
DIRECTIONS OF CHANGE IN CARDIFF ENGLISH: LEVELLING, STANDARDISATION, OR DRIFT?

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Abstract

This thesis investigates language change in Cardiff English (CE) by analysing four sociolinguistic variables – (*there* + BE), (ing), (a) and word-final (t). These variables were chosen to address whether change over time in CE should be considered dialect levelling, standardisation or drift.

The data comprises interviews with older and younger speakers conducted in 2017-2018. This apparent-time methodology is supplemented by real-time data from the St Fagans Sound Archive. The analysis fits within a variationist sociolinguistics framework, and mixed-effects models test statistical significance.

Results for (*there* + BE) show no significant change over time but indicate the near completion of a process of gradual drift towards grammaticalised *there*'s. The (ing) variable, in line with other studies (e.g. Labov 2001), is shown to be a stable, age-graded feature, and results do not suggest that younger speakers are 'standardising' by using more of the standard variant than their older counterparts.

In contrast, the low (a) monophthong seems to be moving backwards in the vowel space for the BATH and PALM/START lexical sets, a move that could indicate dialect levelling or standardisation, as both 'directions of change' would result in back [ɑ:] realisations instead of the front CE variants. For (t), the glottal variant has almost completely replaced standard [t] amongst younger speakers, but their use of local variants remains relatively robust and does not appear to be at risk from the glottal as a levelling feature.

The discussion of these results problematises the dichotomous categories used in variationist sociolinguistics, and proposes adopting from other disciplines a conceptualisation for language change that is more suited to the complexities of our current era of late modernity: *polyphonic assemblage*. Thus, the thesis not only contributes contemporary analyses of CE using advanced statistical methods, but also extends current discussion by offering a means of managing some of the difficulties inherent in studying language change.

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Chapter 1 “The Cardiff accent will be gone”

1.1 Introduction

Alex ...the Cardiff accent will be gone, ‘cause everyone is speaking Welsh, the schools are going Welsh and everything, int they, like, you know, they’re coming in from North and West Wales and mid Wales and ... so yeah, I- I think eventually, take a f- take a while, won’t it, like, but I- I reckon it will be gone, (I mean), in years to come, you know.

Matt Only time will tell.

Alex We’ll all sound the same.

Matt Yeah.

Alex We’ll all have British accents.

Extract 1.1, from one of the interviews with two men from Cardiff. For details of the data collection, see Chapter 3. All names are pseudonyms. Transcription conventions are in 3.3.2.

This interview extract illustrates a popular perception of language change: that differences between dialects are being lost. But it also draws attention to some of the complexities around language change, linking mobility and (im)migration to time and bilingualism. The underlying process that fuels this anxiety is technically termed *dialect levelling* – a loss of regional distinction between accents and dialects until everyone “sound[s] the same”. It has received attention in mainstream media since the 1990s, particularly with regards to the spread of features associated with ‘Estuary English’ from London and Essex. In addition to understanding the effect of increased mobility on language change, in extract 1.1 above Alex considers the increasing use of the Welsh language – and thus language contact – to be a driver for change and levelling in Cardiff. These interrelated external influences for language change, mobility and contact, are grouped under the term *exogenous changes*.

On the other hand, language change can also come about through ‘naturally’ occurring fluctuations within the language system such as chain shifts or drift – so-called *endogenous change*. Internal and external factors are inherent in language

change, which happens across languages and dialects. With this in mind, is Alex right to attribute changes in Cardiff English to external influences, or are internal factors also at play? And is there a linguistic basis for his assumptions? There are two key assumptions underlying what Alex said in Extract 1.1:

- i) Regionally distinctive dialects are being lost or merged in favour of a singular 'British' accent/dialect
- ii) Migration, dialect contact and language contact are drivers for this phenomenon, more so than endogenous factors

While caveats, complexities and counter-examples stand in the way of presenting these assumptions as fact, sociolinguistic research does generally provide evidence to support them. However, are the directions and influences of change suggested by Alex reflective of the realities of language change in Cardiff English? This thesis will address the central questions posed by Alex's comments:

- Is the Cardiff accent and dialect becoming less distinctive from other British accents?
- If this is the case, is it due to externally influenced processes of change such as dialect levelling and standardisation, or due to natural language drift?

1.1.1 Orienting the study

In order to answer the central question, we need to answer four interrelated questions: What makes Cardiff English distinctive from other British dialects? What did the Cardiff variety used to sound like? What does it sound like now? And what are the directions of change behind this?

The fields of dialectology and variationist sociolinguistics have produced a wealth of descriptive material about different dialect varieties of English, including Cardiff's, that can be used to situate the distinctions of Cardiff English, past and present. In addition to drawing on previous research, we can attempt to 'access the past' by locating old recordings and thus gain a picture of language change in real-time. The speech of older people today provides another means of gaining information

about how the language used to be spoken. Specifically, using apparent-time methodology to compare the speech of older and younger people allows us to get both a contemporary description of the dialect as currently used, and an indication of what aspects of the dialect might be changing. This thesis will use both approaches to examining language change over time by analysing spoken language data from archive recordings and contemporary interviews.

I have identified particular features as good candidates to represent different directions of change – for example, the ‘unstoppable glottal’ as a feature of dialect levelling (Smith and Holmes-Elliott 2017), the velar nasal realisation of words ending in *-ing* to represent standardisation, and the increasing use of the singular *there’s* as a dummy subject in plural existential clauses. These and other features will be discussed in more detail in Sections 2.3.2 and 3.2.5, and a subset has been chosen to be analysed and compared across these datasets.

In the rest of this chapter, I will clarify the terminology used and assumptions made, before detailing the Cardiff variety as described in previous research and explaining the three processes of language change most relevant to this thesis question: dialect levelling, standardisation and drift. Chapter 2 will look more deeply into these processes, with a particular focus on dialect levelling as a more complex phenomenon. Chapter 3 will first explore the methodological question of how one should go about investigating language change. It will then detail the data collection, transcription and analysis methods, and introduce the data used in this thesis. Chapters 4-7 will each present an analysis of a particular feature, and findings will be drawn back into a discussion to explore a range of issues arising (Chapter 8), before concluding remarks in Chapter 9.

1.1.2 Key terminology, abbreviations and assumptions

Before continuing, it is necessary to set out some definitions of terminology that will be central to the thesis. Some terms (such as *dialect levelling*) have already been introduced, and will be explored in more depth in 1.3 and Chapter 2. Other terms (e.g. *dialect*, *accent*, *variety*) are in common use and so their technical use must be

clarified. *Dialect* and *language variety* will generally refer to the same thing: a system of language that is distinguished by its grammatical, lexical, phonological and/or geographical differences. I will use *language variety* where the variety in question is less well-defined for whatever reason – for example, I would use *variety* for describing the way language is spoken in Cardiff with all of its inter- and intra-speaker variation, and *the Cardiff dialect* to refer to a collection of recognised features, made artificially homogenous for the purposes of documentation. *Accent* is one of the component features of dialect, and refers purely to the pronunciation of words.

I use the term *Britain*¹ as a geographical term that encompasses the three countries of Wales, Scotland and England, and *the British Isles* if Ireland is also under discussion alongside these countries. The *United Kingdom (UK)* refers to the political union of Wales, Scotland, England and Northern Ireland.

The main abbreviations used are those that refer to language varieties: Received Pronunciation (RP), Supraregional Southern British English (SSBE), Welsh English (WE) and Cardiff English (CE). In my commentary, and following Hickey (2020), my preferred term for the modern accent commonly accepted as the ‘norm’ across southern Britain will be *Supraregional Southern British English (SSBE)*. However, as the more documented variety, *Received Pronunciation (RP)* will also be used, particularly when used as a reference variety to contrast against CE. Currently, SSBE is used to refer to a more widespread, less marked form of RP, which is estimated to be spoken as a first language by only a small percentage of the [English] population (e.g. Trudgill 2008). I am not intending to maintain this distinction by using two different terms but rather will use the two interchangeably for the reason outlined above.

The term *Welsh English* is not unproblematic, as summarised in Penhallurick (2007: 152–53), not least because it masks the variation within the country (particularly with regards to north-south distinctions). Occasionally *English English*

¹ The researcher David Britain will be cited often in relation to studies that take place in Britain, so where these co-occur, Great Britain will be used instead for clarity of reference.

will be used to refer to varieties of English that occur specifically in England. This term will never be abbreviated, in order to avoid any potential confusion with Estuary English, to which I shall also refer. The terms *standard* and *non-standard* will be used to refer to accepted-as-standard language and dialect features respectively, but should not be taken to endorse any negative value judgments that may be associated with non-standard language (or its use). Two abbreviations used in relation to dialectology are those referring to two key texts referenced at times: the Survey of English Dialects (SED) compiled by Orton and Dieth (1962) and the Survey of Anglo-Welsh Dialects (SAWD; Parry 1977).

Wells' (1982) lexical sets or keywords will often be used to refer to phonemic sets, as these are widely used and understood in British dialectology or variationist research. Thus, the set of words containing the /i:/ vowel is referred to by the keyword FLEECE. In the same way, /a/ will be referred to using TRAP, and so on. For each phonetic feature in this thesis, round brackets are used to indicate variables; and following Wells (1982), slant brackets / / are used for phonemic transcriptions and square brackets [] for allophonic transcriptions.

The main theoretical framework used in this thesis is variationist sociolinguistics, a key assumption of which is that linguistic variation is not random; rather, speakers' linguistic choices are "systematically constrained by multiple linguistic and social factors that reflect underlying grammatical systems and that both reflect and partially constitute the social organization of the communities to which users of the language belong" (Bayley 2013: 11). There is thus a focus in variationist sociolinguistics on social categories such as gender² and class more so than geographical variation, which tends to be the focus of dialectology. While not every variationist study is concerned with language change over time, many are, and as noted by Labov (1994), synchronic variation often reflects change over time. That

² In line with recent sociolinguistic work, gender is my preferred term over sex – cf. Labov (1990: 206): "there is little reason to think that sex is an appropriate category to explain linguistic behaviour".

language changes over time is an assumption that must be made in order to answer the thesis question, and it is accepted *prima facie* here.

As already noted, one of the main methodologies that explores diachronic language change is apparent-time methodology, which uses older speakers as a proxy for the language as spoken a few generations ago. This methodology rests on the assumption that an individual's language use does not change significantly over the course of their life, an assumption that has been called into question by other research and will be discussed in more detail in Chapter 3. However, it is useful to state that a basic level of individual stability is going to be assumed in the research reported here. Another assumption of variationist sociolinguistics is that social categories are relatively fixed and 'measurable'. Again, this assumption has to be made to carry out this kind of research but the issues raised by it will be introduced in Chapter 3.

1.1.3 A brief introduction to Cardiff

Cardiff is the capital city of Wales, which is one of the constituent countries of the United Kingdom. It is relatively small for a British capital city with its population of 350,000, but is the biggest city in Wales, with over 100,000 more residents than Swansea which is the next biggest city (StatsWales 2020a). There are two official languages in Wales, Welsh and English, and Cardiff is geographically located in the historically anglicised and majority English-speaking south-east of the country (C. H. Williams 1990). Cardiff's history and growth is characterised by industry: its situation near the coalfields of the South Wales Valleys³ and on the coast of the Bristol Channel made it a busy port and industrial hub that exported coal and locally-manufactured steel (Rock and Hallak 2017: 277). In 1801, Cardiff was a village of 1,870 people – a number that swelled over the next hundred years to a city one hundred times the size, with 182,000 inhabitants (Coupland 1988: 47). A large proportion of this population boom came from immigration: the 1901 census shows that half of Cardiff's inhabitants had not been born in the city (Coupland 1985b). The industry attracted a large

³ Hereafter referred to as the Valleys.

quantity of workers, and migrants came not only from rural Wales, but also the wider UK, Ireland and beyond – particularly the West Indies, India, China, and African countries such as Somalia. In fact, Cardiff has one of the oldest Somali communities in Britain dating back to the late 19th century (Runnymede 2012).

The city only gained capital status in 1955, making it the ‘youngest’ capital in the UK. In the modern era, the city suffered stagnation and deindustrialisation but has since ‘reinvented’ itself (cf. Gonçalves 2017) thanks in part to becoming the seat of the devolved Welsh Government and Senedd in 1999. It still has the highest rates of in-migration in Wales (Markaki 2016), and “dominates employment in the South East Wales region”, with 83,100 daily commuters to Cardiff in addition to those who live and work in the city (Gonçalves 2017: 103).

This history of in-migration and multiculturalism has contributed to the variety of English spoken in Cardiff, which is distinct from both the Valleys accent and the ‘Welsh’ accent (although problems with this term will be discussed later). In particular, influences have been noted from the English of Liverpool, Ireland, and south-west England. Grammatically and lexically it has some similarities with other dialects of South Wales, including the Valleys, as well as sharing some features with Bristol and the south-west of England. The broad Cardiff accent is often referenced by locals as the ‘*Kerdiff*’ accent, which is a more definable and recognisable variety than the more subtle Cardiff English (CE) which can approach RP, particularly in middle-class speech.

1.1.4 Why is Cardiff an interesting site to look at?

We saw at the beginning of the chapter that Alex’s perception of how Cardiff English was changing was linked to migration, the city’s status as a capital, and its location in a bilingual country. The discussion above points to how these factors have led to a combination of mobility and language contact. This, along with the city’s recent aims to regenerate itself as outward-looking and cosmopolitan could indeed suggest that the dialect is prone to standardisation or levelling, and thus losing its distinctiveness. However, Cardiff is culturally and politically important to Wales, and

is also increasing in significance for other countries in Britain thanks to its recent visibility as a home for large television productions such as the BBC's *Doctor Who*, *His Dark Materials*, *Sherlock* and *Torchwood*. It is thus equally possible that the city is gaining a self-assuredness and confidence in its own identity that could protect it against external influences. Such a resistance is not incompatible, however, with other types of language change that Cardiff English might be undergoing. These conflicting perspectives will be discussed more in Section 1.3. But first, Section 1.2 will present an overview of the Cardiff English dialect.

1.2 What is the Cardiff variety of English like?

This section will give some history of the English language in Cardiff, before discussing the main linguistic sources and texts that will be drawn on to provide a description of the Cardiff variety. I will mainly discuss the phonological system of CE, looking in turn at vowels and consonants, then I will give a brief description of lexical features, grammar, morphosyntax and prosody. In describing a variety at this macro-level it is necessary to largely ignore the very sociolinguistic variation that will be the focus in later discussions. Coupland in particular highlights the difficulty of capturing a variety in this way as it “subsumes much inter- and intra-personal variation” and imposes homogeneity on the speech community (1988: 46). This compromise will be discussed at various points throughout the thesis, including in Section 1.3 below.

As has been mentioned, Wales is a bilingual country. While the variety under investigation is the English spoken in Cardiff, there also needs to be a brief description of how Welsh and English have interacted in the past in Cardiff and how they may do so today. Wales was occupied by the Romans, and subsequently was subject to successive invasions that introduced versions of English to the Britannic (Welsh-speaking) population. These influences, along with strong trade links with England after the 1536 Act of Union (Coupland 1985b) have contributed to English being the main language in Cardiff for the past 500 years (C. H. Williams 1990: 30). As such, Cardiff English has been described as having no “obvious Welsh-language influence” (Awbery 1997: 88). This perspective is supported by Windsor Lewis (1990: 30), who states that “there is no single item of general everyday vocabulary, syntax, morphology

or phonology in the dialect which can certainly be assigned to a Welsh-language origin and which is not shared with the general forms of English”. However, some forms are shared with Welsh or with dialects of English in Wales that have more substratal Welsh influence. As such, when describing features of CE in the following section, references will be made to Welsh and Welsh English⁴ when relevant.

Additionally, as mentioned previously, Cardiff had a huge influx of people from many different dialect areas, contributing to a “dialectal melting pot” that Coupland argues shows more similarity with English English than Welsh English (1988: 48). Particular varieties that are speculated to have influenced the Cardiff dialect are those from the geographically close areas of south west England and the West Midlands, and Merseyside and Ireland, which were the origins of many migrant workers.

This section will rely heavily on the few texts that focus on the Cardiff dialect. Coupland’s 1988 monograph *Dialect in Use* provides a detailed description of the accent and variable features, deployed as a starting point for analyses on style-shifting and speech accommodation. As such, the data is not as quantitative as one might usually find in variationist studies, but the qualitative analyses provide a valuable perspective in certain areas. Aspects of the studies reported on in this book can also be found in Coupland’s other papers (e.g. Coupland 1980, 1985a) but I will mainly refer to the 1988 work due to its overall focus on CE. I will also be using Mees’s works, and her co-publications with various other colleagues, that reported on her real-time study in Cardiff. Data collection started in 1976 when the participating children were aged 9-11, and interviews were conducted with the same participants as they grew up in 1981, 1990, and 2011.

One source of information that might have seemed invaluable is Parry’s Survey of Anglo-Welsh Dialects (SAWD; 1977). However, since its focus was on rural communities, Cardiff is not included except in an appendix containing Lediard’s descriptive account of speakers from the Canton area of the city. His presentation

⁴ That is, the generalised dialect of English spoken in Wales as described by Penhallurick (2008).

includes all recorded phonetic variants. However, it is often not clear which are generally found with which words, and as such is difficult to use for comparison. Paulasto's (2006) work on grammatical features such as focus-fronting uses SAWD data in addition to other corpora, and includes the Cardiff area of Grangetown, so this will also be used when relevant.

1.2.1 Vocalic features

In terms of phonology, the relationship between Welsh English, Cardiff English and 'standard' English is not straightforward. In the tables that follow, I have presented vocalic features of Cardiff English in comparison with those in a general Welsh accent⁵ (compiled from SAWD data by Penhallurick 2007), and modern RP (from Upton 2015). In the tables of features below (Tables 1.1 and 1.2), I have grouped the keywords so that specific contrasts and similarities are shown more clearly, starting with the most similar and moving towards the most diverse. The phonetic realisations for Cardiff come from Mees and Collins (1999), as this work is the most recent and comprehensive depiction of Cardiff vocalic features. I note that the representation of pronunciation used in Mees and Collins (1999) differs slightly in some keywords from previous works, such as Mees (1983) and Collins and Mees (1990), an aspect that will be discussed in Section 1.2.1.2.

1.2.1.1 *Monophthongs*

As can be seen in Table 1.1, there are variable degrees of overlap of monophthongal realisations between Cardiff English, Welsh English, and RP. Keywords DRESS to SQUARE share their pronunciation between all three dialects, while for Cardiff English NORTH to STRUT differs from both Welsh English and RP, in particular having a different realisation for FOOT, which is slightly more back and open than RP and Welsh realisations. However, this realisation has also now been noted in present-day RP (Mees and Collins 1999). It also has [ʌ] for NORTH and

⁵ The concept of a general Welsh accent has been problematised due to the differences between North and South Wales in particular, but can be used as a broad descriptive tool (Penhallurick 2007).

THOUGHT, and the schwa [ə] for STRUT. Overall, and on the basis of a lack of certain contrasts found in specifically South Wales Englishes such as the NORTH-FORCE contrast, Mees and Collins suggest that the CE vowel system is closer to southern accents of English than other accents of South Wales are (1999: 188).

Keyword	Cardiff	Wales	RP
DRESS	ɛ	ɛ	ɛ
KIT	ɪ	ɪ	ɪ
TRAP	ɑ	ɑ	ɑ
FLEECE	i:	i:	i:
GOOSE	u:	u:	u:
SQUARE	ɛ:	ɛ:	ɛ:
START	ɑ:	ɑ:	ɑ:
NORTH-FORCE	ʌ:	ɔ:	ɔ:
FOOT	ʊ	ʊ	ʊ
THOUGHT	ʌ:	ɔ:	ɔ:
STRUT	ə	ʌ	ʌ
NURSE	ø:	œ:	ə:
BATH	ɑ ~ æ:	ɑ ~ ɑ:	ɑ:
PALM	æ:	ɑ:	ɑ:
CLOTH-LOT	ɑ	ɔ	ɒ

Table 1.1 - Monophthong comparisons between CE, WE and RP. Demarcation indicates rough groupings of the lexical sets according to shared realisations across the dialects.

The next four keywords, NURSE to CLOTH, all show different realisations across Cardiff, Wales and RP. The BATH, PALM and START vowels are particularly salient in CE and will now be discussed further.

Despite the variation that is apparent for BATH and PALM, Welsh realisations are generally characterised by being more front than in RP. According to Penhallurick (2008), there is competition between long and short vowel forms for both BATH and PALM lexical sets across Wales. In CE, Mees and Collins (1999: 189) attest to “confusing idiolectal variation” in both broad and mainstream Cardiff speakers for these keywords as well as TRAP. They note that there are some lexically determined variants, for example while [ɑ] seems to be favoured before nasals and fricatives, words such as *bath* and *laugh* favour [æ:]. One point that can be made with reasonable certainty is that long and short patterning of these vowels is different to northern

English accents which are characterised by the TRAP-BATH split, but similar in some ways to south-western Englishes (Mees and Collins 1999: 189). Additionally, while the START vowel does show competition between front and back realisations in Cardiff and across Wales (in contrast to RP in which it is always back), the front realisation dominates in Welsh English (Penhallurick 2007: 157). The complexity and salience of these vowels in Cardiff will be returned to in more detail in Chapter 6.

It is also worth mentioning the GOOSE set: although Table 1.1 shows no difference to RP in that all varieties realise it with [u:], short [ʊ] is also found across Wales in certain words – most famously in *tooth*. Additionally, Parry’s SAWD (1977) introduces the lexical set TUESDAY, which has the diphthong [ɪu] in Welsh English but is more monophthongal in SSBE. Interestingly, this phoneme appears to have two separate sources: Welsh-language influence, and similar diphthongs in the west of England (Penhallurick 2007: 159).

1.2.1.2 Diphthongs

Keyword	Cardiff	Wales	RP
FACE	ei	e:	eɪ
GOAT	ɤu	o:	əʊ
PRICE	əi	aɪ	aɪ
MOUTH	ʌu	aʊ	aʊ
CHOICE	ʌi	ɔɪ	ɔɪ
NEAR	jø:, i:ə	iə	ɪə
CURE	ju:ə, jʌ:	(ɪ)ʊwə	ʊə

Table 1.2 - Diphthong comparisons between CE, WE and RP.

As can be seen in a comparison of the diphthongs in Table 1.2, there is much greater variation between Cardiff, Wales and RP. Unlike in the rest of Wales (and taking into account the differences between North and South Wales pronunciations), FACE and GOAT are diphthongs rather than monophthongs in CE – but these diphthongs are not necessarily realised the same way as they would be in RP. GOAT in particular has a further back starting point with [ɤ] rather than [ə]. The difference with FACE is slight, however, with a finishing point of [i] in CE and [ɪ] in RP. This raises the issue of accuracy of comparison across different varieties that have been documented

by different people (for example, Coupland compared to Mees): is there indeed a difference in frontness for the second element of FACE, PRICE and CHOICE diphthongs as indicated in Table 1.2, or is it a difference in transcription convention? However, for the purposes of this section and the background picture it provides, these details are less important than the bigger picture.

In fact, the main differences are seen in the starting point of the diphthongs. For example the PRICE diphthong in Cardiff starts with a schwa, and can also be realised with an even further back starting point as [ɔɪ], which Coupland notes is similar to the West Midlands pronunciation (1988: 49). Interestingly, this feature is now also found in Cardiff Welsh, e.g. *Cymraeg* pronounced as [kəm'ɔɪg] as opposed to the more standard [kəm'ɪaɪg] or [kəm'ɪa:g] (Gruffydd, n.d.).

The diphthongisation of FACE and GOAT could be a relatively recent change in CE: in Mees' 1983 thesis, these phonemic sets are represented as /e:/ and /o:/ respectively and described as 'narrow diphthongs', changing their positions on the open/close dimension rather than the front/back dimensions (1983: 71). In discussing Mees' decision to present the data in this way, Coupland asserts a preference for diphthongal representations "to avoid giving the impression that the maximally non-standard forms in Cardiff English are always monophthongs" (1988: 27). In the most recent work reporting the phonetic system of CE, Mees and Collins note in passing the (then) recent changes in FACE and GOAT to "obvious diphthongal glides" (1999: 201).

A final notable feature of the Cardiff vowel system is the contrast between NEAR /jɔ:/ and BEER /i:ə/ words, which are both realised as [ɪə] in RP.⁶ A broad South Walian accent uses the NURSE vowel [ɔ] after a yod for the EAR subset of NEAR, which includes *here*, *ear* and *year* – all three words can be realised homophonously as [jɔ:] or [jœ:]. However, NEAR words can also be realised in the same way as BEER words, which is closer to RP, albeit with a longer starting vowel: [i:ə].

⁶ These realisations are not unique to Cardiff and are found throughout South Wales.

1.2.2 Consonantal features

Systemically, the consonants of Cardiff English do not stray far from RP, and display less Welsh-language influence than other South Walian varieties of English do (Collins and Mees 1990). The exceptions to this are the marginal use of Welsh consonants /χ/ and /t̪/.⁷ However, it should be noted that monolingual Cardiff English speakers often have difficulty with the two consonantal borrowings from Welsh, and the lateral fricative in particular (Collins and Mees 1990; Coupland 1988). Coupland's (1985b) study on place-names found that Cardiffians generally anglicise these phonemes, or replace them with 'easier' sounds such as the velar fricative [x] for Welsh uvular fricative /χ/, and have various different strategies for realising /t̪/ including [θ] and [θl].

However, Cardiff consonants do display some similarities with other South Walian varieties, for example in the aspiration of initial fortis stops /p t k/ (Mees and Collins 1999: 192). This has also been described as a "noisy" release (Coupland 1988: 30), a feature that people tend to see as being borrowed from Liverpool. The working class or basilectal variant of word-final or intervocalic /t/ is often a zero-realisation or tapped [ɾ], for example *bit of* realised as [ˈbɪt̪ əv] (Mees 1983: 85), which is a feature of connected speech.

Assimilation and elision, as features of connected speech, are found in many varieties of English because they reduce articulatory complexity in strings of consonants by either making consonants more like those in their linguistic environment or eliding them completely (e.g. Wells 1982). However, a particularly high frequency of these occurrences has been noted in Cardiff English, even in slow rates of speech (Mees 1983; Mees and Collins 1999), although exact quantitative comparisons do not seem to be available. As mentioned above, /t/ can be completely elided to a zero-realisation in a variety of environments: in final consonant clusters such as /-ts/ and /-nt/, pre-pausally, and intervocalically – see examples 1.2-1.5, from

⁷ Orthographically represented as *ch* and *ll*, respectively.

Mees and Collins (1999: 194). However, it is worth noting that in more formal styles of speech, elision of final /t/ seems to be restricted to a “small set of high-frequency [and mono-syllabic] words” such as *it, bit, get, lot, that, but* (Mees 1983; Coupland 1988).

- 1.2 *that's right* ['as 'ɪɹ]
- 1.3 *but I* [bə əɪ]
- 1.4 *don't drive* [dʌn 'dɹɪv]
- 1.5 *went up* [wɛn 'əp]

The tapping of intervocalic /t/ as [ɾ], while characteristic of Cardiff, is not unique to the city, and Coupland suggests that it belongs to a set of variants that “constitute a pervasive social (rather than regional) dialect feature of British speech” (1988: 63): namely, t-tapping (Cardiff; Liverpool), t-voicing (Dublin), and the T-to-R rule (mid and northern England).

Another consonantal feature where Cardiff speech can differ from RP is /r/. CE is generally non-rhotic like RP, but the realisation of /r/ intervocalically and post-consonantly can be a tapped [ɾ] as opposed to RP approximant [ɹ]. Coupland notes that this, along with t-tapping, is another point of similarity between Cardiff and Liverpool/Merseyside English (Coupland 1988: 49).

1.2.3 Lexis, morphosyntax and prosody

This section will discuss lexical, morphosyntactical and grammatical features, and intonation/prosody. It will be brief because Cardiff English does not differ much from other dialects of Welsh English or English English. Penhallurick notes two main sources for Welsh English dialectal vocabulary and morphosyntactic features: west and south-western dialects of England, and the Welsh language (2007: 164).

1.2.3.1 Morphosyntax

This section will cover four distinctive non-standard grammatical features of Cardiff English: firstly, three Welsh English features that have direct equivalents in Welsh language syntax – predicate fronting, generalised tag questions, and *there's* + adjective. It will then look at a non-standard feature shared with the south-west of England, extended present tense -s, and briefly mention widespread non-standard features that CE shares with many English English dialects.

Predicate fronting, also referred to as focus fronting, when one constituent is moved to the front of a sentence for focus or emphasis, is common in Cardiff and Wales. Examples include: *coal they're getting out mostly* (Parry 1977: 119–20), *hurt she was* (Coupland 1988: 36). This feature is also found in English English dialects including RP but at a much lower frequency than in Welsh English. It is most likely directly influenced by Welsh, in which clefting is “a simpler, blunter process than in English” (Penhallurick 2007: 165). Paulasto (2006: 199), who found that predicate fronting was less frequently used by her younger speakers, suggests that the substratal Welsh language influence could explain this tendency towards levelling.

Generalised *isn't it* is a tag question that is used in non-third-person environments, e.g. *you're going home now isn't it* (Coupland 1988: 36). It is likely to have come from the Welsh generalised confirmatory interrogative *ydy fe* originally, but as Penhallurick notes, its use could well be reinforced by *innit* tags in English English (2007: 169). *There's + adjective* is an introductory adverbial phrase associated with southern Welsh English that has a directly corresponding formation in Welsh, *dyna + adjective* (Penhallurick 2007: 169–70). It is commonly used in Cardiff, and some examples are *there's lovely*, *there's interesting*. Another common feature of CE and South Wales English is the compounding of adjuncts to create phrases such as *by here/there* and *where to* (Coupland 1988: 36–7) – as in the characteristic formulations below:

1.6 *Where to's that then?*

1.7 *Over by there!*

Coupland notes that many non-standard grammatical features in Cardiff are found across urban British dialects, and he refers to these as ‘social dialect features’ as opposed to features that mark “regional provenance” (1988: 35). One grammatical feature of CE that is also found in nearby English English dialects such as Bristol and the south-west (Trudgill 2005: 47) is *verbal -s*: that is, the extension of the inflected third-person verb form to the whole present tense paradigm (Coupland 1988: 34). Some examples from his data are *we lives in Splott*, *we knows we're Cardiffians*. This form has also become ‘commodified’ (cf. Beal 2009) in the brand name *I Loves the 'Diff*, which is a local company selling Cardiff-related merchandise (Figure 1.1). This

extension of the third person form is also found in past tense BE, e.g. *you was, we was, they was*.



Figure 1.1 - I Loves the 'Diff logo

1.2.3.2 Lexis and prosody

Welsh English words such as *dap* (more usually *daps*, meaning plimsoles) and *tidy*⁸ are in common use in Cardiff English, as well as being characteristic of South Wales more widely. Coupland notes the results of a questionnaire he carried out showing that while *daps* was most widely used to refer to plimsoles, it was also recognised and used by some as a verb e.g. *to dap [bounce] a ball, I'll dap [hit] you*. Since we shall not return to *dap* in the rest of this thesis, it can be noted here that the verbal form turned up in one of the interviews otherwise described later: in the extract below, Meleri is discussing the nuns she remembers from the convent she grew up in.

And then [laughs] another one, we used to call Sister Dap-Dap. [laughs] And Maureen was saying to me, "why did you call her Sister Dap-Dap?" I said, "because she was old!" or, she was old to me when I was kid, you know, so, and of course she used to walk [taps hands on table] - she dap-dapped! [laughs] So we used to call her Sister Dap-Dap.

Extract 1.8. Interview with Meleri, 83

⁸ An adjective with no direct translation used as a term of general approval (Coupland 1988: 39) e.g. *that's tidy*.

Dap, in both noun and verb forms, is also found in the south-west of England along with the adjective *lush* meaning lovely (which is stereotyped to the extent of reaching *linguistic commodification* – i.e. being sold on gifts and souvenirs – in both Bristol and Cardiff), and *mitch* for playing truant. The latter is also used in Ireland and some parts of the south-west of England. Welsh words have been reported in CE, including *tump*⁹ (Coupland 1988: 38-39), *cwtch* and *twp*,¹⁰ but whether these words represent vestigial evidence of Welsh influence rather than later borrowings is unclear. While the exact provenance or route into Cardiff English for such dialect words cannot be confirmed, it is likely that the large number of people migrating from other parts of Wales, south-west England, and Ireland brought with them local dialect words.

The prosody and intonation of Welsh English is markedly different to RP, and while Cardiff English again does not fully align with WE here, it does share some typically WE prosodic and paralinguistic features. Mees and Collins comment that its intonation is “recognisably Welsh” (1999: 194) and notably, as in the Welsh language, pitch movement can occur on unstressed syllables, making them as prominent as stressed syllables (Coupland 1988: 32).

This section has outlined the main phonological, grammatical, lexical, and paralinguistic features of Cardiff English. A selection of these will be discussed in more depth (including sociolinguistic variation within them) and chosen for analysis in the following chapters. The next section will explore directions of change that we might expect to be relevant when considering changes in Cardiff English.

1.3 What are the likely directions of change in Cardiff English?

Two processes or epiphenomena of language change have been said to characterise the linguistic situation of Britain in the last century: dialect levelling and standardisation (Kerswill 2001: 45). Standardisation is an example of an *exogenous* change, as the standard language acts as an external variety influencing the direction

⁹ Hillock or road-bump, deriving from Welsh *twmp*.

¹⁰ Cuddle and daft, respectively.

of change of ‘non-standard’ varieties towards it, due to its powerful status and the requirement to use this variety in formal situations, including compulsory education. Dialect levelling is also generally considered to be an exogenous change (although this will be explored further in Section 2.1.5), as the features associated with it often appear to have originated from a different variety and spread via geographical diffusion. However, the ‘directionality’ of dialect levelling is more complicated, and it could perhaps be described as a move *away* from a traditional, possibly stigmatised local variety rather than a move *towards* a particular prestigious target.

A final direction of change that we would potentially see in Cardiff English is endogenous change, or drift; i.e. change that happens ‘naturally’ within a given language system over time. A well-known example of drift is the chain shift phenomenon, seen in the Great Vowel Shift, whereby changes in certain vowels caused a ‘chain reaction’ in which all vowels shifted to maintain phonemic distinction.¹¹ A more modern example is that of GOOSE-fronting, which Wells listed as back /u:/ but acknowledged as being “definitely central” [u:] in many accents (1982: 148). The vowel has continued this fronting trajectory in varieties of English around the world so that it is often in the same vicinity as the KIT vowel in younger speakers, and its spread has been described as “virtually complete” globally (Cheshire et al. 2011: 156).

Each of these directions of change will be discussed in more depth in Chapter 2, including the mechanisms by which they proceed. For now, however, given its particular complexity, it is worth exploring dialect levelling in some more detail to discuss how this type of change is relevant to the Cardiff context. In contrast, standardisation is relatively easy to track and characterise due to the established, prescriptive nature of a standard variety.

¹¹ The initial trigger for a chain shift may be from an external source, but the consequent re-positioning is considered to be an endogenous change (Labov 1994).

1.3.1 What is levelling?

The concept of levelling was briefly introduced earlier in relation to a quote from an interview participant suggesting that in time, we would all ‘sound the same’. This quote highlights awareness of the increasing linguistic homogeneity that characterises both standardisation and dialect levelling. Dialect levelling is a process of reduction in the diversity or variation of dialect features (Hinskens, Auer, and Kerswill 2005: 11), thus a ‘levelling out’ of variation within a dialect, or differences between dialects. The term *levelling* is used to describe several related linguistic processes, but the type that is of most relevance in this dissertation is specifically *supralocal dialect levelling*. This refers to a reduction of regionally distinct dialect features in favour of *supralocal* features – that is, features used across a wider geographical area. Dialect levelling is associated with large urban centres and their high degrees of contact and mobility (Kerswill 2007: 50).

In order to demarcate the nature of this type of levelling, it is useful to compare it with another type of levelling process that has been well documented and is driven by dialect contact and accommodation via migration. New dialect formation in the context of mass migration is often the result of different dialects coming into contact with each other and certain differences ‘levelling out’. This type of ‘melting pot’ dialect levelling is seen both in historical cases such as the formation of American English, New Zealand English, etc. and more recent ‘new town’ cases such as Corby (Dyer 2002) and Milton Keynes (e.g. A. Williams and Kerswill 1999). While both supralocal dialect levelling and contact or accommodation-based levelling share a socio-psychological element in their mechanisms (Kerswill 2003), supralocal dialect levelling does not require mass migration and instead seems to be brought about by increased amounts of smaller, daily contact, and the diffusion of innovations from large urban centres (Kerswill 2007: 50). It is important to note that while I only discuss varieties of English in this chapter, levelling occurs in other languages and countries across the world. The next section will discuss ‘Estuary English’ as a widespread form of supralocal dialect levelling in Britain that could also be a possible influence in CE levelling.

1.3.2 What does Estuary English have to do with supralocal dialect levelling?

Supralocal dialect levelling is perhaps best recognised or represented by the mainstream term Estuary English, which as Kerswill notes, “is the only regional levelling process to receive a name and to become the subject of public debate” (2007: 50). The term gained traction in the media in the 1990s despite not being wholly linguistically accurate, in that Estuary English has been demonstrated to not be a variety in itself (Kerswill 2007). However, what it describes is the process of supralocal dialect levelling, constituting the apparent spread of a London/Essex accent outside of this area and into a wider geographical ‘supralocal’ area – in this case the south of England. As such, the accent becomes less defined by a distinct link to one geographical region, and it becomes harder to tell where someone is from based on how they speak: a teenager from Bristol in the south-west may sound much the same, and use the same vocabulary, as a teenager from Kent in the south-east.

One of the accent features associated with Estuary English is glottalisation, that is, the replacement of word-final and intervocalic /t/ with a glottal stop, [ʔ]. Thus we might hear the word *kitten* pronounced as [kɪʔən], or *what* realised as [wʔ]. In fact, the glottal stop has existed as a variant outside London since long before the rise of Estuary English: it has been a stigmatised feature of Glasgow speech since the late 1800s¹² (Stuart-Smith 1999), and in word-final position it is a common feature of much spoken speech, including RP (Fabricius 2002). What has become relevant, however, is the increased social awareness of it, possibly brought about due to its increasing use in intervocalic position, and its wide geographical spread amongst younger speakers.

Two classic studies that exemplified dialect levelling through use of the glottal stop are Mees and Collins’ research in Cardiff, and Doherty and Foulkes’ Newcastle research – both published in the 1999 volume *Urban Voices*, which was the first key text to collect studies on dialect levelling. In Cardiff, Mees and Collins found that, contrary to sociolinguistic expectations that women avoid stigmatised forms in favour

¹² It is even reputed to have originated from Glasgow (Macafee 1997).

of standard variants, middle-class and upwardly mobile working-class women used more glottal stops. This led them to suggest that the feature had come to represent “sophisticated and fashionable speech” (1999: 201). In Newcastle, the traditional regional variant of /t/, glottally reinforced [ʔt], was eschewed by young speakers in favour of the pure glottal [ʔ]. These studies taken together add up to a useful illustration of dialect levelling: one phonological feature being increasingly used by women and younger people in very different geographical areas.

1.3.3 What causes levelling?

Dialect contact is considered to be a main cause of levelling, something particularly apparent in the cases briefly introduced above of dialect contact after mass migration to a new place. Some recent modern examples of this are ‘new towns’ such as Milton Keynes in England, which was only built in the 1960s. The majority of its new population came from outside the town’s immediate geographical area, and a resultant large group of people with different dialects came into contact with each other on a regular basis (Kerswill and Williams 2005). Their children, with no single, stable variety to latch onto, created a ‘levelled’ variety.

While the mechanisms are slower and more complex for supralocal dialect levelling, we can see some parallels – namely, that exposure to different dialects or dialect features widens the ‘feature pool’ (Mufwene 2001) that speakers have access to and may lead to linguistic homogenisation (Kerswill 2007). We are living in an age of increased communication and mobility, both social and geographical, since modern transport such as cars and planes make it quicker and easier to travel from one place to another. While it is debatable whether government priorities such as Margaret Thatcher’s ‘right to buy’¹³ and Tony Blair’s ‘education, education, education’¹⁴ have increased social mobility, they have played a role in the disruption of traditional socioeconomic class systems in the UK. The transition from employment in heavy

¹³ A policy giving council tenants the right to buy the council house they live in at a large discount.

¹⁴ New Labour’s education reforms increased the number and proportion of people going to university, but failed to reduce social class inequalities in attainment.

industry to the service sector – particularly pertinent to Cardiff's economy – has increased the number and diversity of people that workers come into contact with. This has the potential consequences of weakening social network ties, or expanding social networks beyond one's immediate home and work community.

Mass media and the internet are the two other main technological features of late modernity that are often explored in cultural theory and sociolinguistics specifically. Clearly these forms of media increase the chance of exposure to new features and varieties but linguistic evidence that they *cause* dialect levelling is not clear-cut, suggesting instead that they can act as an accelerating factor. For example, Stuart-Smith et al. (2013) found that exposure alone to a Cockney accent via the soap opera *Eastenders* was not enough for Glaswegian adolescents to adopt features from it: they also had to emotionally invest in the television show and its characters. This points to a conclusion drawn by researchers of dialect levelling (e.g. Hinskens, Auer, and Kerswill 2005) that the causes of it are often a combination of external factors (e.g. dialect contact) and sociopsychological factors (e.g. identity).

1.3.4 Why might a variety undergo dialect levelling?

One of the stated assumptions in Section 1.1.2 was that language changes over time: this is a given. What, then, is so different or identifiable about language change in the form of dialect levelling rather than internally-motivated change or natural drift in a language system? And why might some varieties experience change in this way instead of another?¹⁵

The combination of external and sociopsychological influences mentioned above creates a particularly fertile environment for dialect levelling. In a place like Britain with longstanding regional and class divides, certain dialects have become heavily loaded with connotations and/or stigma. Thus in the case of Newcastle mentioned above we may see younger people choosing to dissociate themselves from the regional working class stereotype by rejecting traditional dialect features. The

¹⁵ The two are not necessarily mutually exclusive.

availability of a third, non-local variant (e.g. [ʔ] instead of standard [t] in the case of /t/) allows them to distance themselves from older generations without displaying allegiance to the ‘standard’ variant associated with RP. Milroy (2007) terms this type of feature ‘off-the-shelf’ as it is fairly superficial and readily available to be adopted by speakers and diffused through a variety.¹⁶

As mentioned earlier, cities and urban centres are also central to dialect levelling. This is due partly to the everyday type of mobility and contact that characterises cities, but the ‘gravity model’ of language change (Trudgill 1974) also positions cities as the place from which language innovations diffuse, due to the ‘gravitational centre’ created by their size and influence. In this hierarchical model, innovations spread from larger cities to increasingly smaller cities and towns, rather than simply radiating out from one centre in a consistent wave pattern. This model allows us to see the influence that urban centres have on each other in terms of being *innovators* or *adopters* of new linguistic features.

1.3.5 What might we predict for Cardiff?

Considering the conditions and environment that dialect levelling can occur in – e.g. the presence of an external variety that can act as a target dialect, and a sociopsychological push/pull towards or away from it – what is the current situation in Cardiff? In her monograph on Cardiff’s ‘reinvention’ since deindustrialisation, Gonçalves (2017: 9) notes that the city’s cultural identity “lies within a seemingly contradictory paradigm” between the homogeneity engendered by globalisation, and the “struggle to maintain its cultural distinctiveness and Welsh roots”. She also notes the recursivity of representation, where Cardiff as capital city represents not just itself but Wales and Welshness as a whole, and vice versa – i.e. becomes representative of these identities itself (Gonçalves 2017: 172).

¹⁶ Contrasted with ‘under the counter’, which is a feature that may lie below the level of consciousness and requires prolonged contact with a particular social network to acquire.

As such, it is pertinent to look at the city's identity in relation to Wales, as well as to neighbouring England and its nearby urban centres when considering dialect levelling and external influences. Kerswill et al. note that metropolises are "at the apex of a regional or national economic hierarchy" (2008: 489), and as such they do not need to look elsewhere for influences. Is Cardiff confident enough in its own city status, or does it look to a 'true' metropolis such as London? In 1999, before devolution had been implemented, Collins and Mees suggested that Cardiff speech was demonstrating a move away from more typical Welsh-accented features and towards London and the south-east – is this still the case 20 years on? This section will discuss in more depth the demographic and linguistic diversity of Cardiff and its 'identity' as a city, with particular reference to Welsh language and Welsh identity, followed by the attitudinal and perceptual status of Cardiff English.

As noted earlier, Cardiff is a hub for commuting and in-migration in Wales. The proportion of its population born outside Wales had risen by just over ten percentage points to 31.3% from the 2001 to the 2011 census, with 13.3% born outside the UK (Rock and Hallak 2016). As such, its demographic and linguistic diversity is considerably greater than that of Wales as a whole: while nearly a quarter of Wales' population is 'foreign-born', the majority of these are English, a nationality that has been moving into Wales in large numbers since the 1970s (Leese 2006: 180).

What does this mean for Cardiffians and their Welsh identity? Relatively recent studies found that Cardiffians in general gave positive evaluations on four questions and statements relating to affiliation with Welsh identity¹⁷ (Coupland, Bishop, and Garrett 2006). However, compared with the relatively low affiliation that 16-18-year-old school students felt as reported in Coupland et al. (2005), there could be a decline in Cardiff's 'Welshness' in younger age groups.

Despite there being many other minority languages spoken in Cardiff, particularly Polish and Arabic (Office for National Statistics 2013), the second most

¹⁷ 'How Welsh do you feel?', 'I feel Wales is my real home', 'I feel very proud to be Welsh', and 'How important is it to you to let other people know you are Welsh?'

common language after English is Welsh, spoken by 11% of Cardiff's population (compared to 19% in Wales as a whole). As Durham and Morris (2016: 6) point out, such figures show that “many people in Wales may have little contact with Welsh”, which may contribute to perceptions of Cardiff as ‘non-Welsh’, in a general sense (e.g. Coupland et al. 1999). Coupland asserted that due to both its history and its dialect features tending to be English- rather than Welsh-influenced, “Cardiff does not align itself to any great extent with the Welsh language” (Coupland 1985b).

However, thanks to devolution and Cardiff's resultant civic and administrative centres, job opportunities in the Cardiff area are greater for bilingual Welsh-English speakers (Paulasto 2013: 257), and Welsh language use has increased somewhat in recent years (G. Jones and Parry 2015: 6–7). Coupland and Thomas (1990) suggest that social and geographical mobility within Wales allow Cardiff to be simultaneously ‘English[-speaking]’ and a centre for Welsh-language growth (1990: 6).

Relatedly, the English spoken in Cardiff has a complicated relationship with Welshness and Welsh identity: labels ascribed to it in attitudinal research using matched guise speech include ‘non-Welsh’ (Coupland, Williams, and Garrett 1999: 341). Assessment of ‘real’ Cardiff speech (as opposed to matched guise) seems to place it as not Welsh, but also not English (Garrett, Coupland, and Williams 1999: 342–43); and Garrett et al. (1999) suggest that anglicisation should be seen not only as a shift from Welsh language to English language, but also as a cline of the “perceived Welshness” of Welsh English varieties (ibid: 345).

In terms of the social status of the dialect, Cardiff English has been found to carry low prestige, with its speakers rated poorly in attitude tests on dimensions such as competence (Coupland, Williams, and Garrett 1999). The words used to describe it are often negative – ‘ugly’, ‘rasping’ (Coupland 1988: 98), ‘harsh’ and ‘grating’ (Collins and Mees 1990: 88). As such, Coupland argues that the concepts of negative prestige and linguistic insecurity can be appropriately applied here (1988: 98). As was discussed in Section 1.2, the vowel system of Cardiff English seems to share a roughly equal quantity of features with both Welsh and English varieties. As such, perceptions

of and affiliations with national identity have the potential to play a part in any supralocal and identity-motivated changes occurring in the dialect.

1.3.6 What do we need to know about levelling in order to tell if it is happening in Cardiff?

The discussion above has provided an overview of dialect levelling and explored why Cardiff is a fruitful city in which to examine this type of language change. It has presented a geographic and linguistic contextualisation of Cardiff's identity to argue that Cardiff is simultaneously the urban apex of Wales, and 'small fry' in the wider British context, with its dialect subject to stigmatisation. Additionally, the complicated relationship it has with Wales and Welsh mean that it perhaps does not sit comfortably as a Welsh city, either. These factors, added to the high degree of migration and mobility, could mean that it is prone to dialect levelling and linguistic homogenisation if it looks outward to bigger cities such as Bristol and London rather than being its own centre of innovation.

Chapter 2 will explore in depth the patterns and predictors of language change and levelling, considering questions of standardisation and globalisation, mobility and geographical diffusion, sociopsychological factors and constraints. Gender is often found to be a relevant factor in levelling, with young women often leading levelling changes by using more supralocal forms (e.g. Foulkes and Doherty 2007: 56), so the interaction between the individual and society will be examined. Language-internal and linguistic factors have not received much attention in the account so far, but will be discussed further in Chapter 2.1, since social/external factors are in themselves not enough to cause rapidly spreading sound changes.

1.4 Conclusion

This chapter has introduced the central questions stimulated by interview participant Alex's comments on the future of the Cardiff dialect: is it 'levelling out' or standardising to a generic 'British accent'? Or are any changes simply the result of natural language drift? In order to start addressing these questions, I gave a brief history of the city and its dialect, and described CE's key phonological, lexical and

grammatical features. I then introduced the key concepts of standardisation, drift and dialect levelling, and how the latter might be specifically relevant to Cardiff.

Next, we must seek the answers to some additional questions that, between them, will help address the central question:

- How do levelling, standardisation and drift work?
- What does it look like when a variety is levelling?
- What do we already know about change in the Cardiff dialect?
- How do we go about investigating directions of change?

The first three questions will be explored in Chapter 2, and the fourth in Chapter 3, which will generate specific hypotheses for the empirical work that has already been pre-empted with some interview extracts in this chapter.

Chapter 2 The mechanisms and outcomes of different types of language change

The previous chapter presented the central question motivating this thesis: Are changes in the Cardiff accent and dialect due to dialect levelling, standardisation, or drift? It introduced the research context, that is, the city of Cardiff and the variety of English spoken there, and some of the ways in which language can change. As reported at the end of the Chapter 1, this chapter will provide a substantive review of the literature that will motivate specific hypotheses for the empirical work.

In order to answer the central question, it must first be broken down. Firstly, we need to know more about these directions of language change, what their mechanisms are, and what it looks like when a variety is levelling. This will enable us to address the question of how to investigate these directions of change (methodological questions that will be addressed in Chapter 3). It is also useful to look at what is already known about change and levelling in the Cardiff dialect. Some aspects of this have been introduced in Chapter 1 – namely, Mees and Collins' (1999) real-time study of glottal stops – but this and other features will be explored in greater detail.

As such, this chapter will address the following three review questions:

- What are the mechanisms of language change?
- What does it look like when a variety is levelling?
- What existing evidence is there of change in Cardiff English?

Section 2.1 will take a broad view to discuss the mechanisms of different types of language change and how changes spread and propagate. Through this it will explore processes and theories of standardisation, globalisation, mobility and diffusion, followed by language-internal (i.e. linguistic) factors and language-external (i.e. social and sociopsychological) factors. The focus throughout will generally be on dialect levelling as a more complex and lesser-understood phenomenon that requires detailed interrogation. Section 2.2 will focus in on what it looks like when a variety is levelling,

by separating out convergence at the micro (individual) level and levelling at the macro (community or town) level, and asking whether convergence will lead all dialects to eventually ‘sound the same’. Section 2.3 will then look specifically at previous studies of diachronic change in Cardiff English, and posit some predictions for change in CE. Thus the format of this chapter will be an increasingly narrowed focus for each subsection, leading to the selection of suitable linguistic candidates to investigate different directions of change in the variety.

2.1 What are the different mechanisms and processes of language change?

In Chapter 1, the fact that all languages are subject to change was accepted without question. The following subsections will unpack this assumption by exploring why language changes at all, with reference to internal and external influences (2.1.1). The discussion will then sidestep slightly to define and position dialect levelling in relation to these broad types of language change (2.1.2), in order to facilitate a comparison of convergence processes, of which dialect levelling is one (2.1.3). The mechanisms by which changes spread and propagate, and what factors can accelerate or impede such change will be explored in 2.1.4 and 2.1.5.

The sections that follow will often present theories of change in the form of dichotomies with associated characterisations (explained in due course), which can be a useful tool for explaining and categorising differences – see Table 2.1 for an overview of the aspects the discussion will focus on.

Type of change	Endogenous	Exogenous
	“under the counter”	“off the shelf”
Motivation for change	Internal	External
	“ideology-free”	“ideology-driven”
Mechanism for change	Transmission	Diffusion

Table 2.1 - Dichotomies in the types, motivations, and mechanisms for language change

These dichotomies will occasionally be problematised in the discussion that follows to raise the question of whether they are dichotomies at all, and whether even viewing them as being on a spectrum with some processes lying between the poles is

sufficient, given that extra-linguistic factors also motivate change but seem to lie outside these bounds. These aspects will be brought together in the concluding section, 2.1.6.

2.1.1 Why does language change?

It is universally accepted that languages change over time, with explanations drawn from sociolinguistic and psycholinguistic perspectives, alongside the inherent instability of a linguistic system that tolerates variation and hybridity: “all languages change all the time” (Boberg, Nerbonne, and Watt 2018: 1). The paradox of language change is that it is both sporadic and constant: the *fact* of language change is a constant, while the manner and means of change are “irrational, violent, and unpredictable” (Labov 1994: 10). Language change is often divided into two categories: language-internal, or *endogenous* change, or language-external *exogenous* change. These can also be conceptualised as natural drift or the input or influence of a different language variety, respectively.

While the overarching topic of language change is focused on diachronic change, or change over time, it can be difficult for analysts to fully distinguish it from synchronic variation, which is already a feature of language that is accepted, often without remark. For example, I would say “gonna” in most informal speech situations, but might use “going to” when speaking carefully over the phone or in a presentation.¹⁸ Furthermore, at a phonetic level, the exact production of a particular vowel will vary both within one speaker’s pronunciation, and from speaker to speaker. Chambers (2009: 198) points out that variability in language “often indicates instability”, and although change is not a ‘pre-ordained’ outcome of synchronic variation, Weinreich et al. state that “all change involves variability and heterogeneity” (1968: 188).

¹⁸ Such synchronic variation, which is here related to register, does not necessarily entail diachronic change.

This allows us to see how diachronic change can build on synchronic variation. A question addressed in Weinreich et al. (1968) is why language changes if children use the exact forms of language that their parents speak. The continuity of a language rests on children “replicat[ing] faithfully the form of the older generation’s language” (Labov 2007: 346), but imperfect replication is a “normal type of internal language change” (ibid.) and does not disrupt transmission of meaning between concurrent generations.

Furthermore, studies suggest that children’s language restructures often up until late adolescence, and in mid to later years is influenced more by the cohort of children a few years above them than by their parents. Weinreich et al. remind us that while generations are discrete within a family, at the community level they form a continuum or “uninterrupted gradient” (1968: 114).

The *principle of least effort* is often invoked to refer to language-internal changes of phonetic reduction – it is physically easier to articulate “going to” as “gonna”. However, Weinreich et al. (1968: 111) suggest that the principle of least effort cannot be the only contributing factor behind language change – if this were the case, why do such changes not happen more quickly, or take place universally? This raises the need to look outside the linguistic system to understand language change. The impetus for language change exists even within an isolated community that has no external influences or contact. However, that is not how most communities exist, especially not today, and contact with other people and other language varieties can further effect change.

