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Navigating the vernacular across the lifespan: a panel study of the phonetic realisation of the first-person singular possessive

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This article explores intraspeaker malleability in the realisation of the first-person possessive in the North-East of England ([maɪ], versus [mi] and [ma]). The analysis relies on a combination of a trend sample and a novel dynamic panel corpus that covers the entire adult lifespan. While [mi] has been around at least since the 1970s on Tyneside, [ma] appears to have made its way into the system during the 1980s and 1990s. The panel data add intraspeaker information to this ongoing change, revealing a turnover in the proportional usage of possessive variants between two recordings that are on average ten years apart. Regression modelling provides differentiated information about intraspeaker changes across the lifespan, suggesting that, with only a few exceptions, intraspeaker grammars are stable across the lifespan. The analysis supports recent panel research that has argued for the importance of considering the socio-demographic trajectory of the individual: while speakers who are part of the '*marché scolaire*' (Bourdieu & Boltanski 1975: 7) orient towards the standard, speakers working as professional carers (e.g. nurses) tend to retain high rates of the reduced variants across their lifespans to do local identity work and establish better interpersonal relations with their clients.

Keywords: language change, first-person possessive, panel study, lifespan, North-East England

1 Introduction

This article focuses on the first-person singular possessive determiner (1POS), which can be phonetically realised in the North-East of England as [maɪ], [ma], [mi] and [mə] (Hollmann & Siewierska 2007; Snell 2010; Childs 2013). Previous studies have explored the linguistic conditioning of possessive forms, including the effect of alienability (Hollmann & Siewierska's 2007 research on the Lancashire dialect), as well as the contribution of 1POS in stylised performances amongst primary school children in Teeside (Snell 2008, 2010). While apparent-time research on 1POS has provided some insights into ongoing change in the realisation of the variable (Childs 2013 with Tyneside data), to date little is known about whether and, if so,

how individual speakers adapt to the change in the variable over their lifespans. While an ever-growing body of studies documents intraspeaker malleability in adult speakers, a comprehensive model of the 'relative stability of people's grammar in adult life' remains a desideratum (Sankoff 2013: 261). Panel research, repeated recordings from the same speakers as they progress through their lives, is an ideal means to fill this gap since it offers a diachronic view of individuals' longitudinal linguistic choices. My analysis relies on a combination of a trend dataset with a bespoke panel corpus that covers the entire adult lifespan. The dynamic set-up of my panel data allows me to explore the workings of the linguistic marketplace (Bourdieu & Boltanski 1975), which, to date, have been mainly theorised based on apparent-time data or panel datasets covering relatively short snippets of the lifespan (see Grama *et al.* 2023). Comparing such a panel-based analysis with trend data offers insights into the ways in which community-wide trends are replicated in an individual speaker's linguistic behaviour.

This is important because linguistic malleability across the lifespan of the individual has implications for the ongoing trajectory of a change in progress: if post-adolescent speakers change 'in the direction of a change in progress in the rest of the community' (Sankoff 2005: 1011), a phenomenon referred to as *lifespan change*, rates of change are accelerated across real time. If, however, speakers move away from the community at large, a phenomenon called *retrograde change* (Wagner & Sankoff 2011: 276), the course of change can be halted or severely delayed (Sankoff & Wagner 2020).

The article has several aims: first, to add real-time trend data to Childs' (2013) apparent-time study. This analysis provides the first insights into the change in the variable in real time, tracing the developments in 1POS in the community across five decades. Second, to compare the observed patterns in the linguistic community with intraspeaker patterns in my panel dataset. Finally, to consider language-internal constraints (stress, following phonetic environment and alienability of the following noun) as well as social (age, social class, educator status, gender) constraints, which allows me to shed light on the development of speaker-internal grammars across the lifespan (Sankoff 2013: 274). These results allow me to explore the extent to which speakers take part in the ongoing changes in the community throughout their lives.

2 Panel studies and the linguistic marketplace

Panel research, which collects repeated recordings from the same speaker as they age, is an 'igniting' field in sociolinguistics (Buchstaller & Beaman 2021: 10). Panel studies allow sociolinguists to trace how and if individuals change linguistically across their lifespan (Labov 2001; Wagner 2012a), broadening our understanding of the types of behaviours speakers tend to display in situations of stable variability as well as during ongoing community-wide change in progress. Such 'intra-speaker malleability presents a severe problem for the predictive accuracy of models that rely on post-adolescent stability in linguistic habits' (Buchstaller & Wagner forthcoming). This is because an apparent-time interpretation may underestimate language change if speakers align with

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ongoing trends, or overestimate the rate of change if speakers do not participate in ongoing shifts. Panel studies are the only type of data which can provide diagnostic information about how malleable speakers are across their lifespans (Sankoff 2006; Chambers 2008). The panel dataset which I investigate covers the entire adult lifespan, including crucial episodes in the human experience from emerging adulthood to the entry into the linguistic marketplace over to retirement. Only such a longitudinal study which follows individual speakers across the key life stages can provide a holistic understanding of the causes of linguistic changes across the whole lifespan (Chambers 2008). The lion's share of panel studies is still marred by complementary shortcomings: some only cover short periods of the lifespan (Van Hofwegen & Wolfram 2010; Wagner 2012b), or recordings separated by a large time gap (Buchstaller 2016; Mechler & Buchstaller 2019). Others rely on very small speaker numbers or single speakers (MacKenzie 2017; Brook *et al*. 2018). Consequently, the language sciences have not been able to establish a comprehensive picture of the linguistic malleability that characterises the adult lifespan as a whole (Wagner 2012b).

Whether and in which ways speakers react to ongoing linguistic changes across their lifespan depends on a cornucopia of factors, such as their social networks, social class and occupation (Buchstaller *et al.* 2017). For diachronically stable variables, the concept of the linguistic marketplace (Bourdieu & Boltanski 1975) has provided a key explanatory parameter for adult linguistic trajectories. In (professional) environments in which adherence to the hegemonically prescribed standard is beneficial, marketplace pressures are hypothesised to result in a retrenchment towards the standard form (Grama *et al*. 2023). Over the lifespan, the resulting pattern is u-shaped, encompassing an adolescent peak in vernacular forms followed by a middle-aged trough (Downes 1984: 224; Buchstaller 2015: 468) and a reversal after retirement, when marketplace pressures abate (Buchstaller 2015). Such patterns have been mainly postulated based on apparent-time data and on reflections by speakers working as teachers (consider, for example, Baratta 2017; Cushing 2020). More recently, panel research has started to flesh out the workings of the *marché linguistique* by which speakers working in language-sensitive occupations are impacted (Bourdieu & Boltanski 1975: 7). Such research has revealed an occupationally niched trajectory for (ing) in the same panel dataset that is used for this study, where the most acute prescriptive pressures are placed on educators serving as linguistic role models (see Grama *et al.* 2023). These findings suggest that educator trajectories show retrenchment towards the standard while in classroom teaching but a notable 'relaxation' (Grama *et al.* 2023) after leaving in-session teaching.

Moreover, even though decreasing use of vernacular forms at middle age has mainly been hypothesised for stable variables (Rickford & Price 2013; Shapp *et al*. 2014), panel research has found similar retrenchment patterns in middle age for ongoing changes. Buchstaller (2015) observed speakers moving away from variants indexicalised as youthful or trendy as they make their way into professional environments where adherence to the standard is expected and/or rewarded. In these cases, as for stable variables, one would expect to see reduced rates of vernacular forms amongst those middle-aged speakers who are particularly impacted by normative marketplace

pressures, the 'professionals of the language' in the words of Bourdieu & Boltanski (1975: 8).

However, there is evidence to suggest that the use of linguistic variants that are tied to the community might be beneficial for some speakers since they carry covert prestige for them. This is the case for example for professional carers such as nurses. Philip *et al.* (2019: 91) found that international nurses report that the use of local colloquialisms helped 'reduce tensions in intercultural clinical communication'. Brito *et al.* (2017: 218) similarly report that using colloquial language helps professional carers to establish a better relationship between carers and patients. Note in this respect that individuals working in the tourism sector have been shown to converge towards the level of vernacularity of their interlocutors (see, for example, Coupland 1984 and Hall-Lew *et al*. 2019). Their 'local image [is thus mobilised as] part of the identity that has given [them] influence and authority by drawing on [their] authentical … roots' (Sundgren *et al*. 2021).

1POS is an ideal variable to test such assumptions since it contains three forms that hold very different social meanings within the context of the North-East: while [maɪ] is indexicalised as standard and [ma] is associated with female and middle-class speech, the [mi] variant has been described as stigmatised in the literature (Wales 1996, but see below). This might lead to the hypothesis that speakers in language-sensitive occupations might be orienting towards the standard as they move into middle age (Childs 2013). The following section briefly sketches the literature on 1POS.

3 The first-person singular possessive

1POS can be realised as [maɪ], [mi], [mə] or [ma][1] in the North-East of England. Linguists disagree whether [mi] should be classified as a phonetic realisation (Childs 2013) or as 'an extension of the object form for the possessive form' (Anderwald 2004: 177). I will assume the former, since there 'is little evidence to suggest … that those speakers who use [mi] for the possessive equate this form with objective "me"' (Snell 2008: 73).[2]

3.1 Social constraints

Childs (2013) found age-graded effects in apparent-time research for her speakers from Tyneside: the younger speakers used the four variants to similar extents. In contrast, the older speakers, especially older middle-class speakers, realised higher

[1] Auditory coding yielded 38 tokens of the reduced variant [mə] in the panel study and 10 tokens in the trend study. This is somewhat unexpected since [mə] occurred relatively frequently (27 per cent for young speakers and 30 per cent for older speakers) in Childs' (2013) data. The disparity between the two studies might arise because Childs' (2013) dataset does not comprise the whole lifespan and lacks the middle-aged age brackets. Since the 38 tokens equal 2 per cent, while the other variants occurred in more than 25 per cent of all cases in the panel study, the following analysis will not include [mə].

