their splits among certain social groups within the community.





**FIGURE 1:** Variant (*seseo/distinción*) interaction with listener education for perceived status (A), perceived formality (B), and perceived occupational prestige (C); Main effect for variant ([l]/[r]) for perceived urban-ness (D) and perceived formality (E); Interaction of variant ([l]/[r]) by listener gender for perceived urban-ness (F).

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## **Sociolinguistic Perspectives on Aspect Markers In Israeli Sign Language (ISL) and Triestine Sign Language (TSL)**

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*Abstract Link:* <https://youtu.be/OsWSW5MAFjY>

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## Covariation in the Tyneside English object pronoun system

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**Background.** Studies of interspeaker covariation typically find limited covariation between variables (Guy 2013, Waters and Tagliamonte 2017). Covariation may be socially motivated (Tamminga 2019), or structurally motivated (Oushiro and Guy 2015), although this latter case has been mainly explored at the phonological level. This paper explores whether covariation can arise because of morphosyntactic complementarity.

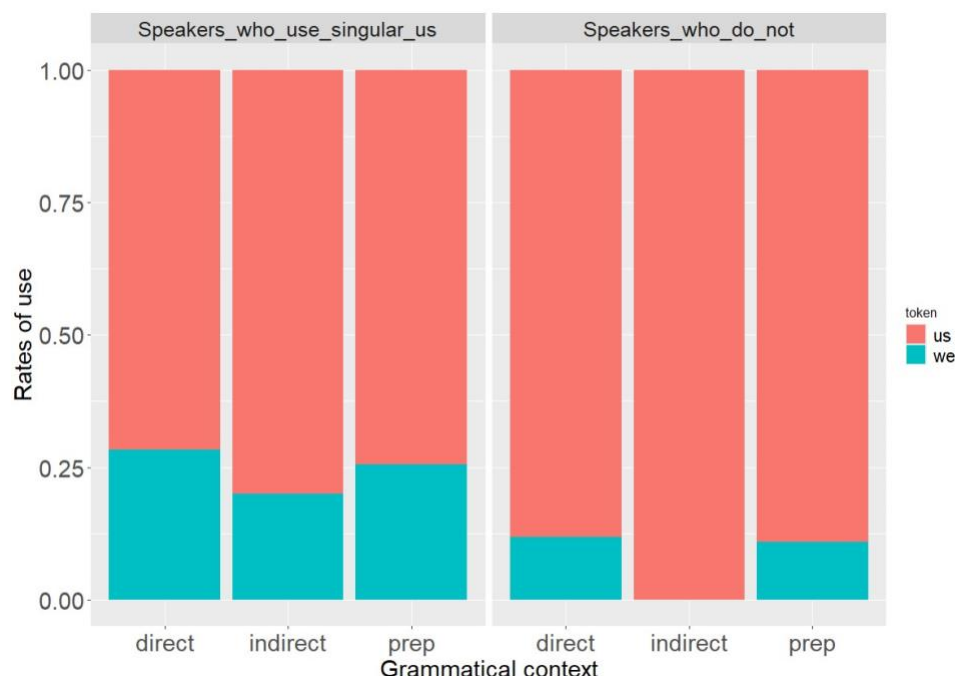
**Variables.** Tyneside English (TE) displays object pronoun exchange in the singular (1), common elsewhere (Kortmann and Szmrecsanyi 2004), and in the plural (2) (Beal 2004), a more localised phenomenon. Although *us<sub>pl</sub>* and *us<sub>sg</sub>* can differ phonetically, Lewis (2023) argues that *us<sub>sg</sub>* is numberneutral, potentially suggesting an underlying *us<sub>[±#]</sub>*. TE speakers can achieve a maximally distinctive system on syntactic grounds by specialising *us<sub>[±#]</sub>* as *us<sub>sg</sub>* and using *we*, its plural counterpart. We therefore expect *we* to be used in the same grammatical contexts (GC) as *us<sub>sg</sub>* by the same speakers who use *us<sub>sg</sub>*.

**Methods.** Data comes from the Diachronic Electronic Corpus of TE (Corrigan *et al.* 2012), a corpus of 160 sociolinguistic interviews from three subcorpora collected in different decades (1970s, 1990s, 2000s). Using AntConc (Anthony 2006), all occurrences of *me* (n=1234), *us<sub>sg</sub>* (n=456), *we* (n=139), and *us<sub>pl</sub>* (n=512) were retrieved. Tokens were coded for GC (direct or indirect object (IO), object of preposition), normalised frequency of the governing verb or preposition, and, for *we/us<sub>pl</sub>*, overtness of quantification. Mixed-effects logistic regression models were used to determine which factors condition the *me/us<sub>sg</sub>* and *us<sub>pl</sub>/we* alternations. Independent variables included speakers' social class, education, gender, birthyear, subcorpus of interview, whether they use the other nonstandard variant, and linguistic factors. Interspeaker covariation between *we* and *us<sub>sg</sub>* was also estimated independently by calculating the correlation (Pearson's *r*) between by-speaker intercepts capturing speaker-level variance not explained by the models' fixed effects.

**Results.** *We*, declining in real time, is disfavoured in IO GC, more likely than *us<sub>pl</sub>* to be overtly quantified, and used mainly by non-university-educated speakers. *Us<sub>sg</sub>* is favoured in IO position, most often governed by low frequency verbs and prepositions, disfavoured in imperative sentences (contrary to Snell's 2007 results in Teesside), and socially stratified, most frequently used by working-class speakers. Users of *we* are more likely to use *us<sub>sg</sub>*, and inversely. Nonstandard variants are also moderately correlated (*r*=0.39), a correlation that is higher among women (*r*=0.55) than among men (*r*=0.09) and rises slightly over time (*r*=0.47 in the 2000s, up from none previously).

**Discussion.** Although *we* and *us<sub>sg</sub>* are interrelated, they do not display the symmetrical linguistic behaviour suggesting a structural cause for covariation. Note however that IO *we* only emerges among users of *us<sub>sg</sub>* (3), possibly indicating an implicational relationship between the IO GC of *we* and *us<sub>sg</sub>*, although low numbers call for interpretative caution. Additionally, covariation increases over time as *we* declines, suggesting a social rather than linguistic motivation for covariation: only the most dialectal speakers, who use *us<sub>sg</sub>*, retain *we*. Sociostylistic factors, including stigmatisation of *we* and similar social stratifications, seem to prevail over the structural coherence of the system.

- (1) (a) I'm so interesting they've got to talk about **us<sub>sg</sub>**.  
 (b) People have made fun of **me** or had assumptions about **me** before because of that.
- (2) (a) When she's around **we**, you wouldn't think there was – that there was an issue.  
 (b) We'll just pass it around **us<sub>pl</sub>** all.



(3)

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# **The effect of linguistic and social factors on handshape choice in classifier verbs in Nepali Sign Language (NSL)**

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Keywords: Nepali Sign Language (NSL), classifier verbs, sociolinguistic variation, handshape

## **Abstract:**

In sign languages, classifier verbs are morphosyntactically complex elements that express motion events, spatial relations, and object handling (Supalla, 1982; Zwitserlood, 2012). Classifier handshape morphemes can represent referents in narratives. One subtype is the whole-entity classifier (WECL) which represents entire referents, such as humans, animals, and objects, in motion events. This study examines linguistic and social factors influencing the choice of two specific handshapes (1-hs, 2-hs) in WECL for animate referents in Nepali Sign Language (NSL), the sign language of the deaf Nepali community that emerged with the establishment of deaf education in Kathmandu in 1966 (Acharya, 1997).

We elicited retellings of the Canary Row cartoon from 12 deaf NSL signers (6 aged between 18-40 years, 6 aged 40 and above). Focusing on two specific handshapes, namely 1hs and 2-hs, we analysed 467 instances of WECL in events with an animate human(-like) referent from the dataset. Using both quantitative and qualitative analyses, our findings reveal that 1) linguistic but not social factors significantly influence handshape choice, and 2) that age differences may be associated with different use of handshapes. First, statistical analyses using logistic regression models shows that the linguistic factors manner vs. path, controlled vs. uncontrolled actions, and the presence of an animate vs. inanimate second hand significantly affect handshape choice. The 1-hs is preferred in path-only movements and controlled actions, especially when the second hand represents an animate referent. The 2hs is more common in uncontrolled actions and static locations, while 2m-hs (moving finger with 2-hs) and 2b-hs (bent two fingers) are typically associated with controlled actions. However, discourse status does not significantly influence these handshape selections. The examined social factors (age and gender) had no significant impact on handshape choice in the data. Second, age appears to cause signers to use different patterns: older signers display greater range of variation in handshape. We also note from observation of the data that one of the older signers never uses WECL constructions for falling events, representing this through whole body enactment instead.

This study advances our understanding of handshape choice in classifier verbs through analysing an under-documented Asian sign language. Our findings reveal some aspects of shared use of WECL across different sign languages, specifically that the 1-hs and the 2-hs are used for animate referents in NSL as well as many other sign languages. Additionally, the social factors age and gender are in contrast to linguistic factors in having no clear affect on shaping these WECL handshapes in NSL.

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# **Reframing Depression through Sociolinguistics: Pause Duration and Social Meaning in Singaporean Women's Speech**

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Research on acoustic cues for detecting clinical depression has argued that pause duration is one of the most reliable cues (Szabadi et al. 1976; Greden et al. 1980, 1981, 1982; Hardy et al. 1984; Hofmann et al. 1985; Nilsonne, et al. 1987; Nilsonne 1988; Ellgring & Scherer 1996; Stassen, et al. 1998; Alpert et al. 2001). This literature also argues for vowel duration as a cue (Ellgring & Scherer 1996), although the results are less consistent (Godfrey and Knight 1984; Alpert et al. 2001). This research presumes that the reason for these correlations is biomechanical: clinical depression causes a decrease in psychomotor agility and speed, and therefore speech rate (e.g., Cummins, et al. 2015). However, sociophonetics and interactional sociolinguistics have shown that pause and vowel length are semiotic resources for indexing social meaning. Pause duration is a cue to gender and regional differences in US English (Kendall 2013; Clopper and Smiljanic 2015), and vowel duration often cues dialect differences in UK English, such as the Scottish Vowel Length Rule (Rathcke & Stuart-Smith 2015).

We argue that sociolinguistics can help explain the patterns for pause and vowel duration seen in the literature on clinical depression (Hall-Lew 2024). More broadly, we argue that a social model of disability can explain more than the medical model of disability (Bailey & Mobley 2019). Our analysis draws on sociolinguistic interviews from nine Singaporean women in their 20s, interviewed in the UK in 2024. Based on the Beck Depression Inventory (Beck, et al., 1961, 1988) their scores range from no depression (0) to possible clinical depression (20).

We operationalize 'pause' duration as the time between the end of one stressed vowel and the start of the following stressed vowel, based on values extracted automatically by FAVE (Rosenfelder et al. 2011); durations less than 50ms or longer than 2000ms were omitted and the remaining tokens converted to a log scale. Vowel duration was also extracted by FAVE and then converted to a log scale. Both variables were modeled with 'style' (interview, reading) and 'vowel' as fixed effects; 'speaker' and 'word' as random effects.

The best fit mixed-effect linear regression model for vowel duration finds significant effects for vowel and style, but not Beck score. The best fit model for pause duration finds a significant effect of Beck score, and a marginal effect of style, and no statistical interaction. While longer durations unsurprisingly characterise read speech, the effect of Beck score is actually opposite what is found in the clinical literature: the higher the depression score, the shorter the pause duration. This finding is surprising from the perspective that depression effects on speech are biomechanical, but it is less surprising if pause duration is understood as a semiotic resource for indexing social meaning. We argue that the speakers in this sample have been raised with a cultural stigma in Singapore against mental illness (Tan, et al. 2020). For those with depression,

the result may be the masking of mental illness cues that one would otherwise expect from a clinical perspective.