At an evolutionary level, contact with people outside your immediate community, or ‘talking to strangers’, requires a different type of language use and a sensitivity to what knowledge is already shared between the interlocutors (Wray and Grace 2007: 557). At a community level, throughout history we have seen the borrowing of new words from one language to another, and the creation of pidgins in language contact situations. Finally, at the individual level we see micro-level changes taking place in pronunciation when speaking to one another. Studies based on Communication Accommodation Theory (Giles, Coupland, and Coupland 1991) show

that individuals can spontaneously and unconsciously converge their ways of speaking in conversation. Trudgill (1986) hypothesised that the short-term convergence that happens in spontaneous encounters between individual speakers leads to dialect levelling and convergence in the long run. Language contact increases the potential for instability due to the introduction of other lexical, phonetic or grammatical variants, that may end up in competition with 'original' features depending on the power dynamics of the contact situation.

This points to a third category of types of language change that sits somewhat between or even outside the language-internal and external: sociopsychological and cultural factors, such as prestige and stigma, as raised in Chapter 1. I have produced a conceptualisation of the three main identified types of language change (Figure 2.1) based on definitions in Hinskens et al. (2005: 41). They state that "both external and extra-linguistic factors determine the social and geographical diffusion of a change and its social embedding", while internal factors determine its linguistic embedding (ibid.). Each of these areas will be discussed in the following sections, with a focus on dialect levelling as a more complicated process of language change requiring greater discussion. Dialect levelling is classed under dialect convergence by Hinskens et al. (2005). This, along with dialect divergence, is an 'epiphenomenon' of linguistic change, and does not constitute a type of change additional to internal/external factors (Hinskens et al. 2005: 12). The following section will define and explore in detail dialect levelling as one process of language change.

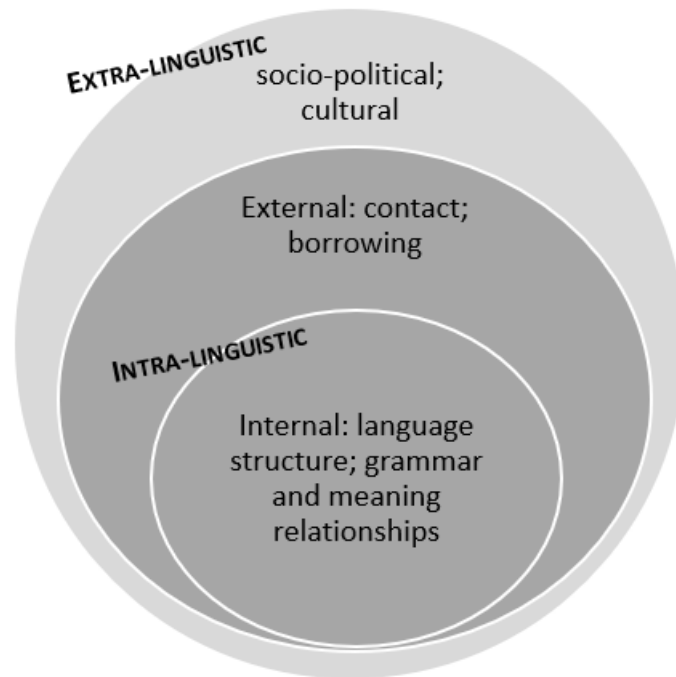


Figure 2.1- Motivations of language change

2.1.2 Dialect levelling as a process of language change

This section will first define the key terms [*regional*] *dialect levelling* and *supralocalisation*, before situating the study of these processes within the wider field of variationist sociolinguistics and its cousin, social dialectology.

Dialect levelling is a process of language change that is widely attested to be occurring across Europe, including in Britain¹⁹ (e.g. Kerswill 2003; Foulkes and Docherty 1999; Hinskens, Auer, and Kerswill 2005). As explained in 1.3, the consequence of dialect levelling is increased homogeneity across systems. This has been linked to the social upheavals of recent history, with the suggestion that such linguistic homogenisation is the result of increased geographical and social mobility having disrupted routines and weakened local networks (Foulkes and Docherty 2007). While *dialect levelling* refers to all aspects of dialect, it is most commonly realised in phonetic features (Foulkes and Docherty 1999; Cheshire, Kerswill, and Williams

¹⁹ Studies demonstrating levelling have also been carried out in other parts of the world but current language change in Europe is particularly characterised by this process.

2005), with parallels in morphosyntactic change appearing to a more limited extent (Kerswill, Torgersen, and Fox 2008: 486).

Before proceeding to explore dialect levelling, it is important to pin down the relationship between sociolinguistics and dialectology, with some brief consideration of how each is typified. The study of dialect levelling sits within the wider field of variationist sociolinguistics, which has a foundational belief in the ‘structured heterogeneity’ of language – that is, variation in language stratified and constrained by social and linguistic factors (cf. Weinreich, Labov and Herzog 1968). As such, it usually uses quantitative methods to determine how variables are stratified. In this way it differs from both dialectology and ‘third-wave’ sociolinguistics, characterised by its ‘ethnographic turn’ which focuses on identity as constructed through language, including style and variation.

Dialectology is sometimes viewed as a precursor to sociolinguistics but is perhaps more appropriately considered a cousin to it, as the relationship is oblique rather than direct (Chambers 2012). Dialectology will be occasionally mentioned in this thesis, particularly when referring to works such as the Survey of English Dialects (SED; Orton and Dieth 1962). The SED was a huge piece of work that aimed to document traditional dialects (and dialect differences) from rural areas of England before they were lost. The main participants in the survey were what are now referred to as NORMs: non-mobile older rural males, chosen because their speech was considered less likely to be affected by dialect contact or having lived in more than one place, and was thus considered to be more representative of the traditional dialect of a particular area.

Traditional dialectology was concerned with different dialect features in different geographical areas, and generally focused on rural, isolated speakers in order to obtain the ‘authentic’ dialect. However, the last century has seen increased urbanisation and mobility that could be argued to reduce the importance of the rural village (Hinskens, Auer, and Kerswill 2005: 24). In the British context, some of the key changes relating to mobility that David Britain (2011) evidences are: more people moving house more frequently; commuting and more people travelling in general; new consumption

behaviours requiring more travel; increased university attendance (usually not in the attendee's home town); and the increase of the service sector, which is more mobile than the UK's previous main employment sectors of extraction and manufacturing (Britain 2011: 53–54). Britain also stresses the importance of situating these new mobilities in their social context, as not everyone has equal access to them.

While changes both in society and in the field of variationist linguistics mean that the methodology of the SED is unlikely to be repeated today, we can see in it the kernels of the key aspects that sociolinguistics is concerned with. Firstly, the SED's focus on men reflects the general sociolinguistic tendency for working-class men to speak the 'broadest' form of dialect or vernacular, that is, the most 'non-standard' variety. Secondly, using older speakers as a "bridge to the past" (cf. Brown 2019) is a foundation of apparent-time methodology which is commonly used to study language change diachronically. These two points also raise the deeper question of authenticity: what does it mean to be considered an authentic or representative speaker of a dialect? These and other methodological concerns will be discussed in Chapter 3.

The third consideration, which will be discussed extensively in the rest of this chapter, is the interrelated aspects of mobility and language contact leading to the attrition of traditional dialect forms, or levelling to a different or standardised form. As a first step, it is necessary to return to the question of terminology addressed in Chapter 1, to clarify how two terms that can conflict in the literature will be used here: *supralocal* and *supraregional*. For instance, another term used to describe dialect levelling is *dialect supralocalisation*, referring to "the loss of distinctiveness at the local level in favour of distinctiveness at the regional level" (Hinskens, Auer, and Kerswill 2005: 12). The term *supralocal* refers to a wider regional level above that of the local level; therefore as used here, dialect levelling refers to the reduction of variable local forms in favour of a 'supralocal' form. What this looks like in practice will be discussed in Section 2.2.2. There is sometimes a lack of clarity in the literature that means the terms *supralocal* and *supraregional* seem to be used interchangeably. For consistency, I will use *supralocal* to refer to the regional level, and *supraregional* to refer to changes that happen above and across regions.

Additionally, while *supralocalisation* and *dialect levelling* are often used together or interchangeably, Britain (2011: 56) argues that it is worth treating the term *supralocalisation* with more caution, suggesting that it is possibly overly simplistic to view the spread of supralocal features as ‘the death’ of both local and standard features. Britain found that in Norwich, incoming features interacted with traditional variants, producing compromise outcomes (2005: 1017), and in a later work he argued that the multiscalar nature of spatial interactions allows us “to combine more supralocal forms with more locally focused ones” (Britain 2010: 204). The complexities and differences in occurrence of levelling lead Maguire et al. (2010: 77) to propose a theory of *dynamic equilibrium*, whereby dialect varieties remain distinct from each other despite the considerable changes taking place within each variety. This will be explored in more depth in Section 2.2.3.

In keeping with the theoretical issues just explored, it will be useful in the present study to keep open the possibility that levelling is not purely a process of dialect loss. For that reason, where relevant in the empirical work, one of the questions that will be asked is: Does the evidence here imply that the Cardiff variety is becoming less distinctive, or just that it is changing?

2.1.3 Horizontal and vertical convergence: dialect levelling and standardisation

To distinguish between dialect levelling and standardisation, both of which reduce variation (e.g. Cheshire 1999: 132), it is useful to introduce the concepts of *horizontal* and *vertical convergence*. A dialect can give and take features from other dialects (horizontal convergence), as well as converge ‘upwards’ to a national standard (vertical convergence). While upward convergence may be more likely due to extra-linguistic factors such as power and prestige, this does not preclude the possibility of ‘downward convergence’; that is, the potential influence of a non-standard dialect, which will be discussed later in this section. I will first discuss horizontal convergence in relation to new dialects, koineisation and dialect contact, before turning to vertical convergence in the form of standardisation and de-dialectalisation.

Dialect levelling in the context of immigration and new dialect formation was discussed in Chapter 1. This process is also known as *koineization*, and occurs when speakers of mutually intelligible dialects are brought together (Kerswill 2013). In these cases, the ‘first generation’ (i.e. parents) tend to maintain heterogeneity while their children lead the *focusing* stage, which sees differences ‘levelled out’ through peer group interaction. It has been suggested that the majority variant ‘wins out’, but this is not always the case: for example, younger speakers in Milton Keynes favoured the RP-like [aʊ] for MOUTH over pre-existing majority variant [ɛʊ] (Kerswill, Torgersen, and Fox 2008: 461). This also represents an example of when the outcome of levelling, or horizontal convergence, looks the same as standardisation, or vertical convergence, as the younger speakers have chosen a “regionally and socially unmarked” form – the prestige RP variant – over traditional and locally marked forms (Kerswill, Torgersen, and Fox 2008: 462).

Dialect levelling and standardisation can have similar outcomes in terms of a reduction in the number of different forms available to speakers, and thus a reduction in variation. Indeed, these two processes have both been at work in the UK for at least the last century, to the extent that British English has been said to be “characterised” by them (Kerswill 2001, 45). A variety of explanatory factors has been discussed in relation to this, which can generally be included under the umbrella of technological and societal changes advancing mobility, literacy and communication for large portions of the population. Specifically with regards to standardisation, Beal notes the expanded imposition of Standard English on children through compulsory education from 1870 onwards (2010: 3).

However, dialect levelling differs from standardisation in that the levelled form does not necessarily represent a ‘standard’ variety of a language (Foulkes and Docherty 1999: 13), as we saw in the case of ‘Estuary English’ (Chapter 1). Trudgill (1990: 92) identifies a dichotomy between *traditional* and *mainstream/modern* dialects, the latter of which “differ much less from Standard English and from each other”. This points to the co-occurrence of horizontal and vertical convergence, which go “hand in hand” according to Auer (2018: 163): dialect levelling represents the horizontal reduction of

variation between dialects, and standardisation or convergence with a standard variety represents vertical reduction (Berruto 2005). This type of standardisation can also be termed de-dialectalisation, which was used in the British context by Kerswill et al. to refer to “the distribution of phonemes across the lexicon [falling] in line with Standard English” (Kerswill, Torgersen, and Fox 2008: 487).

However, it must be remembered that the ‘standard’ is not impervious to change (despite being more resistant to it), and as varieties converge ‘upwards’ to it, it can also converge in a ‘downwards’ direction to meet them. For example, “RP is gradually incorporating features which previously fell into the scope of non-standard accents” (Przedlacka 2002: 95). Hinskens et al. (2005: 26) describe this as “a change in the sociolinguistic distribution of an existing variety” rather than language change as such, as it seems to be due to a “wider acceptance” of non-standard forms. However, this assertion possibly falls prey to the sociolinguistic tendency to treat the ‘standard’ as unchanging. As Britain (2017) argues, the social demographic of the British ‘elite’ (supposedly upholders of Standard English and RP) has changed considerably: research into young speakers in this group demonstrated divergence in realisations of /t/ (Badia Barrera 2015), and Harrington et al. (2000) evidenced changes in the Queen’s pronunciation over time.

To sum up, this section has started to tease out some of the directions of linguistic change by focusing on horizontal and vertical convergence. However, the mechanisms of influence have been shown to be more interrelated, complex, and not as unidirectional as the terms might suggest: internal and extra-linguistic factors such as prestige, social networks and motivation have only been touched upon, while the external factor of dialect contact cannot be adequately separated from these. These issues will be explored further in the following two sections, which will address respectively how changes in language spread and propagate, and what accelerates (or impedes) change.

2.1.4 How do changes in language spread and propagate?

This section will explore how a linguistic innovation can take hold and spread, both in a single speech community and from one community or location to another. *Innovation* as a term can be used in two different ways: firstly, it can refer to an endogenous change, a ‘change from below’ (Labov 1994), that develops naturally within a speech community. Secondly, it can refer to an external or pre-existing innovative variant that comes to be adopted by another community. The latter is most often the case with dialect levelling: the levelled form already exists supralocally or supraregionally, rather than being a completely new variant (Britain 2010: 195). This can be termed ‘change from above’ following Labov, or in Milroy’s (2007) theorisation, ‘off the shelf’ – this will be expanded upon below and in section 2.1.5.

So how does an innovation or incoming variant spread from one person, community or location to another? There are two main theories of propagation: transmission and diffusion. These are considered to be the main mechanisms for endogenous changes and externally-influenced changes respectively. I will discuss these in turn, firstly looking at transmission through community networks, then turning to geographical diffusion with a focus on levelling as an exogenous change. I will then consider the question of how possible it is to neatly separate these two types of changes and the mechanisms by which they spread.

Changes from below have been termed by Lesley Milroy ‘under the counter’ features, because their means of spreading relies on close-knit networks and ties, and rootedness within a community (L. Milroy 2007). This builds on her research in Belfast, where she discovered that speakers who belonged to dense social networks with strong ties used more traditional local, working class variants (L. Milroy 1987a). Those who belonged to more diffuse networks and had weaker ties used more standard or innovative forms, and this has been suggested as the means by which incoming forms are able to spread (L. Milroy 2004). This is because weak ties, being less embedded in or more peripheral to a particular community, are a greater source of new information, including new linguistic ‘off the shelf’ features – so termed

because their ‘ready-packaged’ nature allowed them to be picked up by anyone (L. Milroy 2007).²⁰

In order to predict how different types of networks and ties propagate sound change, Fagyal et al. (2010) ran a range of computer simulations and found that a combination of weak and strong network ties are needed for a change to spread widely and stabilise. They discuss this in terms of *centres* and *peripheries*. At the individual level this corresponds to the concept of ‘loners’ – that is, individuals who are ‘unconnected’ to or at the peripheries of social networks – and ‘hubs’ – individuals who are at the centre of dense and multivariate connections. This raises questions of the role of the individual in language change, which will be a recurring motif throughout this thesis.

Exogenous, ‘off the shelf’, changes have been suggested to spread from one community to another via the mechanism of geographical diffusion. A few spatial diffusion models have been proposed for how linguistic innovation spreads, with Beal (2010: 78) noting that the ‘wave’ and ‘urban hierarchical’ (or gravity) processes tend to be those most observed in Great Britain. In the urban hierarchical model, innovations spread from large city to smaller city, to increasingly smaller towns, ‘descending’ down this urban hierarchy (Britain 2005: 997). This is one reason why the field of variationist sociolinguistics (as compared to traditional dialectology) has focused on cities and large urban centres. As Taeldeman argues, urban centres “play a pioneering part in the diffusion of linguistic phenomena” (2005: 267–68) whether this be in generating innovations, adopting innovations, or resisting change for longer than their surrounding areas (2005: 278). He attributes this to the range of social factors at play in large urban populations: social heterogeneity generally co-occurs with more linguistic variation, along with higher degrees of migration and mobility increasing the opportunities for contact and linguistic exchange (2005: 276).

²⁰ Of course, once an external feature has taken hold within a community it can take on local characteristics and come to index meanings specific to that locality – this is part of the localisation process, discussed in 2.1.5.

Critiques of the gravity model point out that it is not well-equipped to integrate language internal or social-psychological factors (e.g. Tældeman 2005: 283), with Kristiansen and Jørgensen contending that sociopsychological and identity factors are the “driving force” of language variation and change (2005: 287). As such, a wave model or ‘contagious diffusion’ may represent better how changes motivated by internal factors spread. This model describes how innovations ripple outward from a central point, like a stone dropped into water (Britain 2005: 997). This ripple effect occurs through direct personal contact and social networks. Despite the different importance placed on the individual across these models, the patterns of geographical diffusion and personal contact “usually combine in various mixed forms” (Tældeman 2005: 263), and while internal motivations can be factors in cases of dialect convergence, external motivations “seem to predominate” (Hinskens et al. 2005: 12).

Taken together, processes of innovation diffusion within and between communities can be seen as an interplay between these different factors and motivations – that is, levelling as a type of language change tends to spread via diffusion but can be accelerated by community transmission. The following section will explore this in more detail by addressing the question of what factors can accelerate (or impede) the spread of levelling changes in particular.

2.1.5 What accelerates and impedes language change?

One of the reasons that dialect levelling is picked up on more by the public and the media (as opposed to other forms of language change) is the rapidity with which levelling changes seem to spread, in contrast to, for example, changes from below that spread slowly and less noticeably via transmission. This section will address accelerators of change, first considering the interplay of internal, external and extra-linguistic factors by looking in more detail at some contemporary levelling changes in Britain. It will then address how the flipside of these can instead constrain or impede levelling changes, and will introduce the concept of *sociolinguistic salience*, which has been described as crucial to understanding how sound changes propagate (Rącz 2013: 145).

The previous section pointed to the need to consider combinations and mixtures of mechanisms and factors when examining levelling changes. Due to the lack of isolation of virtually any speech community in modern Britain, how can we separate what are endogenous and exogenous changes, and thus how they spread, i.e. via transmission or diffusion? While, as Trudgill (1999: 139) points out when reporting his research in Norwich, we are “forced to accept that change can be truly system-internal”, the high degree of dialect and language contact that occurs today, particularly in cities, is likely to lead to a blending of these types of change. For example, the monophthongisation of lexical sets such as GOAT in modern London and Birmingham varieties originates from multicultural communities and is potentially influenced by L2 English and languages such as Bengali Sylheti that do not have diphthongs (Kerswill, Torgersen, and Fox 2008: 464). Thus an internally-driven ‘change from below’ is confluent with the internal system of another variety, contributing to its spread.

This combined effect is also addressed by Holmes-Elliott (2015) in her PhD thesis which reports findings on dialect levelling from Hastings, a large town in the south-east of England. She suggests that the interplay of internal and external factors is seen in two widely (and rapidly) spreading features: GOOSE-fronting, which seems to be a ‘natural’ endogenous change happening in varieties of English worldwide, and TH-fronting, which is an exogenous change spreading via diffusion, but one that exhibits tendencies of a natural phonetic change as it is simpler to articulate labiodentals than interdental (Holmes-Elliott 2015: 274–75). Based on her work, it might be argued that dialect levelling sits in the middle of a spectrum of endogenous to exogenous change, characterised by transmission and diffusion respectively, with the two mechanisms “combin[ing] to reinforce one another”, and diffusion acting to “amplif[y] the effects of transmission” thus creating an acceleration of the change (Holmes-Elliott 2015: 268).

From an extra-linguistic or sociopsychological perspective, Foulkes and Docherty (1999: 11) suggest that a factor behind the rapid spread of certain levelling changes is that they “represent neither the standard nor the extreme non-standard poles of the continuum”. When considering dialect levelling, Milroy (2003) proposes a new way of

considering the dichotomy between internally and externally motivated change – that of “ideology-free” and “ideologically-motivated” change (2003: 166). She suggests that dialect levelling and internally-motivated change are ideology-free and thus can spread freely.

However, this conceptualisation still reproduces a potentially unhelpful dichotomy that overlooks ideologies inherent in identity construction and the multiplicity of meanings afforded to levelled features depending on the local and individual contexts they are used in. For example, findings in Glasgow suggest that speakers employ supralocal forms to “extend the non-standard repertoire” (Stuart-Smith and Timmins 2014: 189) in contexts where either stylistic or linguistic constraints on the local Glaswegian features prevented them from being used. Similarly, working-class adolescents in Stuart-Smith et al.’s (2007) study, also in Glasgow, used TH-fronting more than their middle-class counterparts. Although this feature is associated with south-east English varieties and ‘Estuary English’, it was not perceived by users in Glasgow to be English in origin and instead indexed a working-class Glaswegian identity.²¹ This is an example of *localisation* as mentioned earlier, whereby speakers adapt innovative features in localised ways (Buchstaller 2008).

However, the converse side of such sociopsychological factors can impact trajectories of change in different ways: they can impose constraints on the spread of levelling changes, lead to dialect divergence instead of convergence, or reverse changes that had been set in motion. Such countering mechanisms have been termed sociolinguistic *polarisation* in the context of dialect borrowing and can act both defensively and offensively – by impeding the spread/uptake of borrowing in the former, or by developing changes that “diametrically oppose” or reverse changes from other dialects (Hinskens, Auer, and Kerswill 2005: 9).

²¹ There is also some evidence for TH-fronting existing in Glasgow before the spread of the feature nationally, but it remains unclear whether its current rise is from a vestigial local or supraregional origin.

Hinskens et al. state that external motivations for change only go so far, and that ultimately the ‘decision’ to accept or reject a change will come from language-internal factors (2005: 41). However, we can see an interesting conjunction of language-internal and identity factors in the cases of two different features in Glasgow and Liverpool: as mentioned above, TH-fronting in Glasgow is on the rise, particularly amongst working-class adolescents, but at the expense of standard realisation [θ] rather than the local variant [h] – and often in word-final position which, in this variety, does not allow the local variant [h] (Stuart-Smith and Timmins 2006).

Similarly in Liverpool, t-glottalling has not made significant inroads in word-final position because of the local variant [h] for /t/. In fact, young speakers are extending the contexts where this variant is acceptable outside the small set of one-syllable, high-frequency words which constrained it before (Watson 2006). In these cases of divergence and (mild) resistance, it appears that where there is a pre-existing feature that fulfils a similar role to an ‘incoming’ feature in terms of indexicality, its *salience* – that is, the combination of social content and linguistic form it has acquired in the cognitive domain (Jensen 2013) – can halt convergence. Thus, the *salience* of a feature can protect it from levelling out or being lost; it can become *enregistered* in a community when it becomes linked to social personae (Agha 2003) and acts as a carrier of local pride, memories, nostalgia (Johnstone 2017). It can even become *commodified*, as we saw in Chapter 1 with Cardiff’s merchandise brand *I Loves the ‘Diff*, with products displaying the feature sold to tourists and locals alike.²²

However, salience can be a ‘double-edged sword’ in language change. The factors that bring a non-standard feature above the level of consciousness often include a degree of stigmatisation that becomes attached to purely linguistic qualities such as phonetic distance and phonological contrast. Additionally, Trudgill notes that overt stigmatisation especially occurs when there is a high-status variant of a form that also tallies with standard orthography, as in the case of the stigmatisation of non-standard ‘h-dropping’ and ‘g-dropping’ (Trudgill 1986: 11). Furthermore, the more noticeable or

²² At which point, the tide may turn and ‘authentic’ locals may start to avoid a commodified feature.

salient a feature is, the easier it can be for individuals to consciously modify their use of it in accommodation or style-shifting situations (Trudgill 1986: 10; Labov 1972). In this way, a stigmatised salient feature can be at risk of change or levelling, but these forces can also be the ones to protect a feature, or to induce localisation. Johnstone (2016) notes this paradox and asserts that “the conditions that foster standardisation and the loss of linguistic variety are also those that foster the production of locality through the ideological differentiation of ways of speaking” (Johnstone 2016: 362). Thus, it is important to be aware of salience when looking at dialect convergence/divergence, but as Hinskens et al. note, it is a complex issue that cannot easily be operationalised to predict how salience might affect outcomes (Hinskens, Auer, and Kerswill 2005: 45). However, it is precisely this complexity and straddling of both internal and extra-linguistic motivations that can make it a key explanatory factor in dialect levelling (Kerswill and Williams 2002).

2.1.6 Concluding remarks on the interplay of factors that motivate language change

In order to answer the review question posed at the start of 2.1 – what are the mechanisms of language change – these subsections have taken a broad view in addressing the main types of language change (of which dialect levelling is an ‘epiphenomenon’), directions of language change (e.g. horizontal and vertical convergence), and mechanisms and motivations for the spread of language change, including accelerators and constraints, and the interplay between all these different factors. Along the way, the discussion has at times problematised the possibility of neatly delineating some of these aspects, for example by noting the entanglement of internal, external and extra-linguistic motivations (Farrar and Jones 2002: 3). Dialect levelling itself seems to sit at the heart of the debate regarding the primacy of internal versus external influence on change (e.g. Torgersen and Kerswill 2004). In line with Holmes-Elliott (2015), I consider dialect levelling to fall on a continuum between endogenous and exogenous change. Expanding on this, it can be seen as a process that sits between these “dangerous dichotomies” (Farrar and Jones 2002) and instead reflects the paradox of 21st century modernity: the simultaneous occurrence of atomisation (Latour 1993) and hyper-connectedness (cf. ‘networked individualism’;

Quan-Haase and McCay-Peet 2017) whereby isolation of individuals and groups has increased, while ‘connection’ is technologically easier than ever. These dichotomous contradictions play out in levelling as a process of language change, which sees both the rapid spread of features at global and supra-regional levels, and also the potential for localisation and the re-packaging of such features to index local and cultural identities.

2.2 What does it look like when a variety is levelling?

Turning now from the broader theoretical positioning of directions of language change, this section addresses the next review question: what does it look like when a variety is levelling? While the mechanisms for regional dialect levelling are not always clear, it is usually theorised as a combination of geographical diffusion plus the outcome of dialect contact and accommodation (Kerswill 2003; Foulkes and Docherty 2007). As such, we can see how modern mobile populations, and the resulting increased dialect contact and looser network ties, are generally considered to be contributing factors to these mechanisms. Dialect levelling also requires the involvement of extra-linguistic factors such as identity, attitudes and ideology, “leading to [the] adoption of features speakers deem attractive, and the avoidance of features which are unattractive” (Torgersen and Kerswill 2004: 26). This section will thus look first at the levelling that is the result of mutual accommodation between individuals and whether this scales up to the community level. It will then look at the macro-level effects or outcomes of dialect levelling at the town or city level, before addressing the question of whether levelling will eventually lead all dialects to converge.

2.2.1 What does convergence between individuals look like?

This section will first discuss the early formulations of Communication Accommodation Theory (CAT; Giles, Coupland and Coupland 1993) before exploring how this phenomenon scales up to the community level and beyond. As has been mentioned above, individuals can converge or accommodate to the speech of their interlocutor. This was first studied mainly by social psychologists following Giles

(1973), but it did not draw on systematic linguistic analyses – as Trudgill notes, the degree of accommodation was measured impressionistically (1986: 3). Coupland (1984) was the first to quantify linguistic accommodation²³ in his study of a travel agency assistant, ‘Sue’, and her clients in Cardiff. Looking at three features, he found that Sue increased or decreased her use of the non-standard variants according to the clients’ use (and by proxy, their socioeconomic class). While the extent to which she varied her usage was feature-dependent, her use of non-standard variants ‘h-dropping’, ‘g-dropping’ and realisation of /t/ as voiced allophone [t̚] or tap [ɾ] increased in line with increasing non-standard use by clients in lower socioeconomic groups.

Importantly, communication accommodation thus has implications for the linguistic fieldworker when conducting interviews – this will be discussed further in Chapter 3. Recognising this, Trudgill (1986) analysed how his own speech in interviews compared with that of his Norwich participants. He looked at two variables: (t), which had glottally-reinforced and glottal replacement variants; and (a:), which covered the fronting or backing of vowels in the BATH, PALM and START lexical sets. Similarly to Coupland’s findings, Trudgill’s own use of glottal stops for (t) was higher when his interlocutor used this variant, which also corresponded to social class (1986: 8). He concluded that this effect was not due to him inducing informants to accommodate to him, as he had lower glottal scores than the two highest glottal users, and higher scores than everyone else. While a degree of mutual convergence is likely and thus scores could vary when speaking to different interlocutors, the overall pattern is consistent. The methodological implications of mutual accommodation will be returned to in Chapter 3.

It is interesting to note that not all features seem to be equally susceptible to accommodation. Trudgill found that his realisation of the variable (a:) hardly changed at all despite great variation in his participants, who ranged from having near

²³ That is, accommodation between two interlocutors as opposed to, for example, style-shifting in Labov’s (1972) classic department store survey.

categorical use of the low-prestige front variant [a:] in the speaker with the lowest socioeconomic class, to categorical use of the prestige back variant [ɑ:] in the speaker with the highest class (1986: 9). He accounts for this difference in terms of the social salience of the glottal stop as opposed to front BATH, and the difference between *markers* and *indicators*²⁴ (Labov 1972), but this (along with Coupland's results) also raises the question of whether consonants and vowels operate differently in terms of their social function.²⁵ This will be returned to in Section 2.2.2.

The dialect convergence that is evidenced between interlocutors can scale up to the community/town level as we saw with koineisation in Section 2.1.3. Trudgill (1986) theorised that communication accommodation is the best explanation for how linguistic changes are transmitted from one geographical area to another, with the possibility of them becoming a permanent fixture if the frequency of accommodation is high enough and the attitudinal factors are favourable (1986: 39). Communication Accommodation Theory (CAT) focuses on the patterns of convergence and divergence in communication behaviours, including pronunciation, between interlocutors (Giles, Coupland and Coupland 1993). Auer and Hinskens (2005) tested Trudgill's theory that CAT can be used to explain levelling by reviewing empirical studies of dialect speakers of Dutch, Lëtzebuergesch, and German, making the assumption that the features undergoing dialect convergence in a certain community will also display interpersonal accommodation at the individual level (2005: 343). However, the studies they examined found that while change was observable at the community level, few individuals accommodated to others using the divergent or incoming feature (Auer and Hinskens 2005: 351). Conversely, Nilsson (2015: 13) reported inter-speaker variation in rates of convergence, and found that accommodation occurred towards

²⁴ Indicators are variants that are representative of a regional variety but that are not necessarily above the level of consciousness. Markers are indicators that have acquired social salience within the community and may thus be subject to comment, style-shifting, etc.

²⁵ The discussion here has focused on phonetic features but accommodation at the lexical level can also occur – Trudgill notes the possibility of American English and English English speakers changing their respective uses of “sidewalk” or “pavement” in a conversation (1986: 2).

both the traditional and levelled dialects. She concludes from this that CAT could be used to explain both language change and language stability (Nilsson 2015: 14).

These results do not provide a straightforward answer to whether CAT in itself can explain dialect levelling, despite being considered a key component of this process. Meyerhoff (2001) reminds us that accommodation is a strategy, not a motivation, and other researchers favour sociopsychological and identity-based explanations for dialect convergence (e.g. Kristiansen and Jørgensen 2005; Kammacher, Stehr, and Jørgensen 2011). Such research focuses on attitudinal and perceptual tests²⁶ as a way of operationalising these factors but issues arise when there is a mismatch between attitudes and actual language use – as there often is. Furthermore, the “urge to converge”, as Britain puts it, does not necessarily lead to an accurate or successful match in linguistic forms – and can instead lead to innovation rather than “harmonisation” (2018: 144).

The question of how and if accommodation at the individual level can scale up to the supraregional level remains unanswered. However, it is important to be aware of communication accommodation and its potential role in dialect levelling. The next section will turn to what levelling looks like at the macro level; that is, above the level of mutual accommodation between interlocutors.

2.2.2 What does levelling look like at the macro level?

While it remains unclear exactly how (and if) levelling through mutual accommodation and individual convergence scales up to the community level, we can at least say that individuals and the wider community do not necessarily do the same thing. For example, Smith and Durham (2011) found a reduction in traditional/local Shetland variants in apparent time, with younger speakers using them less. But when looking at individuals within the younger group, they noticed that not all speakers

²⁶ For example, the ‘matched guise’ test where listeners rate speakers on dimensions such as ‘friendly/unfriendly’, ‘professional/unprofessional’. Unbeknownst to the listeners, the speaker in a matched guise test is the same person performing different accents or dialects, to eliminate potential idiosyncratic effects of different voices.

were doing the same thing: half of the young group used the traditional features at similar rates to their parents' and grandparents' generations, while the other half avoided them almost completely. Thus, a shift at the community level does not necessarily entail that each individual gradually reduces their use of local forms, and this observation highlights that dialect levelling is a phenomenon located at the community or 'statistical' level. Furthermore, there were no clear groupings along gender or local identity or affinity lines as might have been expected (Smith and Durham 2011: 217).

It is thus important to note that what may look like homogeneity at the community level (i.e. a move away from traditional variants) can mask inter-speaker heterogeneity. Even though the individual's linguistic behaviour is secondary in the context of the macro-level focus on dialect levelling in this thesis, it is something that cannot be dismissed entirely when individuals are used to provide the evidence for community-level patterns. The role of the individual will be returned to in Chapter 8. For now, however, the focus will turn to what dialect levelling 'looks like' at the community level, by exploring two (often interrelated) facets: reduction in variants/loss of traditional variants, and the uptake of geographically diffusing supralocal or supraregional forms. It will then address the issue of whether it is appropriate to use the term *dialect* levelling when discussions thus far have mainly presented phonetic or phonological examples rather than lexical or grammatical.

2.2.2.1 *Reduction in variants*

This section will examine one of the key definitional features of dialect levelling – that it consists of a 'reduction in variants'. After considering what this means in practice, and how we measure that it is happening, the following section will turn to the loss of traditional local variants in particular (usually due to a shift in proportional use towards standard or supralocal variants). Over time,²⁷ we see a reduction in the number of different variants used for a particular variable. Put another way, the

²⁷ Usually apparent time but sometimes real time – the two methodologies will be treated as equivalent for now, but potential issues with this will be discussed further in Chapter 3.

younger generation of speakers displays a reduced range of variants compared to, for example, their parents or grandparents (depending how quickly the change occurs). What we usually see is that traditional variants become less used by the younger generation, replaced by standard, supralocal, or incoming variants. Sometimes we see older forms failing to transmit to the younger generations, as in the case of discontinuity in Milton Keynes discussed below; other times younger generations may still exhibit older features but at a reduced rate.

In the case of discontinuity in the new town of Milton Keynes, a cross-section of the community exhibited six potential variants for the MOUTH vowel over three age/lifespan groups (children, their caregivers,²⁸ and the elderly – although not every variant was found in each group). With this vowel, there was simultaneously variation at the community level and stark generational divides: the children exhibited four of the six variants, favouring the RP-like [aʊ] which they used 66% of the time. This is a considerable increase compared to their caregivers, who had rates of 32% for [aʊ], and the elderly, for whom this variant did not exist at all (A. Williams and Kerswill 1999: 152). Williams and Kerswill argue that this specific case is due to the rapid change and discontinuity of the generations in Milton Keynes, which saw a large amount of immigration, with the incomers having little contact with the original older community members.

In cases of less rapid or discontinuous change, we are more likely to see trends towards a reduction in variants, away from traditional ones. For example, in Newcastle, the traditional (working class, male²⁹) realisation of GOAT as [ɔə] reduced over apparent time: from 36% in older working class men, to 12% in young working class men (Watt and Milroy 1999: 37). This provides an example of levelling towards supralocal /o:/, rather than a ‘standard’, as was the case with the Milton Keynes children favouring an RP-like realisation of MOUTH above. The FACE and GOAT vowels are realised in much of the north of England as the monophthongs /e:/ and

²⁸ Caregiver refers to the parent or guardian who the child had most contact with and input from.

²⁹ Also exhibited amongst women and middle-class men, but much less frequently.

/o:/, and it is a tendency towards this ‘pan-northern’ supralocal variant that explains the reduction in use of traditional Newcastle diphthongs [ɪə] and [ʊə]. These features have become restricted to older men, while women almost categorically favour the supralocal monophthongs that are the majority form in the wider region (Watt and Milroy 1999). The ‘pan-northern’ monophthongal FACE has also replaced a traditional diphthongal variant in Maryport, a small town near Carlisle in the north-west, the opposite side of England to Newcastle (Jansen 2018).

Of course, this also raises the question of whether these monophthongs are simply the standard in the north, so that levelling towards this variant actually represents levelling towards a different standard to that used in the south of England. As we have seen earlier, and as will come up again, the question of what is levelling as opposed to standardisation can be difficult to answer. This is due in part to the standard being somewhat of a ‘moving target’, and also one that can vary depending on how one defines the term. The question of whether the north of England is developing and maintaining its own, separate, standard to RP or SSBE is a fascinating one that I will leave to others to address.

2.2.2.2 *Supraregional or incoming features*

Having discussed levelling towards supralocal variants, I will now turn to supraregional variants. These are features found above the regional level, i.e. across diverse and geographically disconnected regions, as opposed to the pan-northern monophthongs discussed above which are found across different localities in this one wider region, but not outside it.³⁰ Additionally, the supralocal feature is likely to have already existed in the community, perhaps used mainly by middle-class speakers, and so its spread or uptake may not be best described as a shift towards an incoming or innovative variant.

³⁰ Ignoring for now the Midlands as a transitional area which exhibits ‘fudged’ forms and competition between northern and southern realisations.

Picking up on a point made earlier, that different linguistic features might respond to levelling processes differently, it is interesting to note Kerswill's (2003) observation that consonants and vowels seem to behave differently with regard to local versus regional levelling. Specifically, he notes that certain consonantal features – T-glottaling and TH-fronting – are manifested in many different areas of Britain while vowel changes are regionally restricted (Kerswill 2003). This could be due to the fact that differences in vowel realisations are the main distinguishers of different accents (Wells 1982), which links back to Trudgill's (1986) evidence of accommodation with regards to (t) but not (a) (as discussed in 2.2.1). This will be explored further in 2.2.3. For now, this section will detail some of the consonantal features most studied in relation to dialect levelling.

In earlier sections, two of the widest spreading consonantal changes in Britain were introduced: T-glottaling and TH-fronting. These can be described as supraregional features, as their occurrence is not confined to one region (geographically or politically defined) but is increasing across Britain, in urban and rural communities across Scotland, Wales and England. As has been previously mentioned, these features are associated with 'Estuary English' and have been seen to represent a geographical diffusion from the south-east of England, although whether this is truly the origin of the spread in all cases has already been problematised.³¹

Turning first to T-glottaling, this realisation of /t/ is "[p]robably the most widely studied variable in English" (Foulkes and Docherty 2007: 61), and has been described as the best "linguistic candidate" to represent supraregional³² change (Britain 2011: 50). This is due to its ubiquity both across Great Britain (Newcastle and Cardiff were mentioned in Chapter 1, in addition to its longer-standing association with London and the south-east) and in different types of communities, rural and urban (Britain 2011: 50). Its increase has also been reported in New Zealand English (Holmes 1997).

³¹ Cf. TH-fronting in Glasgow (2.1.5); also T-glottaling was first attested in the west of Scotland in 1860, and only in London at the start of the 20th century (Kerswill 2003: 232).

³² Britain (2011) refers to this feature as supralocal but I use supraregional here for consistency.

In many dialects, including RP, /t/ can be realised as [ʔ] in word-final positions, both pre-consonantly (example 2.1) and pre-vocally (example 2.2). However, it has been most stigmatised when used in word-medial intervocalic positions (example 2.3), and this is where the spread of the feature is most noticeable (Foulkes and Doherty 2007: 62).

2.1. *Get ready*

2.2. *Get off*

2.3. *Butter, water*

Looking at intervocalic /t/ specifically, Kerswill notes that the gender and social class distributions of glottal replacement are very similar across three English towns – Milton Keynes and Reading, both in the south, and Hull in the north-east – with working-class adolescents leading the change, and the southern towns being further advanced than Hull (Kerswill 2003). Similar social patterns were reported in Derby (Docherty and Foulkes 1999: 51). These patterns are not necessarily universal: Mees and Collins (1999) found that middle-class women in Cardiff used it more than their working-class counterparts, and their real-time panel study³³ allowed them to further note the adoption of the glottal stop by upwardly mobile women post-adolescence – that is, women who ‘started off’ as working class but gained greater socioeconomic status later in life (Mees and Collins 1999: 198). Their study only looked at word-final /t/, glottal realisations of which are common in modern RP (Fabricius 2002), and did not present any gender differences as it only considered women, but Mathisen (1999) looked at word-final and word-medial /t/ and found that middle-class women in the West Midlands had higher rates of the glottal than their male counterparts. She argued that the diffusion pattern of the glottal is comparable to its increasing use in RP (1999: 116), which is more conservative in intervocalic word-medial position than word-finally (Badia Barrera 2015).

It is worth noting here the differences in coding/analytical decisions that can lead to difficulties when comparing studies and varieties. For example, Coupland

³³ The same interviewees were recorded at different points in their lives.

(1988: 62) uses intervocalic /t/ to refer to both word-medial and between-word instances of /t/, where others would treat the latter as word-final. However, it is uncontroversial to say that the use of the glottal is increasing in different phonetic contexts, across different locations, and in a variety of social classes.

TH-fronting is the term given to labiodental realisations of the dental fricatives: thus /θ/ and /ð/ are realised as [f] and [v] in words such as *think* and *mother* (Foulkes and Doherty 2007: 63). TH-fronting rarely affects function words such as *this*, *the*, *they* etc.³⁴ The spread of TH-fronting has been led by working-class younger speakers, as findings from Derby (J. Milroy 2003), Glasgow (Stuart-Smith and Timmins 2006), Newcastle and Durham (Kerswill 2003) show, and also tends to be more common amongst men than women in London and the south-east (Przedlacka 2002; Schlee and Ramsammy 2013). In places where the feature is newer, such as Edinburgh, it has been suggested that gender associations have not yet stabilised, with no differences between male and female speakers (Schlee and Ramsammy 2013: 42).

2.2.2.3 *Dialect or accent levelling?*

It is unclear to what extent dialect levelling, rather than accent levelling, is occurring in Great Britain. Up until this point, discussions in this thesis have focused on accent as a subcategory of dialect, with some brief mentions of morphosyntax, lexis and grammar in Chapter 1. The common focus on phonetic variation within dialect levelling as a field of study has led some to use the term *accent levelling* instead (cf. Foulkes and Docherty 1999: 5). As Britain points out, even our knowledge of synchronic grammatical variation in England is “patchy” (2007: 75), but he notes that where we have diachronic evidence, results show considerable attrition of and levelling away from non-standard grammatical features in Suffolk and York (Britain 2007: 78).

³⁴ This could suggest a distributional difference between the voiced and unvoiced dental fricatives, i.e. that only the unvoiced /θ/ fronts in word-initial position, but this will not be explored further here.

One of the difficulties of documenting change in grammatical and lexical features is that in sociolinguistic interviews, examples may not come up often enough (if at all) to make conclusive claims, due to particular words or morphosyntactic elements occurring less frequently than individual phones in a finite set. Furthermore, Macafee's (1989) research on working-class Glaswegian attitudes to dialect lexis provides an insight into some of the extra-linguistic factors behind the attrition of local dialect. Grandparents in her study described feeling ashamed to use traditional dialect words, and parents inhibited the use of such words so that their children would not be scolded or corrected in school (Macafee 1989: 194). These tensions between the generations due to pressures of 'correctness' and standardisation led to what can look like a 'generation gap' if survey questions are framed as "do you use X dialect word" rather than e.g. "do you *know* X dialect word", with grandparents being the last generation to use such words while parents may recognise but not use (or admit to using) them. Indeed, one of the reasons we may not find the term 'dialect levelling' used as much with regard to non-phonetic change is because changes in lexis and grammar may be more accurately termed *standardisation*, that is, levelling towards a standard.

An important theoretical question that needs addressing is whether there is any intrinsic reason to assume or expect that levelling would affect these different 'layers' of language – e.g. phonetic, grammatical, lexical – differently. It is possible, indeed likely, that non-standard grammatical and lexical variants are more salient and thus easier to avoid than pronunciation variants (cf. Section 2.1.5). However, until this matter is cleared up, it remains desirable to analyse more than one, in case it does (cf. Meyerhoff and Niedzielski 2003). For example, Smith and Durham investigated six variables in Shetland English, including lexical, morphosyntactic and phonological features, and found that all were in decline, in favour of more standardised³⁵ variants (2011: 216).

³⁵ Standard here refers to Scottish Standard English, which has some features in common with Standard British English.

2.2.3 Will levelling lead to the convergence of all local dialects and the erasure of regional differences?

This section will address a question that was posed at the start of Chapter 1: will dialect levelling lead to all accents sounding the same? Earlier sections have briefly introduced the idea of a ‘dynamic equilibrium’, which will now be expanded upon with reference to issues explored above: standardisation, localisation, and the difference between vowels and consonants in terms of the potentially different identities they might index.

It has long been recognised that traditional dialects are in danger of disappearing – this was one of the motivations behind carrying out the Survey of English Dialects in the 1950s and its targeting of older, non-mobile rural males. Indeed, dialect death has been noted since the 19th century (Maguire et al. 2010: 99). And as Coupland (2014) has suggested, the combination of rapid social change, technological change and thus what he argues to be *sociolinguistic* change in the latter half of the twentieth century seem to have contributed to the twin forces of standardisation and dialect levelling that characterise British English(es) today. Does this, as suggested by the interview participant quoted at the start of Chapter 1, mean that differences between dialects in Britain will be erased? The term dialect levelling itself carries this implication within it, as differences are ‘levelled’ out.

In order to address this question, I will now focus in on a study that sits slightly adjacent to the remit of the variationist sociolinguistics research I have prioritised so far, in the area of dialectometry.³⁶ First, it should be noted that as far as I am aware no linguistic scholars foresee a complete erasure of dialect differences – rather, they tend to suggest a ‘realignment’ of sorts, for example, Trudgill (1990) envisioned convergence at the regional level, centred around large urban areas. We have also come across the notion of localisation, whereby incoming features are adopted and given indexicality specific to the location they have been adopted into. However, there

³⁶ The quantitative sub-field of dialectology.

is a general acceptance that we see convergence more than divergence in modern Britain, and a dialectometric study by Maguire et al. (2010) investigated to what extent this is true.

To do so, they recorded speakers from different locations reading a wordlist comprising English words that had Germanic cognates (chosen for comparability with other Germanic languages as part of a wider research project). They checked aspects such as frequency of the different phonological contexts, and frequency/distribution of the words to ensure they were representative of the English language, though it is of course the case that words from other language sources such as French were not included and may act differently. In order to achieve diachronic comparability, they took the following approach:

- ‘Traditional’ dialect was elicited without priming from older speakers, in a process which first asked them to read the wordlist as they would normally, and then asked if they had or knew ‘broader’ pronunciations of the words (2010: 85)
- Middle-aged, working-class speakers were chosen to represent the ‘Typical’ variety of a location
- Younger speakers were chosen to represent the ‘Emergent’ variety

Attempts were made to record more than one speaker for each type and variety, but this was not always possible. Where multiple speakers of one variety had divergent pronunciations, a composite transcription was made (2010: 84). While this approach is different to a typical variationist approach, which would not rely solely on wordlists and would interview more people for each variety, it nonetheless allows for comparability with a greater number of varieties than is possible with variationist methods. It has been briefly alluded to above that direct comparison between different dialects can be difficult for a variety of reasons: slightly different transcription styles used by different authors; a lack of earlier data from a given area with which to identify change; different variables examined, or different coding decisions made; not eliciting enough examples in interviews. Thus the Maguire et al. (2010) study allowed for greater breadth than had previously been possible.

They determined the difference between each location's Traditional, Typical and Emergent varieties and RP, and found that while Traditional varieties were the 'furthest' from RP, Typical varieties were no further from RP than Emergent ones were (2010: 89). Furthermore, the Emergent varieties in different geographical locations were not significantly more or less similar to each other than to the Typical varieties (2010: 97). This indicates that standardisation and levelling are leading neither to more RP-like local varieties, nor more similarities between varieties in different locations.

One interpretation for the lack of convergence between Emergent varieties suggested by Maguire et al. is that "levelling has not been a major factor in their development in recent years, even if it was an important factor in the transition from traditional dialects to modern varieties of English" (2010: 100). This is not to deny the influence that the widely-spreading features such as TH-fronting noted in dialect levelling studies may have had in making the Emergent varieties different from the Typical varieties. Rather, Maguire et al. propose this as evidence for a situation of *dynamic equilibrium*, that is "continued change without overall change in similarity or difference" (2010: 100). This also fits in with the afore-mentioned concept of *localisation*, which Johnstone (2016) argues is a "paradox of globalisation", whereby the very forces that give rise to homogenisation "can also lead to the revival of smaller, older, less standardised ways of speaking" (2016: 354).

Finally, Maguire et al. do note the possibility that the locations used in their study do not allow for a comparison of levelling or convergence at the regional level (Maguire et al. 2010: 100), as they often only have Emergent varieties for one location from a region – e.g. North Devon for the south-west, Liverpool for the north-west. It may also be the case that some regions are more affected by convergence than others: might it be that the greater commuter links in the south of England can facilitate levelling in that region, while it is rare for someone from Liverpool to commute to Newcastle? This could potentially help the north of England maintain intra-regional differences.

2.3 Diachronic change in Cardiff English: evidence and predictions

Having explored directions and mechanisms of language change, with an in-depth look at dialect levelling in the previous section, this section will now look specifically at Cardiff English to address what directions of change we might predict for this variety. The two following questions will be answered in turn:

1. What existing evidence is there of diachronic change in Cardiff English?
2. Based on this, what changes would we predict seeing in Cardiff?

In order to investigate where CE might be going, we need to first understand what has already changed (or remained stable) in the variety, and how the relevant researchers interpreted these changes. As CE is relatively understudied, especially with regard to diachronic change as opposed to synchronic variation, there are only a few variable features that have been analysed in this way. Thus, to make predictions about what might be happening in the variety, general patterns will need to be extrapolated from what is available. Therefore, after exploring the patterns of CE, section 2.3.2 will additionally draw on research in other varieties of English to identify candidates for investigating three directions of change (levelling, standardisation, and drift). The discussion will generate some suggestions for aspects of the language to look at in order to answer the thesis research question “What are the directions of change in Cardiff English?”

2.3.1 What existing evidence is there of diachronic change in Cardiff English?

This section will focus on the (separate) works of Inger M. Mees and Heli Paulasto, who have conducted diachronic research in Cardiff or South Wales on phonetic and syntactic features respectively. It will also draw on Coupland’s 1988 monograph, *Dialect in Use*, as a reference point. This text examined sociolinguistic variation in Cardiff English (particularly linguistic accommodation and style-shifting) in detail, but is synchronic and thus unable to provide evidence for diachronic changes in CE.

Mees' 1983 PhD thesis, *The Speech of Cardiff Schoolchildren*, was a real-time study with data collection points in 1976 – when the children were aged 9-11 – and five years later in 1981. She was later able to track down some of the original participants and interviewed them again in 1990 and 2011, resulting in new publications with other colleagues, firstly Beverley Collins and later Christina Høøck Osorno. Variables analysed in these studies were: word-final (t) (Mees and Collins 1999), 'H-dropping' and 'R-tapping' (Mees and Osorno 2015), and the (a) vowel in the BATH lexical set (Mees and Osorno 2017). Mees's follow-up interviews involved women only, so any gender differences are unknown.

Table 2.2 presents an overview of all the research available on phonetic variables of Cardiff English: synchronic variation analysed in Coupland (1988), real-time change in adolescents in Mees (1983), and post-adolescent follow-up studies listed in the last column.

Variable	Description	Coupland 1988	Mees 1983	Real-time study post-adolescence
(ng)	'G-dropping'	✓	✓	
(h)	'H-dropping'	✓	✓	Mees and Osorno 2015
(C cluster)	Reduction in final consonant cluster	✓		
(intervocalic t)	Word-medial intervocalic (t)	✓	✓	
(word-final t)	Word-final (t)		✓	Mees and Collins 1999
(r)	'tapped R' [ɾ] for [ɹ]	✓	✓	Mees and Osorno 2015
(a)	BATH/TRAP/PALM/START	✓	✓	Mees and Osorno 2017
(ai)	PRICE	✓		
(au)	MOUTH	✓		
(ɔʊ)	GOAT	✓		

Table 2.2 - Features previously analysed in Cardiff English

There are no direct equivalent studies of grammatical features of Cardiff English. However, Paulasto (2006) carried out detailed research on Welsh English syntax using a range of corpora, one of which includes Penhallurick's interviews from the Grangetown area of Cardiff that were collected as part of the Survey of Anglo-Welsh Dialect (SAWD). A later study by Paulasto includes the comparison of two corpora representing two points in time from the town of Tonypany in the Rhondda (Paulasto 2017). This is in the Valleys, not Cardiff, but is worth including here as they are geographically close and have linguistic similarities: both are largely monolingually English-speaking, with little substratal Welsh influence. Cardiff and Valleys dialects differ phonologically and prosodically (e.g. Coupland 1988: 32), but two of the syntactic features Paulasto analyses – focus fronting and invariant tag questions *isn't it/is it* – are also attested in Cardiff, though their distribution/variation is not analysed (Coupland 1988: 36).

In the following discussion, I will focus on the three variables that have been studied diachronically in CE: (h), (r) and (a). T-glottalling, a fourth variable exhibiting change over time, was discussed earlier with reference to Mees and Collins' (1999) study and will only be briefly summarised here.

Information from Mees needs to be presented with care, since the 1976 and 1981 data that she used was from children and adolescents. Tagliamonte (2012) has pointed out that at this age speakers are still 'settling' on a linguistic form, and indeed, when Mees' data are looked at as a whole, it is evident that the 1981 forms represent an 'adolescent peak' with high rates of non-standard forms which reduce or stabilise post-adolescence.³⁷ Additionally, the sample size for the last data collection point in her later works (Mees and Osorno 2015; 2017) is considerably smaller than earlier collection points, featuring only five women, and no statistical analyses were carried out to determine whether differences found at different points in time were significant.

³⁷ This is discussed in her studies and the adolescent peak is sometimes excluded.

2.3.1.1 *Phonetic features*

H-dropping

Mees and Osorno (2015) found H-dropping – the zero-realisation of orthographic, word-initial /h/ – to be an age-graded feature in Cardiff English: that is, its use peaked in adolescence, then subsequently declined and mostly stabilised. H-dropping is a stigmatised feature in England and Wales,³⁸ and this was evidenced here too by the fact that it was “virtually non-existent” (2015: 65) in the formal, reading passage style for children of both classes, but present in the (informal) interview style for working-class and middle-class children, albeit to different extents. Post-adolescence, the feature displayed class stratification in both function and content words: working-class women had relatively high rates of H-dropping in both (73% and 21% respectively³⁹), whereas middle-class women always realised [h] in content words, and the majority of the time (93%) in function words.