[2] In another study which compares the phonetic realisation of 1POS and the object 'me', we found that the vowel trajectories of the possessives and objects differ significantly: The vowel onset and nucleus are located lower and the offglide backer for the realisation of [mi] as 1POS.

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rates of standard diphthong [maɪ]. In line with sociolinguistic theorising, she interpreted these patterns as a corollary of linguistic marketplace pressures.

In Childs' (2013) research, [ma] is sharply stratified according to gender and class, being preferred by middle-class and female speakers. [mi] is generally described as stigmatised and dialectal (Wales 1996: 14) although it can be found in almost all varieties of English in the British Isles (Kortmann & Upton 2008). Note, however, that ongoing research (Moelders in preparation) on the indexicalities of [mi] on Tyneside has revealed that only 20 per cent of respondents (n=90) dislike the use of [mi] and 40 per cent report using the variant frequently themselves. In the context of the North-East '[i]t holds a prominent position within local consciousness, sometimes addressed directly in conversation' (Snell 2010: 7). This is illustrated by Dustin, a working-class man in his twenties, who comments on his use of [mi] when he is asked to read a reading passage in his second interview:

(1) Dustin T2 (00:37:04): it's weird like I- I feel like I want to say [mi] but it's "[maɪ] back is very sore lately"

This comment implies that Dustin is both aware of his usage of the local form, and of the issue of appropriateness of this variant in more monitored contexts such as reading aloud for an unknown interviewer. It is thus not surprising that he avoids [mi] in the reading passage, in contrast to his rates in free speech (80 per cent in the first and 100 per cent in the second interview). Dustin's comments are further corroborated by Snell (2008) and Grama *et al*. (forthcoming), who found that [mi] is stylistically niched and preferred in informal contexts. I take these findings to mean that the form is salient and avoided in careful speech but not as stigmatised as assumed in the literature.

In Childs' (2013: 55) study, '[mi] appears to correlate most significantly with [working] class, exhibiting a smaller gender effect'. Middle-class speakers rarely use this variant, preferring to use [ma] and Childs (2013: 52) appeals to class-based speech norms, arguing that 'societal differentiation … appears to have given rise to these separate linguistic tendencies, which consequently reiterate the social distinction further'. Note also that pupils attending working-class schools favour [mi] in Snell's (2008; 2010) analysis of Teeside pupils.

3.2 Linguistic constraints

Three principal linguistic constraints have been described as governing 1POS: stress, the following phonetic environment and the alienability of the following noun. Snell (2010) and Childs (2013) show that [maɪ] and [ma] can occur in stressed and unstressed contexts[3] while [mi] was always unstressed in their data. Childs (2013) adds that [maɪ] was stressed 75.9 per cent of the time. This might be due to the articulatory properties of [maɪ], as it is the only diphthong and thus phonetically longer.

[3] Note, however, that only one [ma] token was stressed in Childs' (2013) data.

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The literature bears conflicting information regarding the effect of the following phonetic environment on the realisation of the possessive. While in Childs' (2013) data the following phonetic environment did not seem to affect variant choice, Snell (2010) reports a significant effect, with [maɪ] occurring significantly more often before a vowel and [ma] only before a consonant; [mi] occurred in both positions, but more frequently before a vowel.

Finally, the (in)alienability of the following noun has been shown to play a crucial role in the conditioning of the possessive. Even though English 'has not been characterised as a language in which alienability plays a structural role' (Hollmann & Siewierska 2007: 408, but see Meyerhoff's 2002 argument, which mainly pertains to contact varieties), alienability is a significant predictor in both Childs' (2013) and Hollmann & Siewierska's (2007) data. Typically, alienable possession is determined by the type of relationship of possessor and possessed: in contrast to inalienable nouns, alienable nouns have a less permanent relationship with the possessor and the possessor may exhibit some sort of control over the relation (Hollmann & Siewierska 2007). However, as Hollmann & Siewierska (2007: 410) explain, the semantic properties of the possessed play a more crucial role for the determination of alienability:

> The inalienable/alienable distinction may affect the formal realization of the possessor and possessed in several ways, all of which concern the linguistic proximity between the possessor and the possessed. If there is a difference between inalienable and alienable possession in this respect, it is always the case that the possessor and possessed are located closer to each other in inalienable possession than in alienable possession.

Two competing hypotheses have been proposed to explain alienability effects. Croft (2017) argues that iconicity could serve as an explanation for (in)alienability as some concepts are more likely perceived as being linguistically inseparable because of the closer perceptual link. Haspelmath (2017: 21) contests this account since it seems to make predictions which have been refuted by the structural properties of some languages such as Koyukon (Thompson 1996). Haspelmath (2008; 2017) thus proffers another explanation, which is based on frequency and predictability. The baseline for this hypothesis is the observation that inalienable nouns (e.g. *arm*, *sister*) occur more frequently in possessed contexts than alienable nouns (e.g. *garden*, *knife*) (Haspelmath 2008: 19–20; 2017: 194, 202). Consequently, speakers expect nouns like *arm* to be possessed, which makes an overt possessive marking redundant (Haspelmath 2017). Haspelmath (2008) thus suggests relative frequency in possessive contexts versus non-possessive contexts as a measure, which here means that lexemes that occur in the same slot are compared: for example, all tokens of *arm* are compared to all tokens of *my arm.* One of the great advantages of this approach is that it allows the comparison of high-frequency alienable nouns (e.g. *house*) with low-frequency inalienable nouns (e.g. *kidney*) because only the corresponding percentage in the possessive constructional frame (in this case nouns preceded by *my*) is considered (Haspelmath 2008: 20). This approach has been adopted by Childs

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(2013) as well as by Hollmann & Siewierska (2007), whose findings fully support Haspelmath's (2017) assertion that relative frequency should be considered. More details about the operationalisation of relative frequency are provided below.

4 Data

This article combines a trend and panel study to analyse the diachronic development of 1POS on Tyneside, a conurbation in the North-East of England, across the community and across intraspeaker grammar. A long history of data collection on Tyneside going back to the 1970s provides a good understanding of ongoing language variation and change in the community. All trend and panel speakers are from the North-East of England and continue to live in the geographical north, the majority still residing on Tyneside. My trend study relies on heritage data to construct a socially balanced sample of 21 speakers who were recorded in 1994 as part of the *Phonological Variation and Change in Contemporary Spoken English* (PVC) corpus and a socially matching sample of 21 different speakers who were interviewed in 2013–17 as part of the *Diachronic Electronic Corpus of Tyneside English* (DECTE; see Allen *et al*. 2007; Corrigan *et al*. 2012; Beal *et al*. 2014). This community trend corpus (table 1), which includes 1,642 possessive tokens, allows me to report on the development of 1POS in the North-East since the 1990s.

To explore the development of 1POS amongst the younger age ranges, I also created a second, four-wave trend set (n=987) consisting only of speakers in their twenties. While issues of data availability meant that the young trend sample was not perfectly socially balanced, as table 2 reveals, five to eight young speakers were pulled from corpora collected in the Tyneside region from the 1970s, the 1990s, the early 2000s and the 2020s. These data were drawn from DECTE (Corrigan *et al*. 2012) as well as the Language Variation and Change Project (see Grama *et al*. 2023 for a detailed introduction of the project and the panel corpus).

These two separate trend datasets are complemented by the Language Variation and Change (LaVaLi) panel corpus (see table 3). This novel and dynamic panel corpus

Table 1. *Social matrix of trend sample*

		2007–13		1994	
		f	m	f	m
WC	20s	n=2	n=2	n=2	n=2
	40s–50s	n=2	n=2	n=2	n=1
	60s–70s	n=2	n=2	n=2	n=2
MC	20s	n=2	n=2	n=2	n=2
	40s–50s	n=2	n=1	n=2	n=2
	60s–70s	–	n=2	–	n=2

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Table 2. *Social matrix of young trend sample*

Year	1970s		1990s		2000s–2010s		2020s	
	f	m	f	m	f	m	f	m
WC	n=2	n=3	n=2	n=2	n=2	n=2	n=1	n=1
MC	n=1	–	n=2	n=2	n=2	n=2	n=3	–

Table 3. *Social matrix of panel sample*

	2007–13		2013/2014 (for early twenties) 2020/2021 (for late twenties – sixties)	
	age	n speakers	age	n speakers
Early twenties	19–22	6	24–29	6
Late twenties	27–29	4	36–42	4
Thirties	30–39	4	39–49	4
Forties	42–49	4	50–61	4
Fifties	52–53	4	61–65	4
Sixties	63–71	3	69–78	3

consists of 25 speakers who were recorded twice: the first recording of the young and middle-aged brackets was also part of the DECTE project, which has been collecting language data on Tyneside since 2006 (see Allen *et al.* 2007; Corrigan *et al*. 2012; Beal *et al*. 2014). In order to create the panel corpus, the LaVaLi team contacted as many speakers as possible to rerecord them ten years after the first recording took place. Despite the typical problems that come with the creation of panel corpora, we managed to rerecord 25 speakers. The resulting panel sample is stratified by age (4–6 speakers per age group) and gender.

All recordings consist of ethnographic interviews lasting approximately sixty minutes. For maximum comparability between the timepoints, the interview setting was kept constant, and interviewees were given prompts in the second interview to ensure that similar topics were covered at both timepoints. Apart from the oldest speakers, who were interviewed individually by a fieldworker from the University of Newcastle, all other panel speakers were recorded in dyads with a friend, family member or acquaintance. These pairs remained the same for the second interview.