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# Prosodic and Social Conditioning of Non-modal Voice Quality in Shanghai Wu Chinese

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This study investigates the generational shift in non-modal voice quality (NVQ) usage in Shanghai Wu Chinese (SW), focusing on how age- and gender-related variations interact with phonological and prosodic environments. Contrary to the assumption that NVQ change is a uniform progression—from breathier to creakier phonation—driven by Standard Mandarin Chinese influence, this analysis reveals a more complex landscape shaped by both linguistic structure and social factors.

Traditionally, SW low tones are produced with breathy voice. Recent studies indicate that younger female speakers exhibit a shift toward creaky voice in these contexts (Tian & Kuang, 2021). The phenomenon is observed across Wu-speaking areas and is often attributed to increased contact with Mandarin and bilingualism, where creakiness is associated with the lowest pitch range (Ge et al., 2023). However, this assumption has not fully addressed the phonetic and prosodic conditioning of NVQ in SW. In continuous speech, phonologically driven NVQ often interacts with prosodic factors, such as intonational pitch variation (Gao & Kuang, 2022). This study investigates how NVQ is realised in different pitch contexts and how these patterns vary across speakers.

Unlike previous research that relied on controlled speech stimuli, this study collected seminaturalistic speech by having participants describe a recipe, closely mirroring everyday language use. NVQ instances were annotated based on the SW phonological hierarchy (Roberts, 2020) and the auditory-perceptual features of NVQ types. Recordings from 14 speakers of diverse demographic backgrounds are under examination (ongoing work). Creakiness was detected using the COVAREP framework (Degottex et al., 2014) with manual corrections applied as needed, while breathiness was annotated perceptually based on acoustic noise and spectral cues of weakened formant structure and glottal pulses.

The preliminary findings suggest that NVQ realisation is strongly conditioned by prosodic pitch contexts, with notable divergences among age and gender groups. Younger female speakers predominantly exhibit creakiness at lower pitch ranges (Figure 1). Young male speakers generally maintain a monotonic intonation with modal voice. Older female speakers use breathy voice in low-tone contexts (Figure 2) and may employ a breathy-creaky voice at the lower end of their pitch range (Figure 3). Older male speakers demonstrate a similar breathiness profile as older females, but with distinct spectral-temporal characteristics (Figure 4). Interestingly, two younger speakers with suburban backgrounds, who reported learning SW from their grandfather, exhibited spectral dynamics like older male speakers, suggesting possible intergenerational transmission of NVQ patterns that transcend typical age or genderbased shifts.

These results indicate that both creaky and breathy voice serve as generational markers in SW, operating through independent mechanisms. In low-pitch contexts, younger female speakers tend to utilise creakiness, whereas older females do not consistently do so. While the retention of transphonologised breathy voice functions as a generational marker, its time-dynamics may also be predicted by gender. Additionally, suburban SW speakers may be more conservative in utilising breathy voice. Overall, the generational shift in NVQ use in SW is not a straightforward linear progression but rather a complex interplay of phonological, prosodic, and social factors.

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## Figures:

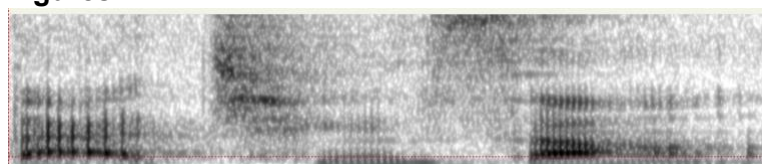


Figure 1: Spectrogram of the SW compound /ta³ tɕʰiŋ¹saŋ²/, wash it thoroughly (verbatim “wash clean”), produced by young female speaker UFf2. The rhyme of /ta³/ labelled “creaky”. The superscript number (e.g., ta³) indicates the **citation tone** of the syllable, representing its lexical tone before tone sandhi applies. Tone sandhi alternations affect surface realization are not marked in this representation.

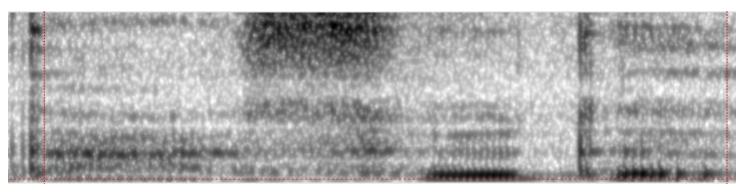


Figure 2: Spectrogram of the SW compound /ta³sə²tɕ³/, garlic (verbatim “big garlic head”), produced by older female speaker USf1, labelled “breathy”. The breathiness is steady throughout the rhyme of /ta³/.

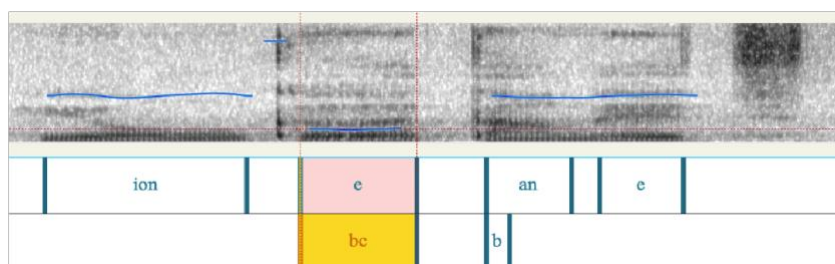


Figure 3: Spectrogram of the compound /ioŋ³ ke⁵ taŋ²te³tɕʰi²/, with this egg-whisk (verbatim “use this eggwhisk”) with transcription in shorthand, produced by USf1. The rhyme of /ke⁵/ labelled “breathy-creaky”.

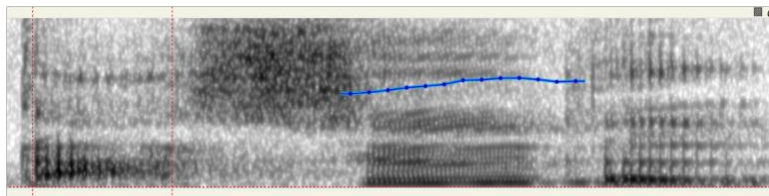


Figure 4: Spectrogram of the SW compound /ta³sø²tᵣ³/, garlic (verbatim “big garlic head”), produced by older speaker USm1, labelled “breathy”. Breathiness increased during the rhyme of /ta³/.

## **Cantonese Speakers accommodate to AI and Human speakers differently**

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Current theories of sound change are mainly developed based on human language input. It is unclear how well these theories can predict sound change in this era, where AI voice and speech also contribute to the input that might trigger changes. Phonetic accommodation is a good angle to study the spread of sound change [1]. The current study explores whether interactions with AI voice could induce phonetic accommodation related to sound change and how this would differ from interactions with humans. Both segmental features [2] and suprasegmental features [3] of Cantonese sound change were selected for investigation: [n]-[l] merger; initial [ŋ] deletion; [l] hypercorrection; syllabic [ŋ]-[m] merger; [n]-[ŋ] coda merger; palatalisation of [s]; [kʷ]-[k] merging; tone merger. Each feature is represented by four monosyllabic words. Based on the literature, the less frequent variants of the features were identified (e.g., 70% of speakers would use [l] for the [n]-[l] merger, [n] was then chosen as the stimuli produced by the model speaker in the experiment). A phonetically trained native Cantonese speaker recorded the stimuli. In the human condition, a human image or video was presented with the audio recordings. In the avatar condition, an avatar image or video was presented with high-quality synthetic voice generated from human recordings. The voice retained naturalness while exhibiting synthetic characteristics.

Thirteen native Cantonese-speaking university students (6F, 7M) participated in the experiment. The shadowing paradigm [4] was used. Participants took both human and avatar conditions and were randomly assigned to either video or image presentation cues. Speakers' baseline production was collected before shadowing. In the shadowing blocks, they were presented with the words and model speaker's audio-visual recordings. They were instructed to produce the words following the model speaker.

Two native Cantonese raters assessed the variants produced by the participants. Tokens where baseline productions differed from the model's variant were filtered as investigation targets, accounting for 80.1% of the data. A shadowed token was classified as 'convergence' if it matched the model's variant and as 'maintenance' if it remained the same as the baseline. Generative linear effect model showed significant effect of model (human vs. avatar) ( $z = 2.544, p = 0.01^*$ ) and gender ( $z = -2.445, p = 0.01^*$ ). Figure 1 shows higher convergence in the human condition than the avatar condition, indicating participants converged more when shadowing a human model. Females converged more than males. The significant effects supports mediated accounts of alignment (e.g., Audience Design [5]), where individuals adjust strategies to accommodate different interlocutors. The observed gender difference aligns with previous literature, which suggests that females are more likely to accommodate [6] and play a more prominent role in spreading sound change [7]. This finding highlights the link between sound change leaders and phonetic accommodators.

The percentage of convergence across different features was explored (Figure 2). The data show various degree of convergence among the features which may be related to how advanced that feature is in the sound change process. Further investigation is underway.

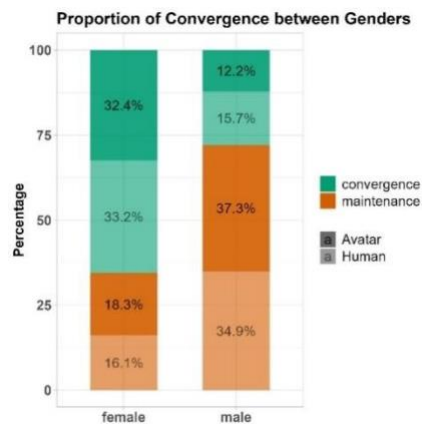


Figure 1. Proportion of Phonetic Convergence between females and males

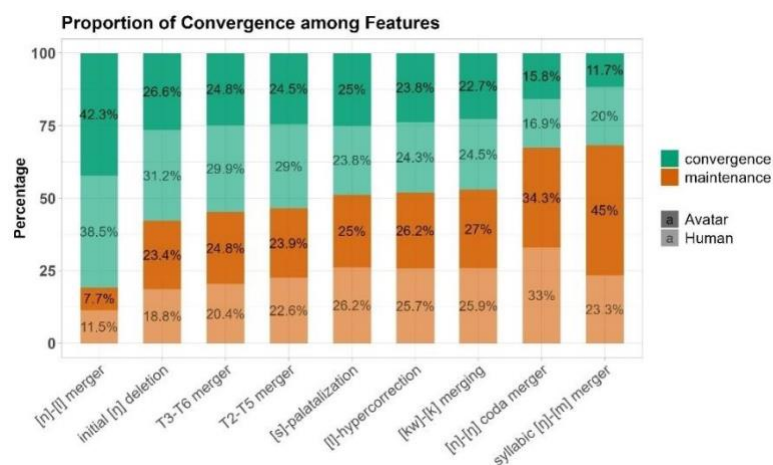


Figure 2. Proportion of Phonetic Convergence among Features

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## **Learning variation in a second language: Effects of listener experience and attention control on regional accent processing**

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When speakers move to a new region, they typically modify their speech to facilitate communication or to better fit in with their community. The majority of this evidence comes from monolingual English speakers (e.g., Evans & Iverson, 2007). However, recent studies have also found that with experience, second language (L2) learners become more aware of regional accent features (e.g., Ringer-Hilfinger, 2012). However, it remains unclear whether increased awareness facilitates comprehension. This study investigates native Mandarin speakers' awareness and comprehension of English regional accents and whether this is affected by experiential and cognitive factors, in particular length of residency (LoR) and attention control.

Native Mandarin listeners living in Lancaster, aged 18 to 40 years old, with a range of LoRs, completed a battery of tasks; a sentence transcription task, an accent recognition task, and tests of attention control (Stroop Squared, Flanker Squared, and Simon Squared). All participants were upper intermediate/advanced learners of English (verified using the Oxford Quick Placement Test) and all testing was carried out remotely via Gorilla (gorilla.sc: Anwyl-Irvine, Massonnié, Flitton, Kirkham & Evershed, 2018). In the sentence transcription task, participants transcribed 144 sentences at three signal-to-noise ratios (+3 dB, 0 dB, -3 dB) and in quiet produced by 12 native English speakers in three accents (two male and two female speakers per accent): Standard Southern British English (SSBE, the standard variety participants learned back home), General Northern English (GNE, a levelled north of England variety containing fewer local features likely to be used in the university community) and Lancashire (LAN, the local regional variety). Sentences were selected from the Non-Native Speech Recognition (NNSR) sentences (Stringer & Iverson, 2020) to contain a range of regional accent features.