Interestingly, while most women – working-class and middle-class – stabilised their rates of H-dropping post-adolescence, one working-class woman, Mandy, increased hers in content words from 29% to 57% (2015: 67). Comparing this woman’s life trajectory with the other two working-class women (Gina and Rachel) interviewed in both 1990 and 2011, Mees and Osorno noted that while Gina and Rachel had moved upwards in terms of socioeconomic status, Mandy had remained in a low-paid, low-valued job that did not require prestigious speech, and moved in social circles that were socioeconomically similar to hers (2015: 68). This illustrates the social stratification of H-dropping, which Mees and Osorno label as a marker of social class, at least in this generation of speakers. Reports of Multicultural London Speech indicate that younger speakers in multi-ethnic inner-city areas have low rates of H-

³⁸ It is not found in Scottish and Irish dialects.

³⁹ I have used the 1990 data collection point here as a reference point as this had a greater number of speakers than 2011 and was the first interview post-adolescence.

dropping (Cheshire et al. 2008), which could prefigure a wider shift away from this feature in younger people outside London if it were to spread via diffusion.

R-tapping

In the same study, Mees and Osorno (2015) look at R-tapping, which is the local Cardiff realisation of /r/ as the tap [ɾ].⁴⁰ They observe that it is most frequent intervocalically e.g. *very*, but can also occur after consonants – e.g. *broke, every, three* – as well as being used as an “intrusive r”, e.g. in *nana and* (Mees and Osorno 2015: 64). R-tapping is a working-class feature, but does not appear to be stigmatised. Unlike H-dropping, its use did not increase from reading passage style (more formal) to interview style (less formal), suggesting that it is not above the level of consciousness (Mees and Osorno 2015: 72). In Mees (1983), results from 80 pupils showed little variation between the formal and informal styles (1983: 130). As such, Mees and Osorno (2015) consider it to be an *indicator* in Labov’s (1994) terms, as it is “socially but not stylistically differentiated” (2015: 61): its use indicates that the speaker comes from a particular place and/or class, but the feature itself is not above the level of consciousness in the community, and is thus not noticed or commented upon by people within that community. This is in direct contrast to H-dropping, which, as described above, was only rarely used in the formal style, but prevalent in the interview style. Thus, H-dropping is a *marker* or *stereotype*, again using Labov’s 1994 terms, as it displays stylistic shifting and speakers know on some level that they ‘should’ avoid it in formal contexts.

Meanwhile, the rate of R-tapping increased somewhat in real time among the working-class women from 79% to 89% (*ibid.*: 71). The data comes from three women, each with 30-50 tokens at both points in time, but no tests for statistical significance were presented so we cannot say whether this increase is significant. As for their middle-class counterparts, the rate of R-tapping was highest in childhood at 14% (Mees and Osorno exclude the adolescent peak of 1981 in this study), then decreased

⁴⁰ This tap can also be used intervocalically for orthographic /t/, in a small set of high-frequency, usually monosyllabic words such as *bit, get, lot*.

to 4% in 1990⁴¹ (ibid.: 71). Thus, Mees and Osorno consider it to be a stable variable, at least in real-time, with the five women who were interviewed at all points in time not varying their use of it considerably post-adolescence.

Traditional and levelled variants of /t/

Both local variants of word-final /t/, elision and voiced tap, displayed social stratification in Mees' 1983 research but were still prominent across the three socioeconomic classes, with rates ranging 8-49% elision and 30-60% tap in the informal interview style (1983: 195-197). Real-time results in Mees and Collins (1999) showed the decline of the elision and tap variants in favour of the glottal stop, rather than standard /t/ as may have been expected. Upwardly mobile working-class women increased their use of the glottal for word-final /t/, a finding that was used to claim that the glottal stop had become a prestige feature, or a middle-class norm. This contributed to the wider theorisation of dialect levelling as distinct from standardisation because its 'target' was not necessarily a standard variant despite initially displaying patterns that might suggest this.

The 'Kerdiff A' and BATH vowel

Arguably the most salient and locally distinct phonetic feature of Cardiff English is the 'Kerdiff A' (see Chapter 1), which can be found in any of the low, open vowels represented by orthographic (a): i.e. lexical sets BATH, PALM, START and TRAP. The Kerdiff A is a long, front realisation [æ:], and is characteristic of Cardiff (Coupland 2001; Collins and Mees 1990) to such an extent that it is "the main stereotypical feature of Cardiff English" (Coupland 1988: 26). This vowel is realised as an even more front and close [ɛ:] when people comment on this feature, and it can even be stereotypically performed as close and high as [e:] (Coupland 1988: 27).

The use of the Kerdiff A in the START and PALM lexical sets is highly stigmatised, as the quotes below highlight:

⁴¹ The only two middle-class women who used this variable in 1990 were unable to be interviewed again in 2011.

One of the ten-year-old informants reported: 'If I say ['kæ:dɪf], my Mummy 'its me. She says I've got to say ['kɑ:dɪf] and talk properly' (Collins and Mees 1990: 96)

I think a lot of people in Cardiff as well try consciously to not pronounce (their)⁴² 'A's in that way. (*Tim, 23, one of my interview participants*)

The quality of TRAP is "more open than in RP and sometimes retracted" (Mees and Osorno 2017: 212) but this does not seem to be socially salient or negatively commented on. Cardiff English has variable realisation (in terms of both length and quality) of BATH, at both an inter- and intra-speaker level, and words in this set can be realised with front or back realisations. Mees and Osorno capture this by characterising pronunciations of the BATH set as aligned with TRAP, 'front PALM' or 'back PALM' (ibid.: 220). It is slightly unclear phonetically what they refer to as 'front PALM' as these realisations seem to occupy the same vowel space as TRAP (ibid.: 220), but based on their discussion prior to this about vowel length and quality, I interpret these as follows: TRAP is [æ], front PALM is [a:] or [æ:], and back PALM is [ɑ:]. Looking specifically at the BATH lexical set, they found that the middle-class women overwhelmingly favoured [ɑ:] at all points in time, never using more than around 10% of [æ] (ibid.: 221). On the other hand, the working-class women only used front variants [æ], [a:] or [æ:] in 1977, but reduced their use of 'front PALM' considerably by 2011 in favour of back [ɑ:] (ibid.: 221). This indicates a shift in real-time towards SSBE/RP-like back realisations of BATH among working-class women. However, it also must be noted that the figures are small, as only five women were re-interviewed in 2011 (two middle-class and three working-class), and the majority of the examples of back PALM come from one person (ibid.: 221).

As a final point to note, Mees's real-time studies show that individual speakers can and do modify their speaking patterns throughout their lifespan, although certain patterns may be harder to break than others – i.e. while some working-class women

⁴² Brackets indicate unclear speech where a best guess has been made at the word(s).

reduced their use of H-dropping, their rates were still considerably higher than those of their middle-class counterparts (Mees and Osorno 2015: 68). The implications for diachronic research, particularly apparent-time methodology, of matters such as lifespan change and age-grading will be discussed further in Chapter 3. However, the results from their research in terms of change over time suggest the following patterns of standardisation, levelling, and stability:

- i. Stigmatised stereotypical variants such as elision of word-initial /h/ and word-final /t/, and T-tapping, are subject to lifespan change: their use may reduce post-adolescence in upwardly-mobile people, and also may increase for those whose work and social spheres do not require formal registers of speech. When these features are used less, they can be replaced by either a standard variant (e.g. realisation of /h/) or a non-standard levelling variant (e.g. the glottal stop)
- ii. Unconscious indicators of working-class speech such as R-tapping are not at risk of lifespan change.

2.3.1.2 *Syntactic features*

This section examines diachronic research on syntactic features of Welsh English, based on Paulasto (2006, 2017). Paulasto's 2006 monograph, *Welsh English Syntax*, is a valuable resource for understanding the functional and discourse-pragmatic variation of syntactic features across different Welsh Englishes, represented by corpora from different areas such as North Wales, South West Wales, 'urban' Wales, and the Valleys. A later book chapter published in 2017 provides more data on some of the features covered in the monograph, while also exploring some new features. As with much research on syntax, the data comprises small token numbers from large corpora. Unfortunately, neither of Paulasto's studies (2006, 2017) gives us an insight into diachronic change in Cardiff English specifically. Paulasto (2006) combines the urban, anglicised cities of Cardiff in the south-east and Wrexham in the north-east, and even if these were disaggregated, the numbers of speakers from different age groups in the Cardiff SAWD data are small. Paulasto's 2017 paper looks at change in apparent time in the Rhondda, which is in the Valleys relatively close to Cardiff and is also a predominantly anglicised, non-Welsh-speaking area. Despite the

lack of direct applicability to Cardiff, I present a discussion of the results here for the two features analysed that have been attested in Cardiff English: focus fronting (FF) and invariant tags. I do in this in order to see if a general pattern can be extrapolated from the data that may also be applicable to CE, as well as to provide some coverage of syntactic change over time. Additional justification for looking at the Rhondda is that it is unlikely that a more peripheral, rural dialect would be changing in a direction opposite to that of its nearest urban centre, based on the gravity model of diffusion.

Paulasto (2006, 2017) provides evidence that FF, despite occurring in other Englishes (Coupland 1988), has a particular presence in Welsh English that derives from substratal influence from the Welsh language. This is argued due to both the different discourse functions it fulfils in Welsh English compared to English English, and its higher rate of occurrence in areas with greater proportions of Welsh speakers – for example, (more rural) North Wales and West Wales⁴³ compared to the predominantly English-speaking urban areas of Cardiff and Wrexham.⁴⁴ FF involves changing the usual subject-verb word order by moving an item to the front of an utterance. Paulasto notes that “all major sentence elements can be fronted” in Welsh English (2017: 133), and provides the examples in Table 2.3 from her corpora:

Object:	<i>Any sort of sports</i> I quite enjoy
Adverbial:	<i>Before the war</i> that was; <i>About seven miles</i> I go
Subject predicate:	<i>Various news items</i> they are
Object predicate:	<i>Pencae’r Eithin</i> they used to call it
Verb phrase:	<i>Speaking English</i> he was

Table 2.3 - Focus fronting of different sentence elements in Welsh English, taken from Paulasto (2017: 133) and modified slightly for use here (abbreviations written in full, etc.)

⁴³ Proportion of Welsh speakers varies across the localities but ranges from 41% in one of the North Wales towns to 85% in another. The West Wales corpus data was collected in Llandybie, Carmarthenshire, whose Welsh-speaking population was 62% at the 2001 census.

⁴⁴ The 2001 census reports Welsh-speaking ability at 15% in Wrexham and 11% in Cardiff.

In the urban and predominantly English-speaking areas of Cardiff and Wrexham (combined), Paulasto’s results show that examples of focus fronting have decreased over time (2006: 198). In her later study, she also found focus fronting had become less frequent over apparent time in the Rhondda (Paulasto 2017: 134). This was in contrast to Llandybie (West Wales), where the youngest age group exhibited increased use of FF.

Another Welsh English feature attested in Cardiff English is the invariant tag question set *isn’t it/innit* and *is it* (examples in Table 2.4, taken from Paulasto 2017: 141). These tags have direct equivalents in the generalised Welsh confirmatory interrogative *ydyfe* and confirmatory negative *ontefe* (Paulasto 2017). While *isn’t it/is it* are also found in English English, they are more likely to be used paradigmatically than invariantly – i.e. they match the subject, rather than the same form being used regardless of subject. The exception to this is the invariant tag *isn’t it* in its phonetically reduced form *innit*, which is a feature of London English that has increased in both frequency and its functional uses⁴⁵ (Torgersen et al. 2011).

Positive tags:	
Invariant	Our nephew you know he went to—to Stockholm, <i>is it?</i>
Paradigmatic	...about six thousand. Which isn’t very much as you say, <i>is it?</i>
Negative tags:	
Invariant	a. That depends on the individual really I suppose <i>isn’t it?</i> b. Ryan aye, well his—his son gin—with the ginger hair <i>innit?</i>
Paradigmatic	the English language is an universal language, <i>isn’t it?</i>

Table 2.4 – Positive and negative tag examples in Welsh English. Orthography taken directly from source (Paulasto 2017: 141).

The negative tags *isn’t it/innit* exhibit a large increase in apparent time in the Rhondda compared to the predominantly Welsh-speaking areas. These areas

⁴⁵ Anecdotally, I have started to notice invariant *is it* used outside the Welsh English dialect in younger ‘internet speak’ on Twitter, e.g. “you all epidemiologists now is it?” (@SteffanBlayne). However, this could either be a new feature outside Wales or simply one I have become more attuned to.

(represented by corpora from North Wales and West Wales) did not show any change across apparent time and had low frequencies across all their subcorpora, each with less than 10 per 10,000 words, while the younger Rhondda speakers had rates of around 15/10,000 for the invariant tag and over 20/10,000 for the paradigmatic tag (Paulasto 2017: 142). Paulasto concludes that this is likely to be due to geographical diffusion of *innit* from the south-east and south-west of England, rather than having Welsh substratal influence, but suggests that the two forms are merging in Welsh English (Paulasto 2017: 144).

So what do these studies suggest about patterns of change in syntactic features of Cardiff English? If we assume that, as a predominantly English-speaking area like Wrexham and the Rhondda, its syntax will be little influenced by the Welsh language, we can extrapolate that:

- i. The particularly Welsh English forms and functions of focus fronting will continue to decrease over time, bringing this feature's use in line with standard English;
- ii. The negative invariant tag *isn't it/innit* will increase in line with non-standard but common use in the south of England. The positive invariant tag *is it* will decrease (unless it is potentially reinforced by the 'internet speak' referred to in the above footnote).

2.3.2 What changes would we predict seeing in Cardiff English?

Based on the literature discussed above, it is possible to make some predictions about the likely directions of change that will be found in the present study. To build to that point, however, it is useful to first summarise the findings of CE studies then explore other potential influences that have not been covered in those studies. The patterns presented at the end of the two previous subsections have suggested levelling changes, standardisation changes, and (real-time) stability. Drift, or natural language change, has not been suggested in the diachronic studies discussed above as their focus has been more on exogenous types of change, e.g. dialect levelling or Welsh-

English language contact. A summary of the results examined above, categorised according to what type of change they show, is presented below.

Levelling changes:

- T-glottalling
- Increase of *isn't it/innit*

Standardising changes:

- Avoidance of stigmatised features such as H-dropping
- Decrease of focus fronting overall; proportional increase of standard English functions of focus fronting as opposed to Welsh English functions

There are also changes where the outcomes of levelling and standardisation would look the same:

- BATH-backing (both a standard English and southern English feature)
- H-dropping reversal (if this trend diffuses outside of Multicultural London English)

R-tapping was suggested to be a stable sociolinguistic indicator of working-class Cardiff English as it did not decrease in real-time, but apparent-time studies would be needed to verify if the feature is stable across the generations.

With regards to external influences on Cardiff English, we have seen examples of standardisation and levelling (as well as cases where these two processes have the same outcome). In terms of dialect levelling, the south-east of England, particularly London, has already been identified by Mees and Collins (1999) as potentially exerting a 'gravitational pull' over Cardiff English, and it is already at the centre of gravity and urban hierarchical models of geographical diffusion. In this model, innovations diffuse from a large urban centre to progressively smaller cities before diffusing outwards in a more straightforwardly radial or wave-like pattern. As such, it is to be expected that Cardiff English may adopt linguistic features diffusing from London.

Bristol, and the south-west of England more generally, were noted in Chapter 1 as another geographical area with some influence and shared features with Cardiff English. Bristol is the nearest city to Cardiff of greater size, and recent research in perceptual dialectology suggests that it is more salient as a dialect area to Cardiffians than Cardiff itself (B. Evans, Dunbar, and Chartier 2020). As such, it is also possible that Cardiff could adopt features from Bristol English – although as Bristol is affected by dialect levelling itself, it could be hard to say if features were diffusing from Bristol itself, or from London via Bristol. The case of TH-fronting to illustrate this will be presented below.

Finally, what about other potential external influences on Cardiff English, for example other Welsh Englishes or L2 Englishes? Both Cardiff's Welsh-speaking and multicultural populations have increased, and as a capital city with more job opportunities than surrounding areas it attracts commuters from the Valleys and other areas. While not to deny that contact between these different groups takes place, the scale of contact and mixing, or linguistic *superdiversity* (Blommaert and Rampton 2011), seen in Cardiff is not wholly comparable to that of inner-city London. Furthermore, gravity models would support CE, as the variety found in the capital and largest city in Wales, being the target for levelling in this direction – i.e. it would be more likely for someone with a Valleys accent to level towards a Cardiff accent than vice versa.

So, what would be good examples of features to look at in order to further examine the directions of change in Cardiff English? Taking together the different strands that have been addressed in this chapter so far, I have identified four key dynamics behind dialect change in modern Britain:

- natural language change or drift;
- desire to maintain local (or regional) identity and difference;
- standardisation as enacted through education and social pressure/stigma;
- levelling, as a desire to index a modern, mainstream or urban identity but not necessarily a 'standard', overtly prestigious one.

I have also explored how these dynamics can interact with one another, or have outcomes that look similar. The following section will identify, based on research in Cardiff and elsewhere, suggestions for features to look at that have the potential to address these dynamics, and position changes in CE alongside either exogenous change (standardisation), or endogenous change (drift), with dialect levelling sitting somewhere between these dichotomies of change.

2.3.2.1 *Levelling changes*

This section will discuss three possible candidates to exhibit levelling changes in Cardiff based on previous literature about levelling features in Wales and Britain: T-glottalling, *innit*, and TH-fronting.

Glottal replacement of /t/ was labelled ‘unstoppable’ in the title of a 2017 paper by Stuart-Smith and Holmes-Elliott, due to its rapid and dramatic increase across Britain (this paper examined the north-east of Scotland). On the basis of their claim, and there being existing evidence about Cardiff English consistent with a trend towards it, I would expect the glottal variant to be used more by younger speakers than older speakers. Furthermore, it is likely that the glottal will be favoured at the expense of the two other non-standard variants of /t/ possible in CE: elision, or zero-realisation; and the voiced [t̚] or tap [ɾ]. Mees and Collins (1999: 198) found that elision and voiced [t̚] reduced considerably from 1976 to 1990⁴⁶ in favour of the glottal, particularly pre-pausally. As noted earlier, these features were avoided in formal speaking styles (Mees 1983) and as such can be considered stigmatised markers of lower socioeconomic status. Additionally, Coupland considers the tap to belong to a group of variants that “constitute a pervasive social (rather than regional) dialect feature of British [and Irish] speech” (1988: 63). He distinguishes between features of *social* and *regional* dialects: the former are linked to socioeconomic status and found in many urban vernaculars, while the latter are regionally restricted. As indicated by three of Mees’s publications discussed earlier, avoiding social dialect features such as

⁴⁶ Excluding the adolescent peak from 1981.

H-dropping (and by extension, T-tapping) may provide an easy means for speakers to index their move away from lower socioeconomic situations.

We may also expect to see the invariant tag or discourse marker *innit*. The high frequency of assimilation and elision in Cardiff English has already been noted in Chapter 1, and /z/ is often realised as [d] when followed by a nasal: e.g. *isn't* to ['ɪdn] and further reduced to [ɪn:] (Mees and Collins 1999: 194). The phonetic form is thus already a feature in CE. Furthermore, we would expect that if it has increased in the Rhondda due to geographical diffusion from the south-east of England (Paulasto 2017) then the same will apply in Cardiff and probably to a greater extent, based on gravity models of innovation diffusion.

TH-fronting was discussed in 2.2, and has been noted as 'incipient' in Cardiff (Kerswill 2003). While the discussion earlier noted its association with Cockney and London English, it has been a feature in Bristol speech for nearly as long (first attested in London in 1850 and Bristol in 1880; Kerswill 2003). The SED also found it in the south-west around Bristol in the 1950s, at which time it was absent in the north of England. As such, its diffusion into Cardiff is expected, whether from Bristol or London, or due to the 'critical mass' theory – the suggestion that once enough people adopt a trend, it reaches a 'tipping point' and its spread is further accelerated (e.g. Ball 2004). Furthermore, the spread of TH-fronting has been described as a more 'natural' change, as it involves a merger and the loss of a more typologically marked form, the interdental fricative, in favour of a sound that is phonetically easier to produce (Holmes-Elliott 2015). As discussed above (2.1.5), favourable phonetic/phonological conditions can work in tandem with contact and mobility influenced change.

2.3.2.2 *Standardisation*

Any of the non-standard features of CE could be discussed here, but to keep the discussion focused, I will look at two of the features of Cardiff English that showed change over time: BATH, as discussed above, and the unstudied but noted diphthongisation of FACE and GOAT. As has been discussed earlier, there do not seem to be any examples of supraregional vocalic changes, and it has been suggested

that vowels may be the ‘locus’ of regional dialect differentiation (Wells 1982: 178). However, the salience that vocalic features may have as distinguishers of accent could also make them vulnerable to standardisation. For both these features, levelling and standardisation changes would look the same, as the standard and general southern English realisations match. As such, I will also discuss one other non-standard feature that is not expected to display change over time as it is considered a stable variable: G-dropping.

BATH-backing and the ‘Kerdiff A’

The salience of the CE realisation of the (a) vowel in the BATH, TRAP, PALM and START lexical sets has been mentioned above. If either levelling or standardisation is occurring, based on Mees and Osorno (2017), we would expect to see an increase of back realisations of BATH. We could also predict the backing of START, which is underway in Bristol (Blaxter and Coates 2020) and could represent a wider levelling/standardisation change in southern regions with front realisations of START. We would also expect any changes in START to apply to PALM, as Mees and Osorno (2017) consider these lexical sets to be identical in CE due to the accent’s lack of rhoticity. There is no previous research for TRAP, but as a marker rather than an indicator (Mees and Osorno 2017), its ‘Cardiff’ quality seems to be below the level of consciousness and not as stigmatised as the other lexical sets. As such, I would not expect it to be subject to levelling or standardisation changes (which in this case would be a lower vowel height).

Diphthongisation

As noted in Section 1.2.1.2, there seems to have been a shift towards greater diphthongisation of FACE and GOAT in Cardiff English, which were described in earlier works of Mees as ‘narrow diphthongs’ with the phonemes represented as /e:/ and /o:/ (1983: 71). By 1999, these were represented as /ei/ and /ɤu/ (Mees and Collins 1999: 187), which could suggest standardisation or levelling to SSBE. Realisations of FACE are very similar between CE and SSBE, with a slight difference of height in the

closing vowel (SSBE /eɪ/⁴⁷), while moving towards SSBE GOAT would require fronting both elements to /əʊ/. There is also the potential target of Multicultural London English GOAT, which as noted earlier, is displaying monophthongisation. This may make it both an easier target for Cardiff English speakers based on the variety's preference for more monophthongal vowels in these sets, and one influenced by extra-linguistic factors in certain groups. It is possible that particularly within Cardiff's multicultural communities, speakers may orient towards this variety, viewing it as more representative of their identity, motivating adoption of the MLE monophthong.

G-dropping

The concept of *social* dialect as opposed to *regional* dialect was mentioned above with regards to T-tapping. Another example of a social dialect feature is 'G-dropping', or the realisation of orthographic *-ing* as [ɪŋ] rather than [ɪŋ] in unstressed final syllables – e.g. *swimming* can be realised as ['swɪmɪŋ] or ['swɪmɪn]. The non-standard [ɪn] variant is considered to be a 'vernacular universal' (Chambers 2004) as it is found in vernacular Englishes all over the world. Its social stratification is well-documented, including in Cardiff English: both Mees (1983: 143) and Coupland (1988: 78) found that use of the non-standard variant increased as socioeconomic status decreased. It is considered to be a stable variable: that is, it consistently displays the same class stratification in each generation and does not appear to change over time (Tagliamonte 2004). As such, this variable would be a good candidate for assessing the extent to which CE is standardising: an increase in the standard variant would be unexpected but would point unequivocally to standardising influences.

To sum up predictions for these variables: if standardisation is occurring, we would expect to see backing of BATH and START/PALM; lowering of TRAP; and fronting of GOAT. However, these directions of change could also indicate levelling to SSBE. One variable that would not be so ambiguous is G-dropping, which would therefore allow us to tease apart the effects of these two processes: an increase in the

⁴⁷ This could also be due to differences in transcription.

standard variant of *-ing* would indicate standardisation, as there is currently no research that suggests this to be a levelling feature.

2.3.2.3 *Drift*

It is hard to make predictions about directions of natural change, particularly in the case of CE, as previous research (Mees and Collins 1999, Mees and Osorno 2015, Mees and Osorno 2017) has focused on externally-influenced change (whether levelling as an external force or extra-linguistic factors such as social mobility⁴⁸). As such, for any of the features discussed above, if the data shows something other than the expected directions of change, this could be evidence of drift. However, there are also some features that have been studied in other varieties of English, with a growing consensus that their ubiquity across varieties suggests a natural direction of change for English: GOOSE-fronting, and the default singular in existential *there* + BE clauses.

The fronting of the GOOSE vowel was briefly mentioned in Chapter 1 as an example of a natural change that is nearing completion in varieties of English across the world (Cheshire et al. 2011: 156), in which the back [u:] or central [ɤ:] GOOSE vowel fronts to [y:] or [y:]. Its spread in Great Britain is still underway: David Britain (2011: 52) had stated that it is restricted to southern England, but more recently Jansen (2017) found evidence of it in the city of Carlisle, north-west England – although not yet in the neighbouring town of Maryport (Jansen 2018).

The increasing use of the ‘default singular’ in existential *there’s/there was* clauses is another trend that appears to be nearing completion globally, and was identified by Cheshire et al. (1989) as common across Britain 30 years ago. This refers to the use of the singular form of BE, even when the subject is plural (examples 2.7 and 2.8), rather than the ‘standard’ example in 2.5 and 2.6 where the subject ‘matches’ the verb form.

2.5 *There’s a man outside for you*

2.6 *There was a system in place*

2.7 *There’s two bus routes along this street*

⁴⁸ Or both, as these can of course be linked.

2.8 *There was hundreds of people there*

The default singular is now used predominantly in speech, with research on varieties across the English-speaking world suggesting that non-agreement in this clause type is the norm, particularly amongst younger speakers (Britain and Sudbury 2002; Hay and Schreier 2004; Cheshire and Fox 2009). A study in California suggests that non-agreement with the contracted form *there's* is becoming standardised (Krejci and Hilton 2017). Although it has been described as a supralocal feature (e.g. Durham 2013), nevertheless some regional variation has been observed – it is frequent in the north of England but becomes less so as you travel south (Szmrecsanyi 2013: 70).

For both of these features, we would expect to see changes in CE in the same direction – that is, further front realisations of GOOSE in younger speakers, and increased use of the default singular in existentials.

2.4 Conclusion

The previous section has suggested a ‘longlist’ of potential features to analyse in order to identify different directions of change in Cardiff English, and the chapter as a whole has answered the first review questions: what are the different mechanisms of language change; what does it look like when a variety is levelling; and what existing evidence is there of diachronic change in Cardiff English? But what still needs to be established from the research literature is how to go about investigating diachronic language change. As such, the next chapter will provide a review of methodological considerations, such as who should be included as informants, how much data is needed, how data should be analysed. In looking at the practicalities of such research, a methodological review will also contribute to selecting a ‘shortlist’ of features to analyse out of the longlist proposed here.

Chapter 3 Methodology and data collection

“they say I haven’t got a Cardiff accent ... but obviously I have ’cause it’s the only place I’ve lived!”

Extract 3.1, from interview with Meleri, 83

In order to investigate change in a language variety, representative examples of the variety in question from at least two points in time need to be compared quantitatively (e.g. Tagliamonte 2012). If we unpack the main components of this statement, the questions that need answering are:

1. How does one access more than one point in time?
2. What is considered representative? How does one decide who is a representative speaker of a particular variety, and how is the variety delineated?
3. What specific aspects of language should be analysed and how should they be collected?

These issues have been raised at various points in the previous two chapters, and they will now be interrogated more fully. Within the discussion, the following methodological sub-questions will be addressed:

- Who should the informants be?
- How many informants should there be and how should they be recruited?
- What sort of data should be collected?
- How much data is needed?
- How should it be analysed?

Decisions based on the literature and the research question will be presented in each section (3.2.1 to 3.2.5). Section 3.3 onwards will discuss the data collection process as it was carried out, and will give an overview of the demographic information of the participants.

3.1 Change over time

The question of accessing more than one point in time came up in Chapter 1, in the context of the two main approaches to studying diachronic variation: apparent-time and real-time methodology. Examples from both types of studies were given in Chapter 2, but I will now discuss the theoretical considerations and assumptions behind these methodologies.

Real-time studies are longitudinal in that the same amount of time passes in real life between data collection points. There are three main ways of gathering real-time data. First, as we saw in Mees' (1983) thesis, the same school pupils were interviewed in 1976 and then five years later in 1981. She then managed to find and interview some of these original informants in 1990 and 2011 (with decreasing numbers of participants each time, as people become harder to find and/or re-interview). This is known as a panel study, and it allows researchers to track changes in part of an individual's lifespan. Another type of real-time study is where speakers from a particular speech community are interviewed and then, at a later time, the process is repeated using new speakers – this is known as a trend study. The advantage of this is that it may be more attuned to community changes as it relies less on the individual and their personal propensity for change.

Finally, real-time data that is not part of a longitudinal study can be gathered from a variety of other sources, namely archives. For example, the oldest collection in the Origins of New Zealand English corpus, with speakers born between 1851 and 1910, was acquired from Radio NZ's sound archives (Gordon, Maclagan, and Hay 2007). Often, archives were set up for other (non-linguistic) purposes and contain a range of different types of recording (e.g. oral histories, broadcasts), which can cause inconsistencies with regards to data and metadata. Additionally, when using older recordings, the technology is not as advanced as that which is commonly available today.

Apparent-time methodology takes a cross-section of the community at one point in time and compares the speech of different generations. It circumvents the

requirement of actual time passing by using speakers from different generations as a proxy, or ‘temporal analogue’ (Chambers 2009: 207) for how language would be spoken at different times. It is generally accepted that speech stabilises post-adolescence (Wagner 2012), so the way a 70-year-old in 2020 speaks is equivalent to how they spoke in 1970. However, there are some complications behind this.

Sankoff (2019) proposes that there are three trajectories of language change across the lifespan: stability, *lifespan change*, and *retrograde change*. Lifespan change is when the speaker follows trends of community-wide change, while in retrograde change they withdraw from such changes and “revert to more conservative forms” (Buchstaller et al. 2017: 5). As already noted, apparent-time methodology rests upon the assumption that “the linguistic usage of a certain age group will remain essentially the same for that group as they grow older”, and the inferences drawn are generally reliable (Chambers 2009: 207). However, a person’s speech can and does vary across their lifespan, as seen in Mees’s work, and as is also demonstrated in other research. A well-known example is Harrington and Reubold’s (2015) analysis of Queen Elizabeth II’s Christmas broadcasts over time, which found changes in her realisations of certain vowels. As such, how accurate or appropriate is it to use older speakers as a proxy for earlier language use?

Research indicates that real-time and apparent-time studies are generally compatible in their findings. Sankoff (2006), for example, summarised 12 studies of varieties tested through real-time and apparent-time approaches, and found that real-time trends usually matched those predicted by the apparent-time studies. Fruehwald (2017) examined a range of features in a multistage corpus and used non-linear modelling methods to ‘decouple’ speakers’ age from their generational cohort, thus allowing for an investigation into intragenerational versus intergenerational change. Results strongly supported the assumption that apparent-time measurements are reliable, as “most changes are incremented between generational cohorts, and have little intragenerational instability” (Fruehwald 2017: 24). Furthermore, Buchstaller et al.’s (2017) panel study on the FACE vowel in Newcastle found that while some individuals did exhibit lifespan change, the overall results did not “contradict findings

from apparent-time analysis” conducted on the same feature in this variety, and instead added an important additional angle on how individuals do or do not participate in ongoing community change (Buchstaller et al. 2017: 26–27).

We can thus be satisfied that apparent-time methodology is based on sound assumptions: while adults can and do change their language over their lifespan, these occurrences do not contradict overall generational trends. In practice, apparent-time methodology is often the only recourse available for examining diachronic change, especially in an understudied variety where there are no previous studies or records. However, as Tagliamonte asserts, “real time is better”, and advises if possible finding a real-time point of comparison for any study of linguistic change (2012: 55).

3.2 Choosing informants

Once a site of study and a method of investigating change over time have been decided, how are the people whose language we want to capture chosen? In older linguistic research, people were selected due to their perceived authenticity as a speaker of a local variety. But this raises the issue of what is authentic. Going back to the methodology of the SED, a particular type of informant was chosen to give what was hoped was a representative sample of the traditional dialect of a particular area: an older, non-mobile, rural male (NORM). However, given the large amount of variation possible, how representative is it to rely on the speech of one or two people from a given area? Of course, the SED’s priority was to cover a breadth of regional diversity, but this method was still subject to potentially skewed data based on, for example, one particularly idiosyncratically different speaker. If the researcher is from outside the speaker’s region, how can they best assess how ‘representative’ or ‘authentic’ this speech is? And should they be expected to?

As noted by Britain (2018), much previous research has been relatively exclusionary about who is an authentic speaker: often the criteria are that informants must have been born in the area, to parents who were also both from the area to avoid any potential interference from other dialects via transmission, and that they should not have lived outside the area (Britain 2018: 153). However, Kerswill calculated that if

he were to exclude people who did not fulfil these strict criteria from his study in Bergen, Norway, it would exclude more than 50% of the original sample (Kerswill 1993: 35). This raises the question of how representative a sample is that excludes half of the speakers in a population.

As we have seen, language is subject to great variation – idiosyncratic variation, where individuals do things differently relative to a ‘norm’ or a trend; socially stratified variation, where we find differences between men and women, and between people of different socioeconomic status; geographical variation, where people from different regions and even people from different parts of the same town may have dialectal differences. Thus, when choosing informants, a range of speakers is needed. In this way, individual variation can be accounted for when making claims about the community, and the individual variation that makes up a wider context in a particular variety can be included. This section will address the three key areas when it comes to choosing informants: who they should be, how many are needed, and how they should be recruited.

3.2.1 Who should the informants be, and why?

The above discussion about speaker authenticity leads into how to set the boundaries of the ‘data universe’ (Tagliamonte 2006: 18), which will be decided based on the research question and hypothesis. This study, on change in Cardiff English over time, entails a geographical boundary for the dataset, with speakers stratified by age in order to access the time dimension, as detailed above. So firstly, how should the speech community be geographically delineated? Secondly, who should be included as a member of that community?

Everyone has different opinions about where a city starts and ends, and what parts of it are considered to be that area ‘proper’. Cardiff has been described as being part of a south-eastern conurbation stretching from the city of Newport in the east, to the town of Barry in the west (Awbery 1997: 88), with the dialects of these different urban centres existing on a continuum. Any drawing of boundaries rests on essentially arbitrary decisions, but the inclusion of Barry and Newport which are covered by

different local authority areas would be extending the remit slightly too far outside of Cardiff for the purposes of this study (not least because I doubt anyone from Newport would be happy to have their speech categorised in this way!) As such, I decided to use the four parliamentary constituency areas that cover Cardiff: Cardiff Central, Cardiff South and Penarth,⁴⁹ Cardiff West, and Cardiff North.

The next question to address in setting the selection criteria for participants is slightly more complicated. As mentioned above, it has previously been standard practice to recruit participants who were born in the area and whose parents were also born there. However, this is problematic in its exclusion of first- and second-generation immigrants who often make up considerable proportions of a city and thus its speech community. As mentioned in Chapter 1, Cardiff's growth in both the industrial boom of the 1800s and more recently has been due in large part to immigration. As such, how feasible is it to find participants both of whose parents have been born there, and how representative a sample would it be if this selection criterion were used?

The traditional prioritisation of 'sedentarism' (cf. the NORMs in the SED, where being sedentary or 'non-mobile' was considered to signify their rootedness in a certain place) is also potentially difficult and unreasonable to achieve when considering the likelihood of an individual having remained in their hometown all their life. As pointed out by David Britain, this ignores the 'mundane mobilities' that make up daily life – e.g. routinised trips to other places for work or groceries – and the greatly increased wider mobility we have seen in the latter half of the twentieth century (Britain 2016). Additionally, more younger people than ever before have attended university, often in a place other than the community where they were brought up. Britain suggests that it is important to examine all speakers in a community, not just "a rather sanitized and selective sample of 'authentic' and autochthonous long-term residents" (Britain 2018: 143). This helps to address the fact of mobility as a potential

⁴⁹ Penarth is technically in a different local authority area, the Vale of Glamorgan, but close and easily accessible from Cardiff, with little break in commercial or residential built-up areas between the two.

factor in language change and/or stability insofar as previously mobile people return to Cardiff, potentially bringing with them new features. Being inclusive also acknowledges more openly the individual diversity that always exists – not only diversity as is usually defined in social studies in terms of ethnicity, nationality etc., but also simply the diversity that comes from everyone being an individual with a different way of speaking, to greater or lesser degrees. This cannot be avoided, even with more conservative criteria: that is, there is always the possibility of finding within a particular dataset some individuals who ‘buck the trend’. And given research in third-wave sociolinguistics, which shifts the focus from dialect to the social meaning of variables and identity construction through language (e.g. Eckert 2018), it is somewhat deterministic to decide based on someone’s heritage whether they truly ‘belong’ to a speech community – cf. identity-as-heritage versus identity-as-creation (Blommaert and Varis 2013: 147).

As such, I decided that participants should ideally have lived all or most of their life in Cardiff and currently be residing in Cardiff. A further discussion of the participants and their backgrounds will be provided in 3.3.1.2, but for now I will say that this allowed me to obtain what I feel is a fairly representative sample of Cardiff’s demographics, both in ‘fact’ and in ‘spirit’.

3.2.2 How many informants should there be, and why?

As this type of variationist sociolinguistics is quantitative in nature, decisions about the number of participants are based on minimum quantities for statistical tests to be appropriately applied. This does not mean that there is complete agreement on the ideal number per cell: as Tagliamonte comments, “some statisticians say 3; some say 5” (2006: 31). Labov suggests that 5-10 speakers are needed for each group for deviations from the mean to not be large enough to “disturb the regularity of the patterns” (Labov 2001: 108). Either way, as suggested above, one speaker is not enough, and four is often considered to be the minimum number of speakers in each ‘cell’ (although this can vary depending on project aims and designs).

An additional complicating factor when looking at language change is that there are certain principles related to gender, and the gender paradox, that must also be taken into consideration (Labov 2001):

- For stable sociolinguistic variables, women have lower rates of stigmatised forms and higher rates of prestige variants than men;
- Women adopt innovative and incoming forms at a higher rate than men.

The gender paradox is that women are both leaders of linguistic change, and by dint of avoiding stigmatised features, the upholders of the standard. Labov explains this in terms of the greater sensitivity towards linguistic behaviour and social evaluation that women have:

“In stable situations, women perceive and react to prestige or stigma more strongly than men do, and when change begins, women are quicker and forceful in employing the new social symbolism, whatever it might be.” (Labov 2001: 291)

It should be noted that this effect is due to their social status rather than biological differences, whereby gendered patterns of work and life lead women to be more attuned to language as a social resource – “women have to do much more than men simply to maintain their place in the standard language market” (Eckert 2000: 63).

In addition to looking at older speakers and younger speakers to examine change or stability in apparent time, equal numbers of men and women should be selected to account for gender differences. In Labov’s model of diffusion of language change, he proposes six stages, some of which display specific gender differences in the adoption of a feature, with gender differences becoming smaller as changes near completion (Labov 2001: 308).

Based on the above and using Tagliamonte’s sample design principles (2006: 30), I created the following sample design table (Table 3.1). As will be described later, more people than this were interviewed, but this represents the minimum number of male, female, older and younger participants needed for this study.

Age	Male	Female	Total
Older (>60)	5	5	10
Younger (20-30)	5	5	10
Total	10	10	20

Table 3.1 - Sample design for investigating change in Cardiff English

3.2.2.1 What impact does class have?

In addition to gender, social class has also been linked to language behaviour. The sample has not been stratified by class because this factor is not the primary focus of the research question, but it requires some discussion here. Class is usually split into three traditional categories of working, middle, and upper class, or distinguished broadly by occupation: ‘blue-collar’ (manual) or ‘white-collar’ (non-manual) workers. Class is important for a few key reasons: firstly, the restricted access to education and social and cultural capital for working class people is linked to greater non-standard language use. Secondly, there is often little contact (social and geographical) between different class groups, and this “segregation allows differences to take root” (Chambers 2009: 54). Finally, working class communities tend to be close-knit as opposed to middle class communities which are characterised by being loose-knit (L. Milroy 2003: 160). As discussed in 2.1.4, local (and non-standard) language varieties are maintained in close-knit networks while levelling and innovation spread through loose-knit networks.

In social research, including sociolinguistics, factors such as income, occupation and education are used to categorise class, and traditionally these factors tended to correlate. That is, someone with a lower income was likely to also have a ‘lower status’ job, and lower educational attainment (Chambers 2009: 41). Unlike sociology, sociolinguistics generally accepts that occupation alone, rather than a multidimensional index combining factors such as occupation, education, housing and income, provides a suitable way to categorise socioeconomic status. Macauley’s (1976) research in Glasgow provided an empirical basis for this, and Coupland (1988: 80) found that use of non-standard variants was stratified similarly when using either education or occupation as the independent variable. This is arguably something that needs to be reviewed given the societal changes since the 1980s, in particular

increased access to higher education. Chambers (2009: 52) argued for more studies to test the correlation of linguistic variables with occupation as a single-index factor and with complex indices, but I am not aware of any recent studies that have done this. However, as he notes, “all social scientists concede [that occupation is] the best single indicator” of class (Chambers 2009: 51).

But even a one-dimensional index has its own complexities, as the variable of class tends to be ‘fuzzier’ than those looked at in this chapter so far, i.e. age and gender. It also has a more fine-grained categorisation system that can cause problems for analysis by having too few participants in each group (Chambers 2009: 40). The International Standard Categorisation of Occupation (ISCO), for example, has ten major categories, which would spread the participants too thinly for reliable analysis. Instead, sociolinguistic studies tend to use three class categories that generally align with the common terminology of upper middle class, lower middle class, and working class. The highest grouping usually corresponds to the professional and managerial class⁵⁰, the middle as ‘skilled’ non-manual work,⁵¹ and the lowest grouping as manual work.

The grouping of occupational categories or class boundaries will always carry a degree of subjectivity or arbitrariness (cf. Coupland 1988: 55; Chambers 2009: 41), and more so in the ‘middle’ ranges. Relatedly, Coupland found that educational level was a good predictor of occupation at the extreme ends of the occupation scale, but much less so in the middle categories (1988: 69). Furthermore, Savage et al.’s (2013) research on contemporary class systems in Britain has pointed to the fragmentation of traditional class boundaries (Savage et al. 2013: 245). Their study addressed the significant changes to social and working lives in the latter part of the twentieth century by using a complex, multi-dimensional approach incorporating measures of

⁵⁰ Exceptions include studies on upper class or elite speech, such as Fabricius (2002).

⁵¹ There are ongoing debates around the use of the term ‘skilled’ in relation to labour. I have used it here as a shorthand descriptor but will avoid it where possible, preferring to distinguish according to manual and non-manual work instead.

social and cultural capital, in addition to economic capital, and resulted in the creation of seven contemporary class categories (Savage et al. 2013).

Such a complex categorisation system, however, would require an intensive questionnaire with the type of highly personal questions (regarding income, for example) that should be avoided because they increase the level of formality – and thus decrease the chances of participants relaxing and having a more conversational interview.

We know that social class is a relevant factor explaining certain types of language use, but what is less clear currently is how the changing class landscape impacts on or reflects this. In one of the few relatively recent sociolinguistic works that addresses class substantially, Rampton (2010) argues that rather than seeing a ‘demise of class’, performances of class were found in less explicit but still “formative” linguistic processes (Rampton 2010: 143). Outside of sociolinguistics, Savage (2007) noted a shift from class as an identity ascribed ‘at birth’ to something more individualised and reflexive in contemporary society. This would make it an interesting aspect to study using a third-wave sociolinguistics ethnographic approach, but this is outside the scope of this research.

A fine-grained system with more categories reduces statistical validity and reliability, which makes it hard to avoid using the traditional, but possibly outdated, categorisations for social class in quantitative research. However, in an attempt to capture the more reflexive identity element of contemporary class, the questionnaire for participants in this research project asked them to self-identity their class in addition to requesting traditional measures such as occupation, parents’ occupation, and education. This resulted in more data than will be used, but allowed for the possibility of checking for correlations between such factors.

3.2.3 How should participants be recruited?

The main methods for a quantitative study (as opposed to a qualitative design which may make use of more ethnographic or network approaches) are stratified random sampling, and ‘friend of a friend’ or snowball sampling, the latter utilising

aspects of network approaches. These methods give the researcher an important link into the speech community, which can be important in some tight-knit communities that may be hostile to outsiders, and allows the sample to expand organically from the initial contacts and participants. Tagliamonte (2006) comments that people with official status should be avoided when making contact with communities, as you will likely then only be able to access their social networks which will be biased towards more standard speech styles (Tagliamonte 2006: 22). Unfortunately, it is not always possible to find the most suitable way 'in' to a community: Penhallurick (1985: 225) comments that in one place he stayed while conducting fieldwork for the Survey of Anglo-Welsh Dialects, his hosts were not well-liked which made recruiting participants in this area more difficult.

A final method is attempting to reach people through advertising – e.g. posts on social media that can be shared, putting posters and flyers in public places. However, with this method, the participant usually will not be even indirectly acquainted with the researchers, and as a result, the 'returns' tend to be much lower (this may affect recruitment but does not affect the data collected). There is also an aspect of convenience sampling in all these methods, as the first suitable people encountered by the researcher tend to be those who end up being interviewed.

This raises a potential methodological issue of the 'self-selecting' sample, or at least, a sample that is biased towards those who are more likely to put themselves forward and which therefore fails to capture those who are 'harder to reach'. This is a major issue for social or political surveys, for example, in achieving representativeness, though it is not considered to have a large impact on linguistic studies. Labov (1966) compared the speech of people who refused to be interviewed (which he obtained by speaking to them on the telephone under a pretext) with other informants who had agreed, and found no differences. Additionally, Chambers and Trudgill note that persuading reluctant informants to give interviews will likely not be productive anyway "since reluctant speakers are unlikely to say very much" (Chambers and

Trudgill 1998).⁵² As will be discussed in the following section, getting informants to speak comfortably is the most important aspect of sociolinguistic data collection.

3.2.4 What sort of data should be collected and why?

Once the participants have been recruited, what sort of data do we need to collect from them, and how much of it? Again, these questions can only be answered based on the specific research questions and design, but in order to analyse a language variety, a sufficient amount of data of someone speaking in that variety is needed. The type of speech should also be typical of their usual language practices. The recording and transcription processes will be described in 3.3.2, and as the analysis processes are somewhat different for each feature analysed, they will be detailed in their relevant chapters.

It is necessary to consider two concepts that become intertwined in linguistic research: the ‘observer’s paradox’, and communication accommodation theory (CAT). In acquiring samples of a language variety, we want people to speak as they would ‘normally’ – i.e. unselfconsciously, or as they would to their friends and family – but the very presence of a (usually previously unknown) interviewer will undermine this. This is often referred to as the observer’s paradox, whereby an observable phenomenon is changed by being observed. Compounding this is the fact that people can and do accommodate their speech to their interlocutor (see the discussion of CAT in 2.2.1). This raises potential problems when the researcher is an outsider to the speech community, as is often the case with linguistic research across the world, and is also the case for me when researching Cardiff English: I was actually born in the city, to an English mother and Scottish father, but lived in Glasgow from a young age and have an unmistakably Scottish accent (if not always an identifiably Glaswegian one). I also use a high rate of glottal stops, presumably due to being both ‘young’ (i.e. Generation Y, ‘millennial’) and from Glasgow – and as we saw in Trudgill’s analysis of

⁵² One of the archive recordings later described features this type of speaker – whereas most recordings from the archive are minimum 40 minutes, this one only lasted 20 minutes and the interviewer was clearly having a hard time getting what he wanted.

interviewer-interviewee accommodation in 2.2.1, glottals appeared to be more prone to accommodation and variation across his different interlocutors than other linguistic features.

However, this cannot be changed. I cannot 'do' a Cardiff accent, and I cannot change the research site. The fact of linguistic researchers being outsiders is one that the field has long had to deal with. One of the ways it does so is by using Hymes's (1974) theory of speech events to designate the sociolinguistic interview as its own particular speech event. People use speech in different ways in different genres and speech events, and it is accepted that this is simply one of a repertoire of ways in which people may modify their language behaviour. There will always be individual differences in how people vary their speech or make use of different linguistic resources in certain situations: some people can easily code-switch between two very different varieties while others cannot; some are more susceptible to picking up other features, and so on. Furthermore, personality plays a large part too: some people are comfortable talking naturally to strangers while others are not; some people may vary their language behaviours in different contexts, e.g. being more performative in some, while others present consistent language behaviours regardless of context.

Finally, because much linguistic data is collected in this way – i.e. through a speech event mediated by the researcher – even if speakers do something considerably different in an interview than they do 'normally', comparability is not reduced. Hudson notes the importance of collecting all speech "under the same circumstances, so far as this is possible" to enable comparability (1996: 151). Of course, the potential for individuals to behave differently according to their own unique personality and idiolect can never be removed, as described above, but we can attempt to make the empirical conditions as standard as possible. Using the glottal stop as an example, even if participants accommodate to me by using more of this feature than they might usually, as Trudgill demonstrated, the overall patterning will remain consistent – i.e. no one will use these at a dramatically different rate than otherwise.

3.2.4.1 How do we gather natural language data?

The above discussion has revolved around the nature of dealing with individuals and their performance of language in different settings. This relates to one of the sociolinguistic elements mentioned briefly in the previous chapter; that of style and the ideal ‘authentic vernacular’.

The classic ‘sociolinguistic interview’ usually involves a few different elements “designed to elicit a wide range of contextual styles from an individual speaker” (Becker 2013: 92). For example, as in Mees’s 1983 research described in Chapter 2, two speech styles were elicited in order to compare formal speech with less formal speech. In this case the formal style was elicited by getting the children to read aloud a passage (thus termed the ‘reading passage style’ by Mees). Another example of a formal speech style is the ‘wordlist’, where participants read aloud a list of unconnected words. As well as creating comparable datasets by having each participant say the same words, these tasks are expected to elicit a speaker’s more formal speaking style, constrained for example by standard orthography and grammar, and the expression of someone else’s words rather than their own. The comparison of formal and informal speech styles allows researchers to see which features are modified between the two. For example, Mees’ research showed that H-dropping, G-dropping and various non-standard realisations of /t/ were very rare in the formal speech of Cardiff schoolchildren, while R-tapping did not vary considerably. This was used to infer that the features subject to style-shifting are *markers* or *stereotypes*, while the others are merely *indicators*.

However, not all participants may ‘participate’ in the expected norms of these tasks. Stuart-Smith et al. (2007) found that working-class male adolescents in Glasgow signalled their non-alignment with the task by emphasising and increasing their use of non-standard forms in the wordlist style. This links to other research suggesting that the wordlist can in fact be a site of *performance* of linguistic identity rather than

‘natural’ speech⁵³ (Bailey 2019: 7), and additionally there is the potential fatigue that a long questionnaire or wordlist can lead to: Penhallurick (1985) comments from his SAWD data collection experience that the questionnaire was tiring and not conducive to casual conversational speech. However, this thesis’ research question does not involve style-shifting: formal reading passages and wordlists and questionnaires will generally always have a more standard style, which does not tell us anything about how people use speech in less formal situations. Put another way, if the dialect is standardising, the changes will be more evident in informal styles.

Generally, what the sociolinguistic researcher is most interested in is the speaker’s true vernacular: their most natural and unaffected speaking style, where they are not paying attention to *how* they speak. While post-Labovian theory might dispute the notion of a single natural style or vernacular (e.g. Coupland 2001), creating the circumstances for someone to speak as comfortably and naturally as possible means that we are closest to acquiring a representative sample of their typical language behaviour. One way of attempting to achieve this is by not being explicit about the data we are collecting: if people know we are interested in how they speak, this might make them self-conscious about their language behaviour (cf. the observer’s paradox, and the self-monitoring that sees a lower rate of non-standard features used in formal speaking styles). Another way to achieve ‘natural’ speech involves putting the participant at ease and attempting to create a conversational style – doing the normal things that interlocutors do such as exchanging stories and following the participant’s interests and ideas (Tagliamonte 2006: 39). Tagliamonte considers the term ‘sociolinguistic interview’ a misnomer and says that it should be anything but an interview: “[it] is considered a failure if the speaker does no more than answer questions” (2006: 39). Thus, questions should be open, and follow-ups should be asked that allow the participant to lead the conversation to some degree.

Labov (1984: 34) considers eliciting a narrative to be the best opportunity to access the vernacular, as this is where the participant becomes so invested in the

⁵³ Accepting however that all language can be argued to be performance.

storytelling that they forget the unusual speech event they are in and thus their language is at its most 'natural'. His famous 'danger of death' question⁵⁴ was employed in New York to good effect as it had the potential to elicit involved and passionate stories, sometimes also from participants who previously were not very interested in speaking to an interviewer. However, Milroy (1987b) comments on the inappropriateness of this question when conducting research in Belfast during the Troubles: as the trauma was too near and the cultural context was different, it had the opposite effect to 'opening up' the speakers and instead caused them to shut down and withdraw.

In attempting to get a conversational style, enough time is needed for the participant to settle in and become comfortable with the situation. Tagliamonte (2006: 37) suggests the interview should last for at least an hour, so as to provide a balance between feasibility (i.e. asking people to volunteer their time for an interview; time for them to be at ease) and having enough data to draw reliable conclusions – i.e. being able to extract a suitable number of tokens for each feature.

However, some linguistic styles and features are unlikely to be uncovered in a one-on-one speech event like an interview, no matter how conversational it is: certain types of language will only be found in, for example, more interactional and less formal settings, and "never within the conventional format of the sociolinguistic interview" (Cheshire, Kerswill, and Williams 2005: 160). Cheshire et al. (2005) relate how invariant tags such as *innit* and emphatic tags e.g. *that's funny that* only occurred in contexts where pairs of friends were recorded with the fieldworker and were interacting with each other. Similarly, it can be difficult to elicit variables that hold covert prestige in interview situations (Becker 2013: 98). As such, a more ethnographic approach can be employed, or participants can be interviewed in pairs or small friendship groups. I decided to take a blended approach to this, and when arranging interviews with some participants offered to do group or friend interviews. However, no one took me up on this except two middle-aged men who were too young to be

⁵⁴ Eliciting a story about a time the participant had come close to dying.

included in the older age group. Thus, all the interviews used in this thesis were between me and one participant.

Finally, metadata about the participants also needs to be gathered. This is usually done via a questionnaire presented at either the start or the end of the interview. It aims to confirm basic information associated with the participant's selection for the study (e.g. where they grew up) and augment this with details that might be useful for understanding sources of variation (e.g. time away from the location, where the parents were born, occupation, educational background).

3.2.4.2 Reflective interlude on ethics and power

When it comes to getting participants to speak naturally, we should also consider the power asymmetry inherent in an interview situation. While we may view ourselves as equal to the participant, and indeed indebted to them for providing us with the data we need, our presence or role in the interview is as a highly educated researcher affiliated with a university. This form of 'scientific colonialism' may be more overt in some contexts and disciplines than others, but we must still be mindful that "interview techniques contain hidden theoretical and ideological assumptions, [and] are tied to relationships of power and control." (Briggs 1986: 123).