The six consecutive age bands cover the entire adult lifespan from emerging adulthood (Arnett 2000) to speakers' entry into the linguistic marketplace, the pressures of middle age (including life-stage markers such as parenthood or increased professional responsibilities such as mentoring young colleagues or trajectories towards senior positions) until retirement.

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5 Analytic methods

The data were orthographically transcribed, annotated and time-aligned in ELAN (Lausberg & Sloetjes 2009). All possessive tokens were identified in LaBB-CAT via regular expressions (Fromont & Hay 2012). I coded each token auditorily in Praat and classified them as [maɪ], [ma], [mi] and [mə] (with the latter being excluded from the analysis). To ensure consistency, all tokens were blind coded twice with an average time difference of six weeks. The data (the youngest and the oldest cohorts) was also coded for a third time by external coder and the intercoder reliability between my coding and their coding was 93.69 per cent. For inconsistent tokens, the trajectories of F1 and F2 were visually inspected in Praat; ambiguous and indeterminate tokens were excluded, as were possessives that occurred in interruptions or during stretches of poor audio quality (see Blake 1997).

Excluded linguistic environments for both the panel and trend study are possessives followed by some variation of *God* (e.g. *Oh my God/Gosh/Goodness*) since these are categorically [maɪ] and stressed (see Childs 2013). Reflexive pronouns (*myself*) are also not considered because they cannot be coded for the alienability of the following noun and have an invariable following phonetic environment.

To analyse the linguistic constraints in the panel study, I drew on previous research as described above. Following Hollmann & Siewierska (2007), only possessives directly followed by a noun were included. I coded for the presence or absence of word-level stress as well as the following phonetic environment, dividing the following nouns into those beginning with a vowel and those beginning with a consonant (Snell 2008; Childs 2013). My coding strategy for alienability follows previous research by subdividing the noun following the 1POS into kinship terms and body parts, which have been described as spearheading the (in) alienability hierarchy in equal parts as they are positioned at the top of the alienability hierarchy (Hollmann & Siewierska 2007; Childs 2013). All remaining nouns were categorised as other. For a complementary operationalisation of alienability, I calculated the relative frequency of the following nouns in my data in line with Childs (2013) and Hollman & Siewierska (2007) and found that the average relative frequency of possessed kinship terms is 17 per cent, of body part terms 14 per cent and of other nouns 6 per cent, confirming previous findings by Childs (2013) and Hollmann & Siewierska (2007), who found similar frequencies for possessed nouns their data.[4]

For informant gender, I relied on the information provided by the interviewees themselves, which resulted in a binary coding scheme (male versus female). Since Grama *et al*. (2023) found that the educator status of the speakers played a significant role in the variable choice in the same panel dataset, I classified the speakers according

[4] Note that these percentages differ slightly from Childs' (2013) and Hollmann & Siewierska's (2007) numbers, which is most likely because the datasets comprise different nouns which serve as the baseline for these calculations (see Childs 2013).

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Table 4. *Summary of linguistic and social constraints*

Linguistic constraints	
Stress	yes | no
Alienability of the following noun	body part | kinship term | other
Following phonetic environment	vowel | consonant
Social constraints	
Social class	stable MC | stable WC | upwardly mobile
Age	20s | 30s | 40s | 50s | 60s
Educator status	former | current | none
Gender	male | female

to their educator status as current, none and former.[5] Social class was derived from the Standard Occupational Classification 2010 and divided into a ternary category: those speakers who are upwardly mobile (i.e. those who move from working-class to middle-class from T1 to T2) as opposed to those who remain stable working-class and middle-class. Students were classified based on their parents' socioeconomic status.

RStudio (RStudio Team 2015) was used to conduct the statistical analyses, including mixed effects regression models (fit via the lme4 package, Bates *et al*. 2015). I followed previous research (Hollmann & Siewierska 2007) in collapsing [ma] and [mi] into one category, which left me with a binary opposition: reduced forms versus standard [maɪ]. Because of the vastly different indexicalities of the two reduced variants, I also ran a separate regression model comparing the reduced variants separately. All models included all linguistic and social constraints as fixed effects and speaker as a random effect. To explore if the constraints remain stable across the lifespans of my panel speakers, I furthermore investigated interactions between the time of recording and the respective constraint. These analyses were done separately for each age bracket to explore (in)stability for each cohort in the panel dataset. Variance Inflation Factor (VIF) analysis via the car package (Fox & Weisberg 2019) indicated that there is little or no multicollinearity among the predictor variables. Table 4 summarises the coding scheme employed in the following analyses.

Overall, the two-wave community trend sample consists of 1,642 tokens, of which 831 (51%) are realised as [mi], 508 (31%) as [maɪ] and 303 (18%) as [ma]. The trend study with only young speakers comprises 987 tokens, of which 350 (35%) are realised as [mi], 350 (35%) as [maɪ] and 287 (30%) as [ma]. The panel study, finally, contains 1,571 tokens of 1POS altogether, of which 718 (46%) tokens are realised as [mi], 445 (28%) as [maɪ] and 408 (26%) as [ma].

[5] See Grama *et al*.'s (2023) paper for a more nuanced discussion about the prescriptive pressures educators face while they are part of the linguistic marketplace.

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6 Trend study

Childs' (2013) apparent-time study shows that older speakers use [maɪ] more often than younger speakers. Note in this context that the time slices used in her study are relatively broad, with younger speakers aged 18–26 and the older cohort 40–77. The two trend studies used in the present study add diachronic nuance to the development of 1POS in real time. Analysis of the community trend data (n=1,642) allows me to compare two snapshots of the Tyneside community collected on average fifteen years apart.

Figure 1 illustrates the diachronic competition between the two reduced forms: while [maɪ] stays relatively stable, [ma] increases slightly across time, an expansion that is primarily at the expense of [mi]. This change, which is highly significant (χ^2 (2) 23.179, $p < 0.001$), does not align with Childs' (2013) apparent-time study, which showed that older speakers preferred [maɪ] and produced [ma] and [mi] in equal amounts. The younger age cohorts, on the other hand, used [ma], [mi], [maɪ] and [mə] to the same extent. What might lie behind these disparate findings?

Figure 2 adds an apparent-time angle to these diachronic trends by comparing the age groups at each time point: here, the ongoing change towards [ma] depicted in figure 1 is visible across apparent time, with younger speakers producing increasingly higher ratios of [ma]. Amongst the younger age brackets, there is also a clear incrementation across real-time (trend) data (Δ18% between T1 and T2): the young speakers in the 2000s produce the highest frequencies of [ma] of all speakers by far. This is the only intra-cohort comparison which is significant for this part of the trend study (χ^2 (2) 36.556, p- value < 0.001). Since standard [maɪ] is relatively stable for the youngest cohort – only increasing ever so slightly across time – these rising [ma] rates come at the direct expense of [mi], which declines by 21 per cent.

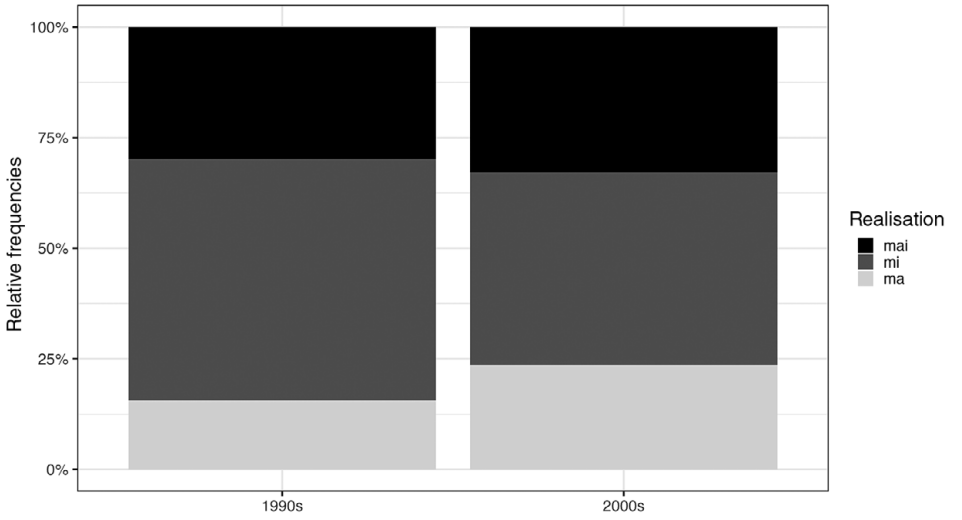

Figure 1. Overall development of 1POS in trend sample

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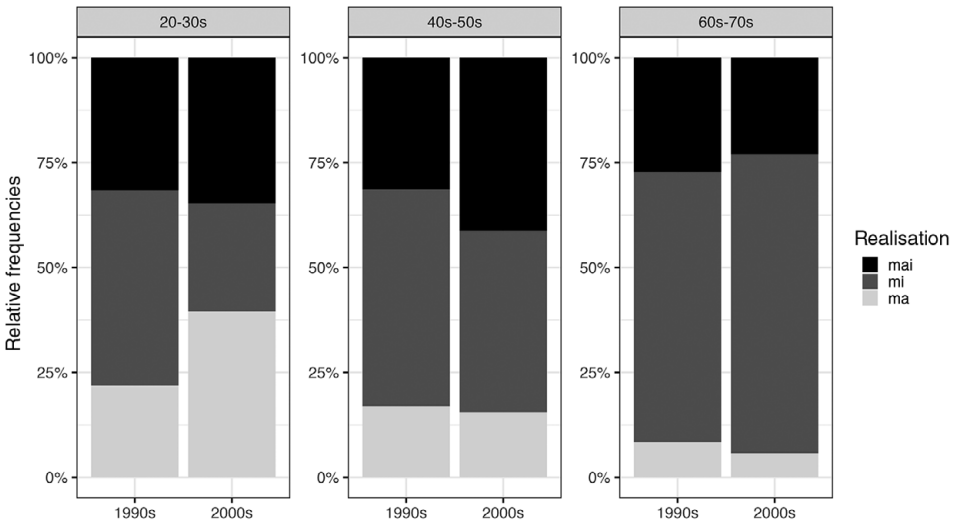

Figure 2. Development of 1POS by trend cohort

While the middle-aged speakers retain middling rates of [ma] in both subcorpora (Δ1%), note that this age group shows the largest increase in use of [maɪ] across time (Δ10%). Amongst the oldest speakers, rates of [maɪ] and [ma] remain relatively stable, the latter at low frequencies. Note also these oldest speakers are the age group with increasing rates of [mi]. However, neither of these trends were significant. What can be inferred from these plots is that the variant [ma] has progressively increased its share within the variable since the 1990s. Hence, while rates of [ma] creep up in apparent time, between the generations, it is only the youngest speakers that show a propagation of [ma] in real time.