In the accent recognition task, participants listened to a short passage produced by the same speakers. They stated whether they thought the speaker was from Lancaster, the north or the south of England, and specified which features led to their choice (Tomé Lourido & Evans, 2021).

Recruitment is ongoing. Based on previous research, we expect that in the sentence transcription task, transcription accuracy will decrease as the noise level increases but that those with a longer LoR (i.e., more experience of living in the UK) will perform better overall. We expect all participants to perform better with SSBE than GNE and LAN (cf. Pinet et al., 2015), but that those with more experience of living in Lancaster will perform better with regional accented speech. Likewise, we expect that these participants will perform better on the accent recognition task and be better at identifying key phonetic variables. Of interest, is whether or not greater awareness facilitates comprehension and whether this is affected by performance on the attention control tasks, i.e., whether those who have higher attention control are better at noticing, encoding and processing variation regardless of their experience (cf. Barnard et al., under review)

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# **Changes and Constraints in Intonational Phrase Formation in Japanese: An Analysis of Spontaneous Speech from Tokyo Japanese Speakers**

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This paper examines prosodic changes currently underway in the Japanese language by analyzing spontaneous speech data from Tokyo Japanese speakers, with the aim of highlighting age-related prosodic differences across Japanese dialects.

Following Sibata's (1995) observation that younger Tokyo speakers may be undergoing pitch flattening, Takano & Ota (2017) investigated whether this phenomenon was localized to Tokyo or part of a nationwide linguistic change. They collected and analyzed spontaneous speech data using an improvised six-panel comic description task in Sapporo and Kagoshima. Their findings indicated that (1) regardless of dialectal differences, younger speakers exhibited a flatter pitch and a consistently steeper declination across entire sentences, and (2) age-related differences were also observed in accentual phrase (AP) formation, which was closely related to the flattening of sentence pitch.

We analyzed speech data from Tokyo Japanese speakers, which was not included in Takano & Ota (2017), to determine whether these results reflect a nationwide phenomenon and to explore the underlying constraints of this change. The data comprises spontaneous speech from 20 Tokyo Japanese speakers (five young men, five young women, five elderly men, and five elderly women) using the same task as Takano & Ota (2017). Instead of relying on categorical distinctions of AP merger (i.e., "dephrasing," Jeon 2017; Takano & Ota 2017), we examined fluctuations in AP boundaries corresponding to pitch rises and falls as a continuous variable, termed "pitch valley." The depth of the pitch valley at the boundary between two consecutive APs was set as the dependent variable. As explanatory variables, we included the pitch accent type combinations within compound APs (e.g., accented + accented, etc.), mora length, speech rate, speaker generation (20s, 50s+), and gender. A linear mixed-effects model was used for analysis.

The findings revealed that (1) the pitch valley at AP boundaries was shallower (closer to dephrasing) in the order of "unaccented + accented" > "unaccented + unaccented" and deeper in the order of "accented + unaccented" > "accented + accented"; (2) longer compound APs resulted in deeper valleys; (3) younger speakers exhibited shallower valleys than older speakers; (4) male speakers exhibited shallower valleys than female speakers; and (5) speech rate had no effect on the depth of the pitch valley. Findings (1), (2), and (3) closely align with Jeon (2017), but findings (4) and (5) do not support Jeon (2017).

Regarding (5), Jeon (2017) argues that younger speakers' higher speech rates contribute to their higher rates of dephrasing (i.e., the shallowness of pitch valleys). However, our data did not indicate a correlation between speech rate and age. Instead, age alone influenced the depth of pitch valleys, suggesting an ongoing linguistic change. If flatter intonation is not due to speech rate, future research should investigate the factors contributing to this development. Potential areas of exploration include speech style (Umeda 1982; Ladd 1996; Koori 2007),

gender-linked social meanings of flatter intonation, and speakers' communication networks.  
(477 words)

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## **That was real(ly) kind of you. – On the variation of the adjective intensifiers real and really in British and American English**

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While intensifiers in general have received ample attention in the past couple of decades (see, for instance, the studies by Tagliamonte 2008, and Tagliamonte and colleagues 2002, 2003, 2005, or by Aijmer 2018a,b, 2020, and Stenström 1999, 2000), the contrast between really and the zero form real as intensifiers is typically mentioned in passing only (see Opdahl 2000 on variation on other dual-form adverbs). What we know so far extends basically to two aspects: first, across different L1 varieties, the intensifier real tends to be associated with male speech (Tagliamonte & Ito 2002; Yaguchi et al. 2010; D'Arcy 2015) and/or teenage speech (Stenström et al. 2002; Aijmer 2018a), and second, real is perceived to be of lower formality compared to really (Tagliamonte & Ito 2002; Aijmer 2018a).

The present study explores the use of intensifying real and really in present-day spoken British English, focusing on linguistic factors (e.g., syntactic position, collocational patterns, syllable structure of modified item) as well as speaker-related variables (age and gender). It considers their use with adjectives in attributive (1) and predicative position (2).

- (1) You're right. I guess we do have a really big problem. (DAYS 2009)
- (2) She seems real upset, being stood up like that. (DAYS 2003)

The analysis draws on three samples consisting of 250 occ. each for real ADJ and really ADJ, which were extracted from the BNC1994 Spoken DS (135 tokens for real ADJ) and the Spoken BNC2014. The findings will be contrasted with those from ANON (2023) to see which patterns apply to both BrE and AmE.

In the American data (Corpus of American Soap Operas<sup>2</sup>, 2001-2012, 100m words), male characters showed by far the highest usage of real (no age effect,  $N_{\text{sample}}=250$ ), while younger female characters produced the highest number of tokens for the intensifier really ( $N_{\text{sample}}=250$ ). Still, for both genders the frequency of use for really ADJ increased from 2001—2012, while real ADJ experienced a notable decline in frequency of use.

Interestingly, really was frequently repeated (e.g., I'm just ... really, really sad. – DAYS 2011), whereas in utterances with real, it was often the adjective that was copied (She's a nice girl. Real nice. – DAYS 2006;  $p<0.001^{***}$ ). Both strategies serve to make the utterance more expressive. Monosyllabic adjectives were more frequent in attributive than in predicate position (see also Rohdenburg & Schlüter 2009), and really ADJ occurred significantly more frequently in predicative position than real ADJ ( $p<0.001^{***}$ ). This use has been associated with sounding affective and listener-oriented (Yaguchi et al. 2010).

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<sup>2</sup> The data for British and American English are not identical in nature but should still allow for a comparison since the soap opera data is intended to mirror intensifier usage as observed in the real world (cf. Roberts & Tagliamonte 2005).

Real and really thus appear to not only pattern differently in the data but to also perform different functions and this paper will show whether the same trends apply to British English.

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## The effect of chronological age and social class on speech production

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Decades of variationist sociolinguistic research has indicated the fundamental role of social class for explaining variation within speech communities (Baranowski, 2017; Labov, 1966; Moore, 2010). Traditional variationist designs consist of comparing different social class groups at different ages in order to track changes across a community (e.g. Stuart-Smith et al., 2007; Trudgill, 1974). Additionally, research demonstrates that increasing chronological age can lead to distinct changes in the voice such as changes in  $f_0$  and decreases in  $F_1$  and  $F_2$  (Harrington et al., 2007; Hejn'á & Jespersen, 2021, 2022; Reubold et al., 2010). Social class itself has been linked to anatomical changes in the body, for example lung function (Alzayed, 2024; Hegewald & Crapo, 2007), which can emerge due to health inequalities both in regards to access to healthcare and differences in life-style (Bann et al., 2018; Huang et al., 2025; Kaplan, 1996). I hypothesise therefore that these class differences might lead to differing rates and patterns of changes in the voice as people age.

However, few voice and class studies have directly considered participants of different ages within their design. Asymmetric changes in voice across social classes could have profound implications for variationist understanding of change across the lifespan and the apparent time construct (Bailey et al., 1991; Wagner, 2012). Given this, how does age interact with social class across the lifespan?

In this study, I observe the relationship between chronological age and social class, to understand how this may impact on the voice. 144 participants were recruited from Lancaster and Morecambe, North-West of England and were split into two age-groups: 1) 84 speakers aged 16-35 years ( $M=18.29$ ,  $SD=3.98$ ); and 2), 60 speakers aged 65+ years ( $M=74.52$ ,  $SD=7.39$ ). Participants completed several representative biological tasks including a digit span, DDK and trail making task (Chan & Elliott, 2011; Dawson, 2020; Lu & Bigler, 2002), a questionnaire, and a word list from which  $f_0$ ,  $F_1$  and  $F_2$  were extracted from vowels undergoing change or remaining stable within the community: /i:/, /a/, /A:/ and /u:/. This produced 24 tokens per speaker for analysis, 3,456 tokens in total. Participants were then coded for social class using combined measures of birthplace, education, and for older speakers occupation (Baranowski & Turton, 2018; Bernstein, 2003; Lindberg et al., 2022). In total there were: 63 working-class participants (34 younger, and 29 older), 63 lower-middle class participants (43 younger, and 20 older), and 18 upper-middle class participants (7 younger, and 11 older).

Preliminary results indicate that  $f_0$  and  $F_1$  change with chronological age in line with previous research (Harrington et al., 2007). With a lower  $f_0$  and  $F_1$  in female speakers with age and a stable  $f_0$ , and lower  $F_1$  in male speakers with age. In terms of class however, we see little difference in  $f_0$  measurements between working class, lower-middle class, and upper-middle class speakers. Additionally, we observe little difference in  $F_1$  between the groups, apart from lower-middle class males who appear to have a lower  $F_1$  with age than other groups. Analysis is still ongoing however, I intend to use principal component analysis and linear mixed effect models to analyse the interaction between age with both social and biological factors which can influence on speech production (Hejn'á & Jespersen, 2021, 2022; Pichler et al., 2018). I highlight the importance of continued ageing research in variationist spaces to ensure we understand the multi-dimensional ageing process in relation to social changes (Bowie, 2023; Pichler, 2023; Pichler et al., 2018).

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## **Sociophonetic variation in Mandarin vowels and its effect on L2 English vowel production**

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Research in second language (L2) acquisition has established the importance of L1 phonology on L2 speech production and perception (e.g. Flege & Bohn 2021). Some recent studies have examined the effect of L1 accent / dialect on L2 pronunciation (e.g. Marinescu 2012; Simon et al. 2015), but the evidence base is small, especially for contexts where the L1 and L2 belong to different language families (Aksu 2022, 2023). One such context is the effect of different accents of L1 Mandarin on L2 English.

L1 Mandarin speakers are one of the largest groups of L2 English learners. Although a number of studies have investigated L1 Mandarin speakers' production and perception of English (e.g. Chen et al. 2001; He & van Heuven 2010), and there is a rich dialectological tradition comparing the phonologies of Chinese language families and dialects (Yan 2006), to the best of our knowledge, no work has considered how variation in Mandarin itself affects English learning.

This is likely because there is limited understanding of sociophonetic variation in Mandarin (Zhang et al. 2024). Ran (2017) found differences in closure duration between native and nonnative Beijingers' plosive production, but to date, there has been no research on vocalic variation in accents of Mandarin. In contrast, English vowels are extremely well-studied and exhibit extensive sociophonetic variation (e.g. Cox & Docherty 2024). Acoustic analyses of L2 English vowels by L1 Mandarin speakers are few and rarely take a sociophonetic perspective (see Wang et al. 2025 for a review).

The aims of this project are twofold: (i) to examine sociophonetic variation in vowels between different accents of Mandarin and (ii) to investigate whether any accent differences in Mandarin vowel production affect speakers' acquisition of L2 English vowels.