Playing the role of a 'naïve' interviewer and outsider is one way that sociolinguists suggest for overcoming these power asymmetries (e.g. Becker 2013: 97). This was certainly a role I was able to utilise, especially with older speakers due to my youth and 'femaleness', but in hindsight I have worried about whether this is disingenuous. The sociolinguistic interview itself is essentially about distracting the participant from the peculiar speech event and their own speech, despite this being the main thing you are seeking to 'extract' from them (see Figure 3.1 for the recruitment blurb I used in a poster asking for research participants). While the interviews I conducted seemed to be an enjoyable experience for many, and at least a painless encounter for those who were not as comfortable in this type of speech event, the combined aspects of disingenuity and getting people to talk about themselves and their lives is one that has played on my mind since leaving my first interviewee's house

having said I would send her a birthday card, which I never ended up doing. I feel that traditional variationist sociolinguistics methods do not take well enough into consideration the connections that are created in a one-on-one, very personal encounter that requires the participant to give a lot of themselves in an inherently one-sided way (cf. both Tagliamonte and Labov's sign of a good interview; that the participant does most of the talking). I particularly felt this with some of the older participants who lived lonely and isolated lives. There was an internal struggle throughout the data collection period between the parts of me that felt I should 'do a good deed' by keeping in contact with them to try alleviate their loneliness and continue the connection I had forged, and the parts of me that simply were not interested enough in doing this – potentially due to both my personality as a friendly but self-contained person, and my social needs being largely fulfilled by the people already in my life. For how these issues interface with the ethics procedures in advance of the data collection, see Section 3.3.

Listening to Cardiff

The *Listening to Cardiff* project is interested in learning about the people of Cardiff and their lives in the city. If you have lived here for most of your life, we would love to hear from you!

The project is run by a student at Cardiff University who would like to interview people from different communities in the city.

If you have an hour to spare for a chat, please email Rowan Campbell on CampbellRH@cardiff.ac.uk, and we can arrange a meeting at a time and place that's most convenient for you.

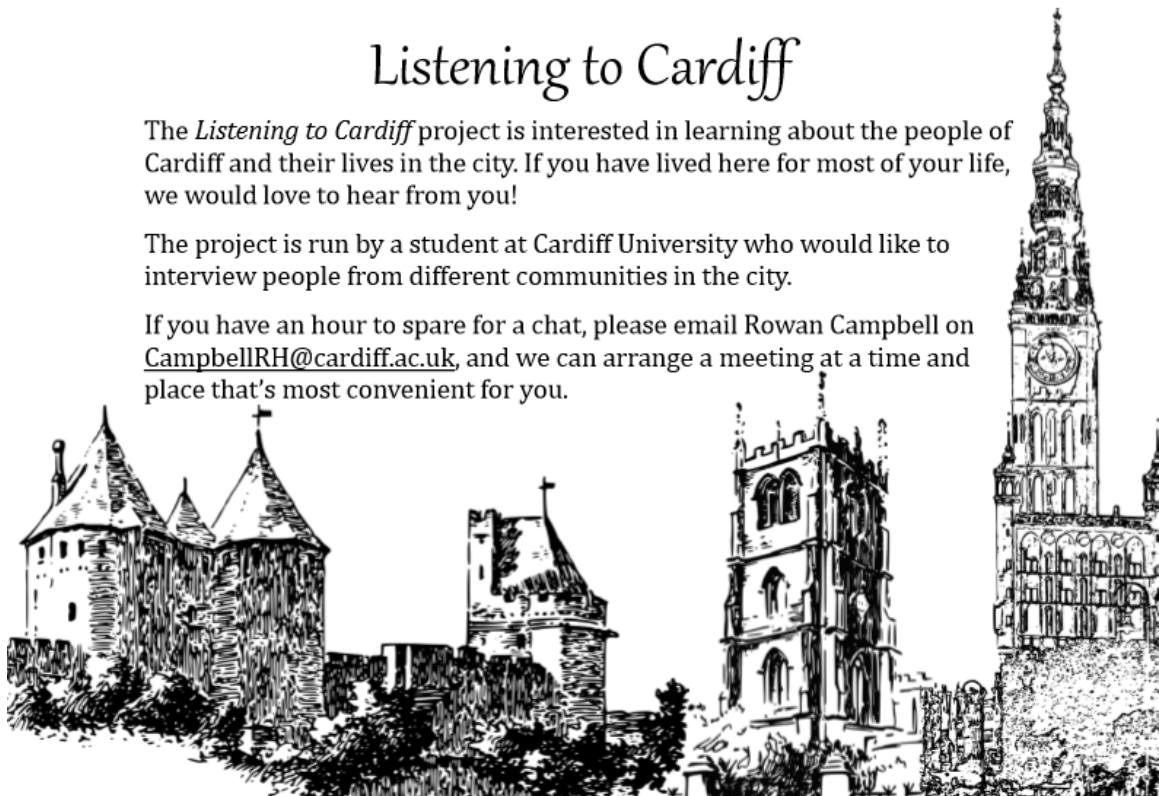


Figure 3.1 - The participant recruitment poster I designed using stock images to mimic some of Cardiff's recognisable historic buildings

3.2.5 Deciding the features to be analysed

Once the participants have been chosen and the data collected, how should one decide what features to analyse? The discussion in Chapter 2 led to the creation of a longlist of features that would be fruitful to investigate three different types or directions of change in Cardiff English:

1. Levelling changes
 - a. (t)
 - b. TH-fronting
 - c. *innit*
2. Standardisation
 - a. 'Kerdiff A'
 - b. Diphthongisation
 - c. (ng)
3. Drift
 - a. GOOSE-fronting
 - b. *there* + BE

A few details covered in this chapter so far help with the challenge of deciding which subset of variables would be best to select from the longlist above. Firstly, the one-to-one sociolinguistic interview precludes the possibility of analysing non-standard or interactive morphosyntactic features such as *innit*. On the other hand, it is useful to include non-phonetic features, as we saw in Chapter 2, which suggests *there* + *BE*: this feature is common enough in speech for us to find a suitable number of tokens to analyse. While this feature has been studied in many varieties, it has not been covered in Cardiff English and would be a useful feature to test any potential conflict between standardisation and drift.

The other features are all phonological and are common enough that we would expect to find a suitable number of tokens for each speaker. /t/, TH-fronting and G-dropping are well-studied features and thus have a good amount of literature from which to form hypotheses. As discussed in Chapter 2, G-dropping should be included

as a distinct test of standardisation. The benefit of studying /t/ over TH-fronting for a levelling feature is that it has a local variant as well as standard and levelling variants. The Kerdiff A and diphthongisation are also both local features; however, the former is much more socially salient and significant. While it would be good to verify earlier suggestions from Mees and Collins (1999) that FACE and GOAT have diphthongised, the four lexical sets involved in the Kerdiff A variable give us the additional interpretational foundation that comes from analysing a locally significant feature. As such, the variables chosen for this research were: *there* + *BE*, (ing), (a), and (t).

3.3 Data collection and analysis

Taking into account the factors discussed above, and the local circumstances at the time of doing the research, the following characterise the data collected:

- Participants lived all or most of their lives in Cardiff
- There was a minimum of 5 speakers in each ‘cell’, as divided into older and younger groups, and male and female speakers (therefore 20 total)
- Social information relevant to class categorisation was collected at a secondary level (i.e. not initially in order to find a certain number of people for each class group, but rather during the interview, as additional information)
- Speakers were recruited using a combination of ‘friend of a friend’, snowball, advertising, and convenience sampling methods
- Interviews in one style (conversational) were conducted, with an aim of gathering at least one hour of recorded audio for each

I had the opportunity to acquire archive data, which I took up in order to create a mixed real- and apparent-time study. As such, there are two sources for the data: a small collection of archive recordings, and a larger set of interviews conducted specifically for this research project. I will first describe the ethics procedure, before presenting the data collection procedures and demographic information for participants in each dataset (3.3.1). A brief outline of the transcription and analysis

methods is found in Section 3.3.2, while specific analysis procedures for each feature will be detailed in their relevant chapters.

Data collection procedures were approved by the ENCAP Ethics Committee. The archive data was pre-existing in the public domain, and supplied by the organisation who gained consent originally. For the contemporary data (i.e. those participants to be newly-interviewed by me), I approached people by presenting the interview as an informal chat about their life and experiences in Cardiff. I made it clear that participation was voluntary and said that it would be recorded. If people agreed to take part, I arranged a meeting and brought a written information sheet for them to keep, and consent sheet to sign. Signed consent forms were kept under lock and key in accordance with data protection principles. The information sheet had details about the project including the name and contact details for my supervisor and I; a statement that they could withdraw at any time by contacting either of us; and the assurance that their data would be stored securely (e.g. password-protected); and any information they provided would be anonymised. The consent form had 4 'levels' of consent: the baseline level that had to be given was for their anonymised data to be used in this research project, and they could indicate whether they would be happy for their data to be used for research outside this PhD project, included in a potential later public archive, and/or on a website showcasing research results.

3.3.1 A description of the two datasets: St Fagans and Cardiff Voices

Archive data provides access to an older era, and thus older speakers, that is not possible through the use of contemporary data alone. It gives a real-time perspective on the data, which is useful in determining the patterns of language change (Tagliamonte 2012). This section will first discuss the archive data, which comes from the National Museum Wales Sound Archives held at the St Fagans National Museum of History. The contemporary data collected and recorded as part of this research project will be discussed in 3.3.1.2. The archive material will henceforth be called the St Fagans data and the contemporary material will be called the Cardiff Voices data.

3.3.1.1 *Context and demographic information for the St Fagans dataset*

The external collaborator in the ESRC research funding for this PhD was the National Museum of Wales, and I was given access to the Sound Archive at St Fagans National Museum of History (hereafter referred to as St Fagans). I acquired copies of five English-language recordings with six Cardiff residents (two of the participants, Michael and Maureen Flynn, were interviewed together). These range in recording date from 1993 to 2009, and in length from 20 minutes to an hour. The recordings were selected by a curator at the St Fagans archive who searched for English-speaking recordings of people born in or living in Cardiff. I was not permitted to search the database myself, so it is possible that additional search terms may have revealed more recordings. I do not have any details of how the recordings were made. Due to audio and technical issues mentioned later, and the expense of early digital recorders, it seems likely that the early recordings were made using a tape recorder rather than a digital recorder. I received the files in .mp3 format which I converted to .wav for transcription and analysis.

The interviews in this dataset are oral histories relating to the museum's aim to represent the lives of ordinary Welsh people from different eras and social backgrounds. St Fagans houses many historic buildings, which visitors can go in and walk around. As such, the topics covered in each interview are either to do with living and working in Cardiff, or the buildings acquired by the museum to be rebuilt on their site for preservation – examples of these include the Gabalfa prefabs and the Vulcan Hotel,⁵⁵ which are sites of historical significance to Cardiff and the UK (Amgueddfa Cymru 2018).

Two interviews were conducted with people who used to live in the Gabalfa prefab temporary homes, and these are concerned with minutely detailing the interior and exterior design of the prefab houses as they were in 1955. One interview was conducted with the landlord of the Vulcan Hotel, a traditional pub that was under

⁵⁵ The Vulcan had been acquired by St Fagans at the time of writing, but is not yet reconstructed.

threat of demolition due to redevelopment of the city centre. The remaining interviews focus on life and work in Cardiff, with one discussing how births and deaths were dealt with between the First and Second World Wars. The other details life as a steelworker at the East Moors Works, which was a “feature of the Cardiff skyline” and employer of thousands from 1888-1978 (Edwards 1978: 1).

Presumably due to the reduced capacity of earlier recording technologies, some of the recordings appear to end before the interview has finished or have quality problems such as silent sections during the recording. The total amount of recorded interview time is 4 hours, and the word count (excluding words spoken by the interviewers) is 38,229.

Table 3.2 below provides details of the interview participants. Their real names are used rather than pseudonyms because the recordings are publicly accessible with these names.

Name	Year of birth	Year of recording	Age at time of recording	Gender
Violet May Johnson	1913	1993	80	Female
Jim Ashford	1923	1993	70	Male
Michael Flynn	1933	1999	66	Male
Maureen Flynn	1936	1999	63	Female
Joan Maidment	1940	1999	59	Female
Brian Smart	1938	2009	71	Male

Table 3.2 - St Fagans data overview

By chance, there is an even gender split between the participants and most of them are above retirement age, but unfortunately there is no more information about them – for example, whether they have lived outside of Cardiff for any length of time, or what their occupations or socioeconomic status are. Some of this information can be gleaned from what they talk about in the interviews, but it is not possible to assign specific demographic information with confidence. Furthermore, this data is limited in terms of quantity, as we have six speakers only, and in terms of consistency as the interviews vary greatly in their scope. For example, Violet May Johnson is encouraged to tell stories about what she can remember growing up, while Joan Maidment and the Flynns are largely constrained to describing the furniture and layout of their prefab

homes. Finally, the interviewers are different in most of the recordings and as such bring different styles to the interviews. These issues represent some of the limitations that have to be accepted when working with archive data.

3.3.1.2 Data collection procedure for the Cardiff Voices dataset

The Cardiff Voices dataset consists of 31 sociolinguistic interviews, which I conducted in 2017-18. Because the purpose of the project is to investigate change over time, the most relevant social factors are age and gender. As such, I recruited a minimum of five participants in each category, amounting to 20 people. I also interviewed others who fell outside of these age ranges, but this data is not included here.⁵⁶ When advertising for participants, my criterion was that they should have lived in Cardiff for most or all of their life, thus affording them “native status in the community” (Tagliamonte 2012: 102).

Participants were recruited using a variety of the techniques common in the field (e.g. Milroy 1987; Tagliamonte 2012), mainly friend of a friend, snowball and convenience sampling. My most effective recruitment method used a combination of these - through my personal networks, I was invited to advertise my research in person at a community choir rehearsal, which proved to be a successful way of blending the advantages of having an insider-ratified status while also accessing a relatively diverse network. Unexpectedly, I had the most trouble recruiting younger participants, particularly young men. As mentioned above in 3.2.4.1, I sometimes suggested pair or group interviews, thinking that they might be more comfortable talking with friends, but those who did agree to an interview preferred the original one-to-one approach. I believe this may have been due to the increased difficulty of organising interview times around people’s schedules. In general, younger people seemed busier and it was more difficult to ‘pin them down’. Quite a few younger people who I reached out to initially (e.g. if I knew them from work or social spheres)

⁵⁶ Data collection for this thesis was part of a wider project.

were not happy being recorded, which was another barrier to recruiting younger participants.

I conducted a short questionnaire at the end of each interview to collect secondary information on other potentially relevant sociolinguistic factors than age and gender: ethnicity, birthplace, occupation, class, education, time lived outside Cardiff, parents' occupation, where parents were from. I designed the questionnaire to be relatively open – that is, instead of making participants select pre-written identities, I left the space blank for them to write what terms they felt best using. The rationale for this was to allow them to best describe their identity, including gender, ethnicity, etc., rather than restrict them to identities I might assume they would choose.

I arranged suitable times and locations for interviews in advance either over the phone, on Facebook or by email. My preferred method was to visit the participants' house, for the main reasons of enabling them to feel most comfortable in their own space and to inconvenience them as little as possible. However, five of the interviews were conducted in cafes and two at my home, as some participants, particularly younger ones, preferred to meet outside of their home or near their work. I made the decision that potentially compromised audio quality (due to background noise from cafes, for example) was an unfortunate necessity to recruit enough participants. I recorded the interviews using a multi-directional Olympus recorder positioned as close to the interviewee as possible.

The interview technique I used was semi-structured interviews with mostly open questions, in order to achieve the most informal style under the circumstances. I had a document of prompt questions for myself, compiled from oral history and sociolinguistic resources (e.g. Grosse Pointe Historical Society n.d). The purpose of this was more a crutch for myself or a 'prop' to aid the interview context than to cover every topic. I generally tried to use it as little as possible and follow the conversation where it led naturally.⁵⁷ With older speakers, topics usually included what Cardiff was

⁵⁷ One younger participant, appearing to get impatient with this approach, took the list of questions off me and started reading through them to answer them more quickly.

like when they were growing up, their childhood and adult life in general. With younger speakers I also asked about growing up in Cardiff but due to them having lived shorter lives so far, I found I had to introduce more topics to keep conversation going – for example, asking them about their university choices, favourite places they have visited, other places they would like to live, etc. Towards the end of most interviews with younger speakers, I asked questions relating specifically to Cardiff and Welsh identity and language. The opportunity to ask these questions did not always arise with older speakers, but sometimes the topics came up naturally.

I aimed to record speech for at least an hour to get a usable number of tokens for each feature to be analysed. The recording times range from 52 minutes to 2 hours 18 minutes, with the average length 1 hour 22 minutes. The total quantity of recorded interviews is 27 hours, 36 minutes, and the total number of words (excluding mine as interviewer) is 254,068.

3.3.1.2.1 Demographic information for the Cardiff Voices dataset

Table 3.3 lists the 20 participants in the Cardiff Voices dataset – more were interviewed, a total of 31 people which included some in age groups outside of the 20-30 younger group and retirement age or 60+ older group. For the purposes of this study and to maintain even numbers across the cells, the first five participants for each cell were selected. The following paragraphs detail the ethnicity and local heritage of participants, followed by their socioeconomic backgrounds.

Pseudonym	Age	Year of birth	Gender
Meleri Brown	83	1934	Female
Beverley Gibson	83	1934	Female
Cefin Jones	80	1937	Male
Marilyn Hawes	79	1938	Female
Patricia Cook	68	1949	Female
Fi Harvey	67	1950	Female
Roger McKinnon	66	1951	Male
Carl Leyshon	65	1952	Male
Paul Harvey	64	1953	Male
Phil Harris	63	1954	Male
Llion Evans	28	1989	Male
Osian Harris	27	1990	Male

Karim Soroush	27	1990	Male
Samantha Marshall	27	1990	Female
Max Hill	26	1992	Male
Myfanwy Rogers	25	1992	Female
Llinos Rogers	23	1994	Female
Esther Luscombe	22	1995	Female
Lauren Travers	22	1995	Female
Tim Coleman	22	1995	Male

Table 3.3 - Overview of participants in the Cardiff Voices dataset

Eighteen out of 20 participants were born in Cardiff. One younger participant was born in Iran and moved to Cardiff aged 10, having lived in the city for 17 years at the time of interview. He was recruited after being recommended to me as having a typical Cardiff accent by another Cardiff-born participant, which justifies his inclusion here despite his first language not being English. One older participant was born in Tredegar, a town in the Valleys, and moved to Cardiff at the age of 13. He has been included here because of the length of time lived in Cardiff (70 years) and because of the proximity of the Valleys to Cardiff. While there are dialect differences between the two, I did not expect to find any here with regards to the variables under investigation. Table 3.4 below outlines the parental heritage of participants (one older participant did not have any information about their parents which is why the total for this column is nine).

	Young	Old
At least one parent from Cardiff	7	8
At least one parent from Wales	2	1
Both parents from elsewhere	1	0
<i>Total</i>	<i>10</i>	<i>9</i>

Table 3.4 - Local heritage of participants

Due to the above-mentioned design of the background information questionnaire, participants were free to write their own identification for the ethnicity question. This resulted in a mixture of the types of categories commonly presented in surveys or censuses which usually separate potential responses by 'Nationality' (e.g. Welsh) and 'Ethnicity' (e.g. White British), so these responses do not always reflect participants' race. Table 3.5 below presents participants' self-identification of

ethnicity. The higher number of older speakers identifying as Welsh is likely due to the fact that five of these answers were written in by me based on how they identified during the interview. Some older speakers were reluctant to complete the forms for various reasons⁵⁸ and asked me to write their answers for them – this was something I had not anticipated. Similarly, the higher number of younger participants identifying as ‘White British’ could be due to their greater familiarity with the labels provided on these forms. Despite being a small sample, the racial demographics are similar to those in the wider population of Cardiff – the BAME population in my sample is 15% compared to Cardiff’s 20.7% (StatsWales 2020b).

Self-identified ethnicity	Young	Old
Welsh	4	8
White, British, or White British	4	2
Mixed White British and Afro-Caribbean	1	0
Iranian	1	0

Table 3.5 - Ethnicity of participants

As can be seen in Figure 3.2, participants come from a reasonably wide range of areas in Cardiff. Most participants are marked according to where they grew up, but as mentioned above, some moved into the city later and have been marked according to where they have lived the longest. It is unclear at this point which areas of Cardiff are the most salient to residents in terms of dialect differences. The east-west split created by the River Taff was sometimes commented on during the interviews, as was the lack of a typical Cardiff accent in people from the ‘northern band’ of the city (i.e. Whitchurch).

Figure 3.3 shows that there are a few small differences in the areas represented by younger and older speakers, with a higher proportion of younger speakers from Cardiff West, and a slightly larger number of older participants from Cardiff Central. Without wanting to overplay an interpretation based on small numbers, it could be

⁵⁸ These could be largely ability-related, for example some participants did not have had the right glasses to hand or found it difficult to hold a pen, but there may also be generational differences in approaches to data of this kind, with younger participants being more used to (and hence willing to) complete this type of questionnaire.

that the expansion of the city centre as a non-residential area, in addition to the large numbers of students in Central wards such as Roath and Cathays (Singh and Rock 2018), has meant that fewer families raise children in this area.

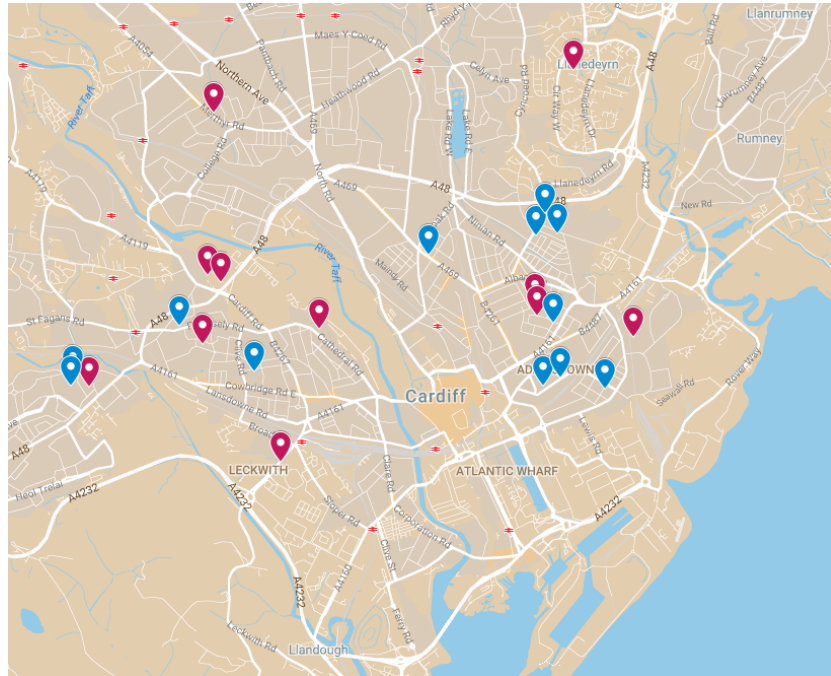


Figure 3.2 - Areas of Cardiff represented. To preserve anonymity, pins have been placed randomly within the participant's ward. Older participants are coloured blue, younger participants magenta.

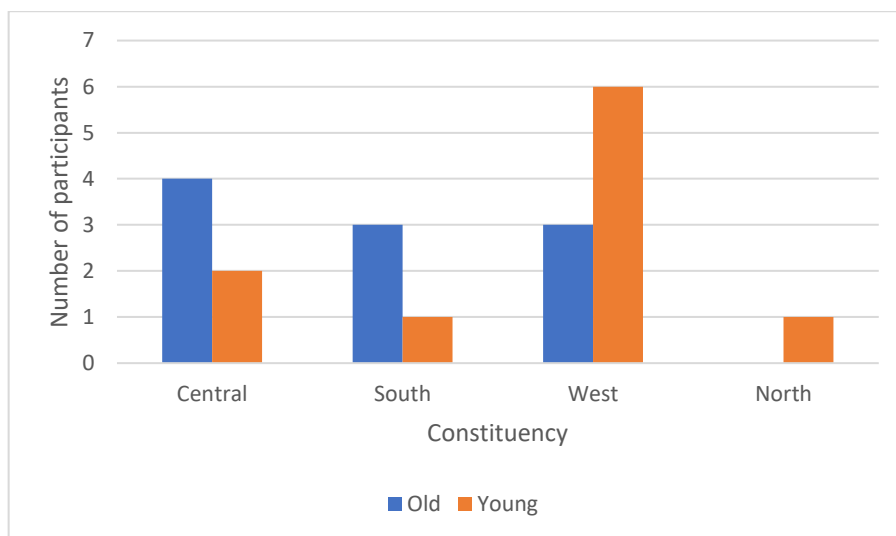


Figure 3.3 - Constituencies of Cardiff by age group

3.3.1.2.2 Socioeconomic backgrounds for the Cardiff Voices dataset

Socioeconomic information was gathered as additional information that might inform the patterns found with the main variables. I categorised what participants

wrote on the questionnaire as their occupation⁵⁹ (or their occupation before retiring) into equivalent groups of the International Standard Classification of Occupation (ISCO). Seven of the broad groups in the ISCO system were represented; I merged these into three groups in line with usual classification in sociolinguistics research (Table 3.6). As can be seen in Figure 3.4, there are more younger speakers than older speakers in Group 2, and only one younger speaker in Group 1 compared to three older speakers. Differences in occupation could be due to lifespan trajectories, as younger people will not generally have had the time to reach ‘higher’ levels of occupation. This also raises problems when considering the interaction of class and age, as effects of class could be skewed by lifespan differences.

Group	Gloss	ISCO categories included
1	Managers and professionals	1: Managers 2: Professionals
2	Non-manual work	3: Technicians and associate professionals 4: Clerical support workers
3	Service and manual work	5: Service and sales workers 7: Craft and related trades workers 9: Elementary occupations

Table 3.6 - ISCO categories grouped into three classes

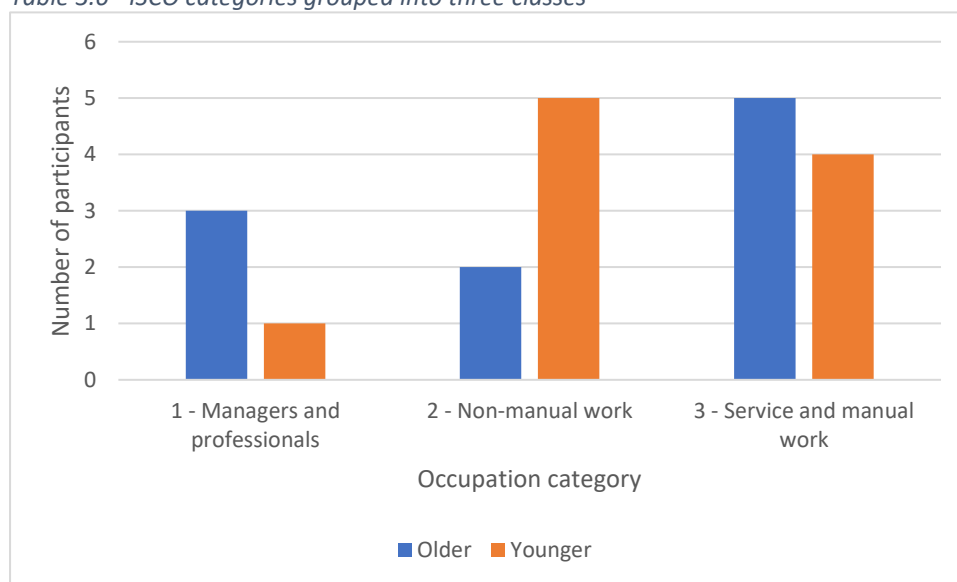


Figure 3.4 - Occupation groups by age group

⁵⁹ Where women did not work, as was the case with some of the older women, their husband’s occupation was used. It is also possible that some older women had ‘lower status’ jobs than their husbands to fit around childcare duties.

Figure 3.5 shows the self-defined class identities as written by participants on the questionnaire. Five of the older participants described themselves as working-class and one as middle-class, while four did not provide any information. There was an explicitly-stated reluctance among middle-aged participants (whose data is not reported in this study) to answer this question, which could suggest that a similar reluctance was felt by some older speakers. In contrast, three of the four younger participants who defined themselves as working class seemed to be encountering this question for the first time and made comments along the lines of “I work so I guess I’m working class”. The younger participants self-identifying as middle-class seemed to already have some level of class awareness and did not comment on the question. Of the two younger participants who did not respond to this field, one implicitly said that he was not comfortable answering it, while the other made a joke about being ‘class’ (a colloquial term for good quality).

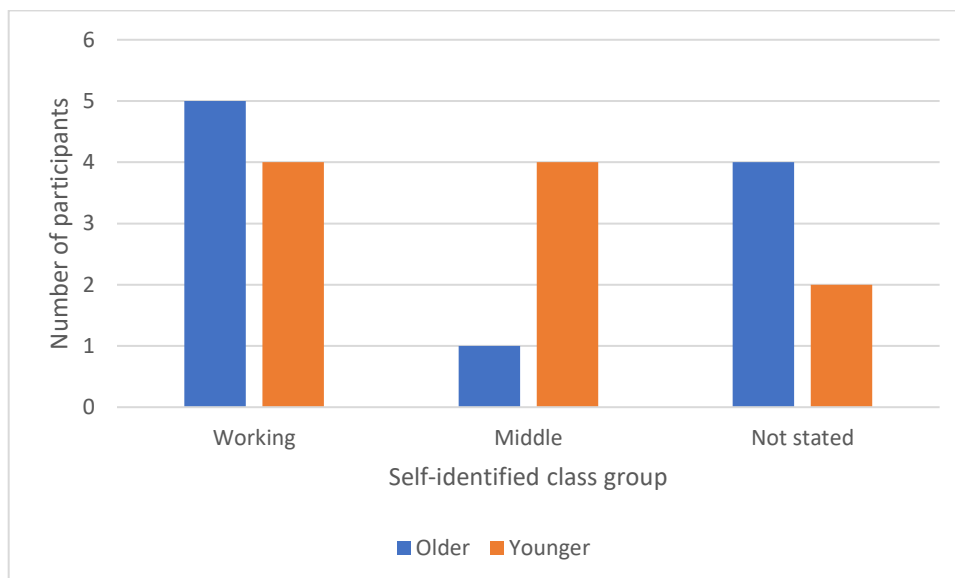


Figure 3.5 - Number of older and younger participants in each self-identified class group

The younger participants generally had a higher level of education than the older generation, with bachelor’s degrees or higher (Figure 3.6). In contrast, half of the older participants left school around age 15, although others studied further as adults. While it is likely that greater access to education in the last quarter of the twentieth century onwards has played a role in the high level of education amongst the younger speakers, this distribution could also be due to the nature of the sampling.

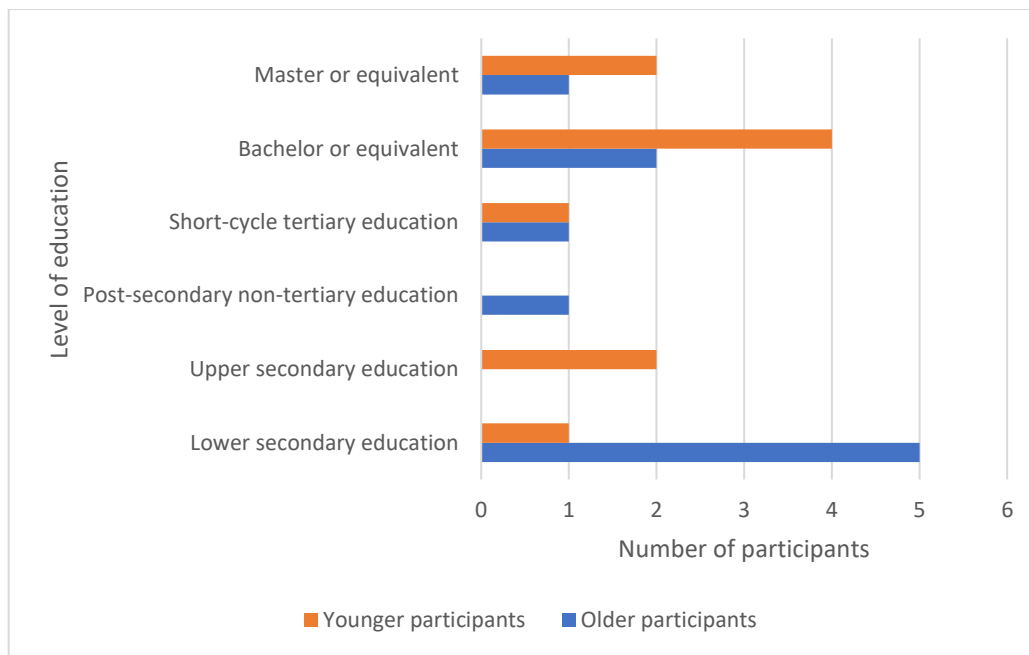


Figure 3.6 - Educational attainment by age

There is a weak negative correlation ($r = -0.37$)⁶⁰ between occupation and education, suggesting that a multidimensional index combining these factors would be no more reliable than looking at occupation alone. As such, and as not every participant self-identified their class, I consider the three occupational class groups to be a sufficient indicator of class. Educational level may also be relevant on its own when considering standardisation changes, and is included where relevant in the analyses.

3.3.2 Transcription and analysis

Interviews were transcribed in ELAN 5.2 (2018), which allows for segments to be time-aligned. A segment generally consisted of a clause, but not always – for example, in cases where a speaker made many false starts, used long subordinate clauses or listed co-ordinating noun phrases with long pauses in between. I followed British English orthographic transcription conventions with the exception of the one-syllable pronunciation of ‘because’ as ‘cause. The caret ^ was used to represent ‘uptalk’ or

⁶⁰ The correlation is negative due to the occupation and education scales going in ‘opposite directions’ – i.e. lower educational attainment is represented by a lower number, while lower occupational status is marked by a higher number.

rising intonation. When unclear about a word or segment of speech, I transcribed my best guess in brackets, and where it was not possible to do this, I marked the segment as unclear. Non-lexical items such as laughs or coughs were put in square brackets. Where the recorder was on while consent forms were completed but no additional conversation occurred, the talk was not transcribed. Transcriptions were checked by my supervisor who occasionally made suggestions for an alternative transcription where there was disagreement.

The analysis procedure was slightly different for each feature, and thus each analysis chapter will have its own small literature review and methodology section to describe the context and justify decisions made. However, the underlying process followed the quantitative methods first set up by language variation and change researchers in the 1970s, and subsequently developed as statistical methods and models evolved (Tagliamonte 2012: 120). Based on this, the analysis section of each chapter will include a distributional analysis, which is descriptive of the distributions and frequencies of the variable across different factors and which will guide subsequent statistical modelling (Tagliamonte 2012: 121).

The statistical models favoured by (socio)linguists have changed somewhat as the field has evolved – variable rules analyses using logistic regression used to be the standard, while mixed-effects models are now recognised as better for natural language data (Tagliamonte 2012: 140). Mixed-effects models provide sociolinguists with two important advantages over logistic regression when looking at linguistic change (Winter and Wieling 2016): they work well with categorical data, and they include random effects such as individual speaker or word alongside fixed effects, i.e. independent variables such as age or gender of speaker, or phonological context. Random effects are “expected to exert idiosyncratic and unpredictable influence on the dependent variable” (Winter and Wieling 2016: section 2, paragraph 3) and cannot be generalised to the population. As has been discussed in this and the previous chapter, individual variation is something we cannot avoid, but mixed-effects models provide us with a way of dealing with its effects.

Statistical analyses were carried out in RStudio (2019) using the *lme4* package for mixed-effects modelling (Bates et al. 2015). The models were created using a step-up approach – i.e., adding independent variables (fixed effects) one by one then using ANOVAs to test whether their addition significantly improved the model. Using this method, the best-fitting model then allows us to see what significance each factor group and the individual factors within these groups have on the variable. The general base formula for models is thus as follows, including random effects for individual speaker and the word that the token is found in (for phonetic variables):

$$\text{variant} \sim \text{age} + (1|\text{speaker}) + (1|\text{word})$$

In the reports, the alpha-level for significance will always be $p < 0.05$, except where otherwise stated – for example, when the use of multiple models requires Bonferroni corrections (Chapter 7). Model results will be presented in tables created with the *sjPlot* package (Lüdtke 2018), which converts estimates and standard errors into odds ratios and confidence intervals (CI). Odds are considered more appropriate for showing the results of generalised linear models and values range from 0 to infinity, with figures closer to zero representing a higher likelihood of the baseline variant. Significant results in the tables are in bold. In the interests of space, abridged model results will be presented, with full results tables in the appendices.

The next four chapters will separately present the analyses of each chosen variable. The first two analysis chapters will investigate two global English variables to assess the impact of standardisation: Chapter 4 will look at the conflicting influence of standardisation and drift in the grammatical variable, existential *there* clauses. Chapter 5 will analyse the phonological variable (ing), which is generally considered to be stable. The following two chapters will consider dialect levelling in relation to two phonological variables that have both local and supraregional realisations: Chapter 6 will analyse the ‘Kerdiff A’ vowel; and Chapter 7 will look at intervocalic /t/. Each will follow a similar structure: a literature review for that particular feature; a methods section outlining the token extraction, coding and analysis procedure; presentation of the results; followed by a discussion.

Chapter 4 “There was no pubs in Ely”: non-agreement in existential clauses

This chapter presents an analysis of subject-verb agreement in existential clauses such as the quote in this chapter’s title from interview participant Carl – “*there was no pubs in Ely*”. Recent research on varieties from other British locations and the wider English-speaking world show that non-agreement between the verb and the notional subject in existential *there* + BE clauses is becoming the norm, particularly amongst younger speakers (Britain and Sudbury 2002; Hay and Schreier 2004; Cheshire and Fox 2009). I suggested in Chapter 2 that this global tendency indicates natural language drift, as the contracted present tense form *there’s* in particular has become grammaticalised⁶¹ into a ‘frozen form’ (Schilling-Estes and Wolfram 1994), while some researchers suggest that non-agreement with *there’s* is becoming standardised (Krejci and Hilton 2017). This chapter investigates whether CE is participating in this global trend towards non-agreement, and what this can tell us about conflicting directions of change in the variety. It will become apparent that this is a complex feature, and it can be difficult to keep all the strands in mind at once. Considering this, I have endeavoured to make the account as clear as possible. I will first provide an overview of studies that have examined variation in *there* + BE clauses before outlining the method used. I will then present the results of the analysis and a discussion of their implications.

4.1 Previous research on *there* + BE

Existential constructions with the form *there* + BE have long been noted to exhibit more ‘non-agreement’ or ‘non-concord’ between subject and verb than other clause types across the English-speaking world, and non-agreement has been increasing over time (M. Meechan and Foley 1994; Smith and Tagliamonte 1998; Britain and Sudbury 2002; Hay and Schreier 2004; Trudgill 2008a). Described as

⁶¹ Somewhat confusingly in this instance, the term grammaticalisation refers not only to the de-lexicalisation of the form, but also to the loss of grammatical agreement (e.g. Rupp and Britain 2019).

“complex phenomena” (Martinez-Insua and Palacios-Martinez 2003: 263), these clause constructions are characterised by the use of *there* as a ‘dummy subject’ while the notional subject occurs after the verb. This allows for the “focused presentation of new information” (Cheshire 1999: 137), but the grammatical configuration has raised questions about the syntactic relationship between subject, verb and post-verbal noun phrase (Martinez-Insua and Palacios-Martinez 2003: 263).

The examples below (all taken from my data) show that variation can occur in the past and present tense:

4.1 Agreement between verb and subject:

- a) there are quite a lot of Welsh schools (Llinos, 23)
- b) there were no buses for weeks (Fi, 67)

4.2 Non-agreement between verb and subject:

- a) there’s more opportunities to die in the big cities (Lauren, 22)
- b) there was rabid dogs everywhere (Tim, 22)

As non-agreement is deemed non-standard in prescriptive grammars, this type of variation is rare in written English, making up only 3% of the tokens in the British National Corpus (BNC; Martinez-Insua and Palacios-Martinez 2003: 268). However, non-agreement in existential clauses is found in spoken English around the world at high rates – for example, in a recent study on Californian English, Krejci and Hilton found 78% non-agreement with contracted form *there’s* (2017: 192). Rates are generally lower for non-agreement in the past tense with *there was* (Britain and Sudbury 2002: 221), but often still relatively high – Britain and Sudbury report rates around 45% for both New Zealand and Falklands Englishes (ibid: 222).

These high frequencies have led *there was* and *there’s* to be described as ‘frozen’ forms or single lexical units (Schilling-Estes and Wolfram 1994; Chomsky 1995; Cheshire 1999). This type of non-agreement – plural noun phrase with a singular verb phrase – is known as the ‘default singular’ (as in example 4.2 above) and is much more common than non-agreement with plural verb phrases: occurrences of the plural verb *are/were* with singular subjects are infrequent, ranging from 1% in Meechan and Foley’s study on Canadian English (1994) to 5% in Martinez-Insua and Palacios-

Martinez' (2003) analysis using the BNC. As such, the default singular is the main variable examined in the literature and discussed here.

The ubiquity of the default singular in varieties across the world has been described as a “prototypical exemplar” of Chambers' (2004) *vernacular universals* theory and previous studies have explored its seemingly universal nature and the linguistic constraints on its use. The following sections will provide an overview of the main linguistic factors that influence or constrain the use of the singular in existential constructions *there* + BE + plural noun. I will cover polarity, determiner type, tense and verb contraction in turn, but each bleed into the others to some degree – I address tense and verb contraction together because they are so interlinked, but these two factors also have potential interactions with the other factors.

4.1.1 Linguistic factors

According to Riordan's summary of results from quantitative studies on concord in existentials (2007: 239), contraction, determiner type, polarity and tense have the most significant effects on rates of non-agreement. These linguistic triggers will be explored in further detail in sections 4.1.1.1-4.1.1.3 before turning to social factors and the Cardiff context in 4.1.2.

4.1.1.1 Polarity

Despite Riordan's summary noting grammatical polarity (whether the clause is affirmative or negative) as a relevant factor for non-agreement, a closer look at his evidence does not result in strong support for his claim. Specifically, the effect seems to be found more in studies looking at variation in past tense BE more broadly. Tagliamonte's (1998) research on York English found a significant effect of polarity, but her analysis was conducted on the past tense only as it was concerned with *was/were* variation in all clause types, not just existential *there* + BE clauses. Significant polarity effects on non-agreement seem to be confined to studies on *was/were* variation specifically, with non-standard *were* being favoured in negative contexts (e.g. Schilling-Estes and Wolfram 1994; Smith and Tagliamonte 1998).

Different *was/weren't* patterns occur in other varieties of English⁶² (e.g. Cheshire and Fox 2009; Moore 2010; Durham 2013), but are not a major feature of Cardiff English (Coupland 1988: 34).

Hay and Schreier's (2004: 228) research on New Zealand English investigated BE variation in present and past tense, and across existential and non-existential clauses, and found that polarity did not have a significant effect on non-agreement for either clause type. In two other studies that examined existential clauses only, polarity was also not found to be a significant factor (Britain and Sudbury 2002; Riordan 2007).

4.1.1.2 *Determiner type*

After summarising previous studies' results, Riordan (2007) notes that type of determiner in the post-verbal noun phrase (NP) has one of the strongest and most consistent effects on non-agreement (2007: 244). Numeric determiners (example 4.3), 'no' determiners (example 4.4), and quantifiers with indefinite article 'a' (example 4.5) are associated with higher rates of non-agreement (e.g. Tagliamonte 1998, Britain and Sudbury 2002, Hay and Schreier 2004).

- 4.3 there was two blocks of shops there (Joan, 71)
- 4.4 there was no pubs in Ely (Carl, 65)
- 4.5 a) there was a lot of middle-class academics (Roger, 66)
 b) there's a thousand things I haven't told you (Fi, 66)

While most studies group 'a' quantifiers (*a lot, a few, a couple*) with other types of quantifiers, when separated they can show strong effects, as in Riordan's large corpus study on spoken academic American English (2007: 254). Britain and Sudbury (2002) found that 'a' quantifiers had significantly more non-agreement in New Zealand English, but there was no difference for Falklands English (2002: 226). Hay and Schreier also found that 'a' quantifiers favoured non-agreement in a different study on NZ English (2004: 220).

⁶² For example, in Bolton, Greater Manchester, non-standard *were* is fairly common in clauses with positive polarity e.g. *it were worth it*, unlike in other varieties such as York English (Moore 2010).

Riordan suggests that non-agreement in *there's* can also be explained by “functional advantages in processing” (2007: 272) and that forms such as *there's a lot of...* may be better viewed as “quasi-collocations”. One possible factor that he does not address is the potential processing effect of an immediately following ‘a’, which usually indicates a singular noun and thus might influence the speaker to precede it with a singular verb form. For instance, speakers might plan ahead as far as ‘a lot’ but in spontaneous speech may not have planned ahead as far as the plural head noun, e.g. ‘a lot of things’,⁶³ to be able to choose a plural verb form (e.g. Meechan and Foley 1994). Thus, ‘a’ quantifiers are also linked to the distance between the verb and the postverbal subject: some studies have found adjacency effects whereby non-adjacent subjects favour non-agreement (Rupp and Britain 2019). It has also been suggested that postverbal subjects themselves can trigger non-agreement, as found in examples without *there* such as “in the bottom is three stars” (Smallwood 1997).

4.1.1.3 Tense and verb contraction

Studies on English varieties in Canada, New Zealand and the Falkland Islands found that agreement was more likely in the past tense (Meechan and Foley 1994; Britain and Sudbury 2002), while “singular forms dominate” in the present tense (Britain and Sudbury 2002: 13). Hay and Schreier’s study on New Zealand English found that 54% of past tense forms showed non-agreement compared to 74% of present tense forms (2004: 219), but moreover, that there was an interaction between tense and verb contraction – in both present and past tense the contracted forms *there's* (as opposed to the full form *there is/was*) were more likely to occur with plural subjects. However, there were only nine tokens of contracted past tense *there's* compared to 170 present tense, implying that the impact of present tense is closely related to contraction. This was raised by Meechan and Foley (1994), who found that contraction was the strongest predictor of non-agreement in their study on Canadian English, leading them to suggest that any effect of tense is better explained by

⁶³ Interestingly, I note that Word’s automatic grammar check highlights examples 4.3 and 4.4 as incorrect, but does not pick up on example 4.5 (a).

contraction (1994: 77). Thus, the past tense is more likely to show agreement due to the rarity of contracted forms of *there was*. Contracted forms of the past tense are also homophonous with contracted *there is*, which could be another constraining factor on non-agreement in the past tense.

Despite this, across a range of British varieties, rates of non-agreement in past tense existentials are generally very high, particularly among younger speakers. In Shetland, Durham reports a 93% rate of the non-agreeing form *there was* + plural NP in the youngest age group, which coincided with a shift away from the traditional *there were* + singular NP used by older speakers (2013: 118-122). A similar rate of 91% past tense non-agreement in existentials was found amongst inner London adolescents (Cheshire and Fox 2009).

Returning to the present tense and contraction, findings from corpus studies also reveal high frequencies of non-agreement when the verb is contracted. Martinez-Insua and Palacios-Martinez's study using the British National Corpus reported the rate of *there's* with a plural referent as 83% in spoken English (2003: 273). Research on the Michigan Corpus of Academic Spoken English found that while the frequency of non-agreement in total was 40%, which is relatively low compared to sociolinguistic studies,⁶⁴ the rate of non-agreement for plural subjects with contracted form *there's* was 100% (Riordan 2007: 252).

A recent study by Krejci and Hilton on Californian English also showed a high frequency of non-agreement when the verb is contracted, at 78% (2017: 195). Based on the different statistical patterning of non-agreeing *there's* and *there is/was* across the social categories of age and education, they argued that *there's* should be treated as a separate variant. Non-agreement with *there's* was greater in younger speakers who rarely exhibited non-agreement with the full form, while older speakers and those with lower levels of education had higher proportions of non-agreement with *there is/was*. They concluded that *there's* is now "the unmarked form for introducing plural

⁶⁴ All of the speakers in this corpus would be highly educated and from one occupational category, whereas sociolinguistic studies usually aim for a mixture of different class and occupational groups.

pivots” (2017: 200), lending support to previous theorising of it as a ‘frozen’ form (e.g. Chomsky 1995; Cheshire 1999), and suggesting that non-agreement with this form is becoming standard. However, their analysis conflated the past and present tenses in the full forms *there is/was* making it unclear what role contraction plays in the present tense alone, where it is more likely to occur.

4.1.2 Social factors and predictions for Cardiff English

Irrespective of whether *there’s* is a fluid grammatical choice or a fixed existential marker that does not require grammatical agreement, it is still relevant to enquire into the patterns of its adoption, on the basis that speakers retain the option of using standard *there are* for the present tense plural. A progressive preference for plural *there’s* might therefore be expected to conform to Labov’s original principles of linguistic change (1990). If this were the case, we would see higher rates of non-agreement among men, as this is formally ‘non-standard’.⁶⁵ However, in the ‘gender paradox’, women are earlier to adopt language innovations and thus can show through increased use whether a stigmatised feature is changing status (Labov 2001). As age is generally found to be the strongest factor influencing non-agreement in existential clauses, most studies have examined the effect of age and gender combined, making it difficult to extract significant results regarding gender alone. Additionally, results vary across studies and within varieties. For example, examining New Zealand English, Britain and Sudbury (2002) reported slightly higher rates of non-agreement in younger men than women while Hay and Schreier found the reverse in their study’s youngest age group (2004).

Results from these studies also suggest that socioeconomic factors such as occupation and education may have a greater influence on non-agreement rates. In New Zealand, Britain and Sudbury (2002) noted significantly higher levels of non-agreement in those with post-16 but no tertiary education, and among manual and low-status clerical workers (2002: 220). Also in New Zealand, Hay and Schreier found

⁶⁵ Though see Cheshire’s (1999) argument regarding the appropriacy of the term ‘standard’ for spoken English considering the ubiquity of the default singular even in relatively formal styles.

higher rates of non-agreement among speakers in non-professional occupations, although this was not statistically significant (2004: 217). However, Tagliamonte (1998: 181) suggested that education has a “questionable status” in the model used in her study on York English as it was neither selected nor rejected in step-up and step-down processes of her multivariate analysis. It is also worth noting Riordan’s (2007) finding from the Michigan Corpus of Academic Spoken English that the non-agreement rate was 40%, showing that high levels of education are not incompatible with non-agreement.

No studies on existential subject-verb agreement have been conducted on Cardiff English, but the expectation is that the variety will exhibit the same global trend of increased non-agreement over time – specifically that young speakers will display more non-agreement than older speakers. While previous results for social factors other than age have been mixed, including these in the statistical model alongside linguistic factors will help determine what type of change (if any) we are seeing: are there dramatically different patterns between older and younger speakers as we would expect in a case of diffusion, or are changes more gradual, indicating drift?

4.2 Method

Based on the literature and predictions made above, the research questions motivating this analysis are:

- 1) Do younger speakers have higher rates of non-agreement than older speakers?
- 2) What linguistic and social factors influence or constrain non-agreement, and are there differences between the two groups?

The following sections will outline the process for extracting, coding and analysing tokens of *there* existential clauses.

4.2.1 Token extraction

All concordance lines found in the interview data via the search term *there* were imported into a spreadsheet. I excluded tokens that were not part of the variable context: adverbial or locative *there* (example 4.6); false starts (the first two

occurrences in example 4.7); unclear speech (example 4.8); *there's* as a contraction of *there has*⁶⁶ (example 4.9); non-variable verbs and tenses such as that in example 4.10.

- 4.6 but the kids there are amazing (Lauren, 22)
- 4.7 there are- there are- there are quite a few s- secondary (Llinos, 23)
- 4.8 (there was a) carpenters (Roger, 66)
- 4.9 there's been tons of advances (Osian, 27)
- 4.10 there'd always be a big feast afterwards (Violet May, 83)

Example 4.11 shows the southern Welsh English construction *there's* + adjective, which is one of the few grammatical constructions occurring in Cardiff English that originates from Welsh, *dyna* + adjective (Paulasto 2006: 170). The four tokens of this feature were excluded from analysis as they are not existential clauses, but they represent a striking feature of Cardiff English that is heard fairly frequently today.

- 4.11 saying um oh there's lovely, oh there's lovely you look! (Meleri, 83)

Having extracted all relevant existential *there* clauses, the next step was to ascertain the variable context with regard to the notional subjects and verbs used. Based on previous studies (Meechan and Foley 1994; Martinez-Insua and Palacios-Martinez 2003), we would not expect to find *there are* followed by a singular noun phrase (NP). In fact, there were two instances of this (see Table 4.1), as in example 4.12. It is consistent with previous research to view these as likely mistakes or false starts, and so they are set aside in the analysis, as unlikely to indicate any replicable feature. The remainder of Table 4.1 shows that the variable context to be explored here is the plural NP context, of which there are 306 tokens. The non-agreement rate, i.e. singular VPs with plural NPs as in example 4.13, is 59%.

- 4.12 there are a lot of stuff (Llion, 28)
- 4.13 there was no shops open (Fi, 66)

	Plural NP	Singular NP	Total
Plural VP	126	2	128
Singular VP	180	561	741
Total	306	563	869

Table 4.1 – Token numbers of singular and plural noun and verb phrases in existential clauses.

⁶⁶ This form is generally not included in other studies, and there were only five tokens of it in my data.

4.2.2 Coding procedure

After identifying the variable context, the linguistic factors outlined earlier were coded as follows:

- tense: binary factor, past or present
- polarity: binary factor, affirmative or negative⁶⁷
- contraction of verb: binary factor, full or contracted (i.e. *there is* versus *there's*)
- type of determiner: categorical factor with seven levels, detailed below

Table 4.2 shows the coding system for determiner types, with examples from the data. I followed Hay and Schreier's (2004) system, as they included a separate category for 'a' quantifiers which have been found to have a significant effect on non-agreement in other studies (including theirs). Also following Hay and Schreier (2004: 218), coding preference was given to the initial quantifier if there was more than one (e.g. "many red cats" would be coded as a quantifier rather than an adjective").

Type of determiner	Example
'no'	there was no pubs in Ely (Carl, 65) There's no advantages to knowing Welsh (Lauren, 22)
Definite	there's the Somalis who came here um to work (Roger, 66) there was the Ely riots (Samantha, 25)
Numeric	there were six children living (Jim, 70) there was two blocks of shops there (Joan, 71)
Bare	there's people like this around us (Karim, 27)
'a' quantifier	there was a lot of middle-class ax- academics (Roger, 66) there's a lot of Christian Welsh in Cardiff (Llion, 28)
Other quantifier	there's hundreds of amazing restaurants (Tim, 22) there's loads fewer came from Welsh-speaking families (Myfanwy, 25)
Adjective	there was insufficient numbers (Carl, 65)

Table 4.2 - Determiner types and examples

⁶⁷ Clauses were coded as negative when the verb was negated with *not* or when followed by a negative determiner such as *no* or *never*.

4.3 Results

Mixed-effects models were used to test the research questions, using a step-up method as outlined in Chapter 3, and results from these will be discussed alongside the distributional data. The presentation of results will focus on the percentage of singular BE with plural noun phrases. I will first present an overview of the individual variation for this feature, then will address the research questions in turn.