The young trend study (in figure 3), which comprises speakers in their twenties and early thirties recorded between the 1970s and the 2020s, adds further detail to this process of incrementation of [ma] in the system of 1POS.

Figure 3 lends support to the hypothesis that [ma] might indeed be a newcomer that is increasing at the expense of [mi].[6] The variant was not used by speakers in their twenties in the 1970s at all, only appearing in the 1990s (with a share of 22 per cent of the system). By 2007–13 [ma] rates have surged to 40 per cent, which stabilise by 2021 (40 per cent). The inverse is true for [mi], which was the preferred variant in the seventies (72 per cent) but has since become the least favoured form amongst the most recent twenties cohort (with only 14 per cent the 2020s data). Based on these trend data, I hypothesise that [ma] entered the system sometime in the 1980s, increasing over the following decades amongst younger speakers. Indeed, this trend suggests that [ma] might be making its

[6] Separate regression models testing the reduced variants for the trend sample found that gender and social class do not significantly influence 1POS in the trend sample.

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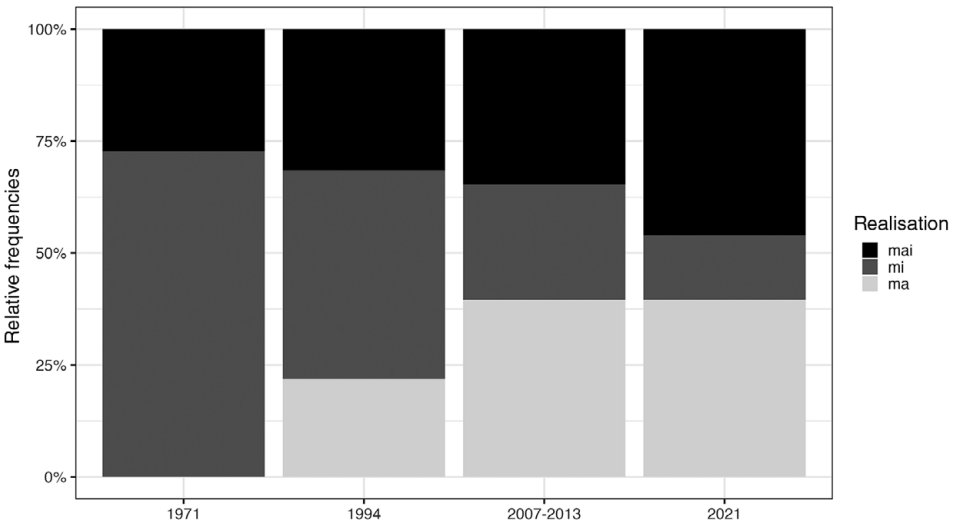

Figure 3. Development of 1POS for young trend speakers

way into the linguistic system of speakers in the North-East. Standard [maɪ] grows gradually across time for the young (see figures 1 and 2) and middle-aged speakers (see figure 2). One might hypothesise that the latest jump in [maɪ] usage amongst the youngest trend cohort might be an artefact of the dearth of male speakers in this particular group (consider table 2). However, an analysis of the distribution of 1POS by gender (see figure 4) suggests that this is not the case. To test the effect of gender on variant choices in 1POS, let us consider figure 4, which includes only the community trend sample and plots the diachronic development of the possessive determiner stratified by gender.

The comparisons between the 1990s and the 2000s suggests that incoming [ma] started out as a female-led change, by 'women with a particular ability to confront established norms and the motivation to defy them' (Labov 2001: 516; consider also the ample sociolinguistic literature on women at the forefront of supralocal changes, e.g. Docherty & Foulkes 1999). While the gender differences in the 1990s are highly significant (χ^2 (2) 13.128, p-value=0.001), by the 2000s men seem to have caught up with this development as the difference between male and female speakers fails to reach significance (χ^2 (2) 5.643, p-value=0.06). A consequence of the male speakers' increasing [ma] rates could be that standard [maɪ] is favoured by men in the 1990s data, which melts away by the 2000s.

7 Panel study

A series of mixed effects models were fit to the data with the phonetic realisation of 1POS as the response variable; [maɪ] was set as the baseline level. Speaker was included as a random effect, and I tested for the gamut of linguistic and social

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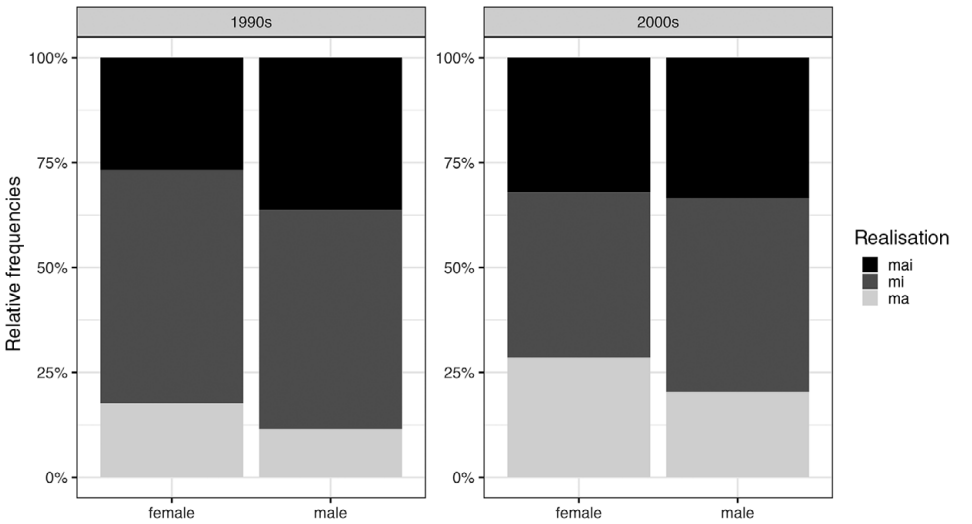

Figure 4. Development of 1POS stratified by gender

predictors illustrated in table 4.[7] Because of the varying indexicalities of the three variants, I fit one model exploring standard [maɪ] versus reduced [mi] and [ma] combined (table 5) as well as a model only comparing the two reduced forms (table 6).

Let us consider the linguistic constraints on the standard versus reduced model first. In line with Childs (2013) – and contrary to Snell's (2010) finding that following vowels favour [maɪ] – the following phonetic environment did not come out as significant in the model depicted in table 5. Stress, however, was highly significant, with stressed contexts favouring the occurrence of [maɪ]. Out of the 1,438 unstressed tokens overall, 325 were [mai] (73 per cent of all unstressed tokens). There were 133 stressed tokens, of which 120 were [mai] (90 per cent of all stressed tokens). Every speaker in the sample used the standard more frequently in stressed contexts, which confirms Childs' (2013) assertion that stress is a significant predictor for standard [maɪ].

The alienability of the following noun also plays an important role in the choice between full versus reduced 1POS variants. While other nouns tend to favour standard [maɪ], reduced variants are favoured with body part and kinship terms. This corroborates findings by Childs (2013) and Hollmann & Siewierska (2007). The fact that kinship and body part terms occur with the reduced variants most often in my data also confirms Haspelmath's (2008) assertion that nouns with a higher relative frequency are more likely to trigger a reduced possessive marking. While the extralinguistic constraints on 1POS will be explored below, let us now consider the linguistic factors that determine the choice between the two reduced variants.

[7] As is often the case with morphophonological and morphosyntactic variables, especially in panel studies, some of my analyses rely on relatively low token numbers. See table 7 and appendix table A1 for an overview of the absolute token numbers per speaker.

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Table 5. *Results of mixed effects regression model comparing [maɪ] vs reduced forms ([mi] and [ma])*

Standard vs reduced					
Predictors	odds ratios	std. error	statistic	p-value	n 1POS
(intercept)	1.36	0.43	0.97	0.333	
Recording (ref=T1)					
T2	0.69	**0.11**	–2.21	0.027	582
Educator status (ref=current)					
former	0.95	0.40	–0.13	0.900	195
none	0.23	0.07	–4.71	<0.001	1,199
Stress (ref=no)					
yes	52.46	17.46	11.90	<0.001	133
Alienability (ref=other)					
body part	0.43	0.11	–5.59	<0.001	109
kinship term	0.34	0.06	–3.35	<0.001	768

Not significant: following phonetic environment, gender, social class, age, recording*stress, recording*age, recording*alienability.
Odds ratios > 1 favour the standard [mai], odds ratios < 1 favour reduced variants [mi] and [ma].