L1 Mandarin-speaking participants from various regions of China were recruited from the Chinese student population at universities in London. They were recorded in laboratory conditions reading a word list and short story (The Boy who Cried Wolf; Deterding 2006) in both Mandarin and English. Both word lists comprise three repetitions of monophthongs and diphthongs in consistent phonological environments covering the whole vowel space, and the Mandarin stimuli were produced in two tonal contexts. Data collection is currently in progress, with recordings already obtained from 44 speakers.

The data will be force-aligned with WebMAUS (Kisler et al. 2017) and formant frequencies will be extracted using FastTrack (Barreda 2021) before being subjected to Bark normalisation. Linear mixed-effects models will be fitted to formant values from the acoustic mid-point (for monophthongs) and 20% and 80% duration values (for diphthongs) to examine the effect of social factors such as gender, age and geographical region on participants' vowel realisations in both languages, alongside factors such as age of English acquisition on their English vowel production.

Our findings will offer the first empirical description of sociophonetic variation in Mandarin vowels, as well as contributing to the literature on the impact of L1 dialect on L2 speech production (Marinescu 2012; Simon et al. 2015; Aksu 2022, 2023).

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## ***You've never seen nowt like it: Nano-parametric Variation in Negative Concord in Northern British Dialects of English***

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The use of two morphologically negative elements to express a single semantically negative meaning has long been lauded as a violation of logic; two negatives *logically* equal a positive, thus “*I didn't do nothing*” should mean “*I did something*.” As such, these constructions—termed ‘Negative Concord’ (NC)—have been prescriptively banned in English for much of its modern history. Nevertheless, an overwhelming number of studies have demonstrated the significant and productive use of NC across a wide range of non-standard Englishes (see Anderwald (2002, 2005) and Tottie (1991) as comprehensive examples).

Yet, despite the pervasiveness of NC in vernacular Englishes, various sources (e.g., Cheshire, Edwards, and Whittle (1993), Anderwald (2002, 2005), Beal and Corrigan (2005)) have claimed that rates of NC are far lower in the North of England. As a result, systematic study of Northern English NC has remained considerably limited. The present research aims to demonstrate that, despite reduced frequency, Northern British English exhibits clear, systematic patterns in the use of NC – patterns which appear only when one considers lexical differences between dialects to be more than just lexical.

Semantically equivalent to ‘*nothing*,’ ‘*nowt*’ is a pan-northern dialect term. Due to this semantic equivalence, previous research has collapsed these two items into a single variable, distinct only in pronunciation. However, corpus analysis reveals that by separating the two words into distinct variables, the frequency of NC using ‘*nowt*’ (41.5% of viable contexts) is significantly higher than the frequency for ‘*nothing*’ (13.9% of viable contexts). Supplementary fieldwork with native Northern English speakers reveals a strong dis-preference for the use of ‘*nowt*’ without an additional verbal negator, rendering “*I did nowt*” considerably less acceptable than “*I didn't do nowt*” despite prescriptive pressure in favour of the former. Taken together, these results suggest that the reduction of lexical differences to phonology alone has masked systematic differences in NC, with low rates of NC with standard English nominals (e.g., ‘*nothing*’) obscuring the high rates exhibited by non-standard ones (e.g., ‘*nowt*’).

These results are concordant with a novel micro-parametric account of NC, viewing syntactic behaviour as being heavily conditioned by individual lexical items, as argued by De prez (2011) for French. Following De prez, NC is seen to result from lexically specified properties of negative nominals which need not be homogenous across the category nor the language. As a result, both inter- and intra-speaker variability in negation are a natural consequence of negative words having differential specifications. Lower rates of NC in Northern English seemingly stem from only one negative lexical entry—*nowt*—being specified to require additional verbal negation. Nonetheless, Northern dialects demonstrate complex, systematic patterns of NC within their grammar that cannot be explained as mere optionality or anomaly. Building on this, it is argued that greater attention must be afforded to Northern British dialects and to variation beyond the well-studied lexical and phonological differences. By considering these interacting factors as components within a broader context of linguistic diversity, we can construct more effective and comprehensive theories of language use, variation, and change.

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# **A Comprehensive Morphophonological Analysis of Diminutive Derivation in Arabic**

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## **Introduction:**

Diminutive derivation in Arabic, a morphophonological process yielding forms that primarily denote diminution in size or quantity, exhibits a rich tapestry of structural complexities that extend beyond simple semantic reduction. This study endeavors to provide a comprehensive and theoretically informed analysis of these intricate patterns, addressing the following pivotal research questions: What is the full extent of typological diversity in diminutive structures attested within the Arabic linguistic corpus? What morphophonological mechanisms and constraints account for the inflectional and derivational processes observed in Arabic diminutives? How can the observed convergence of diverse root and stem structures into a finite set of diminutive forms be explained within a unified theoretical framework?

## **Literature Review:**

Existing scholarship has illuminated various facets of Arabic diminutive morphology. Seminal works by Al-Hamlaawi (1999), Abdul-Ghani (2001), and Al-Samarrai (2013) have established the foundational semantic function of diminutives, elucidating their role in signifying smallness (e.g., *umair* 'nickname' < *umar* 'proper name'). Investigations by Al-Sieedy (2017) and Hamid and Faiq (2009) have broadened the scope of diminutive application to encompass diverse parts of speech, including prepositions and demonstrative pronouns, and have highlighted the significance of infixation as a formative mechanism. Watson (2006) has offered a rigorous phonological analysis of diminutive templates in Modern Standard Arabic (MSA), employing autosegmental representations and constraint-based frameworks. McCarthy and Prince (1990) have explored the moraic underpinnings of diminutive formation, demonstrating the preservation of iambic rhythm irrespective of base form structure. McCarthy (2000) has focused on iambic diminutive patterns, noting the retention of segmental integrity and the systematic implementation of glide insertion and vowel shifts. Recent research by Jaradat and Alkhawaja (2024) has challenged the purely inflectional view of diminutives, positing a derivational dimension that encompasses semantic shifts beyond mere diminution. However, a systematic, corpus-driven investigation that synthesizes these disparate observations and addresses the full spectrum of diminutive typologies remains conspicuously absent.

## **Methodology:**

This study adopts a corpus-based approach, leveraging the Alshamela digital library, a comprehensive repository of approximately 8,000 Arabic texts (7 million pages), to extract diminutive tokens. The search query, تصغير [taSʕi:r] 'diminutive', was filtered to isolate linguistic texts, ensuring the relevance of extracted data. Contextual analysis was employed to validate the diminutive status of each token, with repeated and irrelevant entries excluded. Morphophonological representations were constructed using McCarthy's (1981) autosegmental framework, elucidating non-concatenative morphology and stress placement. Almirabi's (2021) morpheme alignment methodology was adapted to illustrate structural correspondences, while Eisele and Bisele's (2002) morphological rule system was utilized to delineate diminutive inflection and syllable structure.

## **Results:**

The analysis reveals a typologically diverse array of diminutive structures, categorically differentiated by root structure and metrical organization. Disyllabic iambic diminutives (e.g.,



قَلْب [qalb] < قَلْب [qalb] are derived from tripartite roots, while trisyllabic amphibrachic forms arise from tripartite roots with feminine markers (e.g., حَبْلَة [ħubajla] < حَبْل [ħubla]) or quadripartite roots (e.g., جَعْفَر [ʒaʕfar] < جَعْفَر [ʒuʕajfir]). Trisyllabic anapaestic diminutives are attested in five-segment root derivations (e.g., عَصْفُور [ʕaʕʃu:r] < عَصْفُور [ʕaʕʃu:r]). Tetrasyllabic quartus paeonic diminutives originate from six-segment roots (e.g., زُعْفَرَان [zuʕajfira:n] < زُعْفَرَان [zaʕfara:n]), and tetrasyllabic secundus paeonic diminutives from three-segment roots with feminine markers or four-segment roots without (e.g., أَسْوَرَة [ʔusawrah] < أَسْوَرَة [ʔuswarah]; عُبَيْقَرِي [ʕubajqiri] < عُبَيْقَرِي [ʕabqari]). A consistent structural feature is the presence of [u] as the initial vowel and [aj] as a medial glide. Moreover, the study demonstrates that diminutive affixation is a non-linear process, involving the systematic dispersal of segments across the derived form.

## Discussion:

The findings reveal a systematic phonological organization characterized by consistent alternation between closed and open syllables in diminutive forms. The consistent gemination of vowels in stressed final syllables suggests a robust phonological constraint. This study extends beyond prior research by providing a comprehensive, corpus-driven typology of diminutive structures, accounting for a wider range of root configurations and metrical patterns. The observed correspondence between root segments and graphemic representation raises profound questions regarding the cognitive and conceptual underpinnings of Arabic morphology. This study thus prompts further investigation into the interplay between phonological constraints, morphological processes, and the cognitive representation of Arabic root structures. Additionally, the role of prosodic templates in organizing diminutive forms warrants further exploration within frameworks such as Optimality Theory.

## Conclusion:

This study provides a rigorous morphophonological analysis of diminutive derivation in Arabic, demonstrating the complex interaction between root structure, metrical templates, and phonological constraints. By employing a comprehensive dataset and sophisticated analytical methodologies, this research contributes to a deeper understanding of Arabic morphology and phonology. Future research should delve into the cognitive and psycholinguistic dimensions of diminutive formation, as well as the diachronic evolution of these patterns, and their implications for broader typological studies of diminutive systems.

## **Towards a Description of Black Hiberno-Englishes: Bricolage and the Diffusion of Features**

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While Black and Mixed Race people have been part of the Irish population for some time, an increase in migration to Ireland in the 21<sup>st</sup> Century has created the conditions for more stable Black social networks rooted in specific urban areas, particularly in Dublin and the surrounding “commuter belt” (Central Statistics Office Ireland 2006, 2017, 2023). This conurbation is now at the centre of a growing national Black and Irish culture, wherein new speaking styles are emerging that blend Black identity with Irish identity, and vice versa. This study seeks to begin a variationist description of Black Hiberno-Englishes across Ireland, taking the Greater Dublin Area (GDA) as a starting point.

To this end, I present recordings of 20 speakers from three community podcasts: *The Black & Irish Podcast* (Diop et al 2020-23), *If I Speak Podcast* (Dongo 2021-Present), and *Get the Gist Podcast* (Williams et al 2024-Present). All speakers have grown up in the GDA, and podcast episodes range in duration between approx. 20 – 60 mins. Although these recordings come from a performative context, they are advantageous as they feature a sample of adolescent to middle-aged speakers from across the GDA, where Black Irish identity and culture is often the main topic of conversation.

From these data, I show that younger speakers who have grown up in a time of denser Black communities draw on enregistered lects associated with existing Black cultures – either African American Language (AAL: King 2020) or Multicultural London English (MLE: Cheshire et al 2011) - blending them with local Irish features to achieve a spectrum of Black Irish styles via a process of bricolage (Hebdige 1979; Eckert 2012). This corroborates previous findings that demographic similarity may act a vehicle for diffusion across noncontiguous urban areas (see Ilbury et al 2024). Of these two, MLE features are more common in the data, and therefore are the focus of this initial study.

Focussing on three features of interest – GOOSE fronting and the near-monophthongisation of FACE and PRICE – I show that MLE features are most advanced among young men active in the hip-hop industry, which is highly networked with the industry in Britain. These features nevertheless appear in the speech of individuals from across the GDA, suggesting that MLE features may have diffused via industry networks across the Irish Sea and then diffused further via local Irish networks.

As well as offering a window into the formation of a new and undescribed variety (or varieties) of English, this study offers crucial insights into the interaction of two contemporary cross-border trends – migration and international communities of practice – and their implications for language variation and change on local scales. I subsequently call for increased attention in the field to variation in lesser-studied regions, and Black Hiberno-Englishes in particular.