Figure 4.1 is ordered by participants' year of birth, and shows that there is considerable inter-speaker variation across the ages. Non-agreement rates range from 0% to 100%, although there is only one token of existential *there* for the speaker with 0% non-agreement. Fifteen out of 26 speakers have at least a 50% non-agreement rate, and while individual younger speakers have some of the highest rates of non-agreement, two of them have very low rates.

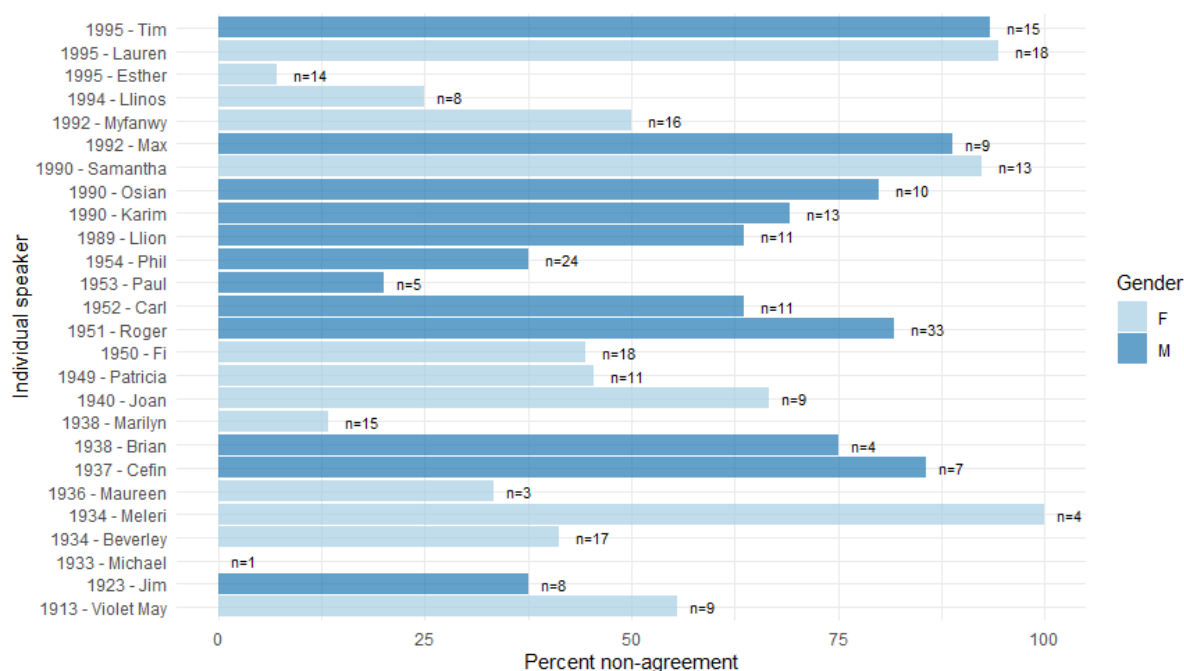


Figure 4.1 - Individual non-agreement by year of birth. *N* is the total token numbers for each speaker across agreeing and non-agreeing clauses.

Table 4.3 below shows that overall, younger speakers have a higher rate of non-agreement than older speakers. However, testing RQ1 using a mixed-effects model with age as the only independent variable found that age was not a significant predictor of non-agreement, the dependent variable ($p = 0.181$). Thus, there is no

statistical evidence of change over time. The following two sections will address each part of the second research question separately: What linguistic and social factors influence or constrain non-agreement, and are there differences between the two groups? Mixed-effects models will bring in other potentially relevant factors than age, and full model results will be presented for these.

	% non-agreement	N
Old	52.5%	179
Young	67.7%	127

Table 4.3 – Overall non-agreement rates by age group

4.3.1 Linguistic and social constraints on non-agreement

The second research question asked whether there were linguistic and social factors constraining non-agreement, and if there were any differences in these between the two age groups. I will consider linguistic factors first, and then turn to social factors as a slightly smaller dataset had to be used to look at education and occupation (due to this data not being available for the St Fagans speakers). Using a step-up approach to creating a best-fitting mixed-effects model, the linguistic factors of tense and determiner type were found to significantly improve the model and will be discussed in more detail below. Polarity was not significant, and Table 4.4 shows the distributional data for this factor: non-agreement is slightly more common in affirmative clauses at 60%, but the figure is not considerably higher than for negative clauses, which have a non-agreement rate of 54%. As noted in 4.1.1.1, polarity tended to be found as a significant effect in studies examining all clause types in the past tense only, rather than just existential clauses.

Polarity	Non-agreement		Total n
	n	%	
affirmative	152	59.8%	254
negative	28	53.8%	52

Table 4.4 - Agreement rates for affirmative and negative polarity

Table 4.5 shows that agreement is more common in the past tense than non-agreement (46%) while the present tense has a 75% non-agreement rate. This 75% is entirely made up of contracted *there's*: there are no examples of non-agreeing *there is*.

As contraction in the past tense does not occur in this dataset despite being noted to occur in some other, usually non-British varieties, Table 4.5 looks at this factor in the present tense only. There is one example of agreement with verb contraction, which occurs with *are* rather than *is*:

4.14. there're two people (Esther, 22)

Tense	Non-agreement		Total n
	n	%	
past	78	45.9%	170
present	101	75.0%	136
Verb contraction (present tense only)			
contracted	101	99.0%	102
full	0	0.0%	34

Table 4.5 - Agreement rates for the linguistic factors of tense and contraction

Notwithstanding this single example in the data of a contracted present tense plural, the patterns are consistent with Cheshire's (1999) argument that contracted form *there's* has become grammaticalised in speech and is better understood in terms of its discourse functions. As the factor of verb contraction is only relevant for the present tense, and almost entirely occurs with non-agreement, this factor could not be used when creating models. However, present tense was a significant predictor of non-agreement ($p < 0.001$; model results in Table 4.6) and it seems likely that the possibility for formulaic *there's* in the present tense as opposed to the past tense is the driver for this. Contraction of verb was also removed, as this is only possible in the present tense and caused convergence issues for the model. As there is 100% non-agreement for the contracted *there's* form, it is clear even without statistics that contraction has a large influence on non-agreement. This will be discussed further in section 4.4.

The model results also show that both quantifier categories of determiner, 'a' and 'other', significantly favour non-agreement. Figure 4.2 shows that numeric determiners have the lowest rate of non-agreement at 41% while adjectives and both types of quantifier have higher rates of non-agreement – especially quantifiers with the indefinite article 'a', at 85%. These results are in line with previous studies reported above.

	Non-agreement		
Predictors	Odds Ratios	Confidence interval (CI)	p
<i>Age (baseline: old)</i>			
Young	1.23	0.32 – 4.76	0.768
<i>Tense (baseline: past)</i>			
Present	6.6	3.14 – 13.90	<0.001
<i>Determiner (baseline: bare)</i>			
Adjective	1.44	0.51 – 4.08	0.489
Numeric	0.87	0.29 – 2.63	0.807
Definite	1	0.21 – 4.82	0.996
'No'	2.38	0.73 – 7.75	0.149
'a'-quantifier	12.03	2.60 – 55.76	0.001
Other quantifier	2.65	1.03 – 6.84	0.044

Table 4.6 - Model results for full dataset with age, tense and determiner as fixed effects. Full model results in Appendix A.

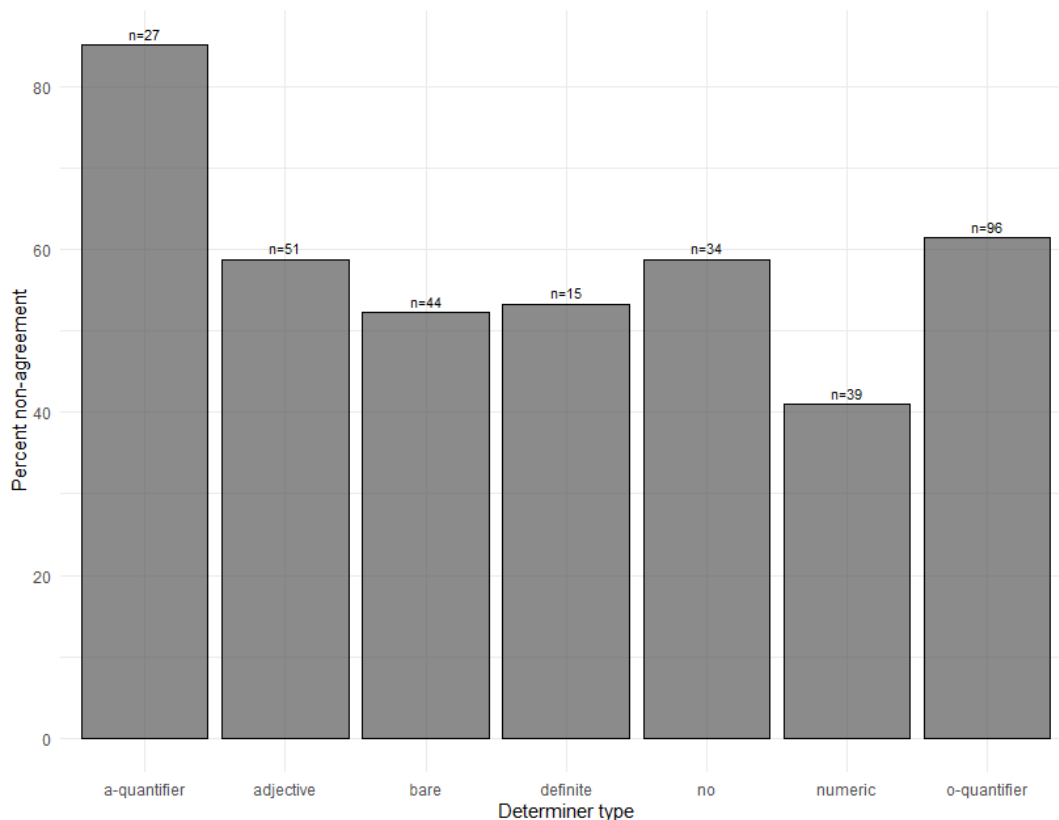


Figure 4.2 - Non-agreement rates by determiner type

Turning now to social factors, neither gender nor the age*gender interaction were found to be significant despite men in both age groups having higher rates of non-agreement (Table 4.7, Figure 4.3). The gender difference in the descriptive data reflects that non-agreement between subject and verb is 'non-standard', but the lack

of a significant statistical difference suggests that any gender differences are relatively small, and stable over time.

	Female		Male	
	% non-agreement	N	% non-agreement	N
Old	44.2%	38	60.2%	56
Young	58.0%	40	79.3%	46

Table 4.7 - Non-agreement rates by age and gender

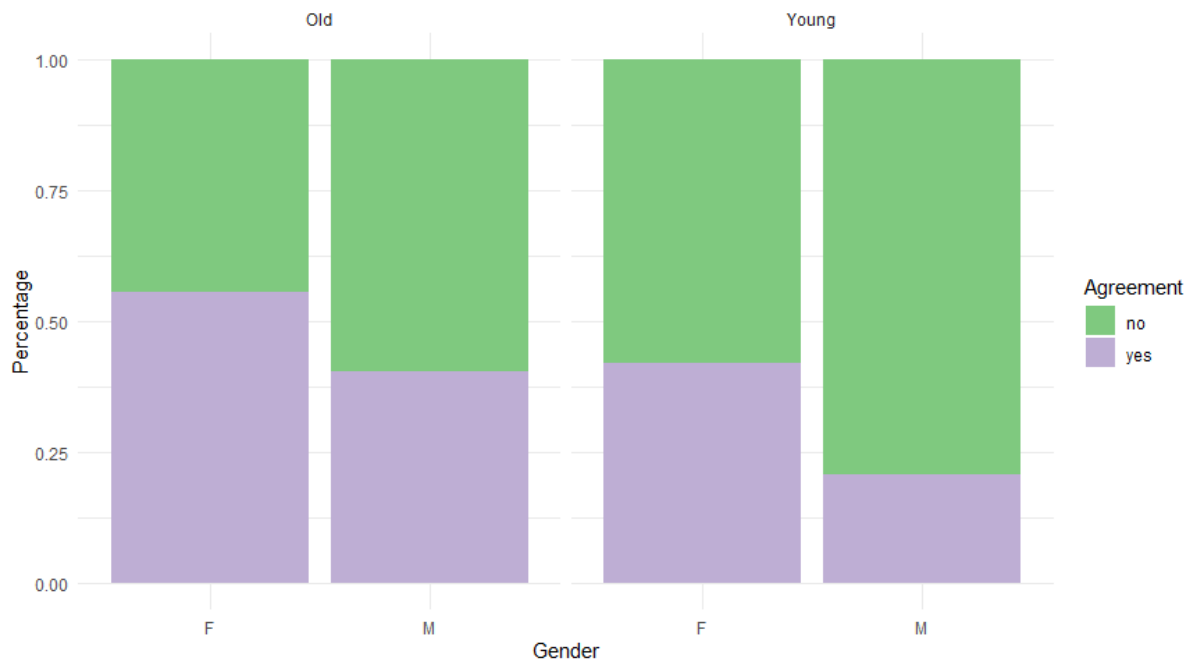


Figure 4.3 - Agreement by age and gender

In order to examine the social factors of occupation and education, the St Fagans speakers were excluded. Occupation as a category was found to significantly improve the model, but occupation groups were not significant predictors within the model. Looking at a breakdown of occupation groups in Figure 4.4, group 2 (intermediate occupations) has the highest rate of agreement in both age groups. The biggest change over time seems to be the large reduction in agreement for occupation group 1 (managerial and professional occupations). However, this group only contains a single younger speaker so little of value can be concluded. Token numbers become smaller with each subdivision of categories, and models attempting to see if there was an interaction between age and other factors such as occupation failed to converge.

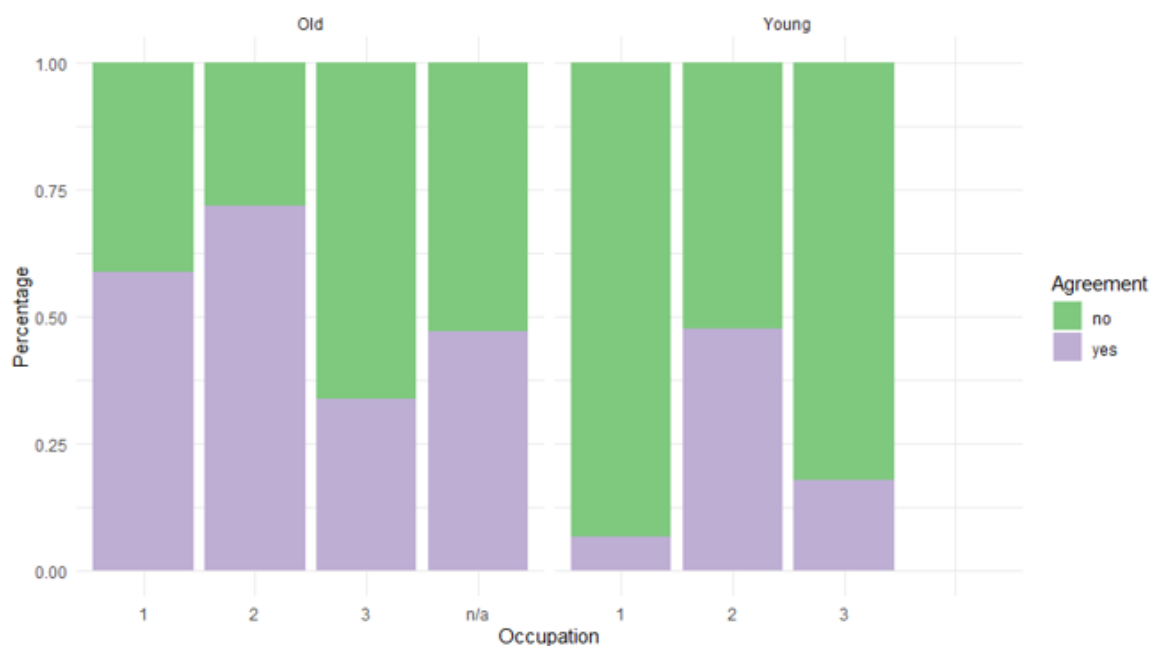


Figure 4.4 - Non-agreement rates for each occupation category by age group. The St Fagans speakers are represented by 'n/a' in the older group.

4.3.2 Differences in constraints between older and younger speakers

To investigate the second part of RQ2, I separated the dataset into older and younger age groups and again used step-up approaches to identify which fixed effects to include. As above, the best-fitting model had tense and determiner type as fixed effects, and none of the other factors were significant. Table 4.8 shows a comparison of these models.

Comparing the models in this way shows that while 'a' quantifiers significantly favour non-agreement amongst the older speakers, no such constraint regarding determiner type is apparent for younger speakers, meaning that they are equally likely to use *there's* + plural NP with all determiner types. This could show movement towards grammaticalisation over time: as suggested above in 4.1.1, the presence of the singular marker 'a' immediately following the dummy subject and verb in existential clauses could have helped to influence the production of a singular verb. If this constraint is weakening over time, as suggested here, this could lend further support to the notion that *there's* is fossilising into a formulaic, no longer grammatical, form. This effect is reflected in the distributional data (Figure 4.5) – the non-agreement rates are almost always higher for each determiner type in the younger age group,

suggesting a consistent general tendency towards more non-agreement across all determiner types. The exception to this is the definite determiner category, which has higher non-agreement rates in the older speakers. However, token numbers for this category are small and therefore less reliable.

Predictors	Old			Young		
	Odds Ratios	CI	p	Odds Ratios	CI	p
<i>Tense (baseline: past)</i>						
Present	7.52	2.81 – 20.10	<0.001	7.19	1.79 – 28.92	0.005
<i>Determiner (baseline: bare)</i>						
Adjective	1.37	0.35 – 5.40	0.654	1.6	0.26 – 9.71	0.608
'a'-quantifier	9.27	1.66 – 51.71	0.011	45.67	0.68 – 3079.47	0.075
Other quantifier	2.96	0.95 – 9.24	0.062	3.06	0.45 – 20.90	0.253
Definite	5.88	0.65 – 52.79	0.114	0.15	0.01 – 1.56	0.112
'No'	2.7	0.70 – 10.45	0.149	2.35	0.15 – 35.90	0.538
Numeric	0.97	0.27 – 3.42	0.956	0.98	0.08 – 12.40	0.99

Table 4.8 - Comparison of non-agreement model results for the old and young datasets. Full model results in Appendix A.

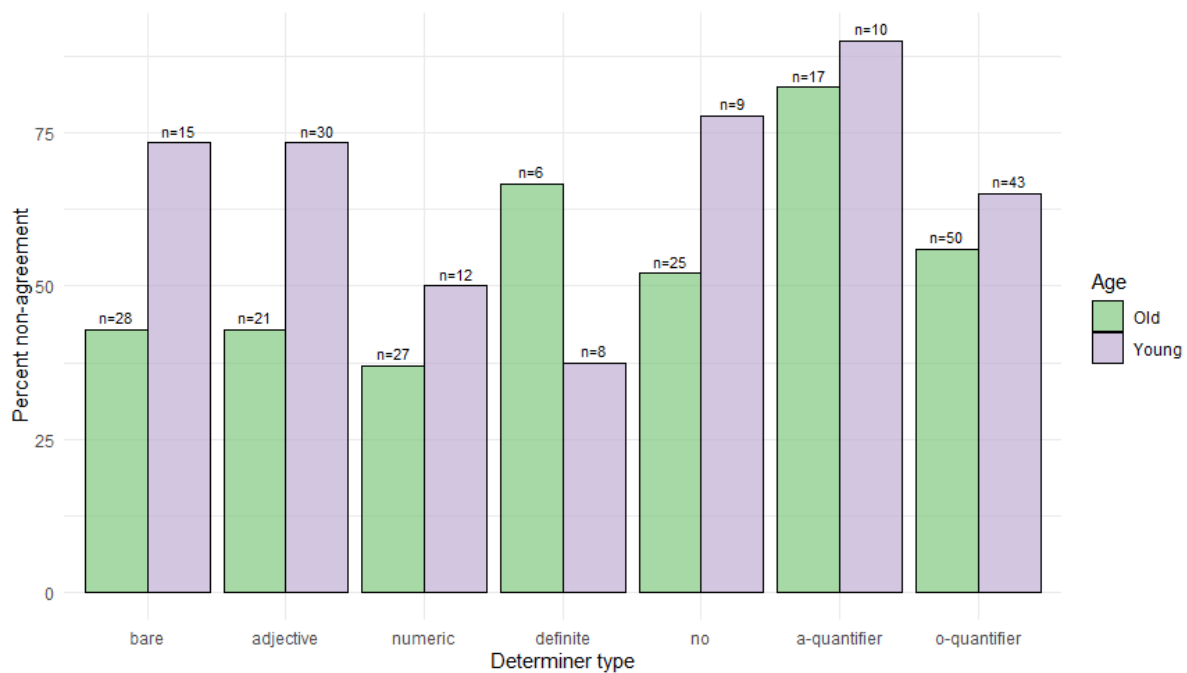


Figure 4.5 - Non-agreement rates for each determiner type by age group. N is total token number for agreement and non-agreement.

Another point of difference to note is that while the present tense significantly favours non-agreement for both age groups, the odds ratio and p-value are slightly lower for the younger group. Visualising this in Figure 4.6, we see that young people have around 10 percentage points more non-agreement in the past tense than older speakers, while the rates for the present tense are nearly identical. This could suggest a gradual shift towards the acceptance of *there was* as a ‘frozen’, grammaticalised form too, despite the greatly reduced potential for verb contraction in the past tense. This will be discussed further in the following section.

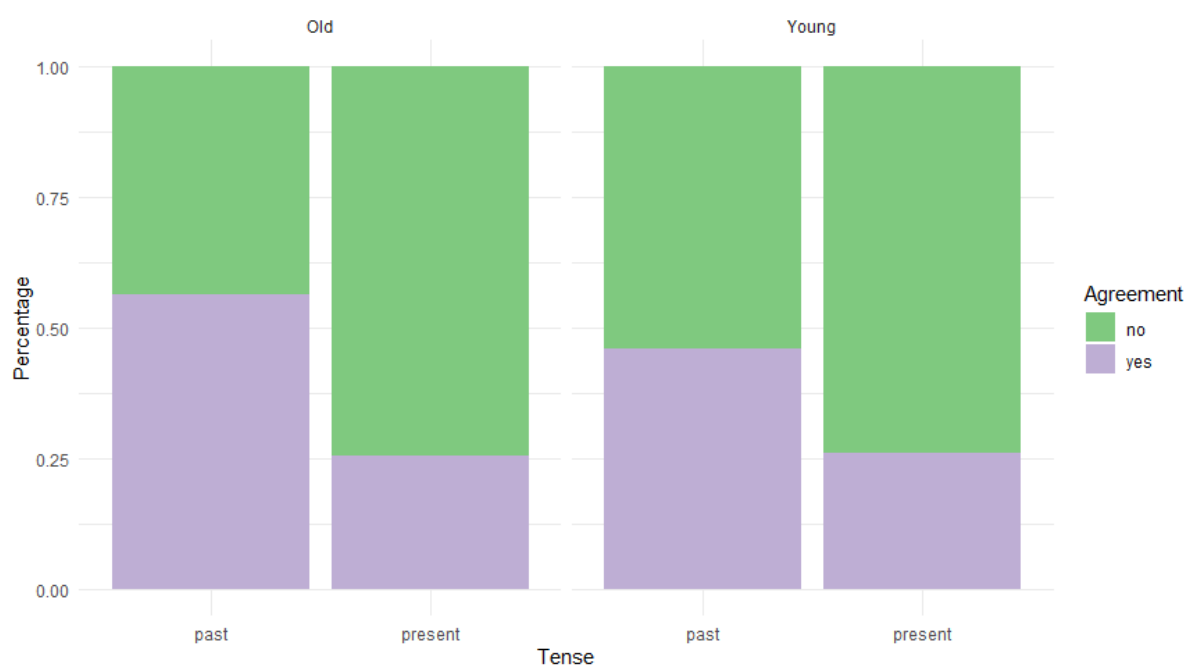


Figure 4.6 - Agreement for past and present tense by age group

4.4 Discussion: stability or grammaticalisation of existential *there*?

The above account above shows that the situation for agreement in existential *there* clauses, and ascertaining a direction of change, is complicated. The main point to note from the results of the analysis is that the prediction for change over time was not met, according to the statistical model: while younger speakers did have more non-agreement in the existential clauses than older speakers, age was not a significant predictor. There are two main potential explanatory factors for this that I will address in turn: the methodological challenges of analysing grammatical features in sociolinguistic studies; and the more gradual type of change associated with drift. The

latter point also relates to the slight differences in linguistic constraints on non-agreement seen between the older and younger speakers.

As noted in Chapter 3, it is often difficult to get enough tokens for a reliable analysis of grammatical features in sociolinguistic studies. Despite having a total wordcount of 292,297 in the corpora used here, there were still only 306 usable tokens for this variable context. This is considerably fewer than in other studies that have used larger corpora – e.g. Hay and Schreier (2004) had 1028 tokens of existentials from three archives of New Zealand speech, and Riordan (2007) had 1520 tokens of present tense existentials with plural noun phrases from the Michigan Corpus of Academic Spoken English. One of the reasons this feature was selected for analysis here, in addition to being an indicator of natural language change, was that it was a more frequently occurring grammatical feature than (for example) local Cardiff features such as third person -s extension (examples 4.15-4.17 below). Despite this being a commonly heard feature that is salient to the extent of being commodified in the *I Loves the 'Diff'* brand and merchandise, there are only three tokens of it in the whole dataset.

- 4.15 mate, even- you knows it, exactly! (Karim, 27)
- 4.16 I loves talking, don't worry! (Samantha, 25)
- 4.17 And my difficulty is, I lives close to town^. (Samantha, 25)

The reduced quantity of tokens for grammatical features also has implications for carrying out statistical tests: as noted earlier, token numbers were too small for some interactions to be tested, somewhat limiting the analytic potential. In an earlier pilot version of this analysis carried out on 16 of the 26 participants, the difference between older and younger speakers was significant in a chi-square test. Out of interest I decided to see if the same effect was found using a chi-square test on the full dataset. This too revealed a significant difference, with $\chi^2 = 7.0887$, $p = 0.008$. I present this here to illustrate that significant differences do not necessarily equate to significant *predictors* in a mixed-effects model.

Furthermore, endogenous language change or drift is slow and gradual (Britain and Sudbury 2002: 231), characterised by increasing “incremental frequencies” from

one generation to the next (Chambers 2009), unlike the more disruptive and rapid change seen with dialect levelling or diffusion. Additionally, change has been theorised to happen at different rates for different types of linguistic feature – for example, phonological elements occur more frequently in speech than “particular grammatical constructions”, which makes them likely to undergo change at faster rates (Cheshire, Kerswill, and Williams 2005: 139). As such, it may well be the case that this change is gradual enough to not be statistically significant.

Additionally, sequences of words that frequently co-occur can become single processing units, leading to phonological reduction to a single unit, as in Cheshire et al.’s example of *I don’t know* reducing to *(I) dunno* (2005: 138). This in turn can allow the unit to acquire new pragmatic associations – in addition to the literal meaning of *I dunno*, it can be used as a mitigation device or politeness strategy (Cheshire et al. 2005: 138-139). This aspect of phonological reduction to a singular unit can be seen with *there’s*, which in this case arguably has also become grammaticalised. Non-agreement with the contracted present tense *there’s* is categorical in Cardiff English, in both age groups. There is evidence that the form has been possible in Cardiff for a century: the oldest speaker, born in 1913, uses the singular verb in her one token of an existential clause in the present tense:

4.18 there's about thirty- thirty-six subgroups (Violet May, 80 at time of recording)

Indeed, the ‘default singular’ in existential clauses existed as far back as 1000 AD (Quirk and Wrenn 1957: 76) and given the length of time that it has been variable, this seems to be a relatively clear case of a slowly-progressing natural language change whose near-completion with the contracted *there’s* form has led to its grammaticalisation (e.g. Cheshire 1999). There are no tokens of *there is* with plural NPs in this dataset, which would seem to confirm Cheshire’s suggestion.

The possibility of contraction in the present tense seems to have aided its move towards grammaticalisation, and even secondary grammaticalisation, as Rupp and Britain (2019: 295) argue that *there’s* has become a single morpheme with *’s* no longer representing the reduced form of *is*. But what does this mean for the past tense form,

there was, which cannot contract in many varieties? The data here hinted that there might be increasing grammaticalisation of *there was*, as non-agreement in the past tense increased slightly in the younger age group and had a lower odds ratio and p-value in the mixed-effects models than the older group. The total non-agreement rate in the past tense is 46%, which is considerably lower than those reported in other British varieties such as York (66%; Tagliamonte 1998) and Inner London (91%; Cheshire and Fox 2009). Based on her results from Bolton, Moore (2010: 357) suggested that, as with *there's*, the collocation *there was* is strong enough to inhibit the traditional local variants across past tense BE. In Shetland, Durham (2013) found a similar situation with younger speakers' use of non-agreeing *there was*: while they had high rates of this with plural subjects, they did not use the local non-agreeing *there were* with singular subjects as in the example below from an older speaker (Durham 2013: 115).

4.19 There were just the one peerie stair gan down.

It may be that the inverse of this can be seen here: since CE does not have locally distinctive 'non-standard' *was/were* variation like the varieties mentioned above, this may have slowed the progress of the grammaticalisation of past tense *there was*.

This links to Chambers' assertion that standard dialects are partly characterised by their resistance of vernacular universals such as the 'default singular' in existentials (2009: 261). While some researchers (e.g. Krejci and Hilton 2017) have argued that the increasing prevalence of non-agreement with *there's* suggests standardisation of this form, there is also the possibility that this trend is indicative of a wider *de*-standardisation process said to be occurring in English (e.g. Coupland and Kristiansen 2011). The global trend towards non-agreement in existentials could represent a dual process whereby a pre-existing natural language tendency contributes to a wider ideological shift away from the overt prestige attributed to standard language use. Alternatively, Rupp and Britain (2019: 254) suggest that the two 'verbal -s' paradigms have disassociated, with non-standard BE "abolished in non-existentials under the pressure of prestige norms and standardisation, while verbal -s in existentials has

rather become the norm”. The reciprocal relationship between standardisation and de-standardisation will be returned to in Chapter 8.

Chapter 5 “Bein’ a Canton girl”: standardisation of the (ing) variable?

Variation in (ing) is considered a ‘vernacular universal’ (Chambers 2004) as it can be realised in vernacular Englishes the world over as [ɪŋ] rather than [ɪŋ] in unstressed final syllables. For example, *swimming* can be realised as [ˈswɪmɪŋ] or [ˈswɪmɪn], with the velar [ɪŋ] ending considered ‘standard’. It has also been described as a “sociolinguistic staple” (Hazen 2006: 581) due to the many studies that have examined this variable over the years and its close association with gender, socioeconomic status and style. The apical [ɪn] form is socially salient and commonly referred to as ‘g-dropping’ and is represented orthographically or in ‘eye dialect’ with an apostrophe: *swimmin’*. This is somewhat misleading as phonetically there is no distinct ‘g’ sound in the velar nasal /ŋ/. A combination of factors such as orthography, prescriptivism and the apical form being associated with lower socioeconomic groups (cf. Houston 1985) seem to have contributed to perceptions of the [ɪn] form as a feature of the speech of the less educated and less intelligent⁶⁸ (Tagliamonte 2012: 202). These issues will not be discussed in depth here, but I will preface this chapter by stating that my use of the terms ‘standard’ and ‘non-standard’ to describe these variants is not intended as a judgment on the use of one form over the other,⁶⁹ but in relation to the default understanding of ‘standard English’.

As well as being studied in sociolinguistics since the 1950s (e.g. Fischer 1958), (ing) variation is considered to be stable, that is, not showing any movement towards one variant over the other across time (Tagliamonte 2004). However, considering that standardisation has been one of the main forces characterising dialect change in Britain in the twentieth century (Kerswill 2001: 8), could we expect to see younger Cardiff speakers using the non-standard variant less? This chapter investigates the

⁶⁸ This is despite the fact that this form was originally used by speakers in lower and elite socioeconomic classes, the latter “remains in English folk-memory” in the phrase *huntin’, shootin’ and fishin’* (Wells 1982: 262).

⁶⁹ Indeed, Trudgill (2009) argues that the seemingly universal presence of vernacular features such as [ɪn] realisation make so-called ‘Standard English’ the more marked variety that is conservative where other dialects have been in the process of regularisation for longer.

linguistic epiphenomena of standardisation and stability as played out in the variable (ing).

5.1 Background and overview of the variable

When investigating the variable (ing), previous studies (such as Houston 1985, Labov 2001) have identified certain historical, linguistic and sociolinguistic factors constraining or favouring its apical and velar realisations. As a ‘sociolinguistic staple’, this variable has been analysed in far more studies than can be covered here, and the following section will focus on the factors most often identified as relevant.

5.1.1 Outlining the variable context and linguistic constraints

As noted above, the variable context is the ending *-ing* in weak syllables. This means that the [ɪŋ] realisation is not found in monomorphemes such as *thing*, *bring*, *string*, or multisyllabic compound words such as *redwing* (Wells 1982: 262). One exception to this is the set of words ending in *-thing*: *something*, *anything*, *nothing*, *everything*. These words can display both [ɪŋ] and [ɪŋk] variants in addition to standard [ɪŋ], but have been argued by some (e.g. Mees 1983) to comprise a separate category. This will be discussed in more detail at the end of Section 5.1.1. As indicated by these examples, variation is not restricted to the verbal suffix as in *running*, *swimming*, *eating*, but also occurs in nouns and adjectives such as *morning*, *pudding*, *cunning*. In these cases, Wells notes that the *-ing* cannot be considered a separate morpheme or inflection (1982: 262). Historically, however, in the Middle English period the ending *-inde* was used to form the participle and *-ing(e)* to form the verbal noun (Strang 1970: 238). In time, the spelling with *-ing* came to be used for both. Arguably, this distinction provides the basis for one of the strongest linguistic constraints on variation: that of grammatical category (Labov 2001: 79). Known as the *verbal–nominal continuum*, progressive verbs are found to display the highest percentages of the apical [ɪŋ] form while nouns display more velar [ɪŋ] realisations. Participles,

gerunds and adjectives lie in between these poles depending on how ‘noun-y’ or ‘verb-y’ they are. I have provided some examples of these grammatical categories below:⁷⁰

- Progressives: she is *sitting* there
- Participles: *having* shopped there yesterday, I can confirm it is open
- Verbal gerund: they like *discussing* films together
- Nominal gerund: he joined the *swimming* team
- Adjectives: yesterday’s football match was very *exciting*
- Noun: good *morning*

While different studies use slightly different grammatical categories (and many do not detail their coding procedure), this general trend holds true in Englishes across the world: for example, Abramovicz (2007) used four grammatical categories (progressives, participles, adjectives, and nouns) in his study of white Philadelphia speech and found the “likelihood of velar pronunciation” increased with each step towards the nominal end of the continuum (2007: 32-33).

Similarly, Tagliamonte’s study of York English found grammatical category to have the most significant effect on the variable, with verbs being the highest weighted factor in the probability of [ɪn] realisation, and nouns the lowest (2004: 6). To further explore the difference between these categories of words, she ran multivariate analyses on nouns and verbs separately. This revealed that nouns and verbs were conditioned by different linguistic and social factors: while both were influenced by social class, nouns were “strongly constrained” by internal factors such as preceding and following phonological context and number of syllables (2004: 9). Age was also a significant factor for the nouns, with lower age being a predictor of [ɪn] realisation. Conversely, verbs did not have any internal constraints on realisation and age was not a significant factor, suggesting stability. These findings led Tagliamonte to suggest that change was occurring in nominal categories: through processes of analogy and synchronic weakening, the apical form [ɪn] was starting to replace the velar [ɪŋ] (2004: 9).

⁷⁰ As will be mentioned in 5.2, there is much subjectivity and thus difficulty for comparability when discerning between these categories, particularly the gerunds, so these are intended simply as an illustration.

Not all studies have found evidence of the verbal-nominal continuum constraining apical realisations in younger speakers: Meyerhoff and Schlee (2012) did not find grammatical category to be significant at all for their London-born adolescents, and found a slightly different grammatical constraint pattern for their Edinburgh-born adolescents – gerunds and adjectives had higher factor weights than nouns in a variable rules analysis. These, along with Tagliamonte’s findings described above, could suggest a weakening in the historical-grammatical constraints on variation.

Phonological environment has been found a significant factor in some studies, with following and preceding consonants influencing variation through what is known as regressive assimilation and progressive dissimilation respectively. Preceding velars /k g/ have been found to disfavour [ɪŋ] realisations while following velars favour [ɪŋ];⁷¹ preceding apicals /t d/ disfavour [ɪn] while following apicals favour [ɪn] (Houston 1985). However, Labov noted no strong phonological effect before following velars or apicals (2001: 87) and suggested that grammatical conditioning is the stronger factor. In light of Tagliamonte’s findings in York, it could be that any such phonological constraints are masked by the stronger influence of grammatical category.

In terms of other linguistic constraints, factors such as lexical frequency and syllable number have also been analysed; however, results from previous studies do not suggest that they play a significant role in determining whether (ing) realisation is apical or velar (Abramovicz 2007; Drummond 2010; Meyerhoff et al. 2012). Drummond found a weak correlation between [ɪn] realisation and higher-frequency words in the English of Polish L1 speakers in Manchester but this was not a significant factor when further statistical analyses were conducted (2010: 161). Similarly, Abramovicz did not find lexical frequency to be a significant factor amongst a white lower middle class community in Philadelphia (2007: 33).

⁷¹ However, this is hard to disentangle from assimilation effects, leading some studies to exclude tokens with following velars.

Finally, as briefly mentioned above, a lexical restriction has been noted in some locations across Britain: the *-thing* words *everything*, *nothing*, *anything* and *something* seem to act differently to other *-ing* words, and can be realised with [ɪŋk] in places including Cardiff, the Wirral and London (e.g. Mees 1983: 116; Newbrook 1999: 98). Among Cardiff schoolchildren, Mees notes that [ɪŋk] was found across the social classes, while being more widespread in working-class speech (1983: 116). She omits these four words from her calculations following Wells (1982), who considers them to contain *-thing* rather than *-ing*. Later studies have found that the *-thing* words can pattern differently to other polysyllabic *-ing* words. For example, they display secondary stress in *everything* and *anything* (Abramowicz 2007), and in Philadelphia have been reported to have 100% velar articulation (Labov 2001: 79). Conversely, in both Philadelphia and Manchester, *something* and *nothing* have much higher frequencies of [ɪn] than expected for the word class (Labov 2001: 79; Drummond 2010: 74).

For the sake of completeness, it should be noted that a fourth variant exists: [ɪŋg], known as the ‘velar nasal plus’, is regionally restricted to the West Midlands and North West England, and is gaining currency as a supralocal variant there (Britain 2011).

5.1.2 Sociolinguistic factors relating to (ing) variation in Cardiff English

Coupland (1988) makes a distinction between *social* and *regional* dialect features which is useful when considering variation in (ing). While there are regional variations (including the ‘velar nasal plus’ mentioned directly above), the feature is characterised more by its *social* stratification along gender and socioeconomic lines. This section will discuss these factors in addition to some perceptual research, with a focus on findings from Cardiff.

A shared pattern across many dialects is that vernacular features are used more frequently by men and working-class speakers (Chambers 2009: 125). This is true of non-standard variant [ɪn] (Tagliamonte 2012: 189) and the social stratification of this feature is attested in Cardiff English. In her 1983 thesis on the speech of Cardiff

schoolchildren aged 9-11, Mees reported frequencies ranging from 48% in middle class speech to 96% in working class speech (1983: 143), while Coupland's (1988) monograph reported a range from 7.5% to 75.6% across class groups in adult speakers (1988: 78). A summary of their results can be seen in Table 5.1, with separated figures for male and female speakers. Coupland did not provide a gender breakdown for Socioeconomic Status (SES) group 2 because the informants in this category were 14 women and 2 men. As such he assumed the total to be skewed towards female usage. The other SES categories in his study were more evenly balanced. In a subversion of the usual gender pattern, the girls in Mees' study have higher rates than the boys, although these differences were not statistically significant.

	Mees (1983)			Coupland (1988)		
	All	Female	Male	All	Female	Male
SES 1*	48.3	56.5	40.0	7.5	5.4	25.0
SES 2**	79.3	81.4	77.1	41.8	--	--
SES 3†	96.0	98.1	93.8	75.6	72.7	75.3
*	<i>Professional and intermediate occupations</i>					
**	<i>Skilled non-manual; white-collar occupations</i>					
†	<i>Skilled manual, partly skilled and unskilled occupations</i>					

Table 5.1 - Percentage use of [n] variant in previous studies of Cardiff English. Mees used parents' occupation to categorise the children.

As the variable is considered to be stable with regard to social stratification between different generations, it has rarely been examined in terms of age or diachronic change (Tagliamonte 2004). However, as described above, Tagliamonte's (2004) study found different linguistic constraints for nouns and verbs between the two age groups, leading her to suggest that the apical realisation may be increasing in nouns amongst younger speakers in York. Related in a more tangential way, a recent perceptual study in Manchester (Schleef and Flynn 2015) found that the under-22 age group had different social perceptions for the standard variant [ɪŋ] than those who were older: younger respondents did not rate [ɪŋ] realisations as highly on the 'articulate' and 'posh' dimensions. The authors suggest that this could be explained by life stage and development factors, and that it is only after becoming part of the labour market/workplace post-adolescence that they develop social understanding of these dimensions. Having said that, it could also be that a change has taken place, with the

younger generation having a different perception of the social worth of the standard form.

Is this pattern in Manchester a regional phenomenon, or might it also apply to Cardiff? The studies of Cardiff English were undertaken in the 1980s. Since then, the changing social reality of modern times could mean that this supposedly stable variable is becoming subject to change. For example, since deindustrialisation, the city has had to “reinvent itself thoroughly” (Gonçalves 2017: 50), and major employers are in service and sales sectors where standard language use may be expected. This might lead to increased standardisation, in which case directions of change in CE would not match the Manchester pattern. Additionally, the changing social landscape of Britain more widely has seen increasing numbers of people going into higher education, which could contribute to processes of dialect levelling and standardisation. For example, Prichard and Tamminga (2012) examined the impact of higher education on Philadelphia vowel systems and found that speakers at an elite, nationally-oriented university “correct[ed] away from natively-evaluated [local] features” (2012: 95). This finding was dependent on the social salience of the features, and also on the ‘tier’ of college attended, which were categorised as locally-oriented community college, and regionally-oriented and nationally-oriented universities.

In the British context, Evans and Iverson (2007) reported similar findings regarding changes in the vowels of northern English speakers who were attending university in the south of England, in particular the FOOT-STRUT vowel. In northern Englishes, both vowels are realised as [ʊ], while there is a phonemic distinction in the south between FOOT [ʊ] and STRUT [ʌ]. In their longitudinal study, they found that northern speakers lowered their realisation of the [ʊ] vowel to a more central schwa-like vowel (B. Evans and Iverson 2007: 3816). However, they did not acquire the phonemic distinction that southern English has, as this lowering applied to all of their /ʊ/ vowels including in *could*, which is also realised with the [ʊ] in southern Englishes. University attendance, and the resultant contact with southern English speakers, has also been linked to the fronting of the GOAT vowel in Manchester (Baranowski 2017).

These findings raise interesting questions regarding the greater geographic and social mobility, considered to be key mechanisms behind dialect levelling, that comes from participating in higher education. In her later thesis expanding on the research described above, Prichard (2016) discusses the difficulties of determining whether these effects could simply be due to accommodation strategies: that is, students at national institutions will of course come into contact with a wider variety of accents and dialects (2016: 105). It may well be that higher education plays a specific role in bringing people into contact, such that certain negatively evaluated features of accents become dispreferred or lost through accommodation or standardisation. The problem is, however, that this factor is superimposed on the more general phenomenon of younger people today having greater geographical and social mobility,⁷² which has the potential to lead to collinearity between the factors of (younger) age and higher educational attainment.

However, there are a few points of difference between the current analysis and these studies: the variable features examined in Philadelphia and northern English speech were all local (and thus *regional*) vowel realisations, while I have suggested that (ing) belongs to the category of *social* dialect features. Does this make it more or less likely to be subject to change? Additionally, as more younger speakers participate in higher education, will this affect how ‘standard’ their language use is?

As such, the analysis will address the following research questions:

- 1) Do younger speakers use more of the standard variant [ɪŋ] than older speakers?
- 2) Do those with higher levels of education have higher rates of the standard?

5.2 Method

In accordance with the variable context for this feature described above in 5.1.1, I followed Labov (2001: 79) and Wells (1982) in defining the “envelope of variation” as covering unstressed syllables in:

⁷² Although as Britain points out, these mobilities are themselves unequal and “strongly class-based” (2011: 50).

- Words with the suffix *-ing* e.g. *walking*
- Polysyllabic but monomorphemic words such as *morning*, *ceiling*, *cunning*
- *-thing* compound words as discussed in 5.1.1 such as *everything*, *something*

I located tokens by searching for the letter string ‘ing’ across all interview transcripts in ELAN (2018), and analysed them auditorily if they occurred within the variable context. Thus, stressed syllables such as *string* and *bring* were not analysed as variation is not possible. Reduced forms of *going to* and *trying to* (e.g. when pronounced *gonna* or *tryna*) were also not analysed due to being too reduced and/or assimilated to the following word to distinguish [ŋ] or [n] (e.g. Tagliamonte 2012: 14). However, when not assimilated, *going* and *trying* were included. Realisations were coded as either *in*, *ing*, or *ink* to represent [ɪn], [ɪŋ] and [ɪŋk]. I excluded tokens with following velars due to the difficulty of separating assimilation effects.

A minimum of 100 tokens were coded for each speaker where possible, starting after the first ten minutes of recorded speech in order to represent their more comfortable speaking style. The interviews from the St Fagans archive were shorter than the Cardiff Voices interviews, so in these all relevant tokens were extracted and coded. Three speakers in this corpus had fewer than 100 tokens. As is standard in variationist analyses, a maximum of ten examples of any given word was coded in order to avoid frequency effects (e.g. Tagliamonte 2012). This was done before reaching 100 tokens overall, so the quantity of tokens was not reduced.

As described in 5.1.1, several linguistic and phonological constraints have been found for the (ing) variable in previous studies. Using those factors that had been found to display strong constraints across multiple studies, I coded the tokens for grammatical category and phonological context (Table 5.2), and number of syllables. Grammatical category was originally a fine-grained category of nine factor levels, but this proved unmanageable for the statistical model testing. As such I needed to achieve a balance between having enough relevant categories and statistical viability. Furthermore, the boundaries between these categories are not always clear-cut, leading to difficulties in categorisation across different studies (Drummond 2010: 75). Based on these factors, I decided that having fewer categories would cause less difficulty with regard to boundary distinctions. Following Tagliamonte (2012), the

categories were collapsed into the three that display the strongest constraints – noun, verb (collapsing the categories of progressives and present participles) and gerund (collapsing the categories of verbal and nominal gerund). Following Drummond (2010), I included the *-thing* words as a fourth category, pronouns, but later excluded these words from analysis based on their overwhelming tendency to be realised with the velar variant. Finally, the fifth category ‘other’ contained adjectives and prepositions which are considered to occur at the nominal end of the continuum (Houston 1985: 58).

Category	Examples
<i>Preceding phonological context</i>	
Alveolar	/d n t/
Glides and vowels	/w y/, all vowels
Liquid	/l ɹ/
Other consonant	Any other consonant e.g. /θ f s/
Velar	/k g ŋ/
<i>Following phonological context</i>	
Alveolar	/d n t/
Glide	/w y/
Liquid	/l ɹ/
Other consonant	e.g. /θ f s/ they were aiming for the docks (Beverley)
Pause	late shopping , you know (Jim)
Vowel	I got a feeling it was green (Joan)
<i>Grammatical category</i>	
Verbs	being a Canton girl, I used to play in Victoria Park (Beverley) we’re working in law (Tim)
Gerunds	And they had um a tree growing in the centre. (Carl)
Nouns	I got down to the works at half past five in the morning . (Jim) I know my mother did her washing on a Monday. (Joan)
Pronoun	<i>anything, everything, something, nothing</i>
Other	Adjectives – <i>amazing, exciting</i> Prepositions – <i>during</i>

Table 5.2 - Linguistic factor coding categories and examples.

As outlined in Chapter 3, the mixed-effects models for statistical analysis were created using a step-up approach – i.e., adding independent variables (fixed effects) then using ANOVAs to test whether their addition significantly improves the model. The independent variables were the linguistic factors described in Table 5.2, and the social factors of age, gender and education.

5.3 Results

In order to address the research questions, the presentation of results will focus on proportional distributions of the standard, velar variant [ɪŋ] according to each age group. Firstly, however, the overall distributions across the three variants will be presented to show the full variable context, and the intra-speaker and intra-group variation. Tables with the raw data for each variant include the *-thing* words⁷³ but these are excluded from the figures showing distributions due to their strong tendency to occur with the velar realisation – as will be seen in Table 5.4, 92% of realisations are velar compared to 4% each [ɪn] and [ɪŋk].

5.3.1 Descriptive results for the (ing) variable

There is a total of 2,577 tokens. Table 5.3 shows how the variants are distributed across the age groups, in line with the prediction that younger speakers will use more of the standard variant. Figure 5.1 illustrates the high degree of individual variation, with one speaker (Cefin) having no standard realisations, while others (Esther and Marilyn) have 100% standard realisations. Immediately striking about the individual variation is that the four youngest speakers, all women, all have standard realisation rates of 90-100%. The fifth young woman, Samantha, has the much lower rate of 13%.

Age group	[ɪn]		[ɪŋ]		[ɪŋk]		Total tokens
	n	%	n	%	n	%	
Old	726	48.11%	780	51.69%	3	0.20%	1509
Young	394	36.89%	663	62.08%	11	1.03%	1068

Table 5.3 - Distribution of variants by age group

Looking at gender differences across the age groups in Figure 5.2, this pattern is borne out again: it seems to be young women who account for the greater use of [ɪŋ] in this age group, who use it around thirty percentage points more than the young men. While older women do use more of the standard variant than men, as is usually the

⁷³ As they are evenly distributed across the groups, this does not skew the descriptive data.

case for this variable, this is only ten percentage points more than their male counterparts.

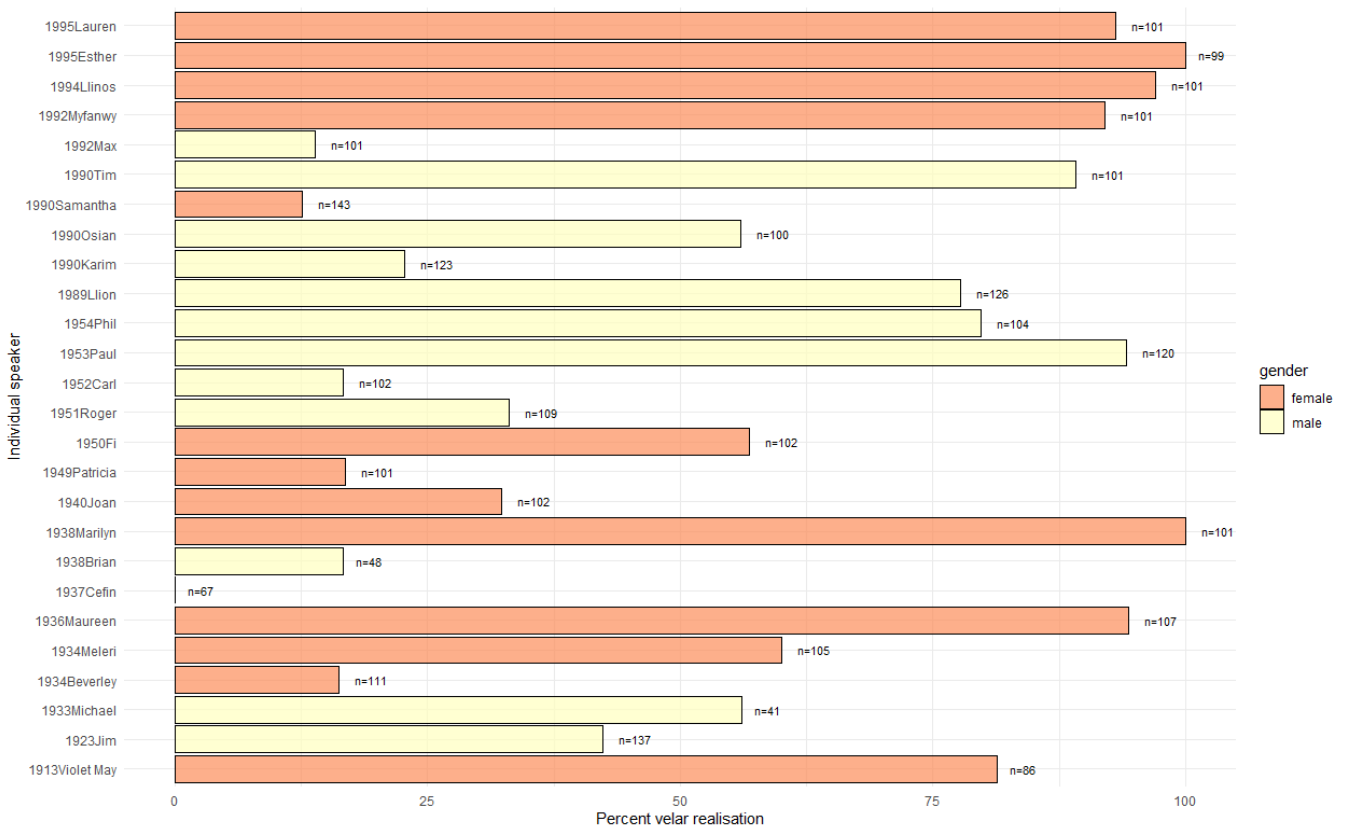


Figure 5.1 - Proportional [ɪŋ] realisations by individual speaker, ordered by year of birth and coloured according to gender. Total token numbers are given for each speaker.

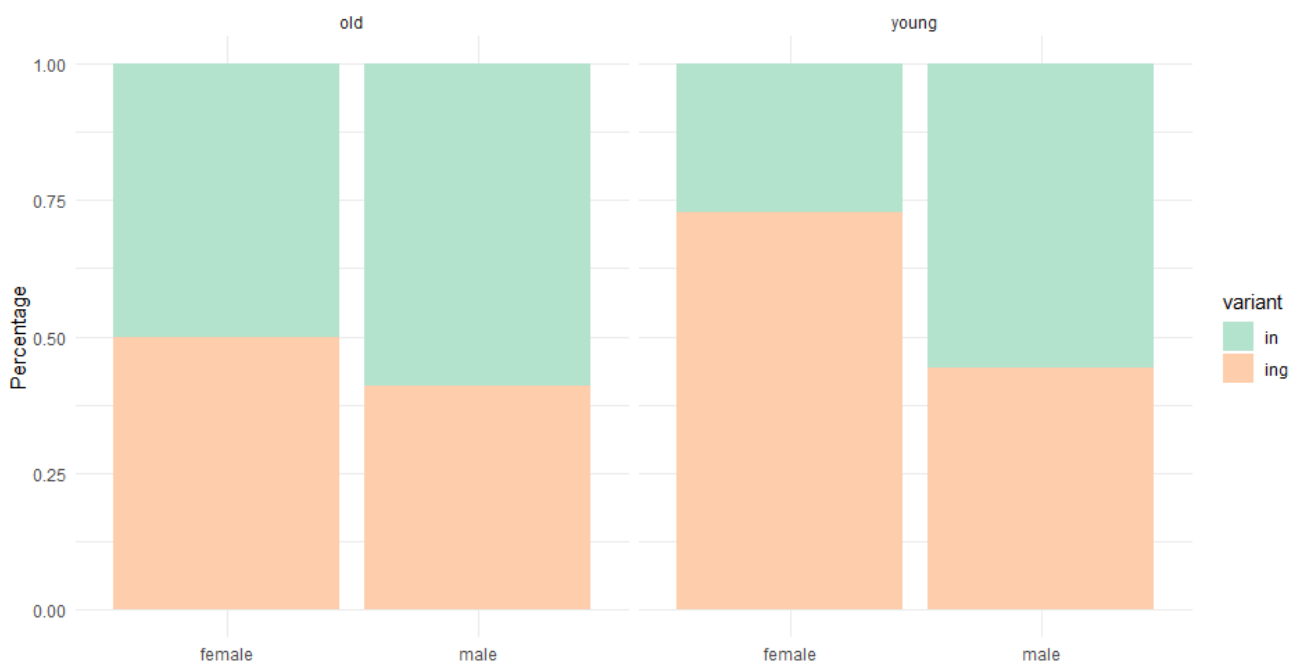


Figure 5.2 - Proportional realisations of the (ing) variable by age and gender.