Table 6. *Outcome of a mixed effects regression model comparing reduced [ma] vs [mi]*

Reduced forms [ma] vs [mi]					
Predictors	odds ratios	std. error	statistic	p-value	n 1POS
(intercept)	142.81	161.05	4.40	**<0.001**	
Recording (ref=T1)					
T2	0.11	0.04	–5.98	**<0.001**	419
Age (ref=early twenties)					
late twenties	0.00	0.00	–4.26	**<0.001**	218
thirties	0.03	0.05	–2.30	**0.021**	114
forties	0.00	0.01	–3.46	**<0.001**	175
fifties	0.01	0.02	–2.86	**0.001**	112
sixties	0.01	0.01	–2.75	**0.006**	164
Educator status (ref=current)					
former	2.64	2.41	1.06	0.289	100
none	0.10	0.07	–3.34	**<0.001**	947
Alienability (ref=other)					
body part	0.48	0.14	–2.62	**0.010**	90
kinship term	0.29	0.13	–2.57	**0.009**	607

Not significant: following phonetic environment, gender, social class, stress, recording*stress, recording*age, recording*alienability.
Odds ratios > 1 favour reduced [ma], odds ratios < 1 favour reduced [mi].

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The following phonetic environment was also not significant in the model comparing the two reduced variants. In contrast to the first model, however, stress did not come out as a significant predictor in a model that explores the factor's conditioning choice between the two reduced forms. I interpret this finding to mean that while the full form is generally preferred in stressed contexts, the choice between unstressed realisations is not sensitive to stress. Alienability was again significant, with body part and kinship terms favouring [mi] if compared to other nouns, so it seems as if alienability not only impacts the choice between full and reduced form but also between the reduced variants themselves.

As a last step for the linguistic constraints, I ran separate regression models for each age cohort, testing for interactions between time of recording (T1 versus T2) and stress and alienability. Interaction terms were included in models that predict [maɪ] versus reduced forms, as well as in models that predict [ma] versus [mi]. This allows me to investigate if and indeed how these constraints change across the speaker's lifespan. I merely report on the significant interactions here. With the sole exception of the early twenties and the sixties cohorts, all other age groups maintain a stable constraint system as they age. The significant interaction term (p-value=0.009) for the early twenties cohort amounts to a shift in preference from disfavouring [ma] with kinship terms in T1 to favouring [ma] in these contexts in T2. This is illustrated in figure 5.

Intraspeaker changes in the grammar conditioning variable choice have been reported for post-adolescent speakers before (Buchstaller *et al*. 2021; Beaman 2022). The finding that the youngest group, speakers in their twenties, display malleability in their constraint system might thus not seem overly surprising. The other interaction term, however, is observed for speakers in the sixties. For this cohort, the interaction of stress and recording

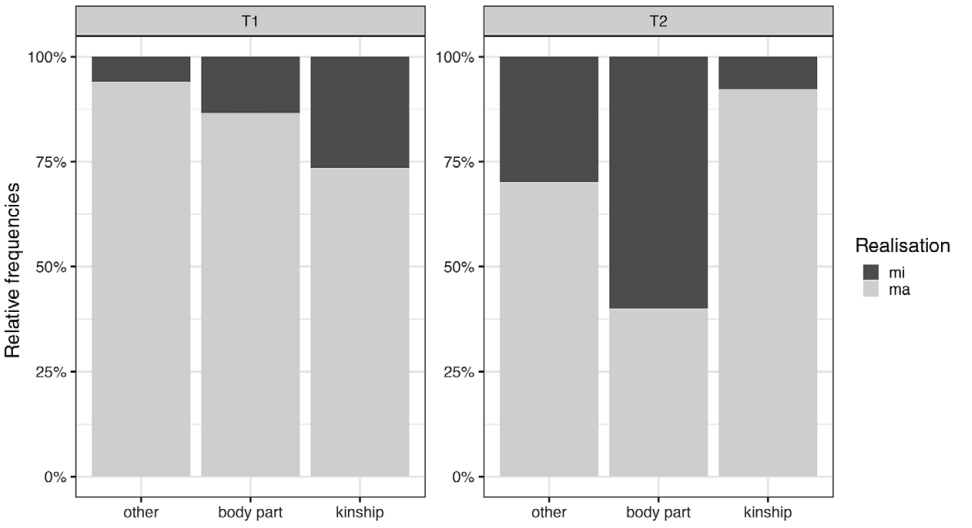

Figure 5. Alienability (contrast between reduced variants) for the early twenties cohort

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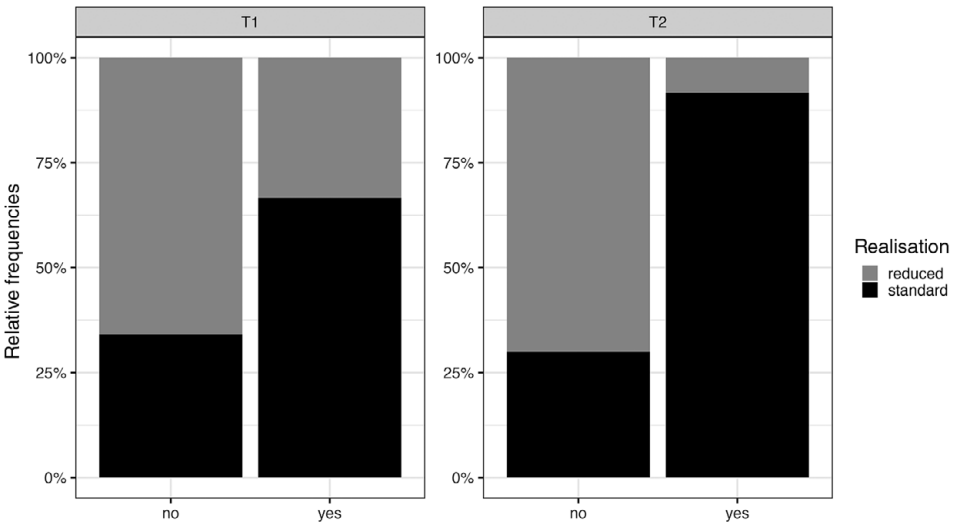

Figure 6. Stress (standard versus reduced) for sixties cohort

was significant for the model comparing standard [maɪ] with the reduced variants (p-value=.005). As is illustrated in figure 6, while the standard is more likely to occur in stressed environments in both recordings, the effect becomes significantly more pronounced in the second recording for this cohort.

Hence, the significant effect for the oldest speakers seems more indicative of a consolidation of the constraint system, where the effect of a predictor is becoming more focused, rather than a true reorganisation. Hence, while there is some evidence that the changes in the constraint system can occur in speakers until well into their sixties (Buchstaller *et al*. 2021; Beaman 2022), more research is needed to explore the extent to which older speakers show change in the grammatical conditioning that underpins variable choices across time (see Pichler *et al.* 2018).

Let us finally explore the social situatedness of the change in 1POS. Gender does not come out as a significant factor in either model, despite the change in 1POS originating as being female-led. The time of recording, however, is significant in both models – with a significant decrease of both [ma] and [maɪ] and a concomitant increase of [mi]. I take these findings to mean that the realisation of 1POS is changing both in the community and across the lifespan of the panel speakers. Age cohort as a factor is only significant for the model comparing reduced forms [mi] and [ma], with every single age group being different from the early twenties, the reference level in the model. Post hoc tests via the emmeans package in R (Lenth 2022) reveal that the older cohorts do not differ significantly from each other. This can be attributed to the youngest speakers' elevated rates of incoming [ma], as shown in figure 7.

In the time period covered by the panel corpus, the youngest cohort produce decreasing rates of [ma] and orient towards standard [maɪ] as they get older. This movement away from the incoming form did not come out significant in a separate

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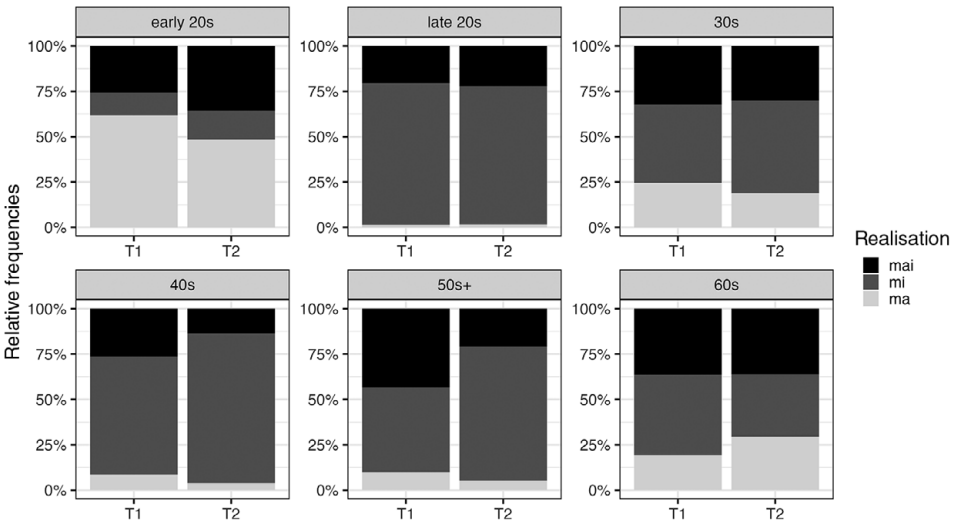

Figure 7. Distribution of 1POS across cohorts in the panel sample

mixed effects model run on this cohort (the p-value of recording was 0.877), but this numerical trend away from [ma] might be a correlate of these speakers' entry into the linguistic marketplace. Note in this respect that the late twenties cohort produce no [ma] at all (but they show high and stable rates of [mi]). Similarly, the thirties, forties and fifties cohorts slightly increase their [mi] rates across the recordings while [ma] stays stable at relatively low rates. Crucially, except for the oldest cohort, none of the age groups in my panel sample appears to be going along with the community-based trend towards decreasing [mi] and concomitant increase of [ma]. Quite the opposite, [mi] is relatively stable across the panel sample with only a slight increase across the lifespan (44% versus 49%, χ^2 (1) 3.3708, p-value = 0.06636).