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## **New dialect formation in New Zealand Englishes: Laryngeal effects of donor dialect and substrate**

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It is well-documented that, universally, vowels are shorter before voiceless/fortis consonants – this is the so-called Voicing Effect (VE). Cross-linguistically, its size is found larger in English than elsewhere. More recently, research on the English VE has turned to its size in spontaneous speech (rather than wordlist data) and to its non-uniformity in English varieties. Tanner et al. (2020) identify a scale on which, roughly speaking, the VE size is larger in the US than in England than in Scotland. As we also note similar dialectal variation in prevocalic voice onset time (VOT) (US > England > Scotland, for both fortis and lenis), this indicates that the VE and VOT correlate (and a phonological explanation is available in terms of prevocalic vs coda VOT and the functional load of vowel length in a variety – see Balogné Bérces & Sajtós 2025).

We aim to contribute to this research trend with the investigation of New Zealand Englishes (NZE) – Pākehā English (PE) and Māori English (ME) – crucially missing from the VE scale, and being in the last stage of new dialect formation (Schneider 2003). We also examine whether the substrate effect still affects the VE size and/or VOT in ME. The Māori language only has a single series of tenuis obstruents, so initially, ME had unaspirated plosives; according to MacLagan & King (2007), however, both the frequency of aspiration and VOT duration have increased over time under the influence of PE, the donor dialect. The frequent affrication of /t/ in general NZE is also an important factor to consider as it leads to longer VOT values.

The database comprises sound recording corpora of spontaneous NZE speech, whose relevant chunks are analysed in Praat. Vowel duration for seven vowels and VOT for fortis plosives are measured and compared in the two varieties. Statistical analyses are conducted using the lme4 package in R. Our research questions are as follows:

1. Previous, small-scale studies find the VE in PE larger than in either BrE or AmE. Do our results confirm this in spontaneous speech data taken from a larger corpus? Where does this locate PE on the VE scale? Does this correlate with a relatively/considerably long VOT?
2. Does ME preserve its weaker/less frequent aspiration as a substrate effect (Warren & Bauer 2004) in more recent, spontaneous speech data taken from a larger corpus? What is the average VE size, and where does this locate ME on the VE scale?

Our results support the first hypothesis as NZE is at the maximal end of the scale with a great VE size (0.75/1.32)<sup>3</sup> and long VOT values. As was expected, the VE size is smaller compared to the results of previous studies due to the more spontaneous speech style. VOT

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<sup>3</sup> Values below zero are fractions (the clipping of pre-fortis vowels compared to their non-pre-fortis peers – duration of  $V_{\text{pre-fortis}}$  divided by duration of  $V_{\text{non-pre-fortis}}$ ), while values above 1 are ratios (the effect of voicing/lenisness – duration of  $V_{\text{non-pre-fortis}}$  divided by duration of  $V_{\text{pre-fortis}}$ ). Since previous literature works with either one or the other, we specify both in our results.

is 68 ms for Pākehā speakers, consistent with previous measurements (Maclagan & King 2007).

Regarding our second research question, ME is at the lower end of the scale with a small VE size (0.9/1.10), but relatively long VOT. We observe weaker aspiration but no unaspirated tokens, which indicates that the substrate effect is still present but the donor dialect has a strong influence. As a result, plosives are aspirated due to the donor dialect but VE size remains low because of the substrate effect.

As a phenomenon affecting both PE and ME, plosives are frequently affricated, which conforms to previous findings. It is a highly influential factor regarding VOT duration, as there is a tendency for female speakers to have more affricated tokens and longer VOT values.

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## Testing Hexagonal French speakers' strategies to refer to occupations in generic contexts

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This paper contributes to work on grammatical gender (g-gender) in reference to humans, examining the production of gendered and non-gendered noun phrases in Hexagonal French in the context of a speech elicitation experiment.

Research in psycholinguistics shows that masculine g-gender triggers a male bias in perception (e.g., Gygax and Gabriel 2008, Gygax et al. 2019). These findings challenge the belief that masculine g-gender bears a generic referential function because it tends to lead to a male mental representation. This gave rise to studies on, and recommendations for, gender-fair language (GFL) in French and other languages (e.g., Sczesny et al. 2015, [Kim et al. 2023](#), also HCE 2022). In spoken French, strategies include the use of double forms (e.g., *les actrices et les acteurs* 'the actresses and the actors') or plural common gender forms (e.g., *les photographes* 'the photographers'), which efficiently reduce male bias (e.g., Tibblin et al. 2023).

Given the increase of GFL in the public domain (Simon and Vanhal 2022), this study examines the strategies used by native speakers of Hexagonal French in spontaneous speech to describe occupations in generic contexts. In particular, it tests *time-constrained speech production* in the context of ongoing changing attitudes and exposure towards GFL.

Nine common gender nouns were chosen from Misersky et al. (2014) norming study for roles and occupations. Stimuli were balanced for stereotypicality (masculine, feminine, neutral) and displayed as bare nouns on virtual flashcards. The absence of gender marking on nouns leaves the opportunity for speakers to produce gendered or non-gendered forms. This is because common gender both takes out the inherent masculine gender bias and avoids potential gender agreement between the stimuli and participants' productions. The experiment was built on Gorilla Experiment Builder (<https://gorilla.sc>).

60 participants took part in the experiment. They had fifteen seconds to read each flashcard and describe the occupations displayed. Productions were coded as gendered or non-gendered. After the speech elicitation phase, participants filled in a basic demographic questionnaire, a questionnaire on ambivalent sexism and a questionnaire measuring attitude and exposure towards GFL.

We predicted an effect of stereotypicality so that stereotypically masculine nouns trigger more masculine g-gender productions and stereotypically feminine nouns trigger more feminine g-gender productions. Furthermore, we predicted that speakers who have positive attitudes towards GFL and have higher exposure to it tend to avoid gendered references (Sczesny et al. 2015). Yet, we also predicted that having non-sexist views would not be a sufficient condition to produce non gendered forms, to the extent that masculine generics remained the default strategy until recently. Results from the Bayesian logistic regression (with participants and items as random intercepts) are twofold. First, younger participants are more likely to use GFL than older participants overall. Second, there is an interaction between attitude towards GFL and gender stereotype. As shown in Figure 1, positive attitudes towards GFL only favours its use when a social stereotype is present (i.e., for male- or female-gendered occupations). When no social stereotype is present, these participants use the masculine g-gender.

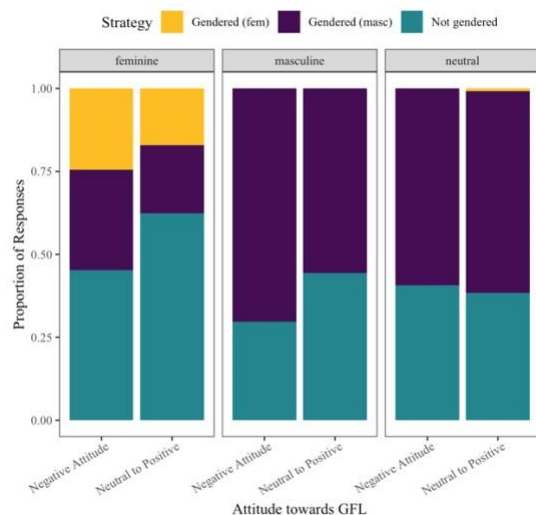


Figure 1. Strategies used across STEREOTYPICALITIES, depending ON ATTITUDE TOWARDS GFL

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## **Is it time to call time on RP?:**

### **Towards a renewed approach to social stratification and language variation**

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In this paper I propose that it is time to both reconsider the use of Received Pronunciation in variationist literature and improve our approaches to understanding social stratification and its role in language variation. It is not an answer, but evidence against current approaches and suggestion of a way forwards.

The position of RP in variationist literature has been contested for many years (Macaulay, 1988; Trudgill, 2008). However, there are still two foundational theories of RP in modern variationist work. 1) Regional variation in English accents decreases up the socioeconomic spectrum (Wells, 1982), 2) innovations enter from South East accents further down that spectrum and then diffuse across the country (Trudgill, 2008) though the pervading claims of non-regionality have rarely, if ever, been empirically tested. Author (2023, submitted) investigated three phonological variables (see figure 1 for further explanation of the comparison). North East 'RP' speakers did not show FOOT-STRUT and TRAP-BATH. Since these are not recent innovations and are established in the South East, we would expect them to have fully diffused into RP in all regions. The morphological conditioning of the GOAT-GOAL split showed that the North East privately educated speakers have either progressed further in the change than South East speakers or have acquired a simplified version of the split. Neither of these possibilities hold with the suggestion of change diffusing across the country to make a non-regional variety. It is also important to note that the social environment that created RP no longer exists. The nineteenth century combined a general rise in accent ideology (Mugglestone, 2007), and two government acts (HM Government, 1868, 1870) which provided access to state education for all and removed the requirement for the 'public' schools to take non-fee paying places, creating a separate elite education system. As 'elite' families sent their children across the country to public schools a non-regional accent arose became something to be aspired to. Regional variation began to be seen as a mark of less education, social value, or aspiration. There is still clearly an impact of accent ideology in modern Britain (Levon, Sharma and Ilbury, 2022) but families that use private education are less likely to send children across the country, so schools are now a mixture of relatively local children and international students.

It is time to put RP aside and seek a more rigorous approach to understanding social stratification and its impact on language variation. Despite the long established literature that 'social class' is one of the most complex forms of social stratification to define, UK variationist research is tending towards single measures such as occupation or self-identification. There is a need for a deeper investigation into which factors are making up the effects that cause language variation. We need to draw on developments in sociology relating to changes in culture and social class in the 21<sup>st</sup> century (Savage *et al.*, 2013, 2015; Waitkus, Savage and Toft, 2024) and create a fully reworked theory of social stratification rooted in sociological theory and recent language data. This will need participant data with a large amount of social information, including the traditional measures of education and occupation, but also economic and cultural capital, aspirations, and self-identification.

Is it time to call time on RP?:

Towards a renewed approach to social stratification and language variation

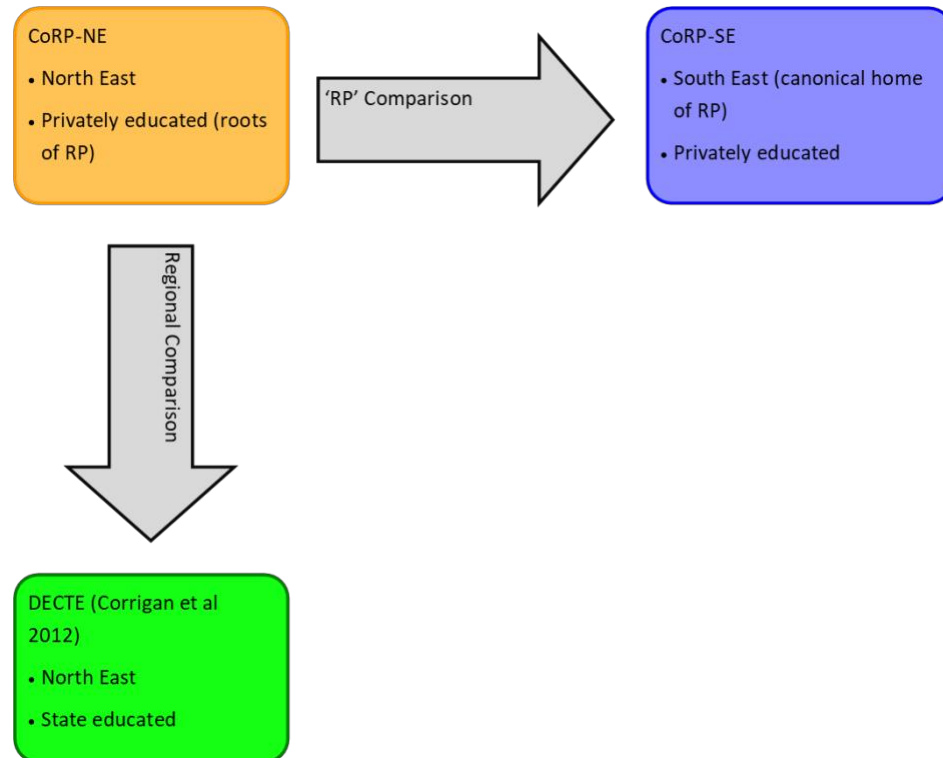


Figure 1

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## What's the Frequency? Evaluating lexical frequency measures over phonological and morphological effects

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The role of frequency has played an important role in variationist sociolinguistics and in other subfields of linguistics. In sociolinguistic studies, lexical frequency is commonly measured with whole-word values – separate frequency values are assigned to each unique affix, whatever semantic, morphological or phonological relation there is between the tokens. Thus, *flower* and *flowers* obtain different values, but *right* (direction) and *right* (adjective) do not. Underlying frequency results in language variation are based on a certain predictability: common words behave differently from infrequent ones. Bybee (2002) showed that even phonetically gradual changes which end up being lexically regular show lexical diffusion while they are in progress. Previous studies often focused on linguistic variables which show morphological conditioning (e.g. (t,d) Baranowski & Turton, 2020; (ing) Tamminga 2016; Spanish intervocalic (d), Scrivner & Diaz-Campos 2016; and semantic markedness, Ingram et al., 2016). Purse et al. (2022) showed that previously hidden frequency effects surface if frequency is measured by stem-frequency, which is calculated as the sum of whole-word frequencies sharing a stem. Similar lemma-based measures have also been used in psycho-linguistic studies of language processing, word recognition, etc. Sehyr, Z.S. & Emmorey, K. (2022).