In terms of how the variants are distributed across the linguistic variables, Table 5.4 shows that, as discussed earlier in 5.1.1, the [ɪŋk] realisation is confined to *-thing* words and that this group, pronouns, also strongly favours the standard [ɪŋ]. In line with previous findings regarding the ‘verbal-nominal continuum’ (e.g. Tagliamonte 2004, Abramovicz 2007), verbs slightly favour the non-standard realisation, with nouns and gerunds slightly favouring the standard. The ‘other’ category contains adjectives and prepositions and as such also sits further away from the ‘verbal’ end of the continuum.

Grammatical category	[ɪn]		[ɪŋ]		[ɪŋk]		Total tokens
	n	%	n	%	n	%	
pronoun	16	4.72%	309	91.15%	14	4.13%	339
other	68	36.96%	116	63.04%	0	0.00%	184
gerund	473	46.69%	540	53.31%	0	0.00%	1013
noun	134	49.26%	138	50.74%	0	0.00%	272
verb	429	55.79%	340	44.21%	0	0.00%	769

Table 5.4 - Distribution of variants by grammatical category, ordered by percentage [ɪŋ] realisation.

Consistent with Houston (1985), preceding velars seem to disfavour standard realisations. Houston also found preceding alveolars to disfavour [ɪn] but this is not the case here (Table 5.5). Rather, liquids and ‘other consonants’ seem to disfavour non-standard realisations the most. The ‘other consonants’ category may be skewed by the inclusion of *-thing* words, which will be excluded for the statistical analyses.

Preceding context	[ɪn]		[ɪŋ]		[ɪŋk]		Total tokens
	n	%	n	%	n	%	
other consonant	250	28.25%	621	70.17%	14	1.58%	885
liquid	78	38.81%	123	61.19%	0	0.00%	201
alveolar	278	51.20%	265	48.80%	0	0.00%	543
glide or vowel	320	52.98%	284	47.02%	0	0.00%	604
velar	194	56.40%	150	43.60%	0	0.00%	344

Table 5.5 - Distribution of variants by the immediately preceding phonological context

Houston also found following alveolars to favour non-standard [ɪn] but there appears to be little effect here (Table 5.6). Glides, liquids, pauses and vowels seem to favour standard realisations.

Following context	[ɪŋ]		[ɪŋ]		[ɪŋk]		Total tokens
	n	%	n	%	n	%	
glide	41	32.54%	83	65.87%	2	1.59%	126
liquid	46	33.82%	86	63.24%	4	2.94%	136
pause	208	40.08%	309	59.54%	2	0.39%	519
vowel	343	43.36%	447	56.51%	1	0.13%	791
alveolar	111	46.84%	123	51.90%	3	1.27%	237
other consonant	371	48.31%	395	51.43%	2	0.26%	768

Table 5.6 - Distribution of variants by the immediately following phonological context

5.3.2 Statistical analyses for the (ing) variable

The first research question asks whether the standard realisation is increasing over time – a trend which is suggested by the distributional data above. However, age did not come out as a significant factor when tested using mixed-effects models with individual speaker and word as random effects. Neither did gender, which as suggested above could have indicated movement towards a standard if it were a significant factor. The high speaker coefficient number (8.1, full model results in Appendix B) suggests that the effect of the individual is stronger than group effects of age or gender.

The best-fitting model included grammatical category, preceding context and following context as fixed effects, as each of these factors significantly improved the model fit, and word and speaker as random effects. However, in this model, the grammatical category of verb is the only factor to have a significant influence on the variant ($p=0.001$), favouring the non-standard realisation in line with the verbal-nominal continuum (odds ratio 1.64, confidence interval 1.22-2.20 – full model results in Appendix B). No other factor levels were significant predictors of non-standard realisation. These findings will be discussed in 5.5.

In order to address the second research question about the effect of education according to age group, datasets were split into old and young to compare any differences between these groups. In order to include education, which was predicted earlier to influence velar realisation, these models exclude the St Fagans speakers – however, data from this group will be shown in the later cross-tabulation figures. As will be seen, they do not differ considerably from the Cardiff Voices older speakers.

Due to smaller token numbers across different cells when splitting the data, it was harder to get models to converge, but the following formula was the best fit and included the most factors for each age group, while still converging. The fixed effects included were education group, preceding phonological context and grammatical category. These factors were significant when creating models for the younger speakers, but none of the factors were significant in improving the model for older speakers.⁷⁴

Predictors	Old			Young		
	Odds Ratios	CI	p	Odds Ratios	CI	p
<i>Education (baseline: university)</i>						
College	4.74	0.01 – 2287.98	0.621	312.33	3.20 – 30455.17	0.014
Secondary	1.46	0.01 – 207.23	0.881	16.86	0.86 – 328.95	0.062
<i>Preceding phonological context (baseline: alveolar)</i>						
Glide	1.05	0.48 – 2.30	0.905	1.5	0.72 – 3.15	0.28
Liquid	1.19	0.47 – 3.03	0.717	1.21	0.46 – 3.19	0.706
Other consonant	1.22	0.62 – 2.39	0.57	1.6	0.78 – 3.28	0.201
Velar	1.37	0.60 – 3.14	0.461	2.9	1.21 – 6.94	0.017
<i>Grammatical category (baseline: gerund)</i>						
Noun	1.01	0.46 – 2.18	0.989	0.71	0.30 – 1.68	0.43
Other	1.05	0.46 – 2.43	0.9	0.49	0.19 – 1.27	0.14
Verb	1.33	0.81 – 2.17	0.254	2.34	1.44 – 3.78	0.001

Table 5.7 - Model results for separate old and young datasets; alpha level corrected to $0.05/2 = 0.025$

Comparative model results can be seen in Table 5.7. In line with the model creation process that found no significant factors for the older group, there are no significant factor levels predicting non-standard realisations for the older speakers. In contrast, younger speakers with college education significantly favour [ɪn], and there are two linguistic factors that also favour [ɪn]: a preceding velar (e.g. *singing, smoking*) and verbs (e.g. *they're building houses*). These results are both expected from previous studies: Houston (1985: 19) notes the regressive dissimilation that causes preceding velars to favour apical realisations. Similarly, as discussed above, verbs have often been found to exert the strongest influence on apical/non-standard realisation. The absence

⁷⁴ They did improve it, but not significantly when tested with ANOVAs.

of these well-established constraints in the older speakers thus begs the question, why? This will be discussed in 5.5. For now, I will turn to the socioeconomic factors of education and occupation.

Looking at differences in proportional realisations by education level across the age groups, Figure 5.3 shows that this factor is not a determiner of variation at all for older speakers. On the other hand, younger speakers are stratified by education – but not quite in the way we might expect. As predicted, those with university education (Group 1) have a considerably higher rate of standard realisations than their counterparts with lower levels of education, but also than university-educated older speakers. This difference across the age groups will be discussed in section 5.5 with reference to age-grading. However, where we might expect to see a staggered decline in the standard realisations as education level decreases from university to college (Group 2) and from college to secondary (Group 3), this is not the case. Instead, the younger speakers with the lowest levels of education have a considerably higher rate of the standard than those with college education. It is important to note that there is only one younger speaker with college education, but the speakers in education group 3 will be discussed further below.

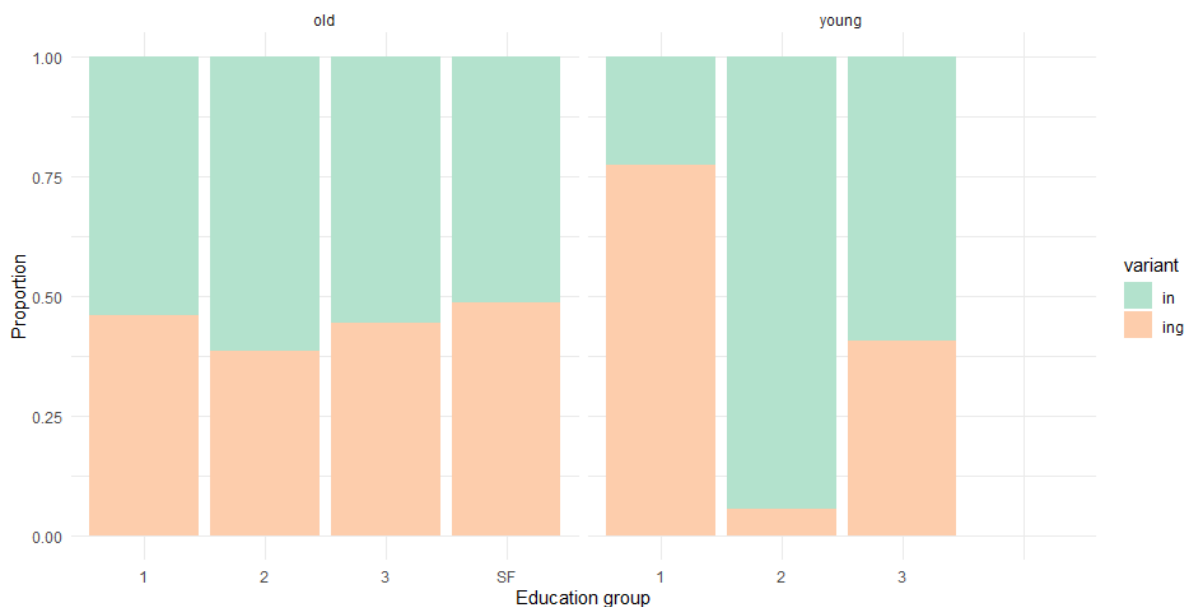


Figure 5.3 Realisations of (ing) for education group by age group. 1: University; 2: College; 3: Secondary. SF refers to St Fagans speakers, for whom education information is not known.

Looking more closely at individual use of the standard and speakers' levels of education, not every individual 'conforms' to the expectations or predictions based on their status. Of the younger speakers, the five highest [ɪŋ] users all have university education – these speakers 'conform'. When it comes to the younger female speakers, it must also be noted that there is a strong aspect of multicollinearity with regards to education: four of the five younger women attended university, and each of these four have very high rates of standard [ɪŋ], all greater than 90%. However, the three lowest [ɪŋ] producers – Max, Karim and Samantha – are evenly distributed between the three education groups.⁷⁵ Interestingly, two of these speakers have above-secondary levels of education and both work as chefs, which is not a workplace environment where standard language use is prioritised. This relates to the concept of the linguistic market, and will be returned to in 5.5.1.

There are two young speakers, Osian and Llion, who do not sit at either the 'very high' or 'very low' extremes of standard use but have more variable realisation (55% and 75% standard respectively). Both of these speakers are men, and neither has any further or higher education. One comes from a middle-class background and has shop-owning parents, while the other is from a working-class background with parents working in manual occupations. These two speakers account for why education group 3 (secondary) has a relatively high rate of standard realisations, but I am unable to offer any further explanation as to why the speaker with the working-class background and no further education uses more of the standard variant than the other young men.

The older speakers present a somewhat mixed picture too. Of the three with the highest standard use (Paul, Phil and Marilyn), only one speaker has university education. However, one of the others undertook teacher training (but was not able to work as a teacher), and the other only had secondary education but attended a grammar school. No pattern is immediately apparent for the remaining older speakers

⁷⁵ In order to avoid revealing too much personal information about each individual, I will not always specify which socioeconomic groups particular people belong to.

for whom we have educational information – two of the speakers with a low number of standard realisations have university education, while two in the medium range, with amounts around 50%, have no further education. One potential speculative reason for this could be that the older speakers did not attend university straight after secondary school, as is somewhat more common today, but later in life.⁷⁶ As mature students, they may either have felt less pressure to standardise, or have attended university after the ‘adolescent peak’ of non-standard dialect use has stabilised.

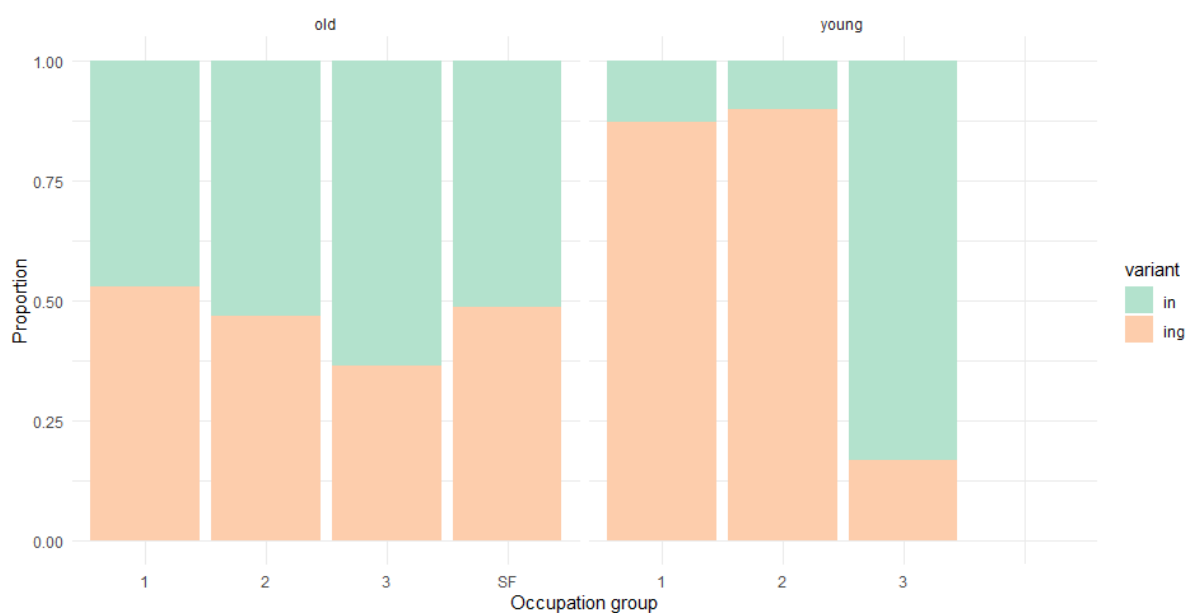


Figure 5.4 - Realisations of (ing) by occupation and age group. 1: Professional/managerial; 2: Intermediate; 3: Manual and service occupations.

Occupation as a factor could not be included in the models as it caused convergence failures. Also, it was not discussed earlier as a potential predictor because the research question focused on education. However, other studies tend to find occupation effects in realisation of (ing) – this variable, as noted, is strongly linked to socioeconomic status, for which occupation is often used as an indicator. Figure 5.4 shows the breakdown of realisations by age group and occupation. Similarly to what we saw with education, the older speakers are surprisingly not very stratified by occupation (although the expected pattern is slightly more evident here). But for the

⁷⁶ This information is what I gather based on what they said during interviews.

younger speakers, this is where they display sharp stratification – those in manual and service occupations (Group 3) have the lowest use of the standard, while those in middle-class occupations (Groups 1 and 2) use the standard 90% of the time.

5.4 Discussion

This chapter investigated the strength of standardisation as an external influence or direction of change on Cardiff English. Specifically, it asked if we would see more velar, ‘standard’, realisations of the (ing) variable in younger speakers. While descriptive data suggested this to be the case, the statistical analyses did not find youth to be a predictor of velar realisations. However, in answering the secondary research question about the effect of education, a comparison of the different social and linguistic constraints (such as phonological context and grammatical category) across younger and older speakers’ realisations of (ing) showed that there may be more to the story. Why did older speakers show none of the expected social or linguistic constraints – such as verbs favouring non-standard realisations – while younger speakers did? In order to answer this, I will first discuss the concept of age-grading, which can complicate interpretation of apparent time results by masking or implying change over time (e.g. Labov 2001: 77). I will then look at the younger speakers in more detail, particularly the polarisation evident in the female speakers’ realisations of the variable, and consider the question posed above regarding education and its links to standardisation.

5.4.1 Age-grading and the ‘linguistic market’ as pressure to standardise

While some stratification by socioeconomic factors was evident for the older speakers with regard to occupation group, there was much less variation between the occupation and education groups than might be expected considering results from previous studies, including Coupland’s (1988) research on CE summarised above in 5.1.2. His data shows a steep increase in non-standard realisations of (ing) as occupational status decreases – from 8% to 42% to 76%. In contrast, here the increases are under 10% between each group – from 45% to 53% to 62%. Why might it be that older speakers in this study do not display such sharp stratification? While the

occupation categories used in Coupland (1988) and in the current study seem to map well to one another, it is possible that changes in classification systems for occupation⁷⁷ as well as the social norms associated with work in different occupations have caused some degree of movement between boundaries over time. Additionally, as explored above in 5.4, another explanation could be that the degree of individual variation in each group caused the overall proportion to ‘average out’. This will be returned to below.

However, it could also be related to age-grading, where “the individual changes but the community remains constant” (Labov 2001: 76). This is a phenomenon that sits somewhat at odds with apparent time methodology, as it acknowledges that an individual may change their language use throughout their life. As Labov notes, this complicates the interpretation of results from apparent time studies: “stable variation cannot be distinguished from change in progress by the *absence of significant differences* in age distributions” (Labov 2001: 76, my emphasis). Part of the age-grading theory is linked to working life, which will be expanded on below. An idealised model of age-grading would show a U-shaped curve with adolescents and older speakers displaying the highest realisations of a non-standard feature, and a trough in between where adults of usual working age use less of a non-standard feature. The (ing) variable has been found to show this effect in apparent time by researchers including Labov (2001), and as Wagner (2012) notes, there is considerable diachronic evidence from historical linguistics that variation in (ing) has been around for centuries, “with neither [variant] appearing to replace the other” (Wagner 2012: 374). In other words, it could be that within the individual, this variable ebbs and flows during the lifetime, without an overall change in its incidence in the community over time.

A key explanatory factor for age-grading is the theory of the ‘linguistic market’. This posits that as adults join the workforce, they will be subject to the pressures of

⁷⁷ For example, the ISCO system I used has had significant structural changes since its 1988 iteration (ILO 2010).

using language in a particular way – often a standard language, but this may vary according to profession (Wagner 2012: 375). Adolescents and retired people are freer from these pressures, which is why ‘adolescent peaks’ in non-standard or innovative features are often found (cf. brief mentions of this in relation to Mees’ (1983) real-time work in Chapter 2). Similarly, having left the ‘linguistic marketplace’, older speakers may ‘revert’ to near-adolescent levels of non-standard variants, thus keeping a variable stable at the community level. While I am not aware of other findings suggesting that no longer being subject to workplace pressures could also reduce socioeconomic stratification in older speakers, this does not seem too far an extrapolation to make. For instance, people who worked in a mixed demographic environment may no longer encounter as wide a range of different speakers post-retirement.

It must also be clarified that this potential ‘levelling’ or ‘averaging out’ effect is at the group level, not the individual level: each occupation and education group, as addressed in 5.4 above, contains a mixture of speakers with higher and lower rates of standard realisations. This observation relates to critiques that the linguistic market is a somewhat simplified conceptualisation (e.g. Eckert 1997; Block 2018): Eckert would argue for greater sophistication and granularity in exploring an individual’s relation to aspects of their identity such as their work, while Block would argue for greater consideration of changing societal and workplace ideologies under late-stage capitalism. These critiques will be returned to in Chapter 8 with a discussion of the rise of call-centre and associated customer service work that I would argue to be an exemplar of the changing ‘linguistic market’ due to the foregrounded importance of language for enacting ‘customer service’. In particular, I will discuss the success of individuals like Samantha in this environment, who, as we will see in the following section, uses many non-standard features, both local and supralocal.

The strength of the individual could also be a reason why none of the expected grammatical and phonological constraints were present for the older Cardiff Voices speakers. When comparing the models for older and younger speakers (full model results in Appendix B), the variation explained by the random effect of individual speaker was very different for each group: the τ_{00} figure was 11.66 for the older

speakers compared to 4.41 for the younger speakers. This is also evidenced in a comparison of the marginal R^2 figures (which show the proportion of variance explained by the fixed effects alone) with conditional R^2 figures (which shows combined fixed and random effects): the random effects (speaker and word) account for nearly all the variance in the older group's model (77%), but only 40% for the younger group. Thus, what looks like a very homogenous group in terms of (ing) realisation, with little variation between any social or linguistic factors such as gender, occupation and grammatical category, in fact masks a highly heterogenous group whose members somehow all average each other out. How or why this happens to be the case is an impossible question to answer here, but this pattern will be checked for in the analyses in later chapters.

Finally, care must always be taken when interpreting apparent time results without supporting evidence from ethnographic observation or real-time data, particularly panel studies that follow the same people at different points in time, and thus have the ability to show an individual's lifespan change (Wagner 2012: 376). It was initially hoped that the real-time element of the St Fagans archive data could help in untangling some of the issues associated with apparent time methodology, but the small amount of data does not allow us to see effects of a group rather than an individual: the six speakers exhibit every position on the 'spectrum' of (ing) realisations – from low standard realisations (Brian, 7%; Joan 12%) to relatively high (Maureen, 93%; Violet May 78%). While an ethnographic methodology would not have been able to achieve the aims of this thesis, the statistics do illustrate the importance of considering the individual: as discussed above, speaker as a random effect accounted for much more of the variation in the older subset than the younger subset. This reflects Eckert's (1997) emphasis on understanding how an individual's identity and language use is constructed and shaped by their experiences and ideologies over their lifespan.

5.4.2 Polarisation as a potential indicator of change

When displaying individual variation in Figure 5.1 above, it was notable how polarised the younger women were – four of the five had very high rates of the

standard realisation while the fifth used [ɪŋ] only 13% of the time.⁷⁸ This pattern is reminiscent of the ‘tipping point’ described by Smith and Durham (2011), who analysed six local dialect variables in Shetland. They found that the older speakers were a more linguistically homogenous group than the younger speakers who were characterised by a kind of individual polarisation similar to that observed here. Half of them used high rates of the local variants, while half were almost completely ‘standard’ in their realisations of the variables. The authors concluded that this indicated a ‘tipping point’ towards dialect obsolescence, with half of the younger speakers using virtually none of the local dialect. That is, people are choosing one or the other way of speaking rather than using a mixture of both.

A direct comparison with Cardiff English is complicated by the fact that Shetland has a very distinct and different local dialect to ‘standard’ English (and standard Scottish English) across all linguistic levels – lexical, morphosyntactic and phonetic/phonological. As discussed in Chapter 1, the CE dialect is not particularly distinctive in its lexis or grammar relative to other non-standard urban dialects of Britain, or other dialects of South Wales. Furthermore, the variable under investigation here, (ɪŋ), is not unique to CE; non-standard realisations of it are ubiquitous across the English-speaking world. Given these caveats, however, there is an interesting parallel with regard to this polarisation that could lend support to the standardisation hypothesis.

In order to investigate what is going on when younger speakers who usually use one variant (e.g. [ɪŋ]) produce the other variant, I looked at all examples of when the young speakers at either end of the extreme used the variant that is not their ‘default’ or usual variant. For the five majority [ɪŋ] younger speakers, 24/28 tokens of [ɪn] are verbs or verbal gerunds, suggesting that the historical grammatical constraint is still in operation. Interestingly, three of the four nominal tokens with [ɪn] realisation were used by one speaker, Myfanwy: in one nominal gerund *swimming pool* (example 5.1)

⁷⁸ The younger men were somewhat more mixed, with two at the higher end of the scale, two at the lower end and one in the middle.

which could be a case of back assimilation from bilabial [p] to [m], and two adjectives during animated speech (examples 5.2-5.3). The latter two could suggest a stylistic element motivating the use of non-standard [ɪn] as a departure from a speaker's 'norm'.

- 5.1 and there was a swimmin' pool in the garden,
5.2 Ooh, blinkin' heck! [laughs]
5.3 'Cause it's the most like nerve-wrackin' experience of my life!

For the usually non-standard speakers, Max and Samantha, we may have expected to see the inverse of the above verbal-nominal constraint pattern: i.e. if typically standard speakers' few apical realisations occur in verbs, then typically non-standard speakers' velar realisations should occur in nouns. However, this is not the case – only five of the 20 [ɪŋ] tokens are nominal: one noun, three adjectives and one nominal gerund. The majority are verbal gerunds (11) and verbs (4), as in examples 5.4-5.6 (the tokens in question are underlined).

- 5.4 Um you know, I love noth[ɪŋk] more than explaining someth[ɪŋk] to someone and then seein' them get it[^]. (Samantha)⁷⁹
5.5 It's almost like hiding in plain sight. (Max)
5.6 So it's just finding my feet now and making my manager stance[^]. (Samantha)

Example 5.4 also shows that different realisations can occur in close proximity to each other – Samantha uses [ɪŋk] in the *-thing* words, velar realisation in *explaining* and apical in *seeing*. It is interesting to note the constellation of local, supralocal and global features that occur together in this utterance, if we take [ɪŋk] as a supralocal realisation. Samantha uses local Cardiff realisations of /t/ in *get it* – the intervocalic /t/ is tapped or flapped and the pre-pausal /t/ in *it* is elided, [ˈgɛ.ɪ]. Realisations of /t/ are the subject of Chapter 7. She also uses a globally-occurring prosodic feature known as high-rising terminal at the end of many of her utterances, including those in examples 5.4 and 5.6. This feature has been associated with younger speakers, particularly young female RP speakers (Bradford 1997), although one of the relatively few studies

⁷⁹ The symbol ^ indicates clause-final rising intonation, also known as high-rising terminal.

on sociolinguistic distribution of the feature in a British English dialect⁸⁰ found that white men used it slightly more than other groups (Levon 2016). This assemblage of features with different sociolinguistic ‘provenance’ used by a single speaker illustrates the multi-faceted or polyphonic nature of language use, rather than binary or dichotomous choices between, for example, non-standard and standard language, or local and supralocal features. This thread will be picked up again in Chapter 8.

Returning to the (ing) variable and the cases where Samantha uses the velar realisation rather than her usual apical realisation, there is a final point to note about stylistic or topic-related variation. Two of her apical tokens occur when she is ‘voicing’ her stepfather, who is from a Middle Eastern country, talking about the importance of education:

5.7 that's what he would try and say, like, "this is for free, you should be learn- you know, you're in the school, you need to be learning and getting the top marks^."

The effect of topic on variable features has been found to be a significant factor by some researchers. For example, when looking at the BATH and TRAP vowels in the Scilly Isles, Moore and Carter (2015) found that a mainland-educated speaker had more open and front realisations (thus sounding more Scilly Isles-accented) when reminiscing about local characters and his upbringing than when he spoke about council-related, ‘official’ topics. In a similar way, Samantha appears to be using the standard realisation when discussing formal education, whether due to a conscious voicing of her stepfather as more standard or potentially unconsciously due to this domain being associated with more formal and standard speech. An investigation of factors such as style and topic was beyond the scope of this analysis, but they have been examined in depth elsewhere, including in Coupland’s (1985a, 1988) case studies on Cardiff broadcaster Frank Hennessy’s use of style-shifting. Coupland (2016) suggests that stylisation and vernacularisation are related to the individualisation that

⁸⁰ It has been extensively studied in Australia, New Zealand and North American varieties.

has occurred alongside society's shift into late modernity, aspects of which will be discussed in Chapter 8. While the examples of Myfanwy and Samantha going 'against type' in a way that cannot be explained by the grammatical constraints on (ing) variation are admittedly few, I suggest they align with evidence from elsewhere on the agency and ability of speakers to vary their language use stylistically.

5.5 Conclusion

This chapter analysed the (ing) variable in CE in order to investigate to what extent the dialect could be said to be undergoing standardisation – perhaps partly influenced by greater numbers of young people attending university. Based on the statistical analyses and the complicating influences of multi-collinearity, strong individual speaker effects in the older group and age-grading, it is safest to conclude that this feature is stable in CE. However, the polarisation in the younger women, and the variable use by two of the younger men suggest that something could be going on, and that the relationship between university education and standard language use is not clear-cut. Future research could explore this by collecting a socioeconomically-stratified sample of participants including middle-aged speakers, triangulating these results with perceptual studies (e.g. Schlee and Flynn 2015), or using ethnographic observation to provide an insight into how individuals identify with their language use.

Chapter 6 “A real Kerdiff accent”: the (a) vowels in Cardiff English

Chapter 1 introduced the concept of the ‘Kerdiff’ accent as the maximally broad and stereotypically local way of speaking. The most important and salient vowel in the accent is what I call the Kerdiff A, which can be found in any of the low monophthong vowels represented by orthographic (a): i.e. lexical sets BATH, PALM, START and TRAP. Its salience in the local speech community makes it a particularly relevant vowel to examine through the lens of dialect levelling and standardisation: will its salience protect it from change, or will its associated stigmatisation make it vulnerable to change? This chapter will explore this question using an acoustic analysis of the vowels in these lexical sets. To start, this initial section will situate the variable by contrasting it with other varieties such as RP and ‘supraregional Southern British English’, and will discuss its history and current sociolinguistic status. The chapter will then analyse all variable realisations of these lexical sets in CE, not just the ‘maximally Cardiff’ variant introduced here, and will return to the local salience of the feature in the discussion.

6.1 Cardiff’s most salient phonetic feature

I have chosen to use the orthographic representation *Kerdiff* because, as described below, the performed stereotype pronunciation of ‘Cardiff’ is centred around [ɛ:]. It is also used in a local dialect description by Biddulph (1987). This is one of the historic spelling variants that is inscribed outside Cardiff Central Library as part of a poetry sculpture by local author and poet Peter Finch along with the Welsh *Caerdydd* and other forms such as *Kairdiff*. The latter appears in local writings, such as Mike Jenkins’ (2019) poem *Kairdiff Central Seagull*, Lloyd Robson’s (2001) play *Cardiff Cut*⁸¹ and various articles (E. Jones 2011; BBC 2002; Finch 2003). The variability of local orthography is also illustrated by the cover of local singer and radio presenter Frank Hennessy’s album (Figure 6.1) where the fronted, raised and long vowel is represented

⁸¹ “you kairdiff? where ju live?” (Robson 2001: 41)

as ‘aai’ in *Kaairdiff* and ‘aa’ in *Dark*. The representation *Kaairdiff* could also be a nod to the diphthong in Welsh *Caerdydd*.

Figure 6.1 – ‘Cardiff After Dark’ album cover



These orthographies all aim to represent the long, close, fronted realisation of (a) as [æ:], which is characteristic of Cardiff (Coupland 2001; Collins and Mees 1990) to such an extent that it is “the main stereotypical feature of Cardiff English” (Coupland 1988: 26). This vowel is realised as an even more front and close [ɛ:] when people comment on it, and it can even be

stereotypically performed as close and high as [e:] (Coupland 1988: 27). This indicates an interesting element of ‘directionality’, whereby speakers are aware at some level of the qualities that make this vowel distinct and can thus ‘exaggerate’ and ‘overshoot’ the direction.

In a series of empirical studies, Coupland (1985a, 1988, 2001) notes that (a) has a heightened social significance due to its occurrence in words that closely relate to the culture of the city, including the name Cardiff itself; local rugby stadium *Cardiff Arms Park* and local beer *Brains Dark* (which also features in the Frank Hennessy album cover pictured in Figure 6.1). He suggests that the feature’s salience is due to a symbiotic relationship between it and local culture (1988: 27), and in a micro-analysis of Frank Hennessy’s broadcast talk, shows how this and other features of CE are used to create (and celebrate) in-group regional solidarity (1988: 140).

Interestingly, this may be a rare instance of substratal Welsh influence on the phonology of Cardiff English. Coupland relates a piece of personal communication from Awbery in which she describes a south-eastern dialect variety of Welsh that used [ɛ:] for standard Welsh /a:/ (Coupland 1988: 159). In a Welsh-language television

programme examining Y Wenhwyseg, the Welsh dialect of South-East Wales, poet and presenter Ifor ap Glyn makes a similar suggestion that “[t]urning their ‘a’s into ‘e’s is one of the characteristics of Y Wenhwyseg” (E. Jones 2011). It is unclear, however, whether this is the origin of the contemporary Cardiff realisation – in the Survey of English Dialects, Blaxter and Coates (2020) note that the nearby Welsh and English counties of Monmouthshire, Gloucestershire and Somerset have raised [æ] in TRAP as opposed to [a] elsewhere.

The next section will outline a brief history of the four lexical sets in English relevant to the Kerdiff A and describe their character in Cardiff English (CE), before looking at recent studies exploring change and variation in these vowels.

6.1.1 A brief history and description of the lexical sets

As described above, the variable in question is the pronunciation of the (a) vowel in the BATH, PALM, START and TRAP lexical sets. These sets will now be explored in more detail, with contemporary RP used as a ‘reference accent’ from which to describe the quality of these vowels in CE (Table 6.1). The following section will briefly describe the sets, their histories and phonetic realisations. Four lexical sets are discussed because the ‘Kerdiff’ variant can be found in each of them, although this chapter and analyses will focus on BATH, START and PALM, where there is greater variability.

Lexical set	CE	RP	Example words
BATH	/a ~ æ:/	/ɑ:/	<i>staff, draft, dance, aunt, half</i>
PALM	/æ:/	/ɑ:/	<i>father, calm, Somalia</i>
START	/ɑ:/	/ɑ:/	<i>far, bar, sharp, park, party</i>
TRAP	/a/	/ɑ/	<i>cat, back, hand, cancel</i>

Table 6.1 - Cardiff English and RP realisations. CE taken from Mees and Collins (1999: 187). RP from Robinson (2019). As these are considered phonemic categories, slant brackets are used.

TRAP is found in checked syllables only, deriving “in almost all cases from Middle English short /a/”, and is realised in traditional RP with a front, slightly close [æ] (Wells 1982: 129). However, Table 6.1 - Cardiff English and RP realisations. CE taken from Mees and Collins (1999: 187). RP from Robinson (2019). As these are considered phonemic categories, slant brackets are used.

lists the more common, contemporary pronunciation [a] (Robinson 2019). In Cardiff, TRAP is realised as fully open [a] (Mees and Collins 1999: 187), a pronunciation that Wells notes is also typical of northern England, much of Wales, and Ireland (1982: 129). In broad Cardiff speech, Coupland notes that TRAP can be as close as [æ] or even [ɛ] (1988: 25). However, this is a more marginal realisation that will not be as relevant for the analyses in this chapter.

The START vowel in RP is a long, low, unrounded [ɑ:] “lying between back and central” (Wells 1982: 158) but phonetically realised as the further front [a:] in Cardiff (Mees and Collins 1999: 187). It generally derives from Middle English /ar/ but the geographical spread of the backing of START in RP from the seventeenth century is “neither well described nor historically explained” (Wells 1982: 234), with many regional accents retaining front [a:]. In RP, PALM words also belong phonetically with START words, and generally derive “from Middle English /au/ or /a/” which then underwent a lengthening process (Wells 1982: 143). However, in Cardiff PALM is front and relatively close [æ:] (Mees and Collins 1999: 187).

In RP, BATH is realised in the same way as START and PALM, [ɑ:], leading these three lexical sets to be referred to together as distinct from TRAP. However, a key distinguisher between certain varieties of English is the TRAP-BATH split, an unfinished sound change that started in the eighteenth century but stopped before diffusing to all words in similar phonological contexts (Wells 1982: 204). Thus in RP we find words like *grass* that underwent backing and lengthening of the vowel to be pronounced as [gɹɑ:s], while *gas* retained a short vowel with front pronunciation [gʌs], despite in both cases occurring before a voiceless fricative. Similarly, RP has *demand* with the back vowel, [dɪ'mɑ:nd], but *hand* with the front vowel, [hʌnd]. General American does not have the split, distinguishing it from so-called English English; and within Britain, Scottish and northern varieties of English do not have the split.

This divide between northern and southern Englishes due the BATH-TRAP split (or lack thereof) goes beyond merely geographical or regional distinction, carrying heightened social significance too. Mugglestone (2003: 78–83) charts the history of the split through fluctuating prescriptive attitudes towards the back BATH innovation,

which was considered to be a ‘vulgar’ realisation until the mid-nineteenth century when it became the prestige RP variant. These lexical sets are described as carrying “ideological baggage” by Moore and Carter (2017: 261).

This inconsistency makes the BATH lexical set still variable across Britain today, for example Foulkes and Doherty (2007: 67) note in central areas like the Midlands “the alternate variant crop[s] up in occasional lexical items”. The situation is particularly variable in Cardiff, where we find a high degree of sociolinguistic as well as idiolectal variation in the BATH lexical set (Mees and Collins 1999: 189). As touched on above, this set varies both in length and quality, and Mees and Collins note an example from their data where the same speaker alternated between [fiəns] and [fiæ:ns] for *France* in consecutive sentences (1999: 189), lengthening the [æ] in one instance.

In general, Welsh realisations of the BATH and PALM lexical sets are characterised by being more front than RP. According to Penhallurick (2008), the Survey of Anglo-Welsh Dialects shows competition between long and short vowel forms for both BATH and PALM, and Mees and Collins (1999: 189) attest to “confusing idiolectal variation” in both broad and mainstream Cardiff speakers for these words. They note that there are some lexically and/or phonologically determined variants: [a] seems to be favoured before nasals, while words such as *bath* and *laugh* favour [æ:]. One point that can be made with reasonable certainty is that long and short patterning of these vowels is different to northern English accents, but similar in some ways to south-western Englishes (Mees and Collins 1999: 189). The following section will explore recent studies from these areas in addition to studies of CE.

6.1.2 Recent studies looking at change over time

Variability is common in the south-west of England (SWE), which is both geographically close and linguistically linked to south Wales and to Cardiff in particular. This section will explore the variability further, drawing on three recent studies conducted in this geographical area on the TRAP-BATH split and related PALM and START vowels. The first two of these studies are Blaxter and Coates’s

(2020) paper on Bristol English, and Piercy's (2011) paper on a phonemic split in Dorset English, both of which use apparent time methodology. Another salient feature of SWE dialects is rhoticity, which is discussed in these studies but will not be covered here as Cardiff is non-rhotic.⁸² The third study uses real-time methodology to examine change in the BATH vowel over time (Mees and Osorno 2017), recording the same speakers at multiple points across their lifespan. The terms *BATH-backing* and *START-backing* will be used to refer to increasing use of back [ɑ:] in these lexical sets.

The general trend observed in south-western English is dialect levelling. While the term does not always mean levelling towards the 'standard' as discussed in Chapter 2, in this case the outcomes of both horizontal and vertical levelling are the same, in that a range of features have been found to be approximating towards supraregional southern British English (SSBE) realisations, which are, of course, also the 'standard'. As such it is reasonable to expect that south-western dialects may be influenced towards a short front /a/ for TRAP, and long, back /ɑ:/ for BATH-PALM-START. The traditional Bristol and Dorset accents have a front vowel in START, as does that of Cardiff. However, Piercy's (2011) data indicated the backing of START in apparent time, and similar findings were reported in Blaxter and Coates (2020: 299) who stated that START-backing is well-advanced and, in Bristol at least, occurred earlier than BATH-backing and PALM-backing.

A more complicated picture arises for BATH-backing, which appears to be spreading by lexical diffusion⁸³ and displaying both inter- and intra-speaker variation in the lexical items realised with back BATH, as evidenced in Piercy (2011) and Blaxter and Coates (2020). While Piercy's distributional data shows a clear decrease in front BATH tokens over time (2011: 157), the results in Blaxter and Coates (2020) are less

⁸² However, it is worth noting that the Survey of Anglo-Welsh Dialects found r-coloured [aː] and [ɑː] in PALM and START words (Paulasto, Penhallurick, and Jones 2021) and that the historical loss of rhoticity lengthened the vowel.

⁸³ Where not all lexical items are affected by a sound change at the same time – rather, change will start in a subset of words, followed by fluctuation of pronunciation in other words both at individual and community level.

clear. For their Bristol study, around half of the speakers in each age group had a BATH vowel that was further back than TRAP on average (Blaxter and Coates 2020). This suggests that both age groups are equally likely to have back BATH realisations, but no statistical test was carried out for mean F2 (which measures to the front/back dimension of a vowel) between the age groups to confirm or reject this.⁸⁴ Additionally, there were a high degree of idiosyncratic lexical differences making generalisations regarding lexical effects difficult (Blaxter and Coates 2020). The authors suggest that the safest explanation, considering the lack of previous research in the dialect, is stable sociolinguistic variation in Bristol as opposed to their hypothesised levelling to SSBE.

The suggestions from these studies are complemented by a real-time study on BATH in Cardiff English. While only looking at the speech of 11 women, Mees and Osorno (2017: 221) reported the real-time increase of BATH-backing in working-class speech.⁸⁵ However, this increase was mainly due to one speaker described as upwardly socially mobile, highlighting the strong classed elements of this feature. Whereas Blaxter and Coates (2020) suggested that the ‘poshness’ of long, back BATH potentially inhibited its spread in Bristol, this does not preclude speakers from making use of linguistic resources to enhance or reflect their social capital. These findings together exemplify the importance of the individual and the potential for change across the lifespan, which can sometimes be overlooked in traditional variationist research. I will now turn to the linguistic factors relevant to variation in these lexical sets, such as lexical effects and phonological constraints, which will be used to make predictions for the Cardiff data.

6.1.3 Predictions for change in Cardiff English’s (a) vowels

The three studies discussed above suggest that lexical diffusion is the main mechanism for BATH-backing, unlike START-backing which displayed regularity across all tokens. Furthermore, each study attests to idiosyncratic lexical patterning in

⁸⁴ Instead, they tested the mean F2 difference between TRAP and BATH for each speaker individually.

⁸⁵ Middle-class women were consistent in favouring back [ɑ:] for BATH words at rates above 80% at the three points in time.

the BATH set, making it difficult to discern effects of linguistic environment. Neither the Dorset or the Bristol study had scope to examine different phonological contexts or other linguistic factors relating to variation in the split, but in their Cardiff study, Mees and Osorno (2017: 222–23) categorised the BATH tokens according to which phonological context followed the vowel in an attempt to examine this aspect: nasal + consonant (*chance, demand*); fricative + consonant (*fast, after*); fricative only (*staff, pass*).

They then examined change in the proportion of the two vowel realisations between 1990 and 2011 in the two socioeconomic groups. While there was considerable variation amongst the words, categories and participants' social class at both points in time, in general there was a tendency for both middle and working class women to favour [ɑ:] in the two pre-fricative categories.

Having established the variability and salience of this feature in Cardiff English, we can pose some research questions based around change in apparent time. Due to the halted BATH-TRAP split, the vowel is variable even in the same phonological contexts, as well as variable within individual speakers' realisations. Furthermore, it carries high degrees of sociolinguistic significance in Britain, as well as specifically in Cardiff where the local variant is stigmatised and linked to working-class speech. Does this make it particularly prone to levelling, especially if speakers in Cardiff are orienting more to the national standard? Or could its salience protect it? A common perception amongst Cardiff people is that the local accent is 'dying out'. Is it reasonable to extrapolate, based on the salience of this vowel to the accent, that any change to the 'Kerdiff A' could be a key signifier of dialect levelling?

To pursue these matters, this chapter will address the following research questions:

1. Are there generational differences in the realisation of these vowels?
Specifically, are younger speakers less likely to use front and/or raised variants of BATH, as indicated by results in Mees and Osorno (2017)?

2. Are there sociolinguistic constraints on variable vowel realisations? Specifically for BATH, will a following fricative or middle class status be associated with a back pronunciation, as suggested by Mees and Osorno (2017)?
3. If START-backing is taking place, is this occurring through regular sound change as found in neighbouring dialects by Piercy (2011) and Blaxter and Coates (2020)? Or will the stigmatised nature of this vowel in Cardiff cause younger, middle class speakers to move away from it?

6.2 Method

The analysis of the (a) variable made use of two types of forced alignment and vowel extraction software: FAVE (Rosenfelder et al. 2014) to align the audio with the transcripts, and DARLA (Reddy and Stanford 2015) to extract vowel formant data. FAVE works by matching an audio file of a spoken sample with its transcript: it segments the audio into individual phonemes based on an analysis of the speech signal, and aligns them with the ARPAbet transcription of the speech (Tier 1; Figure 6.2) and the orthographic transcription (Tier 2; Figure 6.2) in Praat (Boersma and Weenink 2015).

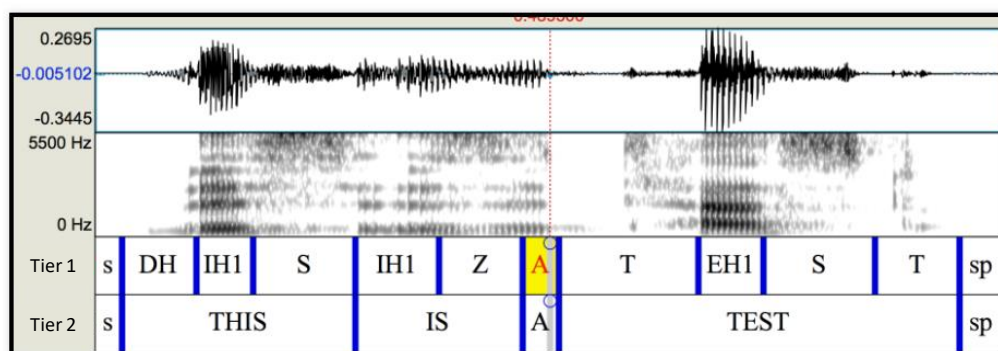


Figure 6.2: Forced Alignment output in Praat. Image adapted from Fruehwald (2015)

FAVE uses the Carnegie Mellon University Pronouncing Dictionary (CMUDict), which is based on North American English pronunciations of 134,000 words (Bartlett, Kondrak, and Cherry 2009). MacKenzie and Turton (2013) note that transcriptions of British English (BrE) must be “coerced” into the American English (AmE) vowel classes used here, but found that the alignment process still worked for their BrE data. If a word in the transcript is not found in this dictionary, the ARPAbet pronunciation

must be provided manually. It became clear during this analysis there were some difficulties using this method with my data that I would need to mitigate. I will indicate these as they arise, describe what I did, and will add some further comments in Chapter 9 when I discuss limitations of the research.

6.2.1 Alignment and extraction

The interview data used here had been transcribed using slightly different protocols to those required for FAVE, which necessitated additional editing and preparation, and entering out-of-dictionary words manually. Once the audio and transcriptions were aligned using FAVE, I checked 10% of each whole interview file, hand-correcting any misalignments within this 10%. Misalignments were instances where the assigned phoneme boundaries did not accurately match the audio, and tended to occur in the following types of situation: overly long clause segments, background noise, quiet speaking volume, overlapping speech, fast speaking rates. As this hand-correcting method still leaves potential for extracted tokens outwith the corrected 10% to be misaligned, I later checked each individual token post-extraction, removing any that were incorrectly aligned.⁸⁶ In this way, every token included for analysis was manually checked and only those with correct alignment were used.

After the alignment process, I extracted the vowel formants using the DARLA web interface (Reddy and Stanford 2015) instead of FAVE, which also has a vowel extraction function but which I found very slow to process. DARLA allows you to filter out stop-words (i.e. high-frequency grammatical words, common lexical items and fillers) and words that do not display primary stress. I selected both of these options because function words and unstressed vowels are less suitable for sociophonetic study (Baranowski 2013).

DARLA also allows you to choose which normalisation method to use for the extracted formant values. Normalisation enables comparison across speakers, as values

⁸⁶ The number of misaligned tokens varied from speaker to speaker due to factors such as faster speech rate and background noise, but is estimated at no more than around 20 per speaker (the total average number of included tokens per speaker is 224).

vary according to individual differences in vocal tract dimension. I used Lobanov normalisation, which is vowel-extrinsic in that it uses all vowels, not just the one examined, and formant-intrinsic, using information from within each formant. Lobanov normalisation has been found to perform well by Clopper (2009) and Adank et al. (2004) who evaluated it along with 10 other techniques. It performed highly in all of their tests, particularly when testing for sociolinguistic variation where it outperformed the others (Adank, Smits, and van Hout 2004: 3105).

6.2.2 Coding

I added data to each extracted vowel for the individual and social variables of the speaker as outlined in Chapter 3: name; gender; age (as a number and thus a continuous variable); age (by group, older or younger, and thus a categorical variable); occupation. For this analysis, the three occupation categories were collapsed into two, 'working class' (occupation group 3; manual and service workers) and 'middle class' (occupations groups 1 and 2; comprising non-manual professional and intermediate jobs). There were two reasons for doing this. Firstly, there was only one younger speaker in occupation group 1. Secondly, as will be explained below, two older working-class speakers had to be excluded, and collapsing the categories allowed the sets to be more balanced.

All vowels that could not belong to the relevant lexical sets of BATH, TRAP, PALM and START were excluded, leaving ARPAbet vowels AE and AA, which correspond to IPA /æ/ and /ɑ/ respectively. Due to the AmE pronunciation used by FAVE, the list of tokens initially contained some words in the BrE LOT lexical set such as *sorry*, which were also excluded. As noted above, I then checked each token individually to ensure it was appropriate to use. Some interviews were recorded in cafes or outside and thus had more potential for background noise, and as such these interviews generally had the most unusable tokens. Tokens in the following categories were excluded:

- a) those where background noise was present;

- b) tokens where there was other interference – e.g. overlapping speech; mid-word laughter;
- c) those that had been misaligned by the software and were not in the 10% of the files manually corrected – i.e. where the assigned phonemes did not align correctly with the audio and would thus have resulted in an inaccurate formant measure.

In the interest of time, and because automated vowel extraction allows the researcher to capture many more tokens than is usually the case for sociophonetic analyses, I decided that it was safe to discard those in category c) rather than correcting the alignment and re-extracting the formant values. Because misalignment tended to be a reflection of the audio quality of a particular interview segment, it is reasonably safe to assume that this approach of discarding misaligned tokens will not skew the data. However, this is a limitation of not manually correcting all automated alignments, and also of the initial data collection methods, which will be discussed in Chapter 9.

The proportion of tokens excluded after checking ranged from 3% to 28% per speaker, with most of those excluded due to background noise or interference where interviews were in cafes, for example. The smallest number of tokens included for a single speaker was 99, which came from the shortest interview (only 20 minutes long, from the St Fagans archive data). Thus, token numbers for each individual are greater than the 10-15 minimum for each category given as a rule of thumb in Baranowski (2013).

While checking, I noticed that some relevant words had been miscoded by FAVE – for example *last* and *aunt* were often assigned the AO vowel (IPA /ɔ/), *married* and *charities* the EH vowel (IPA /ɛ/), and *rather* as AH (IPA /ʌ/). As such, they had not been included in the list created above. They may have been miscoded due to the vowel difference or American pronunciation guide and as such I may have missed out on tokens that were more back or raised than those covered by AE and AA. To counter this, I checked all AH, EH and AO vowels for similar examples, then checked the

tokens as above for interference and misalignment. This resulted in a further 157 tokens added, but there is still the potential for some others to have been missed.

Two participants, Carl and Cefin, had to be excluded due to systemic misalignment issues. Carl's speaking volume was very quiet, to the extent that transcribing was sometimes difficult, and the software was not able to align the audio with the transcription accurately enough. This did not improve despite increasing the volume of the file. Cefin had a very fast speaking rate and this interview was also recorded in a café with background noise. I made the decision to not align relevant tokens manually from these speakers partly due to time constraints, but also because I was concerned that the measurements would still be unreliable even if I extracted formant values manually.

The full set of 5823 tokens was then coded for the following linguistic variables:

- i. Lexical set
- ii. Syllable number
- iii. Word class/type
- iv. Word salience
- v. Phonological environment

These will now be discussed in turn.

Lexical set

Individual word tokens were manually coded according to Wells' lexical sets as either BATH, PALM, START or TRAP. There are no definitive lists of which words belong to each lexical set, but a general guide and examples of each are below:

- BATH: almost exclusively found before nasals and fricatives e.g. *after, dance, master*
- PALM: a small set with few native English words e.g. *father, calm, spa, facade*
- START: found in words that have orthographic 'R' e.g. *heart, car, department*
- TRAP: checked front vowels e.g. *bat, black, accent, gas*

As my Scottish English accent does not have any variation between TRAP and BATH, I used the OED's pronunciation to identify words in this lexical set: if it provided both front and back pronunciations to represent the variability, I considered it to belong to the BATH set. The TRAP lexical set is included mostly for illustrative purposes when considering the low vowel space, as no research questions have been posed regarding it.

Syllable number

Di Paolo et al. (2011: 89) recommend avoiding polysyllabic words due to the additional complications caused by suprasegmental features such as prosody and tonal structure. However, previous work on Cardiff English has noted the salient or stereotypical pronunciation of words such as *remarkable* as used by Frank Hennessy [ɹi'mæ:kəbl] (Coupland 1988: 141). As such, I decided to code for monosyllabic, bisyllabic and polysyllabic words, which allows me to keep them separate or merge them for analyses based on whether they display different patterns. In all cases, the vowel of interest was in stressed position.

Word class/types

Labov (1994) notes that vowel shifts are sensitive to the distinction between open and closed classes of words, and as such excludes function words from his analyses. As already mentioned, there was a stop-word list that filtered out a range of common words including function words and others such as *had*. Three additional words that are generally unstressed, *can*, *can't* and *hadn't*, were not in this list, so I removed them manually.

I also coded for proper nouns and titles. Individual names were removed for confidentiality, except for those of famous people such as Shirley Bassey and Charlotte Church. Proper nouns (place names, month/day names) were included but coded as such, as were titles (e.g. when a regular noun was used in a title such as 'abbey' in *Downton Abbey*), in case these acted differently. Nouns and adjectives referring to religious denominations (Catholic, Baptist, Anglican) were originally coded separately

but as there were no differences in their pronunciation from the rest of the data they were reincorporated.

Lexical frequency

Sound change has been theorised to affect higher frequency words first (Bybee 2007), and Di Paolo et al. (2011: 89) suggest that high-frequency words should initially be assigned their own separate lexical sets as they can “behave idiosyncratically”. The issue of how to operationalise lexical frequency has been much-discussed, particularly in corpus linguistics, and I decided to use a logarithmic scale that was developed by van Heuven et al. (2014) as a solution to some of these issues. The scale reflects Zipf’s law of word frequencies and “roughly goes from 1 (very-low-frequency words) to 6 (very-high-frequency content words) or 7 (a few function words, pronouns, and verb forms like ‘have’)” (van Heuven et al. 2014: 1179). Their scale was publicly available with a wordlist from the SUBTLEX-UK corpus comprised of BBC broadcasts. Although a smaller corpus than, for example, the BNC, this wordlist was more amenable for my use than the BNC’s, which required a considerable amount of manual matching with my data.