Not much is known about retrograde changes (but see Sankoff & Wagner 2006; 2020), which have hitherto been mainly attributed to highly educated speakers moving away from community-led changes towards incoming forms. In my data, there seems to be the opposite effect: speakers moving towards (or retaining) variants that have been described as stigmatised in the community at large. The sociolinguistic enterprise has drawn our attention to the fact that, especially amongst communities characterised by a strong sense of local belonging, some professional trajectories are aided and abetted by performances that tap into local linguistic forms as social capital. While these findings have been mainly reported in the tourism sector (Schilling-Estes 1998; Hall-Lew *et al*. 2019), research has found that nurses use colloquial speech strategically to establish 'a positive interpersonal relationship with their patient' (Brito *et al.* 2017: 218; see also Philip *et al.* 2019). My panel data support this finding: the three panel speakers who work as nurses in the healthcare sector tend to employ vernacular forms for the performance of friendly or compassionate stances: Erica, Samantha (nurses) and Lucille (a charity worker in the healthcare sector)

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maintain relatively high and stable [mi] rates across their lifespans. Erica, a mental health nurse in Northumberland, reflects on the fact that her accent allows her to do local identity work, fostering a joint sense of belonging and thus supporting her professional goals:

(2) Erica T2 (00:11:47): I guess the job that I do [requires] trying to engage to people to get that therapeutic relationship to have the same accent and to be a bit more broad.

I would venture that linguistic strategies indexicalised as local are particularly apt at fostering such a sense of belonging since they are tied to a shared deep geography of belonging (Hall-Lew *et al*. 2019). Note also that Sundgren *et al*. (2021) have shown that deeply held perceptions of local rootedness of certain linguistic forms can show up in gendered linguistic trajectories. They find that some geographically non-mobile male speakers in Eskilstuna (Sweden) use high rates of localised linguistic forms with covert prestige to signal their belonging to the autochthonous community while signalling local expertise. This trajectory is illustrated in my panel data by two speakers: Jake is a social riser who works as a clerk in the local Tyneside government. He shows retrograde movement towards [mi] (from 16 to 79 per cent) against the community trend as he rises through the ranks of the lower to mid echelons of his local council. Andrew, similarly, draws on the covert prestige of localised vernacular [mi]. Starting out as a shop assistant in T1, Andrew has opened a local barbershop by T2. In extract (3), Andrew reflects on his accommodative behaviour to his customers as well as on the value of the vernacular as a male bonding strategy, reporting that his language has become more 'blokey' since he has opened his own neighbourhood shop. Note that Andrew's rates of [mi] increase from 19 per cent in T1 to 50 per cent by T2. As illustrated in the extract, Andrew also draws on localised first-person plural possessive *wor*, northern past tense form *sat*, T-to-R, as well as glottal(ised) realisations of /t/ for his 'blokey' performance within an indexical landscape that is historically tied to locally rooted, blue-collar values (Trudgill 1972; Lawson 2020).

(3) Irvin T2 (00:13:01): […] do you still change depending on who you're talking to yeah?

Andrew T2 (00:13:05): **To[ʔ]ally** but there that's one of the things in here with i**[ʔ]** being a bi**[ʔ]** more blokey than **worki[n]** in a clothes shop um I'm much more "**m[e:]te**" and probably maybe put it on (=[pʊɹɪɾɒn]) a bit you know it's it's definitely more like **bantery (=[banʔəɹi])** this environmen**[ʔ]** and and because it's **wor** our business I can say what I (=[wɒɹɑ]) like I don'**[ʔ]** have to worry about sweari**[n]** […] pitching to the audience

Finally, let us consider the use of 1POS amongst educators, those 'professionals of the language', whose 'lives and work would require them to [demonstrate] access to the language variety legitimized by the dominant ideology' (Sankoff *et al*. 1985: 108). Critical school research (Cushing 2020; Cushing & Snell 2023) has argued that teachers are generally expected to serve as linguistic role models for their students

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within the context of the British educational system, expected to promote the 'high standards of literacy, articulacy and the correct use of standard English' (Department for Education 2021: 11). Baratta (2017, 2021) has reported that teachers feel pressured to adhere to prescriptive superimposed norms and orient towards accents which are indexicalised as professional. But to date, such research has been predominantly based on surveys with teachers and policy documents. It is thus unclear how and to what extent educators' linguistic trajectories are impacted by such prescriptive pressures 'where language is aggressively surveilled and policed' (Cushing & Snell 2023).

The teachers in my panel data show different reactions to the prescriptive pressures of the '*marché scolaire*' (Bourdieu & Boltanski 1975: 7). Table 7 shows the teachers in the sample and their proportional use of these variants of 1POS before, during and after active teaching duty.

Of the three youngest panel speakers who move into in-session teaching between T1 and T2, Amelia and Lynn do not seem to be impacted by prescriptive pressures (yet), which has also been found for their realisation of (ing) (Grama *et al*. 2023). The fact that Lynn increases her [mi] and [ma] rates is not surprising given that she reports that she teaches in the same school she attended when she was a student. In a similar vein, related research has interpreted Amelia's slight increase in vernacular forms as her 'newfound confidence [being] reflected in her linguistic behavior' (Grama *et al*. 2023: 20). Sally's orientation towards [mi] might be due to her high dialect loyalty as she explicitly mentions not changing her accent any more in T2 (20:40–20:51): 'when I first started teaching I was very conscious of it […] and I would perhaps modify the way that […] I spoke […] but I try not to now I try to actually just be me.'

The third student, Charlotte, is an illustrative case of retrenchment because of marketplace pressures as she is moving into the *marché scolaire*: at T1, Charlotte is a university student, and at T2 she has become a PhD student, engaging in regular

Table 7. *Overview of teachers in panel sample*

	Age	[mi]	[mai]	[ma]	Age	[mi]	[mai]	[ma]
	Before active teaching duty				During active teaching duty			
Amelia	20	0%	40%	60%	25	8%	49%	43%
Lynn	20	3%	78%	19%	24	10%	20%	70%
Charlotte	20	67%	30%	3%	24	5%	80%	15%
	During active teaching duty				During active teaching duty			
Sally	39	19%	69%	12%	47	66%	33%	0%
	During active teaching duty				After active teaching duty			
Fred	63	8%	31%	61%	69	16%	32%	52%
Margret	49	0%	64%	36%	61	50%	12%	38%
Richard	53	10%	83%	7%	65	0%	86%	14%
Nathan	30	0%	47%	53%	39	12%	35%	53%

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tutoring and lecturing at university level. Not surprisingly, thus, her rates of the stigmatised form [mi] plummet from 67 to 5 per cent, while she increases her rates of [ma] (15 per cent) and standard [maɪ] (79 per cent). In her T2 interview, Charlotte reports that she is aware of the pressures that come with her profession, not only because of her own experience in the classroom but also because she is familiar with indexicalities associated with certain linguistic variants in the North-East. Charlotte's withdrawal from socially costly forms can thus be interpreted as a reaction to prescriptive expectations, leading her to opt for 'safer' forms.

The older and middle-aged panel subcorpora also offer an opportunity to explore the linguistic repercussions of leaving the *marché linguistique.* Grama *et al.*'s (2023: 2) panel research on (ing) suggests that moving out of the monitored environment that characterises in-session teaching tends to go hand in hand with 'post-educator relaxation' towards non-standard forms. While their analysis focused on stable variability in the nasal alternation, my data allow me to test these claims based on a community-wide change in progress. The panel corpus contains four educators who have stepped away from in- session teaching, either due to retirement (Fred, Richard, Margret) or because of career changes (Nathan left teaching to pursue a PhD in music). Crucially, as table 7 reveals, three of these speakers increase their [mi] rates as they exit (and put distance) between themselves and the *marché scolaire.* This retrograde change is illustrated in excerpt (4), produced by Fred, who reports that he closely monitored his way of speaking when working as a professional communicator in a local grammar school.

(4) Fred T2 (00:55:18): of course as you if you're teaching kids you know you put on a you put on a teaching accent a bit like a telephone accent

Fred's impressionistic remarks are mirrored in his linguistic trajectory: His [mi] rates increase from 8 to 16 per cent between T1 and T2. In a similar vein, schoolteacher Margret only uses [maɪ] and [ma] while she is in active teaching duty but resorts back to localised [mi] (50 per cent) after retirement, at the expense of standard [maɪ] (see table 7). I interpret the increase of [mi] after retirement as an instantiation of the 'tail' in old age, whereby speakers become increasingly vernacular as they move out of the linguistic marketplace (Labov 200; Buchstaller 2006).

These data support Grama *et al.*'s (2023) finding of post-educator relaxation amongst speakers who move out of the *marché scolaire*, either due to retirement or due to a change in profession. My data thus corroborate their claim that the increase in proscribed form [mi] is not strictly tied to speakers' chronological age but is a function of the respective prescriptive pressures individuals are exposed to at individual life stages (see Pichler *et al.* 2018). Finally, the retrenchment away from socially costly forms and towards the proscribed standard is not uniquely tied to stable age-graded variables. My analysis reveals that the same pattern holds for variables undergoing change, provided that they are associated with meanings considered inappropriate in professions in which adherence to the prescribed standard is valued.

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8 Conclusion

This article set out to explore the diachronic development of 1POS on Tyneside, focusing on the question to which extent and why speakers (do not) participate in the ongoing change in the possessive determiner across their lifespans.