This paper investigates which frequency measures best account for variance in a purely phonological linguistic variable which we believe has no morphological conditioning: word-final (t) glottaling in British English, as well as in variables which hold morphological effect: (t,d) deletion, and word-medial (t) glottaling. We employ three different frequency measures: (1) whole-word frequency (measured according to Own-Corpus, BNC corpus and the Subtlex-UK corpus) (2) Stem frequency, and (3) Conditional frequency. For conditional frequency - a measure introduced by Purse et al. (2022) - whole-word frequency is divided by stem frequency. But how do measures of lexical frequency interact with other conditioning factors, or indeed with the nature of the variable? Data was collected in East Anglia (UK) from 36 speakers, evenly divided across three cities (Colchester, Ipswich and Norwich) and stratified by social class, age, sex and style. The data was extracted using Elan and Praat for acoustic analysis. Mixed-effects logistic regression analysis was carried out in R (R-Core-Team 2015) using the *lme4* package. We compared different models and evaluated on log-likelihood and AIC and BIC statistics. A total of 9,802 tokens were extracted for (t,d) deletion, word-final (t) glottaling, and word-medial (t) glottaling. Our results show that when the largest and most sophisticated corpus – the Subtlex-UK corpus – is used, Stem frequency does not condition word-final (t) glottaling, but whole-word and conditional frequency do. We found that word-medial (t) glottaling, however, is conditioned by stem frequency ( $p < 0.01$ ) and whole-word frequency (measured either with the Subtlex-UK or with BNC corpora) ( $p < 0.001$ ), and that (t,d) deletion is heavily influenced by conditional frequency ( $p < 0.001$ ), stem frequency ( $p < 0.01$ ), and whole-word frequency (measured with the BNC corpus) ( $p < 0.01$ ). Confirming Purse et al.'s (2022) results, our study shows that conditional frequency, for (t,d) deletion, holds a significant effect for monomorphemes. We also found a significant effect for semi-weak verbs.

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## **Variation in the effect of voice quality on perceived voice similarity: what listeners hear vs. what they say**

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Listeners perceive some voices to sound more similar to each other than others. Various studies have observed a correlation between listeners' similarity judgements and acoustic/phonetic measures including  $f_0$  and formant characteristics [1] and voice quality features related to the larynx and pharynx [2]. Listeners exhibit some awareness of these features but are often inaccurate when describing them verbally [3]. When describing voice quality (VQ), terms used by lay-listeners sometimes overlap with those used by experts, but vary considerably between listeners [4]. This paper explores the relationship between listeners' judgements of voice similarity and their commentary on the voices.

An online experiment investigating the relationship between VQ and perceived voice similarity was conducted. Stimuli were created from the Person-specific ASR corpus [5] of reading passages read by trained phoneticians in different VQ settings (following the simplified Vocal Profile Analysis [6]). Recordings from four British English-speaking male phoneticians were selected, and six of their VQ guises were chosen for stimuli creation: modal, breathy, fronted tongue body, nasal, denasal, and lowered larynx. An utterance of identical linguistic content from all 24 recordings was extracted, and samples were normalised for intensity (70dB), mean  $f_0$  (107Hz) and duration (3.5s). Stimuli consisted of pairwise comparisons between all speaker and guise combinations ( $n=300$ ). 100 listeners were randomly and evenly assigned to one of five balanced subsets containing 60 stimuli comparisons to avoid listener fatigue. Participants heard each pair of samples, then rated the perceived similarity/difference of the two voices heard on a 1-7 Likert scale. Subsequently, they were invited to reflect on what features made voices sound different from one another. Similarity judgement results reveal that, across different-speaker pairs, breathy VQ voice pairs sound perceptually closer to one another than other same-quality pairs (figure 1). By contrast, lowered larynx VQ made voice pairs sound more perceptually distant from one another, suggesting listeners find it more challenging to distinguish between breathy voices, and easier to distinguish between voices with lowered larynx VQ. Linear regression models demonstrated that neither the effect of denasal nor nasal VQ on listener judgements of voice similarity is statistically significantly different from modal VQ. This suggests that these VQ settings do not meaningfully add to or detract from speaker-specific information in the speech signal, or that they are not particularly salient to listeners. Despite this, examining listener comments paints an interesting picture, as 'nasal' (or related words e.g. nose) was the most frequently observed keyword at a rate of 43% (figure 2). Other frequently mentioned terms include 'accent' (37%), 'tone' (23%), 'deep' (22%), 'disguise' (11%) and 'rhythm' (9%). In addition, despite stimuli being controlled for mean  $f_0$ , 21% of listeners mentioned 'pitch' as influencing their decisions. Overall, listener comments reveal interesting insights into the salience of phonetic features, as well as the sometimes-contradictory relationship in voice similarity judgement tests between how listeners think they judge voice similarity and what they actually do. Implications of these findings for the understanding of perceived voice similarity and perceptual meta-commentary on voice variation by lay-listeners will be discussed.

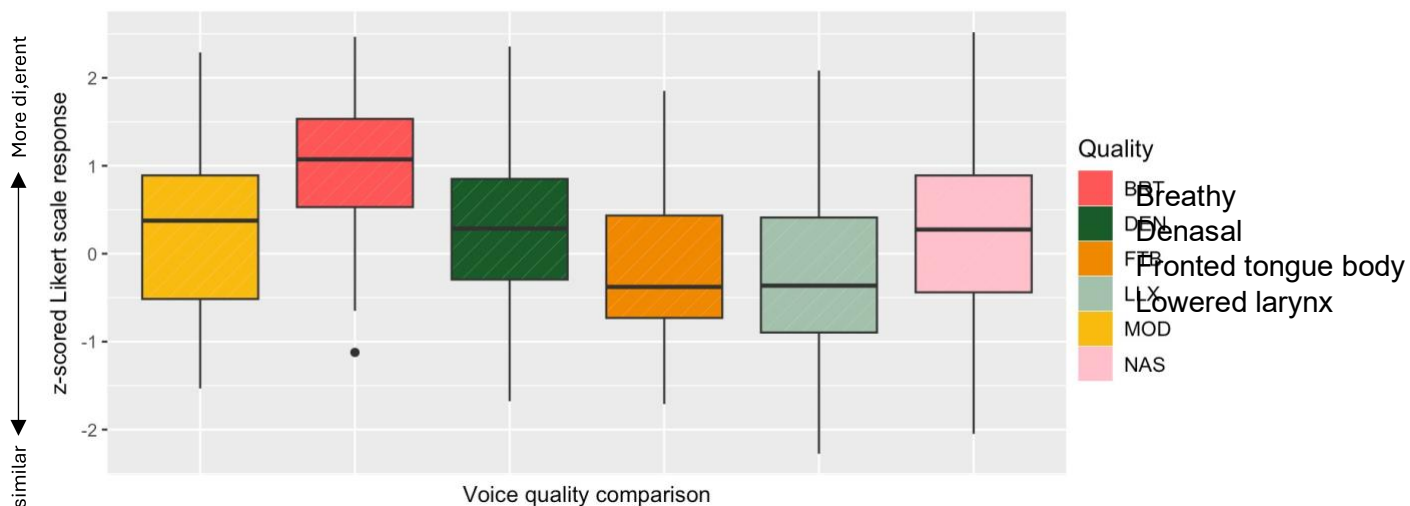
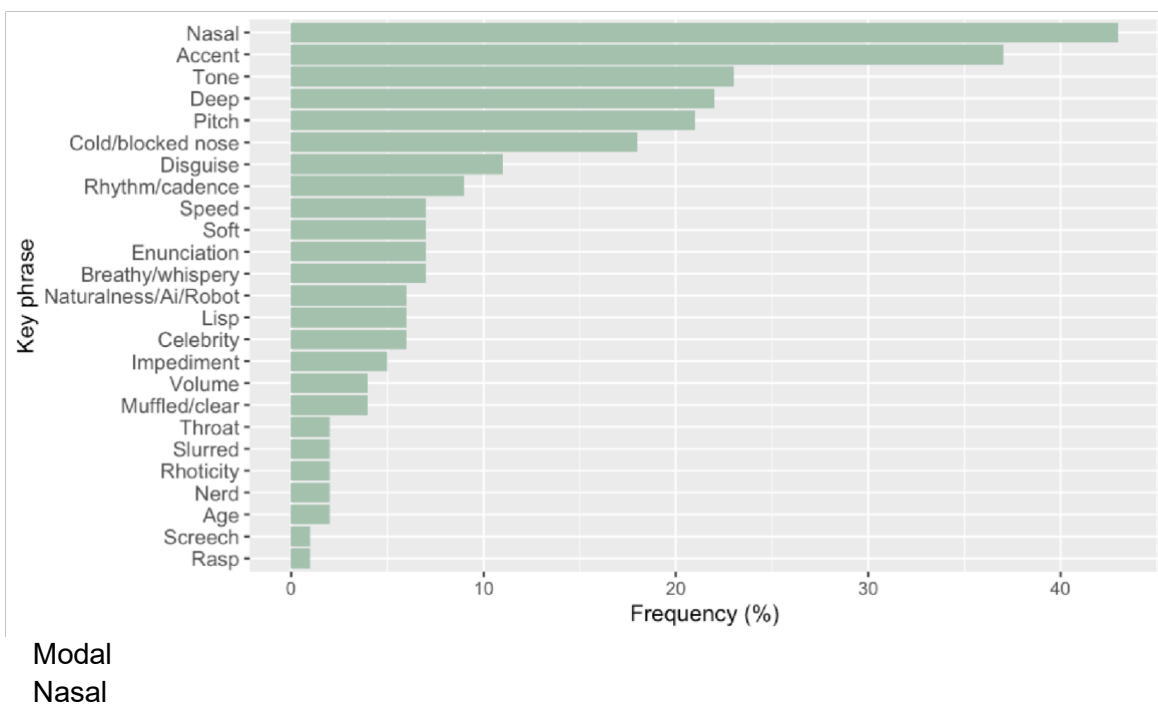


Figure 1 Boxplot showing the distribution of z-scored Likert scale judgements by listeners of different-speaker same-quality voice pairs. More similar scores are higher on the scale while more different scores are lower on the scale.



*Figure 2 Frequency of key phrases from listener comments, ranked from most frequent to least frequent.*

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# Real-Time Change in Newcastle //: Evidence from the Diachronic Electronic Corpus of Tyneside English

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Historically, Tyneside English (TE) // has been described as having unvelarised, i.e. “clear”, in all positions, lacking the clear-dark allophony found in the South of England (Wells 1982:370). However, recent studies have found significant articulatory and acoustic differences between onset and coda // in TE (Carter & Local 2007; Turton 2017). Using F2-F1 as a proxy for //darkness, Hart (2024) found strong acoustic evidence of categorical split between clear and dark // allophones, as well as apparent-time change towards darker //s overall.