I matched the (a) tokens from my data with the Zipf scale frequencies and was left with 28 words that were not in the SUBTLEX-UK wordlist: many of these were local proper nouns (e.g. *Adamsdown*; *Mynachdy*; *Rhydlafar*; *Cardiffian*); others were newer or technical words (e.g. *sassier*; *Snapchatting*; *latcher*); some were seeming neologisms (e.g. *staticness*; *verandaed*). As such, I gave these the Zipf scale 1 (the lowest before this in my data was 1.17).

However, as it is possible that locally-specific or -salient words have a higher frequency in a given research dataset than a general corpus, some argue for using frequencies from the local corpus (L. Clark and Trousdale 2009). As such, I checked the correlation between the SUBTLEX-UK list and the frequency list of my corpus and found that there was a strong positive correlation ($r=0.87$). While this suggests that it is safe to use the SUBTLEX list for this corpus, it does not fully solve the issue of locally salient words, which may have an effect regardless of frequency. As such, I

made an additional category of ‘local’ or potentially salient words that came under the following categories:

- Locations within Cardiff – Penarth, Roath Park, Charles Street, Adamsdown
- Local famous people – Charlotte Church, Shirley Bassey
- Local buildings/businesses – Chapter, Capitol, Top Rank, Admiral

I also included the town of Barry as a locally salient word. While not technically in Cardiff, it is frequently mentioned in the interviews and as the closest seaside resort (with additional pop culture status thanks to BBC sitcom *Gavin and Stacey*), was likely to be more ‘salient’ than e.g. Mountain Ash or Llantrisant, other locations near Cardiff that do not have such local significance.

Phonological environment

Preceding and following phonological environment data is produced automatically with the formant extraction in DARLA. Phonemes immediately preceding and following the target vowel are provided based on the pronunciation dictionary CMUDict, which uses ARPABET – thus IPA /ŋ/ is NG, /i/ is IY. As phonological environment affects the formants of the vowel, Di Paolo et al. (2011) advise that the following types of environment are kept separate, at least initially:

- Preceding or following liquids or clusters
- Following nasals

This is because liquids and clusters can “inhibit the fronting of back vowels” and can “cause lowering of F2 for front vowels” (Di Paolo, Yaeger-Dror, and Beckford Wassink 2011: 87). They also suggest excluding preceding glides, so I assigned these to a separate group in case they displayed different results to the other groups. Following nasals have a tendency to “leak backwards” (Hickey 2020: 564) and raise vowels. As such, the tokens were coded for both preceding and following context, according to Table 6.2 below:

Preceding phonological environment	Following phonological environment
Glides /w j/ (e.g. <i>yap, twang</i>)	Nasals, including consonant cluster with initial nasal /m n ŋ/ (e.g. <i>ban, family, chance</i>)
Liquids /r l/ (e.g. <i>last, ran</i>) and clusters (e.g. <i>stack</i>)	Liquids /r l/ (e.g. <i>algae, balance</i>) and clusters (e.g. <i>blast</i>)
Neutral (none of the above, e.g. <i>pattern</i>)	Neutral (none of the above, e.g. <i>abbey</i>)

Table 6.2 - Examples of coding for preceding and following phonological context

Consonant clusters within multi-syllabic words were identified based on syllable boundaries. Specifically, in line with Kreidler (2004: 86), a consonant sequence preceding a vowel was considered a cluster in the vowel's syllable if it was a permissible word-initial cluster. Where it was not, a procedure of 'working backwards' from the vowel was followed, accepting consonants into the cluster until an impossible word-initial cluster was reached. This method identified not only preceding clusters but also following ones (on the basis of their capacity to belong to the next syllable). For example, the (a) vowels in *hardly, after* and *advertise* were analysed as hard-ly, af-ter and ad-ver-tise because *dl, ft* and *dv* cannot occur initially.

In addition to these potentially influential environments, data for the place and manner of articulation of following segments was extracted, which will be used when examining the BATH lexical set in more detail. There was a suggestion (Raymond Hickey 2019, personal communication, 28 June 2019) that orthographic R could play a role in pronunciation despite the Cardiff accent being non-rhotic. However, this was not a relevant factor in the mixed effects models for the START lexical set.

6.2.3 Data analysis

As age, representing change in time, is the main factor under investigation, descriptive statistics will first be presented according to age group – older or younger. Because there are four lexical sets each with two formant dimensions,⁸⁷ t-tests were carried out between the age group means for each of these eight contexts in order to identify which should be examined in more detail using mixed-effects models. For

⁸⁷ F1 represents vowel height, and F2 represents the front/back dimension of the vowel space.

example, if there was no significant difference in the mean F1 of the BATH lexical set between the older and younger groups, the formant would not need to be analysed further. No research questions were formulated for the TRAP lexical set but it is included here for comparative purposes.

All formant measurements were taken at 50% of the vowel's duration. When looking at the mean formant value for vowels, only tokens from neutral phonological contexts were used – that is, tokens from phonological environments not expected to have any influence on the measurement of the vowel such as clusters and glides (Baranowski 2013: 406). As such, graphs and the initial tables use just the neutral context tokens (n = 3,233). For the statistical analyses, tests were carried out on full datasets (n = 5,822) as the models can show any influence of phonological context. The BATH lexical set also required an additional following phonological context (fricative, which is not relevant for the other lexical sets), and this will be discussed more in 6.3.3.1.

Inferential statistical analyses were carried out with linear mixed-effects regression (LMER) models using the *lme4* package (Bates et al. 2015) as outlined in Chapter 3. The models were usually created using a step-up approach – i.e., adding independent variables (fixed effects) then using ANOVAs to test whether their addition significantly improves the model. Where there were specific hypotheses regarding particular factors, such as the effect of social class, these were included even if not a significant addition in the step-up approach. *Speaker* and *Word* were included as random effects for each model.

For the LMERs, each lexical set was examined separately, with either the F1 or F2 value as the dependent variable. For the fixed effects, *age* was a speaker's year of birth log transformed and included as a continuous variable rather than the binary groups of older/younger used to present the descriptive data, as it is stronger to use continuous variables where possible. As this is the only analysis in the thesis with dependent variables that are continuous, this was also the only analysis where I was able to use age as a continuous variable in this way – when I tried to do this with

categorical dependent variables in the other analysis chapters, the models would fail to converge.

Results from LMERs will be initially displayed in a condensed form to show a comparison across the lexical sets according to age as a predictor. Other significant factors will be discussed individually for each lexical set separately. Full results tables made with *sjPlot* (Lüdtke 2018) can be seen in Appendix C. Plots and graphs were made with *ggplot2* (Wickham 2016).

6.3 Results

An overview of the data in terms of the means, standard deviations and token numbers is presented in Table 6.3. As explained in 6.2.3, only formant values for vowels in neutral phonological contexts should be used when looking at means, but as later analyses will use the full dataset I have presented the means for them here too for reference. Lobanov normalisation is a z-score transformation which results in formant values that are not in Hertz. There are negative values for F2 because this method is based on calculating the average dispersion from the centre of each speaker’s vowel space (Adank 2003: 21–22).

Lexical set	F1 mean (sd)		F2 mean (sd)		n	
	Neutral dataset	Full dataset	Neutral dataset	Full dataset	Neutral dataset	Full dataset
BATH	1.08 (0.86)	1.02 (0.82)	-0.37 (0.88)	-0.34 (0.92)	252	625
PALM	0.61 (0.92)	0.64 (0.86)	-0.85 (0.54)	-0.89 (0.52)	96	149
START	0.81 (0.72)	0.81 (0.71)	-0.88 (0.50)	-0.84 (0.51)	1182	1474
TRAP	1.38 (0.92)	1.27 (0.89)	-0.07 (0.66)	-0.09 (0.69)	823	3574

Table 6.3 - Means and standard deviations (in brackets) for both formants for each lexical set

A vowel space plot containing the distribution of measurements for each lexical set can be seen in Figure 6.3. Instead of using a scatter plot to show the range, ellipses are used to create a less-crowded visualisation that shows more clearly the boundaries and overlap for the different lexical sets. For this plot, and future vowel space plots, the ellipses are set to exclude the 5% of tokens at the extreme ends of the distributional range. Both axes have been reversed to align with traditional vowel space charts.

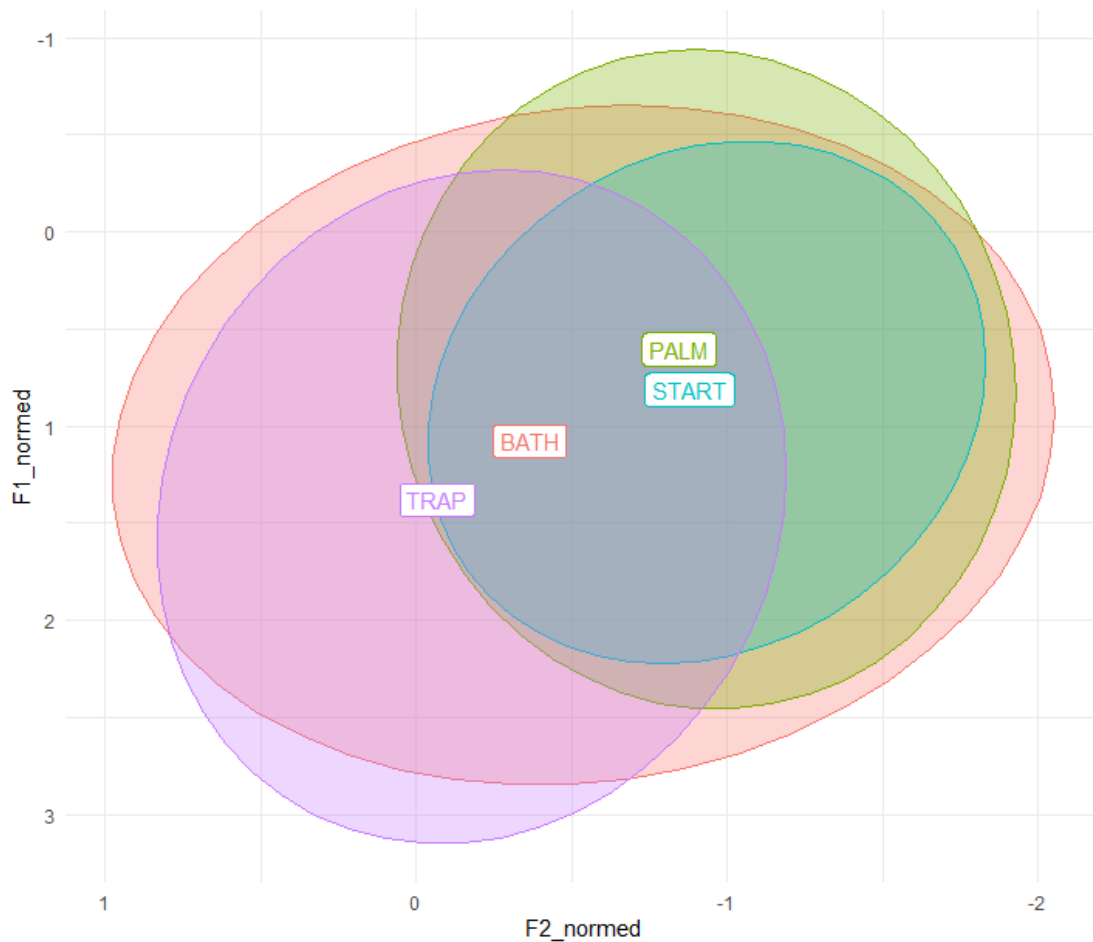


Figure 6.3 - Vowel space plot for neutral phonological environment. Lexical set labels are positioned at the mean F1 and F2 value for each group.

Figure 6.3 shows that there is considerable crossover between the lexical sets – in particular, PALM and START occupy a similar space. They also overlap somewhat with TRAP, indicating the more fronted quality of these sets in Cardiff English. BATH has a very wide distribution especially in the front-back dimension, representing the variability of its realisation as a front or back vowel.

6.3.1 Distributional results by age group

Figure 6.4 shows the distribution ellipses in the vowel space for older and younger speakers. From this we can see that BATH has a reduced range for the younger speakers and aligns more closely with PALM and START than with TRAP. This could suggest that young speakers in Cardiff are settling towards back realisations of BATH as they display less of the front/back variability seen in the older speakers. Younger speakers also have lower and backer TRAP, PALM and START, and a narrower range of pronunciation of all the lexical sets, which could represent levelling in terms of reduced variability. This is also indicated by the smaller standard deviations for most lexical sets in the younger group compared to the older group, provided in Table 6.4.

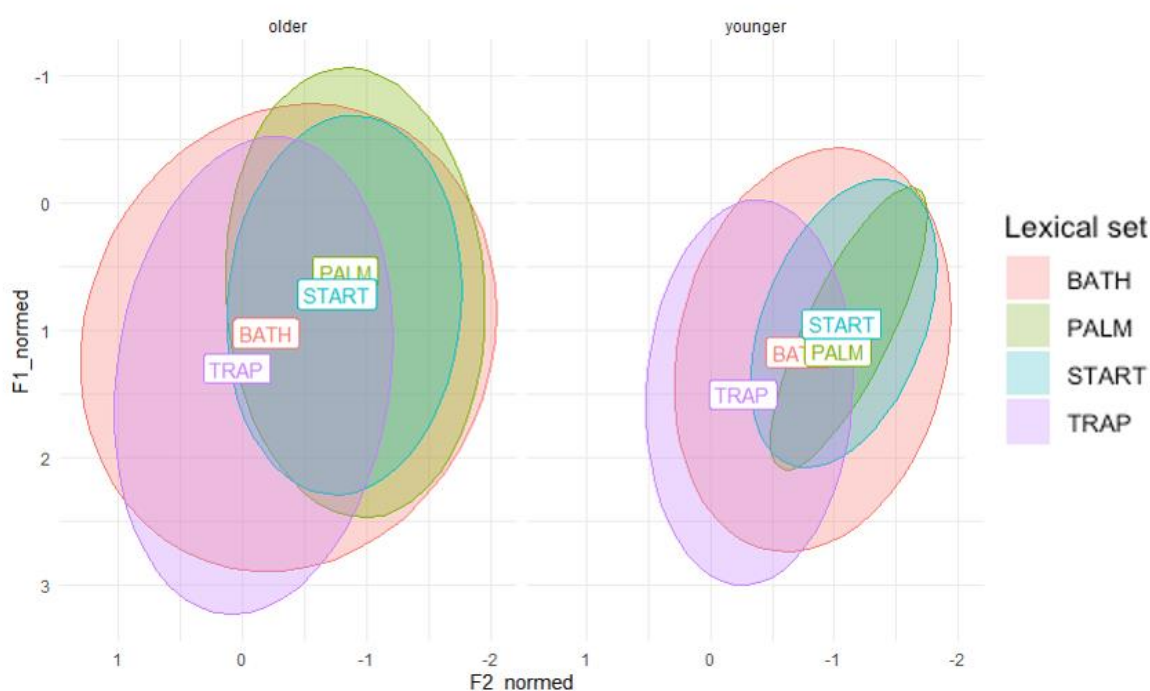


Figure 6.4 - Vowel space plots by age groups

These plots and figures exclude some phonological contexts, as outlined above, but it is unlikely that there are considerable differences in distribution of these across the age groups. For example, results for the BATH set here include only following fricatives, but following nasals are relatively low in frequency and make up roughly the same proportion for older and younger groups (17% and 14% respectively). Later statistical analyses will use all phonological contexts where possible.

Lexical set	F1 mean (sd)		F2 mean (sd)	
	Older	Younger	Older	Younger
BATH	0.99 (0.86)	1.09 (0.74)	-0.15 (1.01)	-0.66 (0.62)
PALM	0.56 (0.96)	0.79 (0.63)	-0.81 (0.60)	-1.02 (0.31)
START	0.72 (0.78)	0.94 (0.58)	-0.74 (0.56)	-0.99 (0.39)
TRAP	1.20 (0.99)	1.37 (0.69)	0.06 (0.77)	-0.30 (0.47)

Table 6.4 - Means and standard deviations (in brackets) for older and younger groups for each lexical set

In order to determine which formant dimensions to examine for each lexical set in the statistical model analyses, t-tests were carried out between the older and younger group means – these results are shown in Table 6.5. The PALM and START lexical sets were merged due to the small size of the PALM set and their similarity on both F1 and F2 dimensions.⁸⁸

The t-test results show significant differences for each formant and lexical set except BATH F1, suggesting that this vowel is moving along the front-back dimension only. The literature review did not lead me to formulate a specific research question about the TRAP lexical set, and for reasons of space, analyses will only be done for comparative purposes. The following section will present results for individual and gendered variation, and 6.3.3 will present results for the statistical analyses.

Lexical set	F1 (normed)			F2 (normed)		
	t	df	p-value	t	df	p-value
BATH	-1.391	197.800	0.166	5.324	233.830	< 0.001
PALM/START	-6.501	1248.900	< 0.001	11.515	1266.900	< 0.001
TRAP	-3.533	1650.400	< 0.001	11.552	1697.900	< 0.001

Table 6.5 - Welch Two Sample t-test results for older and younger group means

6.3.2 Gender and individual variation

As discussed above, there may also be gender differences within the age groups. Figure 6.5 shows both age groups separated by gender, and it is notable that gender differences appear to be maintained across the age groups: the men generally have a narrower range of pronunciation than women across the four lexical sets. This effect is

⁸⁸ I tested the effect of lexical set for this merged group when conducting model analyses and it did not come out as significant, confirming that they are safe to be merged.

particularly apparent in the F1 range: women of both age groups display greater variability here than men. The older men exhibit a much clearer divide between front TRAP and BATH, and back PALM and START in terms of mean values. Despite this, the range of BATH shows that there is still considerable variation between front and back pronunciations in the older men, which is reduced considerably in the younger men.

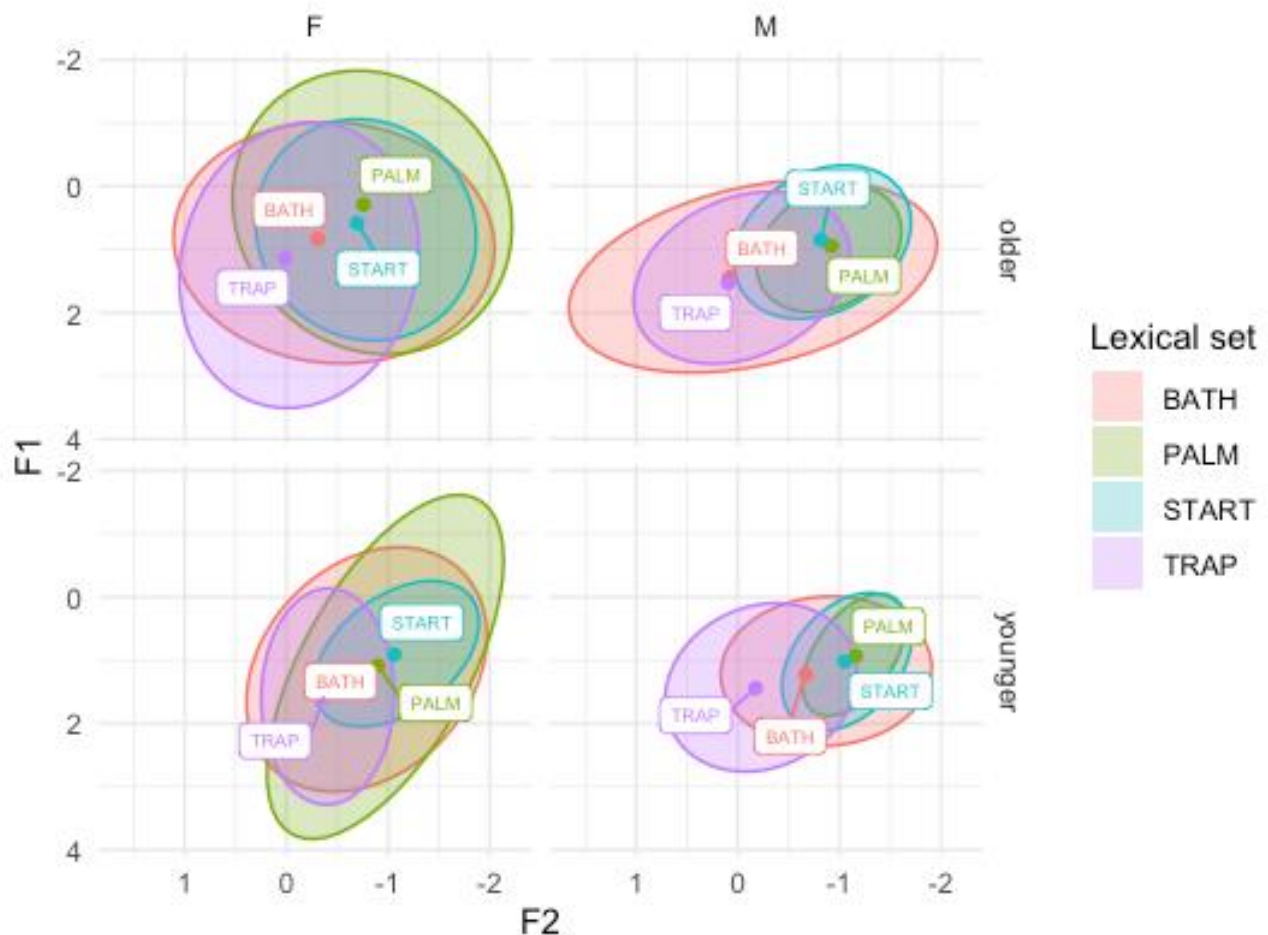


Figure 6.5 – Vowel space plots for the lexical sets by age and gender. Points indicate means and ellipses indicate the 95% range of tokens for each lexical set.

Similarly, young women have further back BATH realisations than older women. They also have lower START and PALM vowels, and the means of all four lexical sets are clustered more closely together. This could suggest that young women are moving away from traditional CE START/PALM and adopting more RP-style BATH realisations; for young men any move away from traditional CE is seen mainly in the BATH vowel. Older women have more variability in TRAP, and higher and more front PALM and START, which could correspond to a more stereotypically ‘Cardiff’

pronunciation of these sets. This is counter to the sociolinguistic expectation that men have more traditional accent features. However, the complete picture requires examination of the statistical analyses, reported later, as the wider range exhibited by the older women could counteract the small difference in means.

A final point to note is the differently shaped ellipse for PALM exhibited in the younger women. While the mean F2 is about the same as for the older speakers, the F1 is lower and the ellipse shape suggests that both lowering and backing might be taking place with PALM. However, this is a very small lexical set with only 149 tokens.

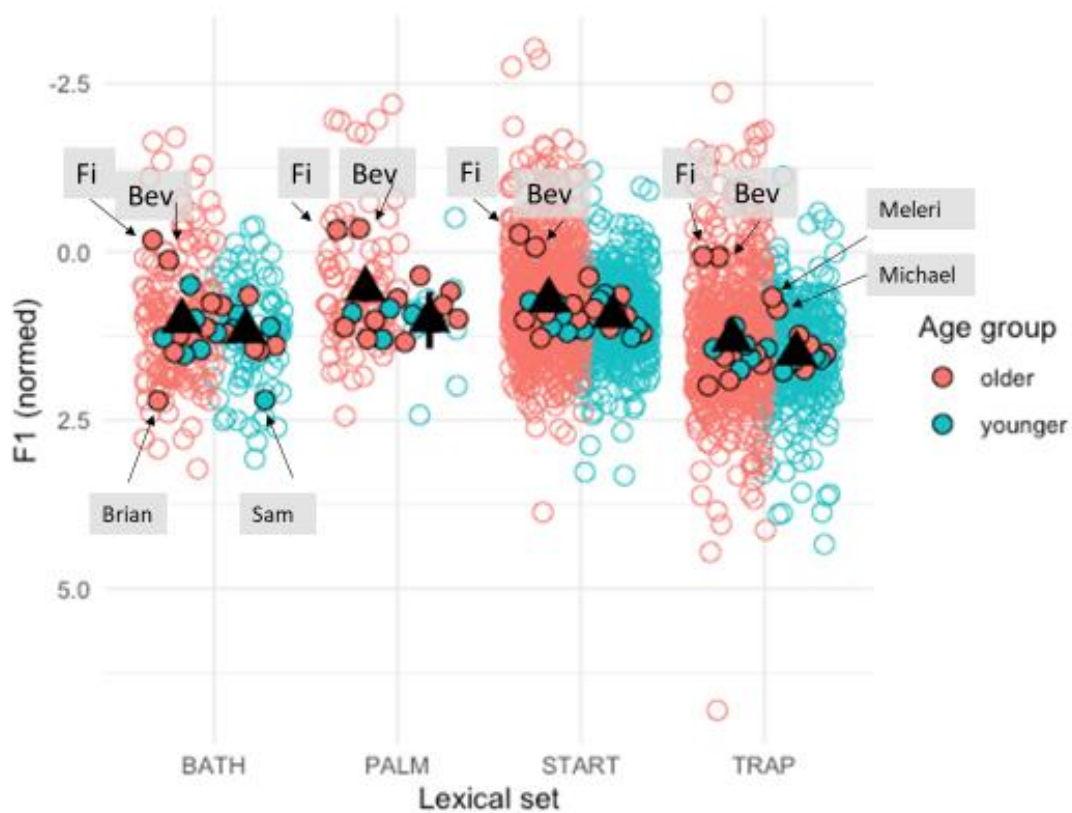


Figure 6.6 - Individual means super-imposed on all tokens for F1. Black triangles are group means and the black line for PALM in the younger speakers indicates the wider variability due to small token numbers. Individual means are circles outlined in black; unfortunately I was not able to make them align with their age group.

In order to examine individual speaker variation, Figure 6.6 and Figure 6.7 show each individual data point separated by group, with the individual speaker averages outlined in black. Figure 6.6 shows that for F1, most of the speakers across both groups cluster around the same point, with the exception of two speakers (Beverley and Fi)

who have consistently higher realisations of the (a) vowel.⁸⁹ Additionally, for BATH F1, one older speaker (Brian) and one younger speaker (Samantha) have lower realisations than their respective cohorts. For TRAP F1, Meleri and Michael (both older speakers) have averages that are slightly higher than the interquartile range of distribution, though not as high as Beverley and Fi.

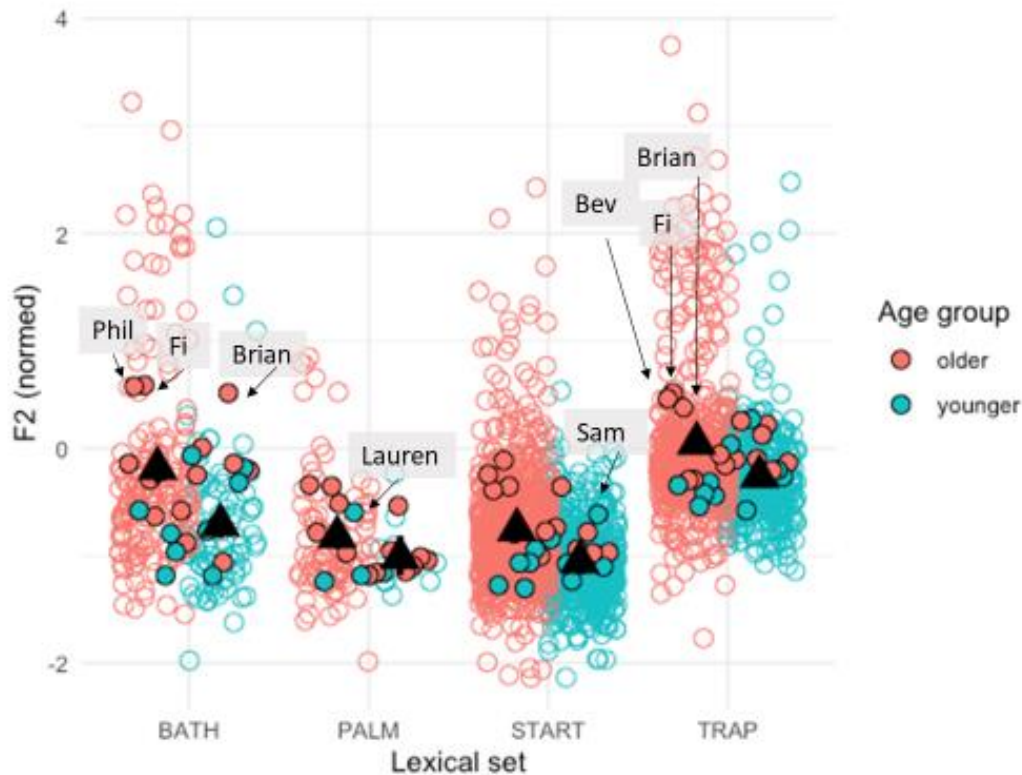


Figure 6.7 - Individual means super-imposed on all tokens for F2.

Figure 6.7 shows that there is greater individual variation in F2, particularly in the BATH lexical set. The outliers here are Phil, Brian and Fi from the older group, all of whom have a more front vowel than others across both age cohorts. PALM is a smaller lexical set and as such we do not have tokens from every speaker, but Lauren has the furthest front realisation of the younger speakers here, with similar values to older speakers Beverley, Jim, Michael and Fi. These four speakers with the addition of Brian also have more front realisations of START than average for their age cohort, while Samantha has a more front realisation of this lexical set than the other younger

⁸⁹ Speaker names for each individual's mean could not been included in these graphs because they become too cluttered, but I have labelled the main 'outliers' and later plots in 6.3.3 will show each speaker's mean for the lexical sets separately.

speakers. For TRAP, Brian, Beverley and Fi have the furthest front realisations of the older speakers. To summarise this description of individual speaker variation: there were some speakers who had consistently different means to the others across all four lexical sets (Beverley and Fi), while some individuals varied in only some lexical sets or formant dimensions.

6.3.3 Statistical analyses for BATH and START lexical sets

Based on the t-tests conducted above, mixed-effects models were used to test the effects of age on BATH F2, PALM/START F1 and F2, and TRAP F1 and F2. The descriptive statistics suggested that younger speakers are exhibiting BATH-backing, and that their PALM/START and TRAP vowels are both lowering and backing. The following sections will use linear mixed-effects regression models (LMERs) to test if this is indeed the case. Following the research questions set out in 6.1.3, we would expect the following results:

1. Younger speakers will have higher F1 values for PALM/START and TRAP, indicating lowered realisations
2. Younger speakers will have lower F2 values for BATH, PALM/START and TRAP, indicating further back realisations

Summary results of the models for year of birth are provided in Table 6.6 – full table results can be found in Appendix C. As can be seen, age is significant for F2 in each lexical set, confirming the second prediction above, but age is not significant for F1 in any of the lexical sets. As such, the following sections will explore the backing of the BATH and PALM/START lexical sets in turn.⁹⁰

Lexical set	F1			F2		
	Estimate	CI	p	Estimate	CI	p
BATH				-13.87	-25.55 – -2.20	0.02
PALM/START	3.96	-6.69 – 14.61	0.466	-12.6	-20.69 – -4.52	0.002
TRAP	4.67	-7.80 – 17.14	0.463	-11.31	-18.62 – -4.01	0.002

Table 6.6 - Results for LMERs on the three lexical sets. Significant values ($p < 0.05$) are emboldened.

⁹⁰ For the reasons given earlier, TRAP will not be examined further here.

6.3.3.1 BATH-backing

As discussed in 6.1.1, historic pre-fricative lengthening was one of the triggers for BATH-backing, and following phonological context has been looked at in this lexical set in Cardiff. Mees and Osorno (2017) created a rough categorisation system to try to describe variation, which I have summarised as follows:

- a) Following nasal = mainly front realisations
- b) Following fricative + consonant = variable in working class speech, but mainly back realisations in middle class speech
- c) Following fricative = mainly back realisations

Mees and Osorno’s findings predict that following fricatives are more likely to have back realisations in the current data, and that there will be class differences with regards these. However, as we shall see, this is not the case. In order to look at class, the St Fagans speakers have been removed, and Table 6.7 shows the model results, in which neither following environment nor class are significant. Interactions between these factors were also tested and were not significant, but have been visualised in Figure 6.8. This shows that following nasal and fricative clusters (e.g. *dance*, *past*) do have slightly higher F2 values, indicating a further front vowel, but this constraint is consistent between the age groups, with younger speakers having lower F2 values across each phonological context. While not statistically significant, this could hint that the pre-fricative context is where change is occurring.

BATH	F2 (normed) – Cardiff Voices dataset only		
<i>Predictors</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
Year of birth	-20.36	-36.14 – -4.58	0.011
Working class (baseline: middle class)	0.12	-0.28 – 0.51	0.56
Following fricative cluster	-0.05	-0.26 – 0.17	0.674
Following nasal	0.12	-0.13 – 0.38	0.338

Table 6.7 – Model results for the Cardiff Voices dataset with year, class and following environment as fixed effects.

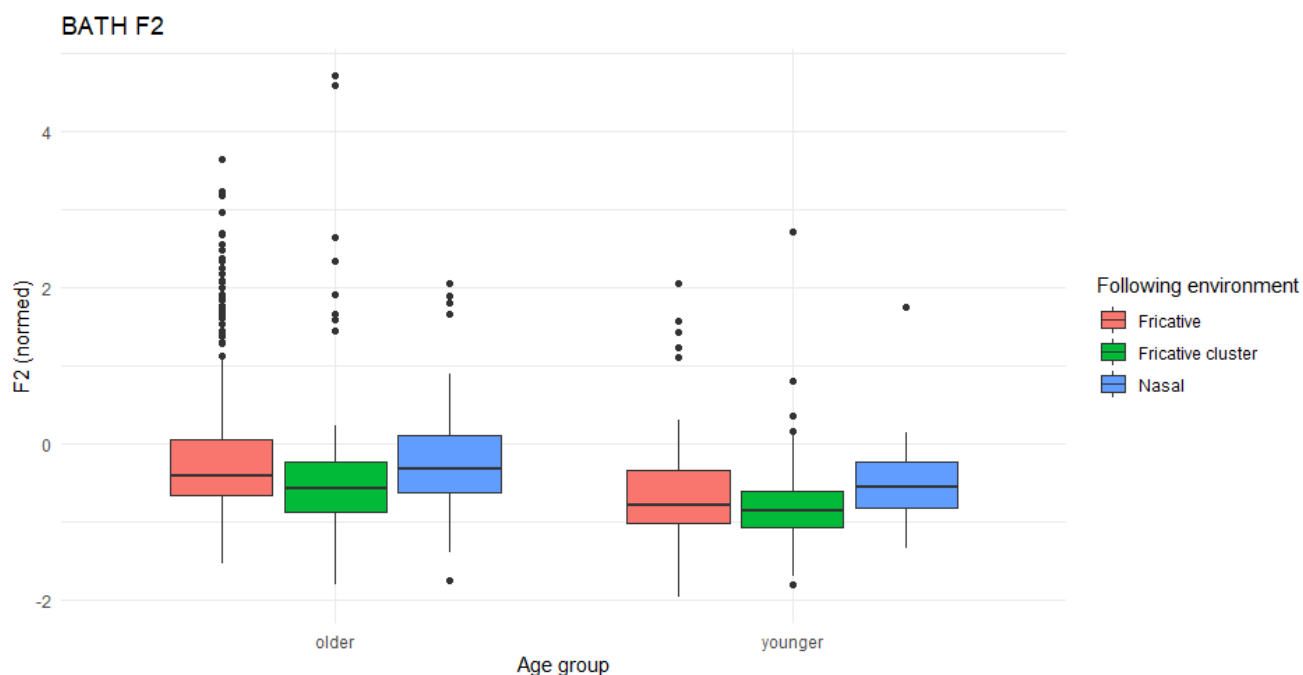


Figure 6.8 - Following context for BATH F2 by age group

While I did not explicitly set out to address the question of whether BATH-backing is occurring by lexical diffusion or regular sound change, I did compare the words realised with back BATH by the older and younger speakers, following Blaxter and Coates' (2020) study on Bristol English. They suggested that higher-register or technical words such as *drama* and *karate*, were more likely to have back realisations due to being encountered through education or learnt from someone with an SSBE accent. This goes against the theory that high-frequency words are the first to experience a sound change, as these words tend to be lower in frequency. However, this does not appear to be relevant here: while the young speakers do use the back realisation with some higher-register words – e.g. *drama*, *Masters [degree]*, *demand* – it is impossible to directly compare these because the same words have not always been used by the older speakers.⁹¹ Table 6.8 shows the lemmas pronounced with back vowels by older and younger speakers, with their corresponding Zipf unit of frequency. In order to categorise vowel realisations as front or back, I used the mean F2 for PALM

⁹¹ It is also rather subjective what is higher or lower register, as the authors do not present a categorisation system for this.

vowels as a cut-off point: tokens with values higher than -0.85 were coded as *front*, and tokens lower as *back*. This method followed Blaxter and Coates (2020), and had an additional benefit for the present data as PALM was a more consistently ‘back’ lexical set. There are around double the number of front lemmas as back lemmas (60 compared to 27), but the frequency range is very similar – as with the back tokens, the most frequent word is *last*. The least frequent front lemma is *castings* with a Zipf unit of 2.37 (slightly lower than that of *grasping*, which as Table 6.8 shows, was the least frequent back lemma).

Lemma	Zipf unit	old	young
LAST	5.97		
AFTER	5.94		
HALF	5.55		
ASK	5.41		
PAST	5.30		
PASS	5.14		
CLASS	5.01		
EXAMPLE	5.00		
GLASS	4.92		
FRANCE	4.91		
LAUGH	4.77		
CASTLE	4.68		
TASK	4.66		
BATH	4.65		
GRASS	4.58		
VAST	4.53		
DRAMA	4.52		
PATH	4.48		
ADVANCE	4.42		
AUNT	4.32		
BRASS	4.22		
MASTERS	4.16		
TRANSPLANT	3.82		
ADVANTAGE	3.68		
BLASTED	3.42		
GRASPING	2.98		

Table 6.8 - Lemmas with back realisations used by older and younger speakers. Grey cells indicate that this word was not used by a particular age group.

While these results could hint at a frequency effect, this did not come out as a significant factor in the LMERS. Additionally, the older speakers have back realisations

of some high-register or less frequent words such as *transplant*,⁹² and neither older or younger speakers consistently use either back or front realisations: for example, Marilyn (79) realises *transplant* once with front BATH and once with back BATH, and Esther (22) fluctuates between back and front for *vast*. Conversely, Tim (23) who usually has front BATH uses two instances of back BATH in *class* and *path*, while Osian (27) usually has back BATH but uses front realisations for *transplant* and *vastly*.

The statistical results, along with this more qualitative look at individual variation and lexical items, present something of a paradox regarding the spread of the BATH-backing sound change: at a group level it occurs across all phonological contexts, like a regular sound change, but at an individual level, speakers are variable in their pronunciations of even the same word. In line with the model above which did not find class to be significant, there is no clear patterning here either: Esther has the furthest front realisations of the young middle-class women (Figure 6.9), yet as may be remembered from earlier chapters, is maximally standard in her realisations of the (ing) and (*there*+BE) variables. Tim has the 'highest' occupational status of the younger speakers, but has one of the furthest front mean realisations. Osian, as mentioned above, is a working-class young man but has mostly back BATH – this could be explained by his two years living in the south-west of England. Since these examples do not display a direct indexical link between BATH-backing and class in CE, they could be indicative of a levelling change.

⁹² As the analysis only looked at primary stressed syllables, the relevant BATH vowel for *transplant* is the one in *trans*-.

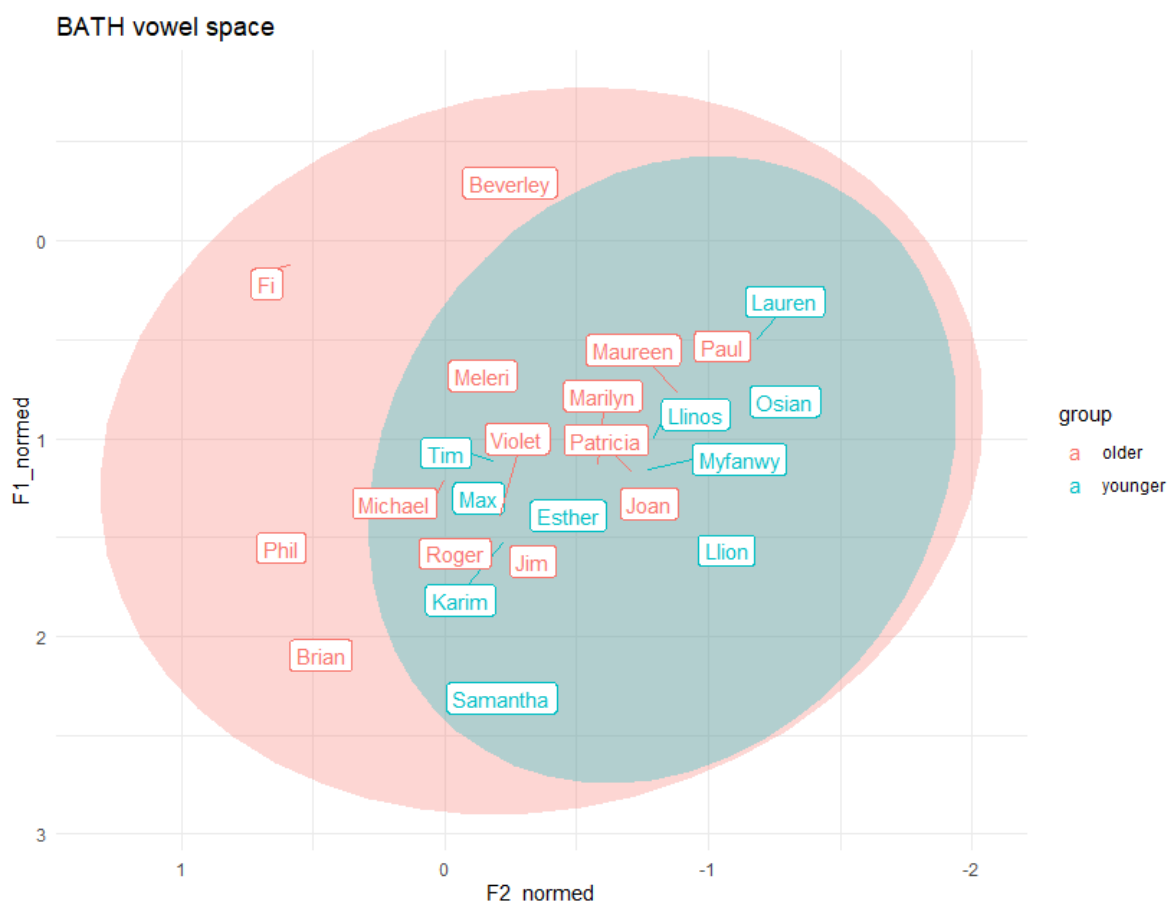


Figure 6.9 - Individual means for BATH. Speaker name is positioned as near as possible to their mean F1 and F2 values for this lexical set.

6.3.3.2 START-backing

Two motivations for START-backing were proposed in the research question: as part of a regular sound change that has also been noted in the south-west of England (which could constitute a ‘pull’), or due to its stigmatisation in CE, which could constitute a ‘push’ effect. As both outcomes look the same, this is hard to tease apart, and no factors other than age – e.g. class, lexical frequency, salience – were found to be significant. At first, this supports regular sound change. However, to dig deeper I compared models across the young and old datasets (Table 6.9). Both older and younger speakers had the same phonological constraints – a preceding liquid or cluster favours a higher F2 and thus a more front vowel – but there was a class*gender interaction evident for the younger speakers and not the older speakers. This shows that working-class speakers overall favour front vowels, but working-class men *disfavour* front vowels compared to working class women.

START F2	CV Young			CV Old		
	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	-1.17	-1.33 – -1.01	<0.001	-0.61	-1.02 – -0.19	0.004
Class (working)	0.55	0.21 – 0.89	0.002	-0.11	-1.03 – 0.81	0.818
Gender (male)	0.13	-0.13 – 0.40	0.327	-0.51	-1.42 – 0.41	0.277
Preceding glide				0.32	-0.10 – 0.74	0.138
Preceding liquid/cluster	0.21	0.08 – 0.34	0.001	0.22	0.06 – 0.37	0.006
Class (working) * Gender (male)	-0.53	-0.98 – -0.09	0.017	0.31	-1.05 – 1.67	0.655

Table 6.9 - Comparative model results for the Cardiff Voices younger and older speakers

Figure 6.10 visualises this interaction: young men of both classes have a similar ‘backness’ of the START vowel, but compared to working-class young women, the men have a significantly further back START vowel. It is important to note that there is only one young working-class woman, Samantha, and she has the furthest front vowel of all the younger speakers as shown in the vowel space plot (Figure 6.11), which is likely to explain the significant difference. However, the younger men also have a considerably lower mean than the St Fagans older men, who were not included in the model above as we do not have socioeconomic information for them. This, which could suggest that there is more to the story, will be discussed in 6.4 below.

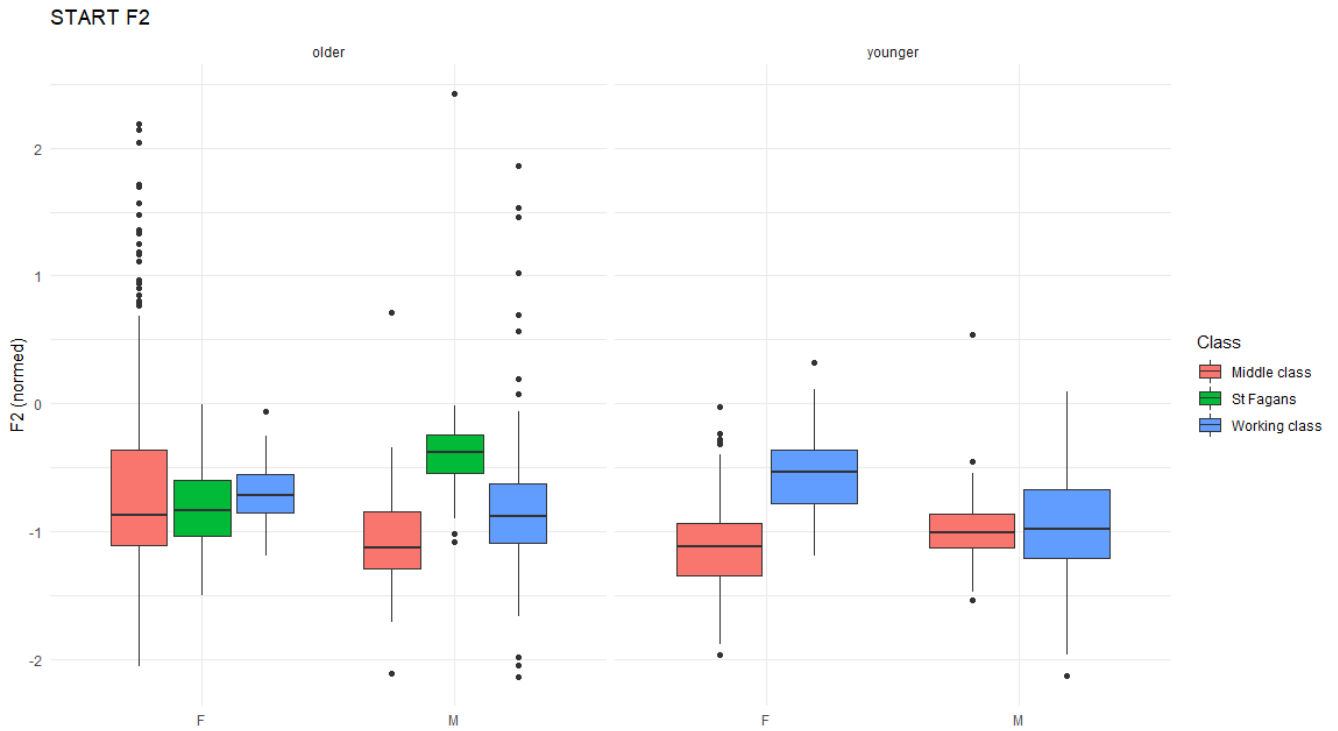


Figure 6.10 - Boxplots of START F2 for each age group, by gender and class. Includes St Fagans data for illustrative purposes.

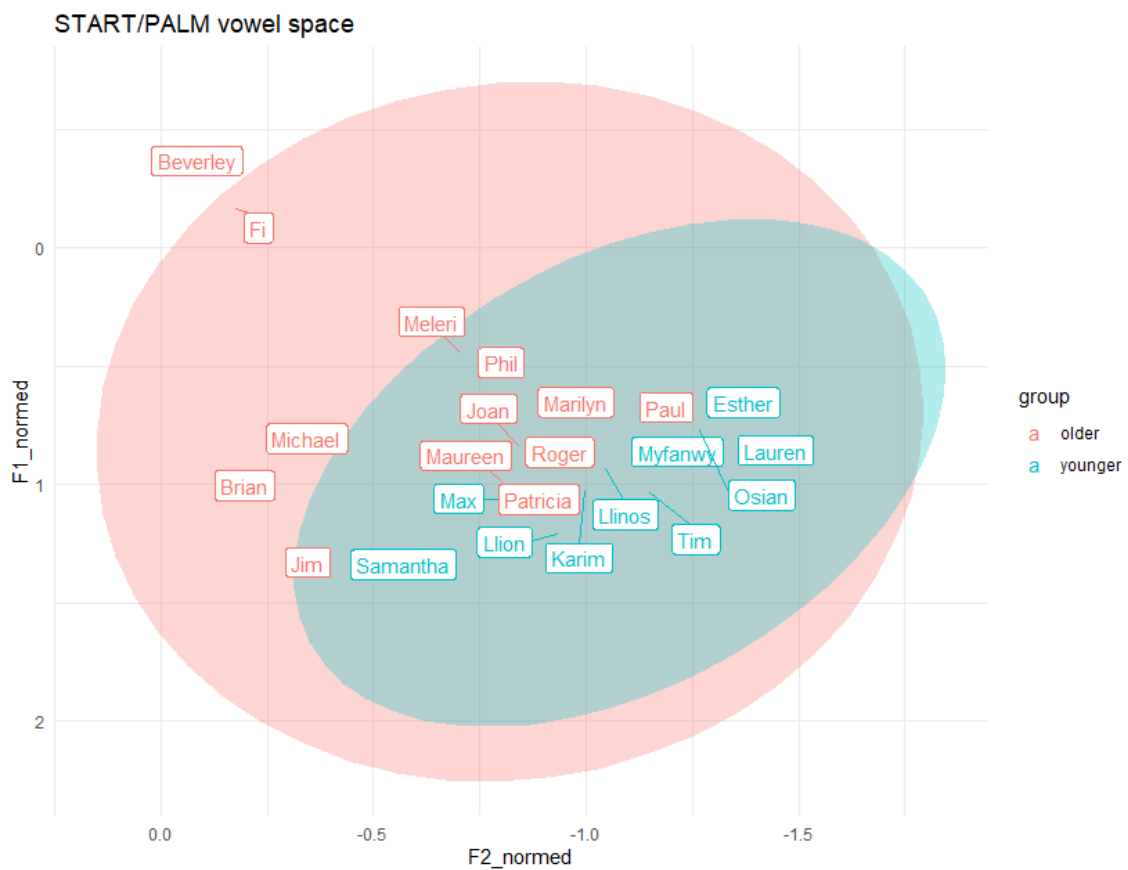


Figure 6.11 - Individual means for START/PALM. Speaker name is positioned as near as possible to their mean F1 and F2 values for this lexical set. As seen in Figure 6.6, Fi and Beverley were 'outliers' with regard to F1. This is why their means are at the edge of the ellipse here, which excludes the extreme 5% of values.

6.4 Discussion: The Kerdiff A – stigmatised and unstable?

The research questions addressed in the previous section were:

1. Are younger speakers less likely to use front and/or raised variants of BATH?
2. Are there sociolinguistic constraints on variable vowel realisations? Specifically for BATH, will a following fricative or middle-class status be associated with a back pronunciation?
3. If START-backing is taking place, is this occurring through regular sound change, or will the stigmatised nature of this vowel in Cardiff cause younger, middle class speakers to move away from it?

In addressing these, the previous section confirmed that younger speakers have lower F2 values (and thus ‘backer’ realisations) for the BATH and PALM/START lexical sets. LMERS did not reveal significant age differences in any lexical set’s F1 values, showing that all changes relate to backing rather than lowering of these vowels.

No statistically significant effects of phonological environment were found for BATH-backing, in contrast to the indications from Mees and Osorno (2017), but the same high degree of intra- and inter-speaker variation was apparent. This is consistent with other studies suggesting it spreads by lexical diffusion, and could thus be associated with levelling. This will be returned to in Chapter 8, where BATH-backing will be examined alongside other SSBE features analysed in this thesis.

START-backing has been noted as well-advanced in neighbouring dialects of south-west England, and as such could also be spreading from these varieties. However, analysing the younger speakers separately suggested that young men may be leading the change, which does not tend to be the case for levelling changes. As the START lexical set’s ‘Kerdiff A’ is a locally stigmatised vowel, this warrants further discussion.

As presented above, the highest F2 values (and thus furthest front vowels) were found in the young working-class women – a sociolinguistically unexpected finding that can be explained by this group consisting of only one speaker. As such, it is worth returning again to the issue of small sample sizes when drilling down to class and

gender groups. While the mixed effect models take into account any disproportionate influence of one individual speaker, it is hard to draw strong conclusions based on class groups. However, here is where the St Fagans archive speakers can be brought in some more. Despite my being unable to classify their socioeconomic status in the same manner as the contemporary speakers, background information discussed in their interviews would lead me to assign at least two out of three men in this group to the working-class group. Additionally, the gender patterning of the St Fagans speakers aligns with expected sociolinguistic patterns for START, and as such they could be used as a proxy here to aid interpretation.

Doing this shows that the biggest difference is between older and younger working-class men (Figure 6.10 above). The women of comparable class groups have maintained a similar pattern across time, albeit with a slightly larger class difference in the younger speakers, suggesting that START variation is stable amongst women. But all the young men, regardless of class, have a similar backness of START to that of the young middle-class women. Does this suggest that young men are moving away from the stereotypical Kerdiff A in START?

The link between ‘*Kerdiff*’ and class came up implicitly in a few interviews when I asked general questions about the Cardiff accent. In Extract 6.1 below, Fi identifies the Kerdiff accent as having a raised, fronted vowel quality in START. The two example words she gives for this are *Cardiff* as [‘kē:dif] and *park* as [pē:k], demonstrating the recognisability and stigmatisation of this realisation of the START vowel:⁹³

the Cardiff accent to me, is um- can be awful. "Meh", you know, we say things that, "Kerdiff", and "park" [exaggerated accent]. And things like that. Um ... some are very broad. And it- even that, oof, I think, "oh my!"

Extract 6.1. Interview with Fi, 1:05:08

⁹³ Performed words were included in the formant analyses for two reasons: they were rare enough to not impact the averages greatly (there were two tokens for Fi out of 331, and one for Phil out of 557), but I also considered them to represent dialect that they had access to.

A Kerdiff accent is the broadest version of the Cardiff accent and interestingly, is also perhaps one that is not geographically tied to the city of Cardiff anymore, as suggested in Extracts 6.2 and 6.3 from Phil and Fi:

Um 'cause if you want to hear a real Cardiff accent, "a real Kerdiff accent" [exaggerated], then go to Barry! [laughs] It's much more pronounced over there.

Extract 6.2. Interview with Phil, 1:24:27

Fi y- you see, my accent can- will sound really broad now, on the tape, I will sound like somebody off -what's the name? Oh, what's the programme? From Barry? Nessa=
Interviewer =Oh, *Gavin and Stacey* [laughs]
Fi I'll be like- I'll be like Ness.