A set of trend data showed that [ma] is currently replacing [mi] across time on Tyneside. Supporting previous analyses by Childs (2013), stress and alienability were significant constraints on 1POS; both were significant in regression models testing for standard [maɪ] versus the reduced variants [mi] and [ma]. Alienability was also a significant predictor in models contrasting the reduced variants. The data also provide confirmation for the frequency hypothesis (Haspelmath 2008, 2017), revealing that nouns that are more likely to appear in possessed contexts are more likely to occur with a reduced 1POS. While most linguistic constraints are stable across time, the oldest and youngest cohorts show some variability in the constraint system underlying the grammar of 1POS as they age, which means that speaker grammar continues to be variable past critical age. The extent to which one can interpret the significant interaction with time in the oldest age brackets as a change in constraint system or rather as a consolidation of the existing grammar remains a question for future research.

The present study is not without its limitations: it only relies on two time points in the speakers' lives, making it difficult to generalise findings across the entire lifespan. Ongoing research aims to add a third data point for the panel speakers to expand the explanatory power of the lifespan analysis. Furthermore, as is frequently the problem with morphophonological variables, some speakers only produce relatively low token numbers, which means that the conclusions drawn need to be interpreted with caution.

Nevertheless, the results derived from these panel data offer insights into the mechanisms of ongoing language changes across the lifespan of the individual. Especially the lack of coherence between trend and panel-based results suggests that the patterning of 1POS is contingent on factors that surpass the mere category of age (as a proxy for time, see Hejná & Jespersen 2022).

Indeed, my panel data also suggest that some speakers, especially those working as nurses, exhibit high or increasing rates of [mi], against the community trend. My analysis relies on previous work on the value of the vernacular (e.g. Hall-Lew *et al*. 2019) to argue that [mi] carries covert prestige as it indexicalises a stance of local belonging and allows speakers to do local identity work. At the same time, some educators orient away from [mi] while they are part of the *marché scolaire* but relax as they leave the teaching profession. This retrenchment effect provides panel-based evidence for ongoing critical school research on the (linguistic) pressures put on teachers in the United Kingdom (Baratta 2017; Cushing 2020) and corroborates Grama *et al*.'s (2023) finding that teachers exhibit post-educator relaxation as they move out of the school-based marketplace. Notably, previous panel evidence of such a 'tail' (Buchstaller 2016) was based on (ing), a diachronically stable variable (Grama *et al.* 2023). The findings reported here thus add evidence from a change in progress,

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demonstrating that the uptick in proscribed forms as speakers move out of the linguistic marketplace is generalisable beyond stably age-graded variability (Downes 1984; Buchstaller 2016). The observation that such tails are observable both in age grading as well as a change in progress fully supports the suggestion by Buchstaller (2015: 466) to consider 'the impact of prescriptive language ideologies on ongoing changes'.

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References

Allen, Will, Joan C. Beal, Karen P. Corrigan, Warren Maguire & Hermann L. Moisl. 2007. A linguistic 'time capsule': The Newcastle Electronic Corpus of Tyneside English. In Joan C. Beal, Karen P. Corrigan & Hermann L. Moisl (eds.), *Creating and digitizing language corpora*, vol. 2: *Diachronic databases*, 16–48. Basingstoke: Palgrave Macmillan

Anderwald, Lieselotte. 2004. The varieties of English spoken in the Southeast of England: Morphology and syntax. In Bernd Kortmann & Edgar W. Schneider (eds.), *A handbook of varieties of English*, 1367–88. Berlin: De Gruyter Mouton.

Arnett, Jeffrey Jensen. 2000. Emerging adulthood. *American Psychologist* 55(5), 469–80.

Baratta, Alex. 2017. Accent and linguistic prejudice within British teacher training. *Journal of Language, Identity & Education*, 1–8.

Baratta, Alex. 2021. Varieties of 'standard accents' among teachers in contemporary Britain. *World Englishes* 42(3), 507–22.

Bates, Douglas, Martin Mächler, Ben Bolker & Steve Walker. 2015. Fitting linear mixed-effects models using Lme4. *Journal of Statistical Software* 67, 1–48.

Beal, Joan C., Karen P. Corrigan, Adam J. Mearns & Hermann L. Moisl. 2014. The Diachronic Electronic Corpus of Tyneside English. In Jacques Durand, Ulrike Gut & Gjert Kristofferson (ed.), *The Oxford handbook of corpus phonology*, 517–33. Oxford: Oxford University Press.

Beaman, Karen V. 2022. (In)coherence across the linguistic architecture: Change in Swabian across the lifespan. Presented at Methods in Dialectology (Methods XVII), Johannes Gutenberg-Universität Mainz, Germany, 5 August.

Beaman, Karen V. & Isabelle Buchstaller (eds.). 2021. *Language variation and language change across the lifespan: Theoretical and empirical perspectives from panel studies*, Abingdon: Routledge.

Blake, Renée. 1997. Defining the envelope of linguistic variation: The case of 'don't count' forms in the copula analysis of African American Vernacular English. *Language Variation and Change* 9(1), 57–79.

Bourdieu, Pierre & Luc Boltanski. 1975. Le fétichisme de la langue. *Actes de la recherche en sciences sociales* 1(4), 2–32.

https://doi.org/10.1017/S1360674324000431 Published online by Cambridge University Press

Brito, Fabiana Medeiros, Márcio José Ferreira Coutinho, Cristiani Garrido de Andrade, Solange Fátima Geraldo da Costa, Isabelle Cristinne Pinto da Costa, Kamyla Félix Oliveira dos Santos. 2017. Cuidados paliativos e comunicação: Estudo com profissionais de saúde do serviço de atenção domiciliar Palliative care and communication: Study with health professionals of the home care service. *Revista de Pesquisa Cuidado é Fundamental Online* 9(1), 215–21.

Brook, Marisa, Bridget L. Jankowski, Lex Konnelly & Sali A. Tagliamonte. 2018. 'I don't come off as timid anymore': Real-time change in early adulthood against the backdrop of the community. *Journal of Sociolinguistics* 22(4), 351–74.

Buchstaller, Isabelle. 2006. Diagnostics of age-graded linguistic behaviour: The case of the quotative system. *Journal of Sociolinguistics* 10(1), 3–30.

Buchstaller, Isabelle. 2015. Exploring linguistic malleability across the life span: Age-specific patterns in quotative use. *Language in Society* 44(4), 457–96.

Buchstaller, Isabelle. 2016. Investigating the effect of socio-cognitive salience and speaker-based factors in morpho-syntactic life-span change. *Journal of English Linguistic*s 44(3), 199–229.

Buchstaller, Isabelle & Karen V. Beaman. 2021. Panel studies of language variation and change: Theoretical and methodological implications. In Beaman & Buchstaller (eds.), 1–14.

Buchstaller, Isabelle, Anne Krause, Anja Auer & Stefanie Otte. 2017. Levelling across the life-span? Tracing the face vowel in panel data from the North East of England. *Journal of Sociolinguistics* 21(1), 3–33.

Buchstaller, Isabelle, Anne Krause-Lerche & Johanna Mechler. 2021. Exploring the effect of linguistic architecture and heuristic method in panel analysis. In Beaman & Buchstaller (eds.), 185–209.

Buchstaller, Isabelle & Suzanne Wagner. Forthcoming. Connecting the individual and the community: Contributions from linguistic panel research. In Raymond Hickey (ed.), *New Cambridge history of the English language*, vol. IV: *Varieties of English in Britain, Ireland and Europe*. Cambridge: Cambridge University Press.

Chambers, J. K. 2008. *Sociolinguistic theory: Linguistic variation and its social significance*, 3rd edn. Oxford and Cambridge, MA: Wiley Blackwell.

Childs, Claire. 2013. 'I couldn't really put [mə] finger on it': Phonetic realisations of the possessive singular 'my' in Tyneside English. *Newcastle Working Papers in Linguistics: Selected Papers from Sociolinguistics Summer School* 4, 42–66.

Corrigan, Karen, Isabelle Buchstaller, Adam Mearns & Hermann Moisl. 2012. *The Diachronic Electronic Corpus of Tyneside English*. Newcastle University. https://research.ncl.ac.uk/decte (accessed 13 April 2023)

Coupland, Nik. 1984. Accommodation at work: Some phonological data and their implications. *International Journal of the Sociology of Language* 46, 49–70.

Croft, William. 2017. Typology and universals. In Mark Aronoff & Janie Rees-Miller (eds.), *The handbook of linguistics*, 2nd edn, 39–55. New York: John Wiley & Sons.

Cushing, Ian. 2020. The policy and policing of language in schools. *Language in Society* 49(3), 425–50.

Cushing, Ian & Julia Snell. 2023. The (white) ears of Ofsted: A raciolinguistic perspective on the listening practices of the school's inspectorate. *Language in Society* 52(3), 363–86.

Department for Education. 2021. Teachers' standards. GOV.UK. www.gov.uk/government/publications/teachers-standards (accessed 21 March 2023).

Docherty, Gerard & Paul Foulkes. 1999. Derby and Newcastle: Instrumental phonetics and variationist studies. In Paul Foulkes & Gerard Docherty (eds.), *Urban voices: Accent studies in the British Isles*, 47–71. Abingdon: Routledge.