This study provides a comparison of TE //-darkening across two timepoints. We demonstrate that TE laterals are getting darker in real-time, possibly due to contact with varieties with darker //s such as Manchester or London English (Kirkham et al 2020). We draw from two subcorpora of the Diachronic Electronic Corpus of Tyneside English (Corrigan et al 2012): the PVC corpus (recorded ~1994), and the NECTE2 corpus, recorded 2007-2010. We sample 20

PVC speakers and 17 NECTE2 speakers aged 16-20 years old. For each speaker, we extracted

15 word-initial onset and 15 word-final coda // tokens, excluding unclear and syllabified //s (total n=1112). Midpoint F1 and F2 was manually measured for each lateral using Praat. F2-F1 distance was calculated as an acoustic proxy for //-darkness, wherein lower F2-F1 is associated with darker //s.

We ran a linear mixed effects regression, considering word position, subcorpus, speaker sex, and phonological context. All independent variables had a significant effect on F2-F1 distance at  $p < 0.05$ . The clear distinction between subcorpora strongly suggests real-time //-darkening in TE. Onsets are lighter than codas; the gap between onset and coda // remained consistent across timepoints. There were also apparent coarticulation effects; high vowels, glides, and coronals all cooccur with lighter //s. Male speakers overall had significantly darker //s than female speakers. This may simply be a physiological artefact; males tend to have lower f0s, and lower f0s have a greater effect on F1 in comparison to F2 (Reubold et al. 2010). However, we cannot rule out the possibility that this real-time change is led by male speakers.

Overall, these results suggest //-darkening is yet another feature in which TE is becoming more similar to other BrEng varieties, e.g. adoption of pan-northern FACE and GOAT (Watt 2002). However, the equidistant gaps between onset & coda // across subcorpora indicate that TE speakers are not adopting a pan-northern feature, as other northern cities like Leeds and Sheffield have a far smaller onset-coda gap. Indeed, TE // more closely resembles that of southern cities like London (Kirkham et al. 2020). We are left with a puzzle: TE is undergoing changes that are suggestive of changes toward a southern target (Strycharczuk et al. 2020), but the enduring cultural imaginary of the English North/South divide (Giovannini and Rose 2020) makes such a target seem unlikely. What, then, is the target of change in TE // and other features? We speculate that TE could be adopting a Scottish target.

## Appendix:

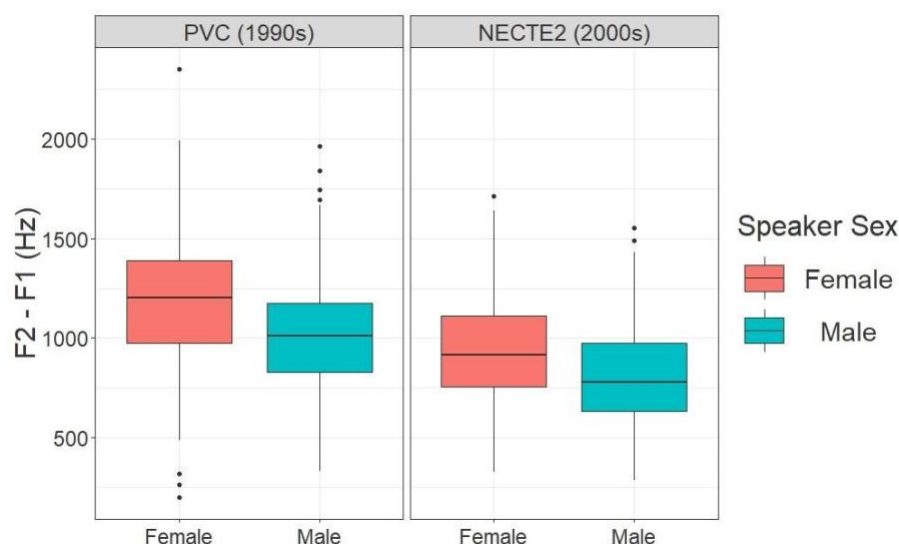


Figure 1: Sex and Subcorpus effects on TE /l/ production

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**Donald Trump has lowered THOUGHT for five decades**

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Longitudinal studies of the language of public figures have been central to understanding individual capacities for post-adolescent language change (Harrington & Reubold 2021). While studies of public figures have been partially motivated by availability of language artefacts across their lifespans, public figures also often engage conspicuously in construction of outward-facing personae, providing opportunities to examine their manipulations of linguistic variables to navigate public identities.

Despite his highly problematic nature as a public figure, Donald Trump presents an intriguing case for exploring relationships among phonetic variation, place, lifespan change, and persona curation. Born in Queens, New York in 1946, Trump crafted a highly public persona in the United States from the 1970s that drew heavily on an identity of a New York City real estate mogul. Tied to that identity, Trump's New York City-accented English is simultaneously amongst the most recognisable and stigmatised accents in American folk dialectology. As such, Trump's accent could serve as a resource for linking to New York City, or as a barrier to identities of wealth and business acumen or suitability to national political leadership. Moreover, Trump's projected expertise at deal-making—both in business and in politics—has often drawn on characteristics such as toughness and inflexibility. These qualities might interact in complex ways with sociolinguistic evaluations of New York City English (NYCE) or with individual willingness to engage in language change.

We examine interactions between Trump's sociolinguistic motivations and lifespan phonetic change through single-point estimates of formants for THOUGHT, DRESS, PRICE, FACE, BAD, and TOO lexical sets. These vowels have been reported to be undergoing change in NYCE in the direction of supraregional US Englishes (Haddican et al. 2022). We compiled a dataset from 70 speech events by Trump recorded from 1980 to 2023. We report F1/F2 measurements from 35,474 vowel productions.

We find that Trump consistently lowered THOUGHT (increased F1) across his adult lifespan, shifting the vowel away from a salient marker of NYCE toward supraregional pronunciations. We also find some evidence of Trump retreating from the NYCE BAD-TRAP system during his early engagement with US media in the 1980s and 1990s. We find little evidence of lifespan change in other vowels. (See Figure 1.)

We interpret these findings by looking at the time-depth of sound changes in NYCE, noting especially that Becker (2010) identified 1946—Trump's birthyear—as the point when New Yorkers began to shift away from raised THOUGHT. We suggest that Trump's lifespan THOUGHT-lowering is motivated by his early childhood exposure to phonetic processes and sociolinguistic ideologies associated with raised

THOUGHT. We note that Trump's movement away from the NYCE THOUGHT (and, to a lesser extent, BAD) is inconsistent with publicly projected identities such as “New Yorker” or qualities such as inflexibility. We argue that this attests to the strength of sociolinguistic ideologies encountered in early in life to drive adult lifespan language change—even for speakers whose curated identities might resist such change.

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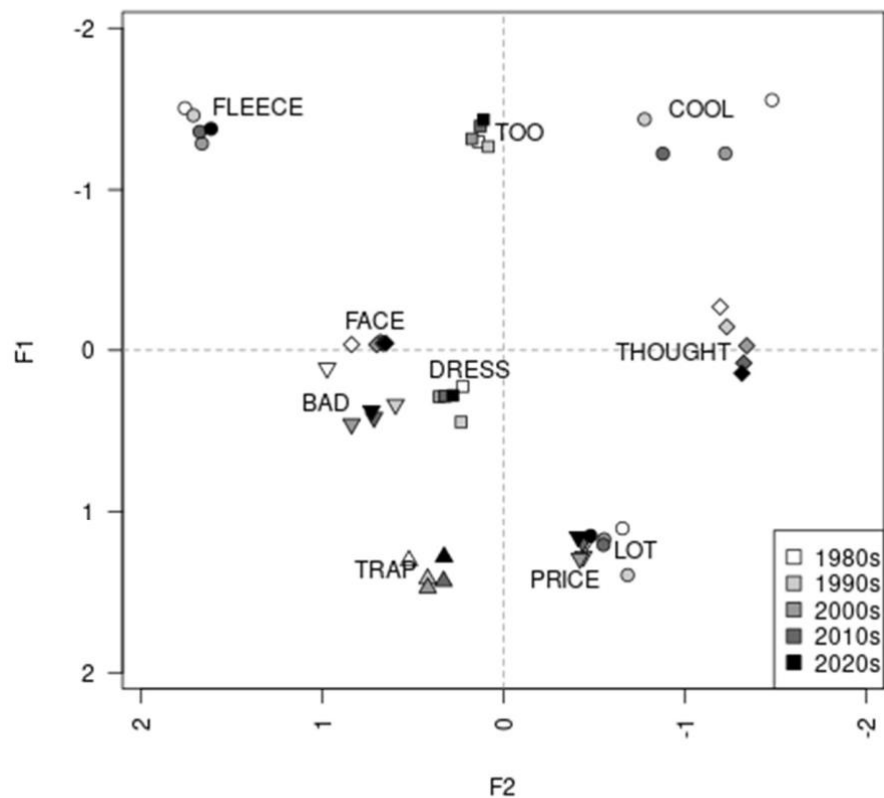
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Figure 1. Trump's vowels in F1/F2 space across 5 decades



## Realisations of /t/ in South East Wales: Glottals, taps and [h]s

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The increase of the glottal stop in Cardiff English has been well reported (e.g. Campbell 2021, Mees 1987, Mees and Collins 1999) and research has shown that it came into the city as a prestige form rather than stigmatised variant for many young speakers as a way to reflect their desire to move beyond their local origins. In the decades after its arrival, the glottal stop remains a high frequency variant for /t/ for all but the oldest speakers in Cardiff.

However, the glottal stop is not the only innovative variant in realisations of /t/ in Cardiff and South East Wales more generally. Our paper will demonstrate that in prepausal contexts an [h] variant exists too and, like the glottal stop, is growing stronger across the generations, particularly in Cardiff where it is only used at very low rates by the oldest generation. Additionally, other regional variants are in use too, as the t-to-r rule (Wells 1982) remains in operation for many speakers in South East Wales using both [ɹ] and [r] variants.

Focusing on four communities in South East Wales, two (Cardiff and Barry) which fall into the SE Wales urban dialect area posited by Garrett, Coupland and Williams (1999) and two (Pontypridd and Caerphilly) which fall into the SE Wales Valleys dialect area, we will present the results of our analysis of /t/ across three phonological contexts (intervocalic, prevocalic, prepausal) (examples a-c).

- a) or wha[ɹ]ever and (P-MM-AlexGreen)
- b) I'm getting a bi[r] older now (CF-YF-SamanthaMarshall)
- c) And in those days, you didn't have computers or anything like tha[h]. (P-OM-MorrisMiller)

Our dataset is comprised of between 33 to 36 speakers per community (140 in total) stratified by age and sex. We aimed to extract 20 tokens for each of our three contexts per speaker yielding nearly 8400 tokens.

We find that while [t] and [tʰ] realisations and glottals occur in all three contexts, the distribution of the [ɹ], [r] and [h] variants is more restricted. We also find quite strong differences with respect to community and to age. Cardiff and Barry have generally higher rates of the glottal stop, while Pontypridd and Caerphilly have higher rates of the [h], [ɹ] and [r] variants. Older Valleys speakers for the most part do not use the glottal stop, while it is found in the older speakers of Cardiff and Barry. The youngest group of speakers all have the highest rates of glottal stops in their communities, with Cardiff leading this shift.

Overall, we demonstrate that there is a two-way innovation pattern whereby young speakers across the four communities lead in their rates of both the glottal stop and [h]. Additionally, the results suggest that the [h] variant originated in the Valleys and is now spreading into Cardiff. This is a potentially reversed case of diffusion whereby a regional form is moving from into the city. We suggest its use in Cardiff is a way for the youngest generation to demonstrate a South Wales identity.

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# **B[a:]ths and ca[ɹ]s in Wiltshire: Investigating Apparent Time Phonological Change in the South West of England**

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The southwest (SW) of England is an underexplored research site relative to other regions in the UK. While some research exists that explores variation and change in the Lexis (Sandow, 2024), Morphosyntax (Childs & Cole, 2023) and Phonology (Piercey, 2012) in the region, such research is few and far between, and no studies to my knowledge have empirically examined speech patterns in the county of Wiltshire, a mostly rural location that sits next to Hampshire and Dorset. This research project therefore aims to explore this gap in understanding by investigating apparent time phonological variation and change in Salisbury, the only city in the county.