Downes, William. 1984. *Language and society*, 2nd edn. Cambridge: Cambridge University Press.
Fox, John & Sanford Weisberg. 2019. *Car: Companion to applied regression.* https://CRAN.R-project.org/package=car (accessed 16 February 2023).
Fromont, Robert & Jennifer Hay. 2012. LaBB-CAT: An annotation store. *Proceedings of the Australasian Language Technology Association Workshop* 2012, 113–17.
Grama, James, Johanna Mechler, Lea Bauernfeind, Mirjam Eiswirth & Isabelle Buchstaller. 2023. Post-educator relaxation in the U-shaped curve: Evidence from a panel study of Tyneside (ing). *Language Variation and Change* 35(3), 325–50.
Grama, James, Isabelle Buchstaller, Anne-Marie Moelders, Anna Lea Bauernfeind & Mirjam Elisabeth Eiswirth. Forthcoming. Ageing in style: Towards disentangling style-shifting and lifespan change. In Isabelle Buchstaller & Karen V. Beaman (eds.), *Connecting the individual and the community: Contributions from sociolinguistic panel research*. Abingdon: Routledge.
Hall-Lew, Lauren, Inês Paiva Couceiro & Amie Fairs. 2019. Credibility without intelligibility: Implications for hearing vernacular speakers. In Renée Blake & Isabelle Buchstaller (eds.), *The Routledge companion to the work of John R. Rickford*, 220–30. Abingdon: Routledge.
Haspelmath, Martin. 2008. Frequency vs. iconicity in explaining grammatical asymmetries. *Cognitive Linguistics* 19(1), 1–33.
Haspelmath, Martin. 2017. Explaining alienability contrasts in adpossessive constructions: Predictability vs. iconicity. *Zeitschrift für Sprachwissenschaft* 36(2), 193–231.
Hejná, Míša & Anna Jespersen. 2022. Aging well: Social but also biological reasons for age-grading. *Language and Linguistics Compass* 16(5–6), 1–14.
Hollmann, Willem & Anna Siewierska. 2007. A Construction Grammar account of possessive constructions in Lancashire dialect: Some advantages and challenges. *English Language and Linguistics* 11(2), 407–24.
Kortmann, Bernd & Clive Upton. 2008. *The British Isles*, vol. 1: *Varieties of English*. Berlin: Mouton de Gruyter.
Labov, William. 2001. *Principles of linguistic change*, vol. 2: *Social factors.* Malden, MA.: Blackwell.
Lausberg, Hedda & Han Sloetjes. 2009. Coding gestural behavior with the NEUROGES-ELAN System. *Behavior Research Methods* 41(3), 841–9.
Lawson, Robert. 2020. Language and masculinities: History, development, and future. *Annual Review of Linguistics* 6(1), 409–34.
Lenth, Russel. 2022. *emmeans: Estimated Marginal Means, aka Least-Squares Means.* http://cran.nexr.com/web/packages/emmeans/index.html (accessed 6 July 2023).
MacKenzie, Laurel. 2017. Frequency effects over the lifespan: A case study of Attenborough's r's. *Linguistics Vanguard* 3(1), 1–12.
Mechler, Johanna & Isabelle Buchstaller. 2019. [In]stability in the use of a stable variable. *Linguistics Vanguard* 5(s2), 1–13.
Meyerhoff, Miriam. 2002. Formal and cultural constraints on optional objects in Bislama. *Language Variation and Change* 14(3), 323–46.
Moelders, Anne-Marie. In preparation. 'An annoying "yoof"ism' or 'very Geordie'? A panel approach to linguistic perceptions across the lifespan.
Philip, Susan, Robyn Woodward-Kron, Elizabeth Manias & Michele Noronha. 2019. Overseas Qualified Nurses' (OQNs) perspectives and experiences of intraprofessional and nurse-patient communication through a Community of Practice lens. *Collegian* 26(1), 86–94.
Pichler, Heike, Suzanne Evans Wagner & Ashley Hesson. 2018. Old-age language variation and change: Confronting variationist ageism. *Language and Linguistics Compass* 12(6), 1–21.

Rickford, John & Mackenzie Price. 2013. Girlz II women: Age-grading, language change and stylistic variation. *Journal of Sociolinguistics* 17(2), 143–79.
RStudio Team. 2015. *RStudio: Integrated development environment for R*. Boston, MA: RStudio, Inc. www.rstudio.com (accessed 10 April 2023).
Sankoff, Gillian. 2005. Cross-sectional and longitudinal studies in sociolinguistics. In Ulrich Ammon, Norbert Dittmar, Klaus J. Mattheier & Peter Trudgill (eds.), *An international handbook of the science of language and society*, vol. 2, 1003–13. Berlin: De Gruyter Mouton.
Sankoff, Gillian. 2006. Age: Apparent time and real time. In Keith Brown (ed.), *Elsevier encyclopedia of language and linguistics*, 2nd edn, 110–116. Oxford: Elsevier.
Sankoff, Gillian. 2013. Longitudinal studies. In Robert Bayley, Richard Cameron & Ceil Lucas (eds.), *The Oxford handbook of sociolinguistics*, 261–79. Oxford: Oxford University Press.
Sankoff, David, Henrietta J. Cedergren, W. Kemp, Paul J. Thibault & Diane Vincent. 1985. Montreal French: Language, class, and ideology. In Ralph W. Fasold & Deborah Schiffrin (eds.), *Language change and variation*, 107–19. Amsterdam: John Benjamins.
Sankoff, Gillian & Suzanne Evans Wagner. 2006. Age grading in retrograde movement: The inflected future in Montréal French. *Working Papers in Linguistics: Selected Papers from NWAV* 34 (12)2, 1–14.
Sankoff, Gillian & Suzanne Evans Wagner. 2020. The long tail of language change: A trend and panel study of Québécois French futures. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 65(2), 246–75.
Schilling-Estes, Natalie. 1998. Investigating 'self-conscious' speech: The performance register in Ocracoke English. *Language in Society* 27(1), 53–83.
Shapp, Alison Allison, Nathan LaFave & John Victor Singler. 2014. Ginsburg v. Ginsburg: A longitudinal study of regional features in a supreme court justice's speech. *University of Pennsylvania Working Papers in Linguistics* 20(2), 149–58.
Snell, Julia. 2008. Pronouns, dialect and discourse: A socio-pragmatic account of children's language in Teesside. PhD dissertation, University of Leeds.
Snell, Julia. 2010. From sociolinguistic variation to socially strategic stylisation. *Journal of Sociolinguistics* 14(5), 630–56.
Sundgren, Eva, Isabelle Buchstaller & Karen Beaman. 2021. The beginnings of panel research: Individual language variation, change, and stability in Eskilstuna. In Beaman & Buchstaller (eds.), 17–55.
Thompson, Chad. 1996. On the grammar of body parts in Koyukon Athabaskan. In Hilary Chappell & William McGregor (eds.), *The grammar of inalienability: A typological perspective on body part terms and the part–whole relation*, 651–76. Berlin: Mouton de Gruyter.
Trudgill, Peter. 1972. Sex, covert prestige and linguistic change in the urban British English of Norwich. *Language in Society* 1(2), 179–95.
Van Hofwegen, Janneke & Walt Wolfram. 2010. Coming of age in African American English: A longitudinal study. *Journal of Sociolinguistics* 14(4), 427–55.
Wagner, Suzanne Evans. 2012a. Age grading in sociolinguistic theory. *Language and Linguistics Compass* 6(6), 371–82.
Wagner, Suzanne Evans. 2012b. Real-time evidence for age grad(ing) in late adolescence. *Language Variation and Change* 24(2), 179–202.
Wagner, Suzanne Evans & Gillian Sankoff. 2011. Age grading in the Montréal French inflected future. *Language Variation and Change* 23(3), 275–313.
Wales, Katie. 1996. *Personal pronouns in Present-day English*. Cambridge: Cambridge University Press.

Appendix

Table A1. *Overview of all speakers in panel sample (rounding differences may result in the total not adding up precisely to 100%)*

	T1						T2					
	Early twenties											
	[mi]		[mai]		[ma]		[mi]		[mai]		[ma]	
Amelia	0	0%	15	41%	22	59%	3	9%	17	49%	15	43%
Charlotte	27	67%	12	30%	1	3%	1	5%	15	79%	3	16%
Jake	9	16%	9	16%	37	67%	15	79%	3	16%	1	5%
Jane	1	1%	19	32%	39	66%	3	10%	10	34%	16	55%
Lynn	2	3%	15	20%	60	78%	3	10%	6	20%	21	70%
Paul	1	2%	12	24%	38	75%	1	3%	8	24%	24	73%
Late twenties												
Dustin	46	81%	10	18%	1	2%	11	100%	0	0%	0	0%
Erica	32	60%	20	38%	1	2%	19	73%	7	27%	0	0%
Irvin	38	83%	7	15%	1	2%	1	33%	1	33%	1	33%
Samantha	50	88%	7	12%	0	0%	17	74%	6	26%	0	0%
Thirties												
Andrew	7	19%	13	36%	16	44%	7	50%	6	43%	1	7%
Nathan	0	0%	8	47%	9	53%	2	12%	6	35%	9	53%
Sally	3	19%	11	69%	2	13%	6	67%	3	33%	0	0%
Steven	39	87%	5	11%	1	2%	12	92%	1	8%	0	0%
Forties												
Jamie	37	76%	2	4%	10	20%	14	64%	7	32%	1	5%
Margret	0	0%	8	36%	14	64%	4	50%	1	13%	3	38%
Scott	18	90%	0	0%	2	10%	33	94%	2	6%	0	0%
Shannon	22	81%	0	0%	5	19%	33	89%	4	11%	0	0%
Fifties												
Carolyn	2	18%	3	27%	6	55%	2	26%	3	38%	3	38%
Lucille	22	76%	7	24%	0	0%	21	88%	3	12%	0	0%
Richard	3	10%	24	83%	2	7%	0	0%	6	86%	1	14%
Sharon	15	71%	5	24%	1	5%	34	89%	4	11%	0	0%
Sixties												
Anne	57	92%	5	8%	0	0%	26	81%	6	19%	0	0%
Fred	3	8%	12	31%	24	62%	11	16%	22	32%	36	52%
Nelly	0	0%	32	94%	2	6%	5	24%	16	76%	0	0%

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