Based on the limited research that exists, it is clear that the SW is experiencing real time change

relative to previous documentation within the Survey of English Dialects (henceforth SED, Orton & Wakelin,

1967). The SED identifies clear features of the regional dialect: including front BATH and TRAP vowels (Wells, 1982) that are differentiated by length (e.g. [gra:s] and [gas]), and near-categorical rhoticity in words such as *farmer* and *car*. Speakers in the SW did not experience the split in quality between TRAP and BATH like other areas in the South, and have resisted the attrition of rhoticity that began in the 18th century (Turton & Lennon, 2023), leaving the SW as one of the few remaining bastions of the feature within the British Isles.

More recently, the few phonological studies that have been conducted in the SW suggest an increase in

quality distinction between TRAP and BATH (Piercey 2011, Wallace 2007), as well as increased attrition of rhoticity amongst younger speakers (Piercey, 2012; Malarski 2021). These findings have primarily been observed in urban locations within the SW, however, so another motivation behind this project is to see if such changes are also happening in Salisbury, or whether its comparatively rural nature has resulted in resistance to such changes (Wiltshire Council, 2020), as proposed by the cascade model of diffusion (Bailey et al, 1993). Paired sociolinguistic interviews with 12 male speakers from two different age groups (20s and 50s) were conducted to elicit spontaneous speech, and word list data was also collected to explore the influence of style. Participants also completed an identity questionnaire inspired by Sandow (2024), in order to see if one's allegiance to where they live has an influence on the preservation of regional forms. Spoken data was transcribed using Automatic Speech Recognition software ([Notta.ai](#), 2025), checked manually, and then force aligned using DARLA (Reddy & Stanford, 2015).

Initial results confirm that the TRAP-BATH split of quality is evident among the younger sample, with BATH vowels generally matching the quality of PALM in spontaneous speech (see figure 1). Within the majority of older speakers, the quality of BATH and TRAP remains the same, with some PALM tokens also appearing to align with these other vowels. Additionally, auditory analysis confirms that rhoticity is far more consistent in older speakers, with younger speakers being categorically non-

rhotic in careful speech (see figure 2). The next steps are to perform inferential statistical analysis, and consider how additional factors such as allegiance to place may pattern with production.

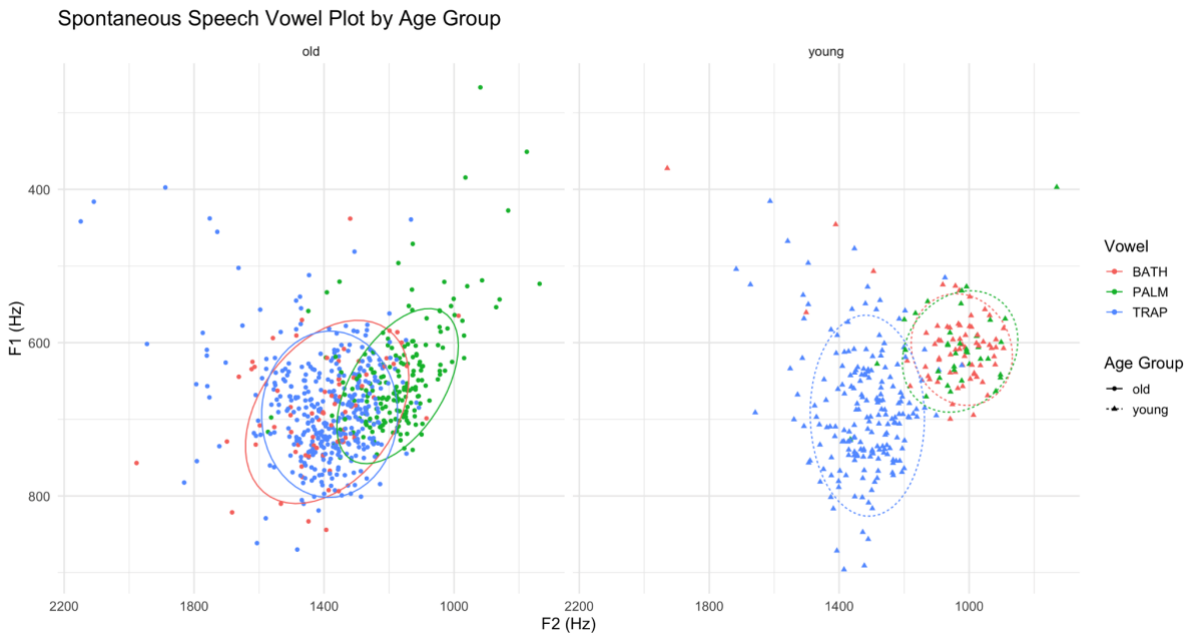


Figure 1: Vowel Plot of Spontaneous Speech tokens for BATH, TRAP and PALM across age groups.

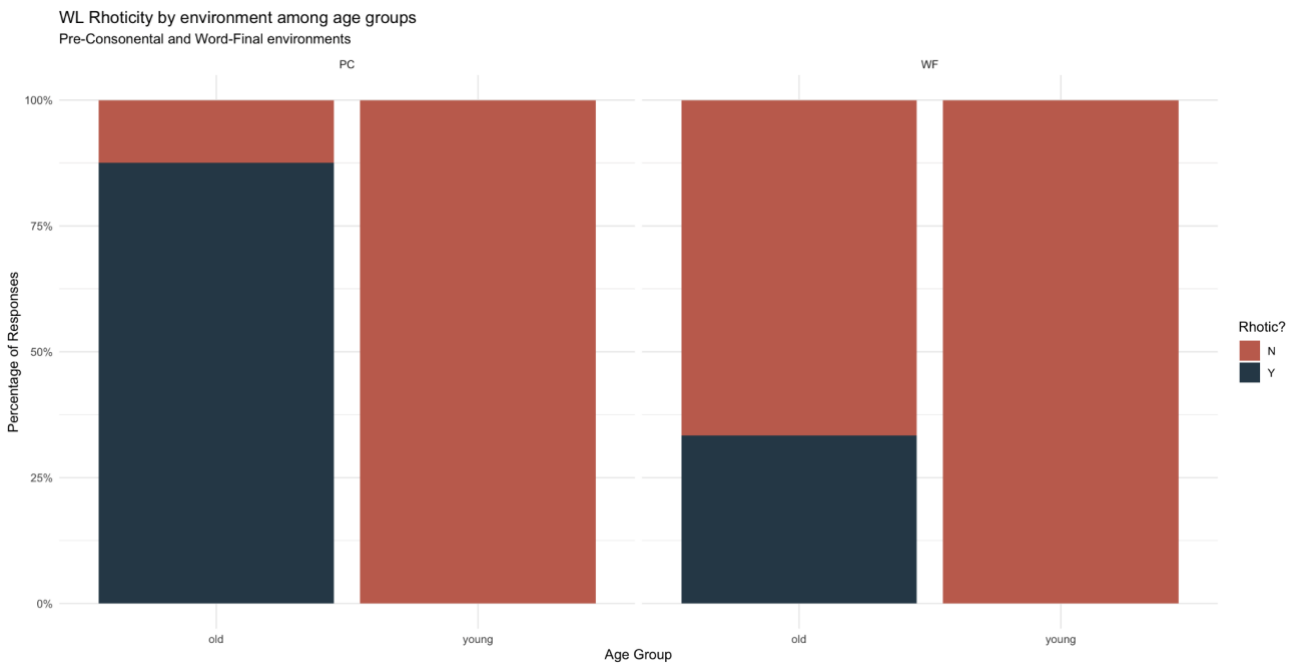


Figure 2: Distribution of Rhotic/Non-Rhotic tokens elicited from the Word List.

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# “Voices of Sheffield: Sociophonetic Perceptions of Dh-Stopping in South Yorkshire”

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The phenomenon of dh-stopping, whereby the interdental fricative [ð] is realised as a dental stop [d], is a salient sociolinguistic feature in South Yorkshire English. This variant is notably linked to the pronunciation of the Old English second-person pronouns *thee* and *thou* among Sheffield speakers, pejoratively referred to as “Deh Dah” from nearby towns, though it also appears in other function words beyond pronouns. This study focuses on how social variables and regional origins shape listeners’ perceptions of this non-standard phonetic feature within the county.

Employing a matched-guise experimental design, 111 participants from Sheffield and neighbouring towns—including Barnsley, Rotherham, and Chesterfield—were asked to evaluate speakers exhibiting this variant. The research examines the influence of social factors such as gender, age, and regional background on assessments of dh-stopping in commonly used function words, with particular attention to the traditional second-person pronouns *thee* and *thou*. Participants rated speakers on dimensions including solidarity, accent acceptance, and perceived rurality, revealing socially patterned perceptual responses within the community.

Results indicate that dh-stopping serves as a sociolinguistic marker conditioned by gender, region, and age. Female listeners tend to attribute lower solidarity to the variant, suggesting it may carry social stigma, particularly in formal or public contexts. Conversely, older participants and Sheffield natives provide more favourable ratings, implying that dh-stopping maintains a degree of covert prestige among certain social groups, potentially linked to regional identity and local pride. Age also impacts perceptions of rurality, reflecting broader social attitudes towards linguistic variation and identity. Overall, these findings illuminate the complex social meanings attached to phonetic variants in Sheffield English.

In sum, the sociolinguistic relevance of dh-stopping extends beyond mere phonetic variation, reflecting deeper social identities and group affiliations within South Yorkshire. This research contributes valuable insights to the field of sociophonetics by elucidating the intricate relationship between phonetic variation and social identity in urban dialects.

**Keywords:** *linguistic marker, Northern English, Sheffield, social identity, urban dialect*

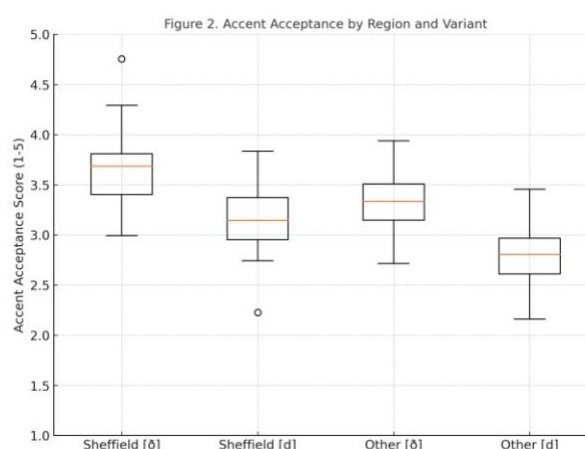
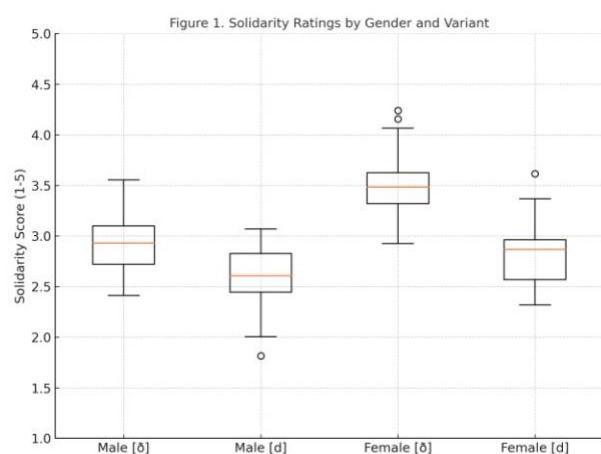


Figure 1. Distribution of solidarity scores attributed to the dh-stopping variant, broken down by gender. Sheffield participants rate the [d] variant more favourably than those from other areas nearby. Female participants tend to attribute lower solidarity favourably than those from other areas nearby. to the use of [d].



Figure 3. Rurality ratings by age group. Older participants show greater tolerance towards rural associations of the dh-stopping variant.

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