Extract 6.3. Interview with Fi, 1:07:06

Barry is a town in the Vale of Glamorgan, 10 miles from Cardiff but in a different council area. Like Cardiff, its growth was built around docks and the coal industry (Mills 2019) and it thus attracted similar in-migration in industrial times, but did not benefit from the increased civic wealth afforded to Cardiff after it gained capital city status in 1955. Barry has high levels of deprivation according to the Welsh Index of Multiple Deprivation, and in recent years has become well-known in British pop culture as the setting of TV sitcom *Gavin and Stacey*. The following extracts from an interview with Max, who grew up in the Canton area of Cardiff but had recently moved to Barry,⁹⁴ reveal that *Barry* seems to be used euphemistically for 'working-class' – and behaviour and accent are strongly linked here. There is a sense of being uncomfortable discussing this, and Max makes an effort to not describe the culture as bad, just different – while also mentioning 'bad areas' and thus linking the two (lines 3-6, Extract 6.4).

Interviewer	That's- [laughs] um and so is it- what's it like now living in Barry? Is that a bit different? Now you're kind of- first time outside of that area?	1
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⁹⁴ Due to the recency of the move, I did not consider this to make him ineligible for inclusion.

Max	Yeah, it's- it's another world, to say the least. Especially at night^, it's a bit zombie-land up there.	2
	Because it's such a completely different culture^.	3
	Uh ... for no other reason than it's just a different culture, you know, there's nothing bad or good about it,	4
	b- well, th- their ⁹⁵ - their- every area- every place has their bad areas, and bad people, I suppose, but uh it is ...	5
	it's quite funny sometimes, just- I think the- the filter for people speaking is not- not so much there, up in Barry,	6
	they'll sort of- if they want to say it, they'll say it.	7
	And then think- maybe not even think after what they said, they'll just say it.	8
	Uh and they don't- don't really mind how- how loud they say it, so you could be just walking down the street and all of a sudden there's- there's shouting going on.	9
	And it's nothing more- you think, "oh, what's happening here now? Something- a fight's going to break out,"	10
	and it's nothing more than two people getting in contact with each other,	11
	it's like, "ah! How are you, alright?" "Yeah, I'm fine, see you later!" [exaggerated, loud]	12
	So, it is a bit weird, it is a bit weird.	13

Extract 6.4. Interview with Max, 45:04

This link is further brought out by Max a couple of minutes later (line 2 in Extract 6.5 below – “Barry or Ely”). Ely is an area of Cardiff that also has high levels of deprivation, with the majority of its constituent areas appearing in the 10% most deprived Lower Super Output Areas (LSOAs) at the last report in 2014 (Welsh Government 2016). Here, Max has to make explicit the link between community, class and accent, while acknowledging that this is not something we are ‘supposed’ to talk about in this way. By mentioning Cardiff City [Football Club] in line 13, there are also implicit links made to working class male culture. While it is of course not only men who go to Cardiff City football matches, the local connotation of home matches at Ninian Park Stadium is of the ‘rowdy’ Canton stand which is largely male and working class.

⁹⁵ It is possible that these words could be the homophonous *there* or *they're*.

Interviewer	one thing that people tell me is like um "oh, if you want a real Cardiff accent, you got to go to Barry." [laughs]	1
Max	Barry or Ely, I would say, yeah.	2
Interviewer	Are where the- the- the hardcore kind of- [laughs]	3
Max	Yeah, yeah, because it's- it's that sort of community, you know.	4
	Um ... not that there's anything wrong with either place, particularly,	5
	but it- they're both seen as- as ... I suppose lower market and lower classed areas,	6
	which is bad to say at this day and age, but it's- it ...	7
	... I suppose th- because it- this is the city centre, it's going to be like in any- any country re- or- or- really,	8
	the- the closer you get to the city, th- the more the people will be better off or well-off or- or with money or something,	9
	so they're more likely to have a better la- a better grasp on the language^.	10
	Um ... so I think the further you go out, there's more- the- the- the w- the slang starts settling in, um ...	11
	yeah, so the accents- but the- the- the- the real Cardiff accent is Barry or Ely, I would say.	12
	So anyone who goes down to watch Cardiff City, I'd say that-	13
	if you wanted to do research on accents and you wanted a Cardiff one, just go down there.	14

Extract 6.5. Interview with Max, 49:58

These examples illustrate the public perception of a broad, working class ‘*Kerdiff*’ accent that is characterised by loudness and harshness. As is common with broad regional accents, there is also an indexical relationship with ‘maleness’ that (in my data) has not been explicitly realised, but is implicit in Max’s excerpt which links Cardiff City football fans to a ‘real’ *Kerdiff* accent.

These indexical relationships are perhaps most easily recognised in the START vowel, which is the only vowel sound explicitly mentioned by my participants.⁹⁶ As Coupland would argue, part of its salience is due to its occurrence in locally significant words and phrases – e.g. *Cardiff Arms Park*. However, what is not clear is if it is a *marker* or a *stereotype* (following Labov 1972): the difference being whether it is recognised by people *outside* the community as being a salient marker of place. I

⁹⁶ The NURSE vowel /ø/ in words like *here*, *ear* and *year* is also mentioned by some speakers but is shared with other South Wales accents.

would suggest that while it is a stereotype within the Cardiff speech community, it does not have out-group awareness. One of the older men, Carl (who is incidentally from Ely and a Cardiff City fan), tells an anecdote of working in Portsmouth and trying to teach two local barmen who considered themselves to be good at doing accents a real “Ely Cardiff accent”. The phrase Carl tries to get them to learn is full of PALM and START words – “my father got a smart car”⁹⁷ – and the humour in the storytelling comes from him exaggerating and lengthening the first vowel in *father* as [‘fe::ðə] while the Portsmouth boys’ reported attempts sound like a rhotic West Country ‘farmer’ stereotype.

This distinction is important because markers can potentially be subject to change due to their salience, which leads to stylistic and social stratification. And while the same can be true for stereotypes, their ‘ultra-salience’ can also have the converse effect of protecting them from change (Trudgill 1986). However, outside of South Wales, the Cardiff accent does not appear to have any recognisable or distinguishing features, and as indicated by the orthographic variation in representations of ‘Kerdiff’ e.g. Kairdiff, it does not seem to be fully enregistered even within the local community. Johnstone (2010) argues that enregisterment solidifies the link between space and place, in the process reducing the strength of other indexicalities such as gender and class. In lieu of full enregisterment, and along with the element of ‘cultural cringe’ explored through qualitative data from interview participants, we could be seeing the early stages of a move away from the stigmatised START vowel among the young men of Cardiff. Analysing the other low vowels allowed us to see that this move occurs alongside BATH-backing (and TRAP-backing, although this was not analysed in more detail), which suggests a wider vocalic shift towards the back of the vowel space by younger speakers. This brings their realisations of these vowels closer to southern English varieties, and indicates levelling – whether that is vertical levelling to the standard RP, horizontal levelling to supraregional

⁹⁷ I think this also displays a zero-realisation of HAVE e.g. *my father’s got a smart car*, but I cannot be sure from the context.

southern British English, or the two influences working in concert. Chapter 8 will further address this question of different directions or influences when bringing together all the variables analysed in the thesis.

Chapter 7 “What it is, see...”: tapping and glottalisation of /t/

Glottalisation of word-final and word-medial /t/ was discussed in some detail in Chapters 1 and 2, as this feature is considered one of the most ubiquitous and representative examples of dialect levelling in Britain. It is also a relatively well-studied feature in Cardiff English (CE), where real-time studies found glottal realisations of /t/ to be favoured over the local Cardiff variants, t-tapping⁹⁸ [t̟ r̟] and elision (zero-realisation ∅). However, the last data collection point for analyses of /t/ in CE was 30 years ago in 1990 (Mees and Collins 1999), and since then the glottal has spread much further – geographically and in terms of proportional use – and it has been suggested that this language change is nearing completion (Smith and Holmes-Elliott 2017). This chapter will provide an updated analysis of the current situation regarding /t/ variants and dialect levelling in CE by investigating the variable in word-final, pre-vocalic contexts.

The first section will discuss results from previous studies for /t/ variation in CE, using these to make predictions about what we would expect to find 30 years on. I will then present the methods used in the current analysis, followed by the results. Discussion of the results will address the arising sociolinguistic issues of linguistic insecurity and de-standardisation, and will introduce the phonological concept of lenition to explain the linguistic constraints on glottal realisations in the data.

7.1 The /t/ variable in Cardiff English

The main studies that look at /t/ in Cardiff English are Coupland’s (1988) work on transactional speech in a Cardiff travel agency, Mees’s (1983) PhD thesis looking at the speech of Cardiff schoolchildren at two points in time, and Mees and Collins’s (1999) real-time study which re-interviewed some of the original participants from Mees’s earlier thesis. There is not an exact overlap between the variables studied in

⁹⁸ Only [r̟] is a tap, but these realisations are grouped together following Mees (1983: 119) as they are all voiced articulations. The common Cardiff expression quoted in the title of this chapter is often heard as [ˈwɒrɪr̟,ɪz].

each, meaning that results are not always directly comparable. As such, the purpose of this section is to tease out the relevant results by separating the variables and their different contexts in order to give a clear pointer to what I will do and what I expect to find in the current data.

The first point to make is that the /t/ phoneme appears in a wide range of phonological contexts, and the studies examined here have separated these in different ways according to their own aims. These approaches are summarised in Table 7.1, and I will now describe each in detail. Coupland’s focus was on variables that were “socially and stylistically diagnostic in Cardiff” (1988: 57), as compared to RP or ‘standard’ realisations. Two of these variables include realisations of /t/: as part of a consonant cluster (e.g. *next day*) and in intervocalic position both word-medially and word-finally (e.g. *little, put on*). He coded both of these variables as binary choices between RP and local pronunciations, with the precise realisations varying slightly between the variables. For consonant clusters, an elided alveolar was the local variant, while RP realisations included [t], glottals and assimilated forms - e.g. [ˈðɑʔˈθɪŋ] for *that thing* and [ˈlɑːsp_ˈpəʊst]⁹⁹ for *last post* (Coupland 1988: 62). Because Coupland groups glottal realisations with [t] and assimilated forms, the consonant cluster variable will not be considered further as his account does not give us specific information about glottal use. For the intervocalic /t/ variable, the RP form was [t] and the local forms were voiced allophone [ɾ] or tapped [ɾ] – e.g. [ˈkwæɪɾ ə] for *quite a* and [ˈlɒɾ əv] for *lot of*.

Variable	Example/includes	Study
consonant cluster	<i>don't go, next day, that's</i>	Coupland 1988
intervocalic t	<i>water, put off</i>	Coupland 1988
(T)	e.g. <i>kitten, chart</i> - all words containing word-medial or word-final /t/ except the subset below.	Mees 1983

⁹⁹ I have added the linking symbol _ for clarity, as it is not clear in Coupland’s example [ˈlɑːspˈpəʊst] whether the symbol before the second [p] is a stress marker or an indicator of lack of plosion.

(t)	e.g. <i>bit, get, put</i> – a subset of high-frequency, monosyllabic words	Mees 1983
		Mees and Collins 1999

Table 7.1 - /t/ variables in different studies of CE

Mees (1983), in contrast, looked at all occurrences of syllable-final /t/ but split the tokens into two groups, labelled variables (T) and (t), depending on lexical item, as outlined below. These two groups were further split by phonological context – pre-pause, pre-consonant and pre-vowel for (t) and (T), and the additional word-medial context for (T), making a total of 7 variables that contain /t/ realisations. The (T) variable consisted of all words containing syllable-final /t/, excluding a set of high-frequency words which were separated off as variable (t). It is not clear to what extent this variable can align with Coupland’s consonant cluster variable: based on the description it should, but none of the examples Mees gives have a consonant cluster (1983: 122). The (t) variable words were usually monosyllabic words ending in /t/, and were distinctive because the final sound could be realised with the Cardiff variants t-tapping and elision (not possible for the (T) words).

Finally, Mees and Collins’ (1999) analysis aligns with Mees’ (t) variable, as they analysed word-final /t/ in three phonological contexts in the same subset of high-frequency words, discussed in more detail later. Coupland’s intervocalic /t/ variable aligns best with the (t) subset used in Mees (1983) and Mees and Collins (1999), although his variable contains additional lexical items. He does not consider this problematic due to Mees’ note that the subset made up 85-90% of all /t/ occurrences, so a broader variable context would not impact the overall findings greatly (1988: 63).

When conducting her analyses, Mees observed that the Cardiff variants t-tapping and in particular elision tended to be lexically restricted to a subset of high-frequency words.¹⁰⁰ This motivated her separation of /t/ into the two variables (t) and (T). As the focus on this chapter is on whether the spread of the glottal has impacted local Cardiff

¹⁰⁰ There were only seven occurrences of elision outside this subset. It is difficult to compare this to total token numbers due to how Mees separates and presents the token numbers, but as an illustration, there are 679 tokens of (t) in pre-vocalic contexts (1983: Table 8, Appendix F).

variants, only the (t) subset will subsequently be discussed as that is the main context where CE tapped and elided variants are found. The nineteen words in variable (t) are largely grammatical and monosyllabic: *it, bit, get, let, at, that, got, lot, not, what, put, but, might, quite, right, out, and about; yet* before a pause; and in the phrase *sort of* [sʌ:əv] (Mees 1983: 120). However, the linguistic basis for the creation of this subset is somewhat under-defined. With regards to phonological constraints on realisations of the Cardiff variants, elision is possible pre-pausally, pre-vocally, and pre-consonantly, while t-tapping is only possible pre-vocally across a word boundary e.g. *bit of* [bɪrəv].

Mees coded realisations of /t/ in the subset variable (t) according to five discrete categories based on phonological similarity¹⁰¹ as listed in Table 7.2 in order to avoid imposing a relationship of standard/non-standard use as “it was not immediately apparent... which of the realisations were associated with high status and which with low status” (Mees 1983: 122). As will be detailed below, she found gender and class differences with regards to which realisations are produced.

Category 1: unvoiced [t] variants	[t], [t ^h]
Category 2: glottal reinforcement	[ʔt], [ʔt ^h], [t ^j]
Category 3: glottal replacement	[ʔ]
Category 4: tapped variants	[ɾ], [ɽ], [ɻ]
Category 5: zero realisation/elision	∅

Table 7.2 - Categories of /t/ realisation in Mees (1983: 121). My category names and glosses.

Mees and Collins’s (1999) analysis of glottalisation in real-time uses the (t) variable, which is the subset of high-frequency words from Mees (1983) excluding *yet* and *sort of* which were more restricted with regards to possible realisations. Their study presents data from four working class women interviewed at three points in time: 1976, 1981 and 1990. They grouped the realisations into four discrete categories which essentially merge Categories 2 and 3 from Table 7.2 above: [t], glottal [ʔ] with

¹⁰¹ Not all of Mees’s phonological realisations have been included here due to print issues where the symbols are unclear. My use of [t^j] is an estimation of one such case.

glottally-reinforced [ʔt], tapped [t], and elision/zero-realisation Ø. No explanation is provided for their decision to merge glottally-reinforced and glottally-replaced /t/.

The following section will discuss the sociolinguistic factors found to be relevant to the /t/ variable in studies of CE. Direct comparisons between the three studies are complicated by Mees's lexically-determined separation of the /t/ variable into two groups, and the different number of discrete categories of realisation across the different variables used in each study. Due to the lack of direct comparability, and the phonological constraints on realisation of different variables, I will focus on intervocalic /t/. In Coupland (1988: 62-63) this includes word-medial /t/ and word-final, pre-vocalic /t/, while Mees (1983) uses the term 'pre-vocalic' for word-final, pre-vocalic /t/ in the subset of high-frequency words, and 'word-medial' for intervocalic /t/ in all other words.

7.1.1 Sociolinguistic factors relevant to intervocalic /t/

Coupland's intervocalic /t/, the non-standard variants of which are referred to collectively as t-tapping,¹⁰² displays social stratification by class and gender, with women t-tapping around 20 percentage points less than their male counterparts – 4% compared to 22% in the middle-class group, and 57% compared to 81% in the working-class group¹⁰³ (Coupland 1988: 81). With regard to occupation, non-standard use was more common in those with lower-socioeconomic statuses¹⁰⁴ (Figure 7.1). Interestingly, stratification by education followed a slightly different pattern with t-tapping decreasing considerably between those who left school before taking exams and those who stayed on, but not decreasing further as educational attainment increased (Table 7.3 defines each education and occupation group). When describing the demographics of his participants, Coupland noted that educational attainment

¹⁰² He makes no mention of the glottal variant here.

¹⁰³ For the presentation of gender differences, Coupland merged the professional and intermediate class groups. However, the three groups were kept separate when looking directly at class, as discussed next.

¹⁰⁴ I have reversed the numbering system of education categories used by Coupland to fit more intuitively with the system used for occupation.

was not linked to occupational status except “at the extremities of the social scale” (Coupland 1988: 69): the educational background of people in groups II (intermediate occupations) and III (skilled non-manual occupations) varied widely from having left school at age 14 to college or university educated (ibid: 72). This indicates that, at least for this variable, education and occupation should not be conflated as they pattern in different ways, and that in general, language variation studies should consider these factors separately, at least for initial data exploration. Furthermore, it suggests that occupation is a more important predictor of t-tapping than education.

	Group 1	Group 2	Group 3
Education	College/university	A-/O-level/CSE	No public examinations
Occupation	Professional and intermediate	Skilled non-manual	Skilled manual, partly skilled and unskilled

Table 7.3 - Description of Coupland's education and occupation categories

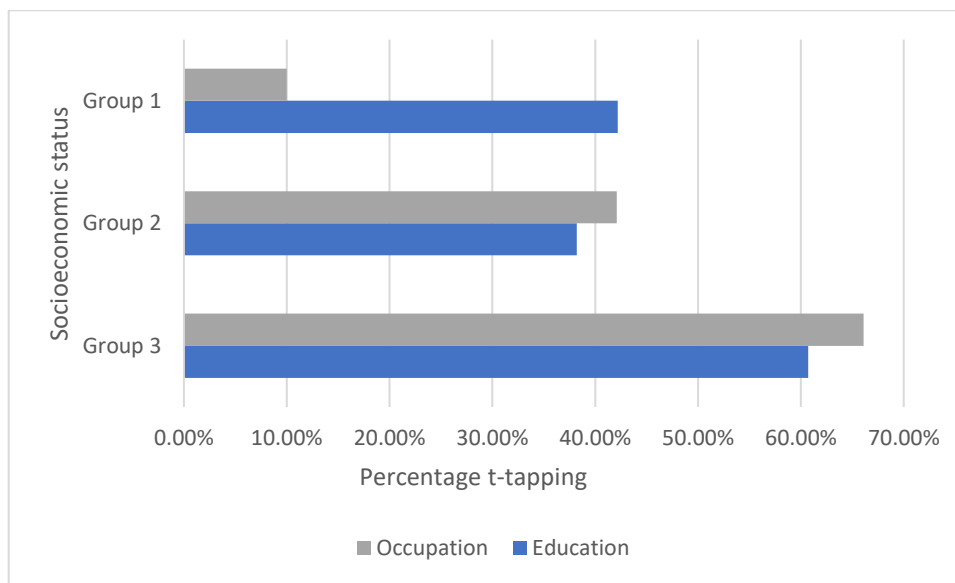


Figure 7.1 - Rates of t-tapping by education and occupation. I have created this graph using data from Coupland (1988:78-80).

On the basis of Coupland’s findings, we should anticipate that Mees’s study, published five years earlier, would report a similar pattern of t-tapping according to gender and occupation.¹⁰⁵ As already outlined, it is difficult to make such direct

¹⁰⁵ In this case, parents’ occupation is used as a proxy for the children’s social class.

comparisons between the studies, but there should be considerable overlap between Mees' (t) variable in pre-vocalic contexts, and Coupland's intervocalic /t/. To that end, I will now look at Mees's (1983) results for the (t) subset before a vowel, e.g. *get off*, *put up*. Mees's study includes interview-style (informal) and reading-passage style (formal) speech, but I will only discuss the informal style here as this is most relevant to the thesis question. In the interests of space and to avoid over-complication, I will mainly discuss findings from Mees's first data collection point in 1976 when the children were aged 10-11 - before the 'adolescent peak' when the next set of data was collected.¹⁰⁶ Figure 7.2 shows the pre-adolescent proportional distribution of variants according to social class, where Class 1 is the group with the highest SES (according to their parents' occupations) and Class 3 the group with the lowest. As can be seen, the working-class group had the highest proportion of the local Cardiff variants elision and t-tapping, while glottals were used more by Class 1 and 2. Kruskal-Wallis H tests found the differences for these three variants across class groups to be significant at $p < 0.01$. There were some significant gender differences within the class groups (particularly, girls in Class 1 produced much more of the glottal than their male counterparts), but on the whole, proportional use of the five variants did not differ significantly by gender (Mees 1983: 161-162). These results partly align with Coupland (1988): t-tapping is stratified by class but not gender for the schoolchildren.

¹⁰⁶ As teenagers in 1981, the participants greatly reduced their use of standard realisation [t] in favour of the glottal [ʔ] while their use of other variants remained stable (Mees 1982: 236).

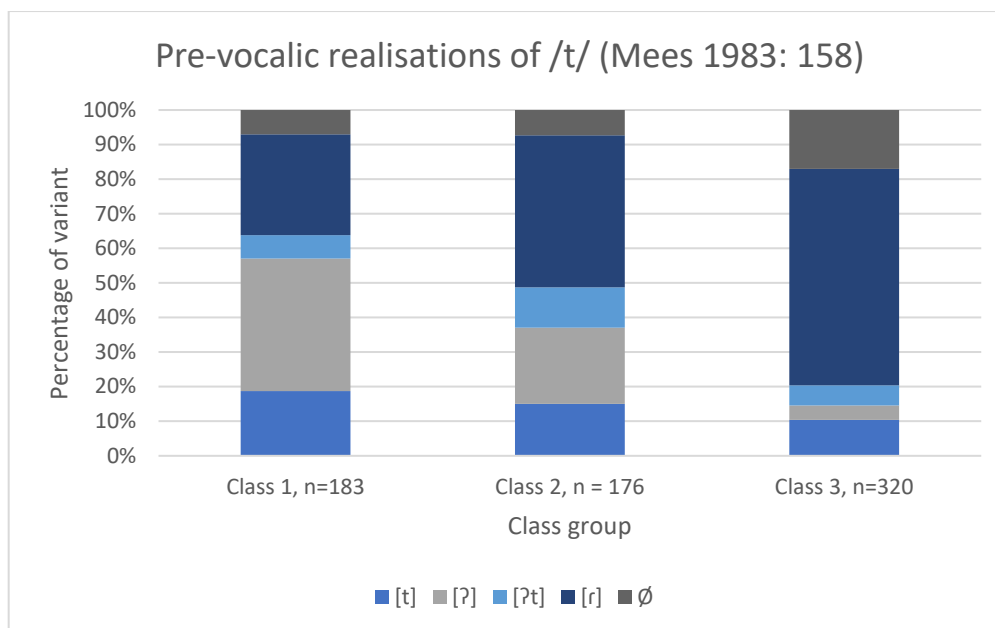


Figure 7.2 - Realisations of /t/ in the subset words. I have made this graph using data from Mees 1983. Class 1 is the highest SES, Class 3 is the lowest.

Mees and Collins (1999) offer a valuable opportunity to follow up on the patterns found by Mees (1983), in that they reinterviewed four of the original 1976 participants in 1990, when they were 24-25 years old. Their results showed a marked increase of the glottal in each phonological environment for the subset of 17 high-frequency words described above – before a consonant, before a pause and before a vowel (1999: 198). The data for the pre-vocalic context is shown in Figure 7.3, which displays an adolescent peak with 75% use of tapped [t̚] in 1981. This falls to 50% in 1990 – with standard [t] and glottal variants [ʔ, ʔt] favoured instead (Mees and Collins 1999: 198). As mentioned above, these results were for four working-class women, so there is no data regarding gender differences. An interesting class and social mobility element was discovered, however, as Mees and Collins noted that not all of the women increased their use of the glottal over time – the two who did had moved ‘up’ the socioeconomic scale by gaining higher status employment than their parents, by whose occupation they were categorised in 1976 and 1981 (Mees and Collins 1999: 198). Unfortunately for my purposes in the current study, Mees and Collins did not present individual data on t-tapping because their focus was on glottalization and t-tapping had too few tokens in the pre-vocalic context. As such it is not clear whether it is the same two upwardly-mobile women behind the reduced use of t-tapping in 1990, or

whether all women displayed the reduction. However, there is no reason to assume that this phonological context would display a different pattern to the others.

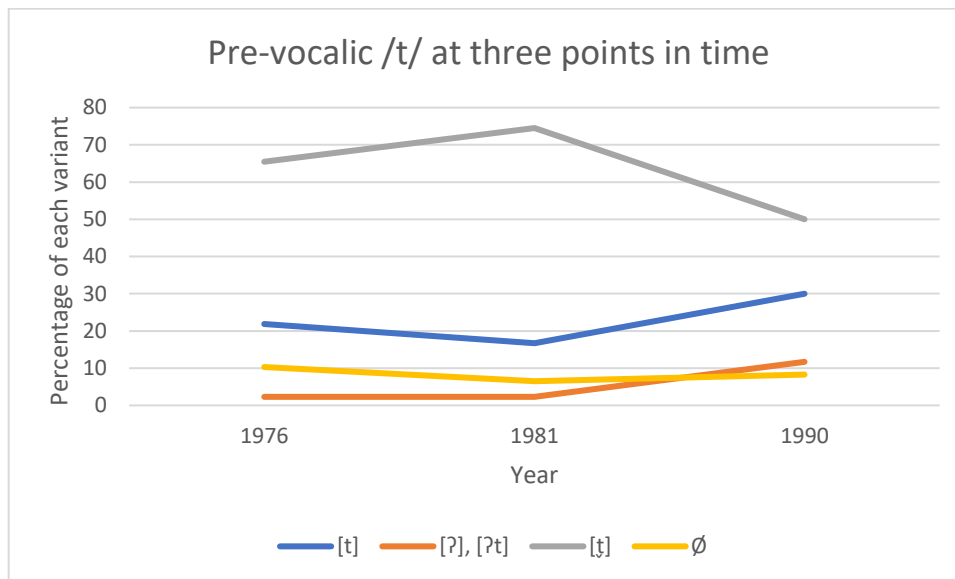


Figure 7.3 - Realisations of pre-vocalic /t/ at three points in time. I have made this graph using data from Mees and Collins (1999: 198).

7.1.2 Predictions for /t/ in present-day Cardiff English

As discussed in Section 2.3, /t/ is an ideal variable for identifying dialect levelling, as glottal replacement of it has spread rapidly and widely across Britain (Smith and Holmes-Elliott 2017: 324). Given the early attestation of the glottal as a levelling feature in CE (Mees and Collins 1999), and the subsequent spread of the glottal across Britain, I would expect rates of [ʔ] for /t/ to be significantly higher amongst younger speakers than older speakers. This is most likely to be at the expense of the tapped and elided variants in intervocalic positions, based on results from Mees and Collins (1999).

With regard to gender and class effects, results from other studies can help to inform predictions for CE. Smith and Holmes-Elliott (2017: 327) observe that in a range of studies across different varieties, as glottal replacement increases, gender differences decrease (cf. the stages of language change (Labov 2001) – as a change nears completion, gender differences decrease). As such, I would expect to find gender differences in older speakers today but not in younger speakers. The picture for class is somewhat more complicated: the traditional stigma associated with the glottal may

have reduced somewhat with its incursion into RP (Fabricius 2002), suggesting that class differences may not be as large in the latter stages of the glottal's spread. Furthermore, it appears to have held prestige in CE since Mees' first interviews in 1976. Given the prominent class differences found in all three previous studies, and the stigmatisation of the local variants for /t/, which were avoided in formal speaking styles (Mees 1983), it is possible that class differences will reduce over time. Specifically, the glottal, as a feature linked to dialect levelling (Kerswill 2003), is likely to be favoured by younger speakers of all socioeconomic statuses: middle-class speakers are likely to prefer it to [t], and working-class speakers are likely to use it since it does not represent a standard realisation. However, when local variants are used by younger speakers, they are more likely to be used by men and those with lower socioeconomic status.

In summary, the predictions about realisations of /t/ in present-day Cardiff English are:

1. Younger speakers will use significantly more glottals than older speakers, largely at the expense of local variants.
2. Older speakers will display gender and class differences with regards to glottal use.
3. There will be no significant gender or class differences in younger speakers with regards to glottal use.

7.2 Method

Of the various options for selecting occurrences of /t/, I opted to follow up on the (t) subset used in Mees and Collins (1999), in pre-vocalic positions only. While this potentially limits the range of the analysis, it offers a number of advantages, one of which is direct comparability with previous real-time results. More importantly, this subset is where the two local Cardiff variants t-tapping and elision are most likely to occur, and as such it will allow us to see whether dialect levelling as indicated by increased use of [ʔ] comes at the expense of standard [t] or the local variants. That is, it will indicate whether there is a move away from standardisation, or else from

stigmatised realisations that index a speaker's geographical and class identity (or both). Based on the literature around dialect levelling and previous evidence from Cardiff, the prediction made above is that the local variants will lose the most ground, but it is important to test this, especially given that evidence for change in real time came from only four women. As such, tokens were extracted from the following 17 words in pre-vocalic contexts only:

it, bit, get, let, at, that, got, lot, not, what, put, but, might, quite, right, out, about

Another benefit of looking at this subset is that it has the potential to highlight the rise of the glottal as a levelled feature. In word-final position, the production of glottals often demonstrates what is referred to as a constraint hierarchy¹⁰⁷ whereby they are most frequent pre-consonantly, then pre-pausally, then pre-vocalically (Smith and Holmes-Elliott 2017: 325-326). By isolating the pre-vocalic phonological context where glottals are least likely but still frequent, as Mees's (1983) results show, an increase in apparent time will indicate that linguistic constraints on the use of glottals are weakening.

Tokens of these 17 words followed by words starting with vowels were identified using the search function in ELAN, and results were coded auditorily as [t], [ʔ], tap [t̚] or elision/zero-realisation Ø. Where unclear, tokens were examined visually using Praat (Boersma and Weenink 2015). However, Foulkes et al. note that analytic problems may be encountered "even with good quality recordings" (2011: 65), which not all of these are, so tokens that were still unclear were excluded. This is estimated to be around 5 tokens per speaker.

Results were analysed using generalised linear mixed-effects models, created using a step-up approach as outlined in Chapter 3. The dependent variables were:

- age group (binary: old/young)
- gender (binary: male/female)

¹⁰⁷ This term is used in sociolinguistics seemingly unrelated to the generativist framework.

- occupation¹⁰⁸ (categorical: groups 1, 2 and 3)
- education (categorical: groups 1, 2 and 3)
- following *uhm* (binary: yes/no)

Age was included as a binary variable, with the older age group including the St Fagans speakers for the first set of statistical models. Ideally age would have been a continuous variable, as year of birth in the older group ranges from 1913 to 1953, but models failed to converge when year was used instead of age group. As such, the St Fagans data is excluded from the second set of models, but presented descriptively where relevant. Following Coupland (1988), education and occupation are included separately here, as his results demonstrated only a partial match between these factors with regards to intervocalic /t/.

A potential effect of following *uh* or *um* (hereafter *uhm*) was observed while coding the tokens – it seemed that these tokens were much more likely to be realised with [t]. I have not come across anything in the literature on filled pauses, which is mostly in the areas of pragmatics or psycholinguistics, to explain why they might exercise a strong constraint over phonetic realisation. However, I decided to include this as an independent variable to investigate further.

7.3 Results

This section will first present the descriptive and distributional results of the analysis (7.3.1), followed by the testing of the predictions using mixed-effects models in 7.3.2.

7.3.1 Descriptive results for the (t) variable

There are 3,792 tokens in total, distributed relatively evenly across three of the four variants – glottal, [t] and the tap – with a much smaller quantity of the zero realisation. See Table 7.4. Due to the fact that taps and zero realisation are both local Cardiff variants, they have been combined into a single category labelled CE (Cardiff

¹⁰⁸ Where known – education and occupation data is not available for the St Fagans data.

English) for the later analyses. For the presentation of both descriptive and statistical data in this section, tables and figures will display results for the full dataset except when featuring occupation and education factors, which are only available for the Cardiff Voices data.

Variant	n
[t]	1139
glottal	1327
tap	1234
zero	92
Total	3792

Table 7.4 - Token numbers for each variant

There is considerable variation in terms of the distribution of variants across the 17 words (Table 7.5, Figure 7.4), with some seeming to favour [t] – *at*, *out*, *right*, and *let* all have more than 50% realisation of [t] – while *not* and *lot* slightly favour glottal realisations, and *what* favours tapped realisations. Token numbers are very small for zero realisation, but *about* and *might* have relatively high proportions of this variant. While not originally part of the analysis, in order to explore the effect of following word a little more, I used the AntConc corpus tool (Anthony 2019) to find the top collocates of each word within the dataset, and have presented those that start with vowels in Table 7.5. Interpretations for these effects will be discussed in 7.4.3.

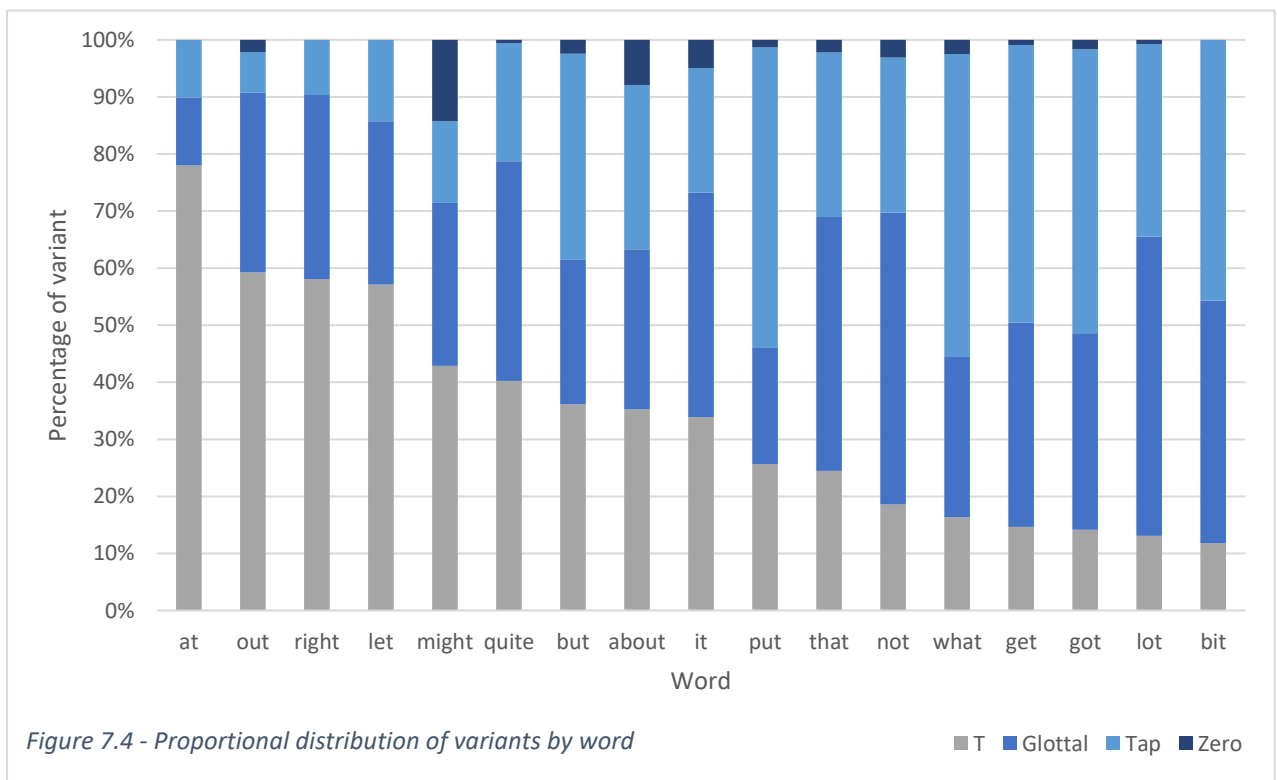


Figure 7.4 - Proportional distribution of variants by word

■ T ■ Glottal ■ Tap ■ Zero

Word	Total tokens	% [t]	Top collocates starting with vowels
at	109	78.0%	all, it, a
out	184	59.2%	of, and, in, on
right	31	58.1%	l
let	7	57.1%	alone, us, on
might	7	42.9%	as
quite	169	40.2%	a, often, interesting, um
but	871	36.2%	l, um, it, uh
about	139	35.3%	it, a, um
it	504	33.9%	is, in
put	78	25.6%	a, it, on, in, up
that	503	24.5%	l
not	129	18.6%	a
what	202	16.3%	l, it
get	218	14.7%	a, in, on, into, out
got	247	14.2%	a, it, on, um, an
lot	267	13.1%	of
bit	127	11.8%	of, about

Table 7.5 – Token numbers for each word, their proportion of [t] realisations and top collocates

Younger people use the glottal considerably more than older speakers (Table 7.6, Figure 7.5). This is mostly at the expense of [t], which is seldom used, but there is also a considerable reduction in the tapped variant. Younger speakers have a higher proportion of the zero realisation.

Variant	Older		Younger	
	n	%	n	%
[t]	1036	46.6	103	6.6
glottal	299	13.5	1028	65.4
tap	871	39.2	363	23.1
zero	15	0.7	77	4.9
Total	2221	100	1571	100

Table 7.6 - Distribution of variants by age group

As the older age group contains the St Fagans archive data (recorded 1993-2003) as well as the older speakers from 2017-18, I separated them out so that any differences could be seen. Figure 7.6 presents the proportional distribution of variants in the St Fagans dataset alongside the Cardiff Voices (CV) data, which has been split into old and young. Comparing the ‘Old CV’ group with St Fagans, the glottal has gained ground from [t] realisations, as has the tap to a slightly lesser extent. This is consistent

with the predicted increase of glottals over time, as the St Fagans speakers are generally older and were recorded earlier than the CV speakers.

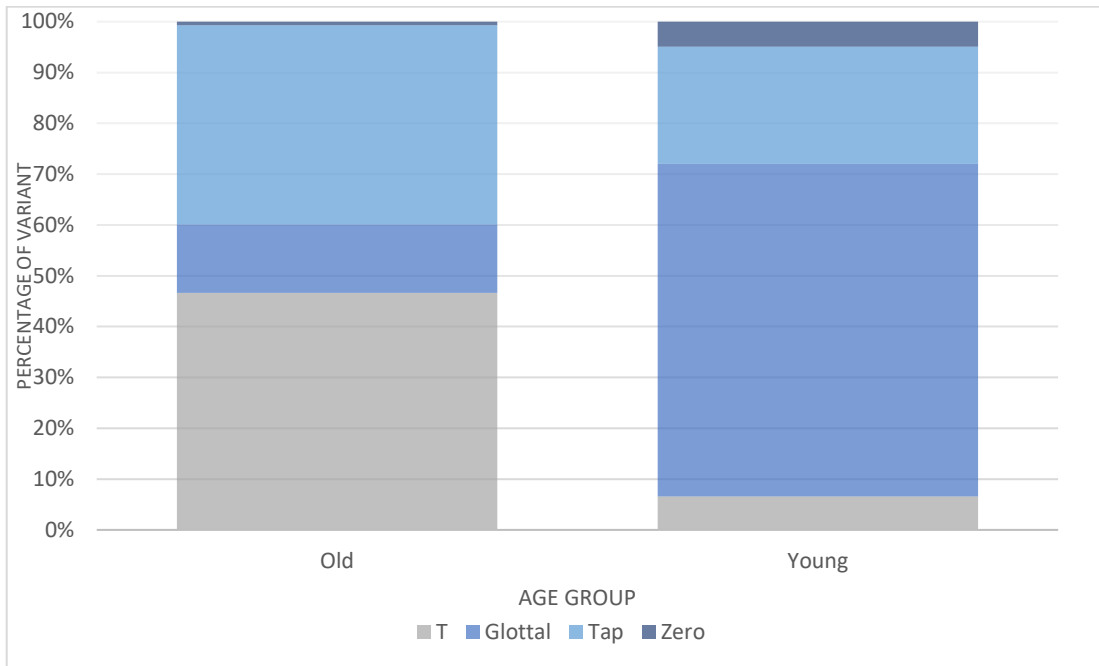


Figure 7.5 - Proportional distribution of variants by age group

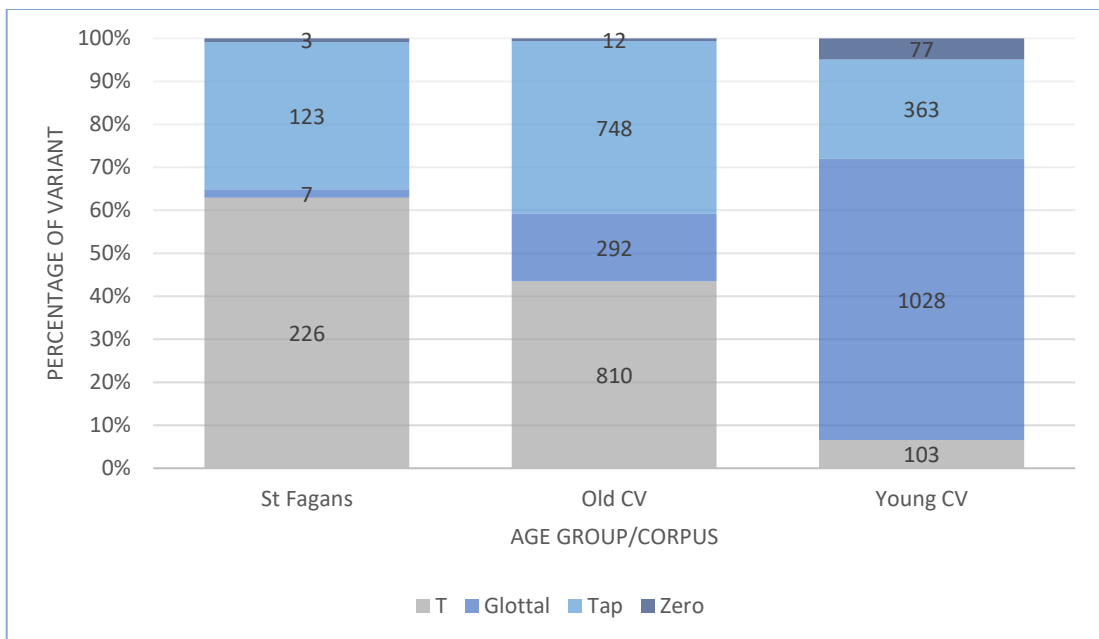


Figure 7.6 - Proportional distribution of variants by age and corpus. Token numbers presented for each variant.

Proportionally, men use more of each non-standard variant – tap, zero, and the glottal – than women, who use considerably more of the standard variant [t] (Table 7.7, Figure 7.7.)

Variant	Female		Male	
	n	%	n	%
T	719	36.6	420	23.0
Glottal	620	31.6	707	38.7
Tap	596	30.4	638	34.9
Zero	28	1.4	64	3.5
Total	1963	100	1829	100

Table 7.7 - Distribution of variants by gender

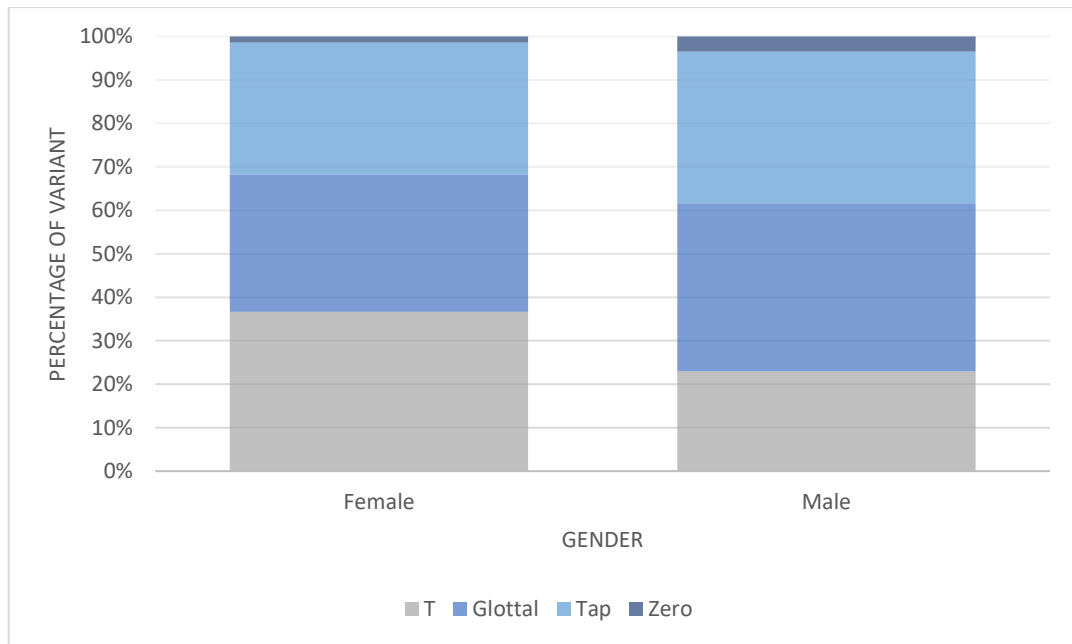


Figure 7.7 - Proportional distribution of variants by gender

The following tables and figures do not include the St Fagans data. In terms of occupational groups, Group 2 has higher rates of both [ʔ] and [t] than the other two groups (Table 7.8, Figure 7.8). Group 3 has the highest use of the Cardiff variants, tap and zero.

Variant	Group 1: professional		Group 2: intermediate		Group 3: service and manual	
	n	%	n	%	n	%
T	158	24.5	334	32.0	421	24.2
Glottal	272	42.1	510	48.9	538	30.9
Tap	208	32.2	191	18.3	712	40.8
Zero	8	1.2	9	0.9	72	4.1
Total	646	100	1044	100	1743	100

Table 7.8 - Variants by occupational group

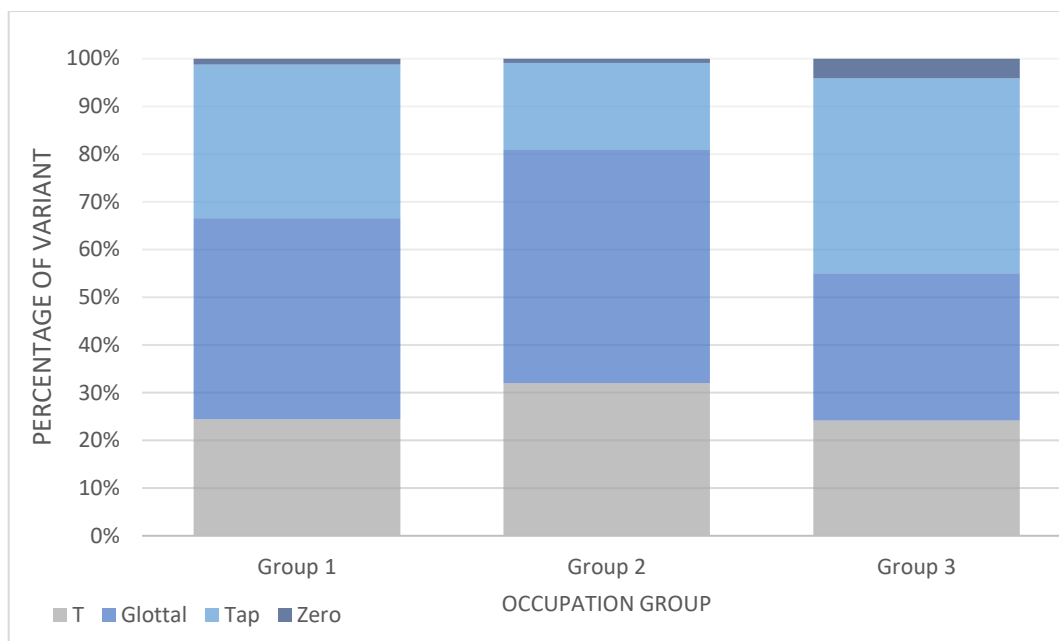


Figure 7.8 - Proportional distribution of variants by occupational group

Turning now to education, the university-educated group stand out by having more than double the proportion of glottals than both the college and secondary educated groups (Table 7.9, Figure 7.9) who have similar proportional distributions of all variants. One exception to this is the higher proportion of zero realisation in the university group, however, 40 of the 53 tokens are from one individual.¹⁰⁹

Variant	Group 1: University		Group 2: College		Group 3: Secondary	
	n	%	n	%	n	%
T	197	15.6	171	28.9	545	34.5
Glottal	810	64.1	151	25.5	359	22.8
Tap	203	16.1	265	44.8	643	40.7
Zero	53	4.2	5	0.8	31	2.0
Total	1263	100	592	100	1578	100

Table 7.9 - Variants by educational level

¹⁰⁹ The effect of individual is accounted for in the statistical models so this will not skew the analyses.

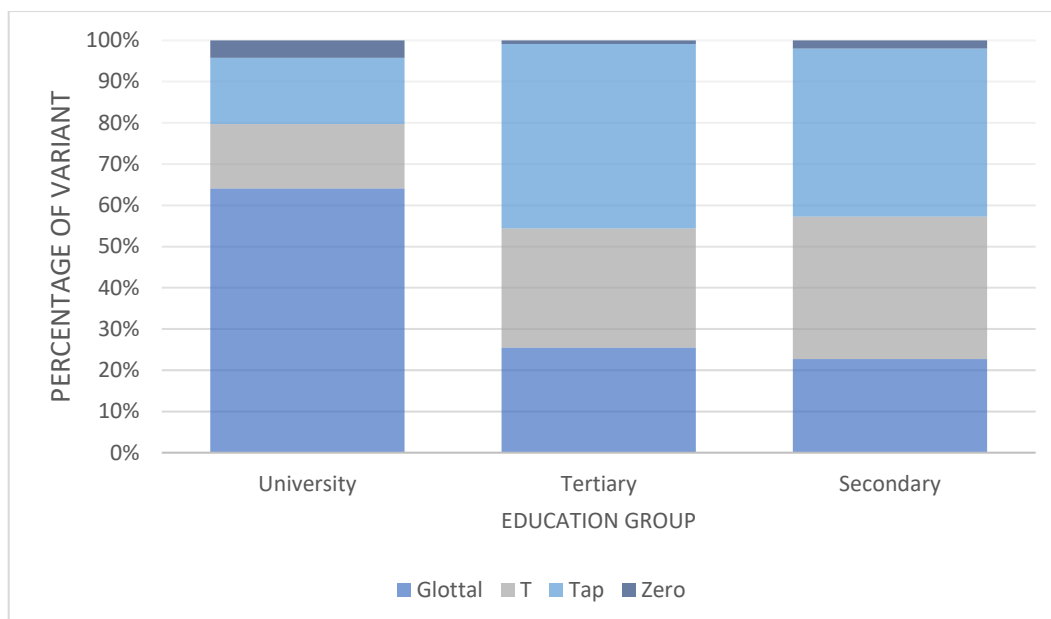


Figure 7.9 - Proportional distribution of variants by educational group

7.3.2 Statistical analyses for the (t) variable

I will now discuss results for the mixed model analyses. The *lme4* package can only function with binary dependent variables but there were three categories of variant for /t/ in this analysis. As such, I split the data into three datasets in order to conduct pairwise comparisons between each of the variants, and have labelled these comparisons as follows:

T1: CE and glottal

T2: glottal and [t]

T3: CE and [t]

In order to answer the primary predictions regarding age differences, the first set of model results uses the full dataset. Later results use the Cardiff Voices data only in order to address secondary hypotheses about social factors. As the social factor predictions only involve the glottal, only the T1 and T2 conditions are relevant for Hypotheses 2 and 3.

The following hypotheses are based on the original predictions outlined in Section 7.1.2 and reconfigured to fit these three sets of two-way comparisons. As such, they are somewhat more complicated than the predictions, as the variants have to be compared against each other in turn.

Hypothesis 1 (full dataset):

- i. T1: Young speakers will produce more [ʔ] than CE variants
- ii. T2: Young speakers will produce more [ʔ] than [t]
- iii. T3: Young speakers will produce more [t] than CE variants

Hypothesis 2 (Cardiff Voices older speakers only):

- i. T1: Speakers with lower levels of education and occupation will be more likely to produce CE variants than glottals.
- ii. T2: Speakers with lower levels of education and occupation will be more likely to produce [t] than glottals (as glottals came into CE as a prestige feature).

Hypothesis 3 (Cardiff Voices younger speakers only):

- i. T1: Speakers with lower levels of education and occupation will be more likely to produce CE variants than glottals.
- ii. T2: Speakers will favour glottals over [t] regardless of education or occupation.

The model formula for each comparison in the full dataset includes age group, gender and following *uh* or *um* (hereafter referred to as *uhm*)¹¹⁰ as fixed effects, and word and speaker as random effects. Table 7.10 shows a comparative summary of results, with estimates and standard errors converted into odds ratios (which range from zero to infinity) and confidence intervals (CI) using *sjPlot* (Lüdtke 2018). As an example for interpreting Table 7.10, in the T1 comparison where CE variants are the baseline and the glottal is the alternative, a number close to zero means that the CE variant is favoured – so with an odds ratio of 1.01, men slightly favour the CE variant. Higher numbers mean that the glottal is favoured – the young group odds ratio is 23.25, showing that they favour the glottal. Full model results, including conditional R^2 numbers which show how much of the model fit is explained by the fixed and random effects, can be seen in Appendix D. Because the same data was used across

¹¹⁰ As raised in 7.2, I decided that this variable warranted further exploration after noticing it while coding. It will be discussed further in 7.4.2.

three different models, the Bonferroni correction has been applied to the alpha level; and p-values will be reported as significant if they are less than 0.0167.

Hypotheses li) and lii) are confirmed – younger speakers are significantly more likely to produce the glottal stop [ʔ], when paired against CE variants in T1 and standard [t] in T2. However, Hypothesis liii) predicts that younger speakers will use standard [t] instead of local variants more than the older speakers (T3), and this is not supported by the model. Instead, we see that younger speakers favour CE variants over [t].

Predictors	T1			T2			T3		
	CE (baseline) and glottal			[t] (baseline) and glottal			CE (baseline) and [t]		
	Odds Ratios	CI	p	Odds Ratios	CI	p	Odds Ratios	CI	p
Group: young	23.25	7.19 – 75.19	<0.001	203.45	50.63 – 817.54	<0.001	0.16	0.04 – 0.64	0.009
Gender: male	1.01	0.32 – 3.20	0.985	2.38	0.63 – 9.07	0.203	0.29	0.08 – 1.06	0.062
Following uhm: yes	5.83	2.71 – 12.55	<0.001	0.06	0.03 – 0.10	<0.001	125.39	70.05 – 224.43	<0.001

Table 7.10 - Results for three models using the full dataset. Bonferroni correction applied to alpha level, 0.05/3 = 0.0167. Significant p-values in bold.

The model shows that gender is not a significant predictor in any of the pairwise comparisons, despite men favouring CE variants in T1 and T3. Looking at the interaction between age and gender (Figure 7.10), we see that gender differences are more apparent in the older speakers than the younger speakers: the younger speakers have similar proportions of each variant with the exception of zero realisation, which is used more by the young men. Older men use more of the glottal and the tap variants than the older women.

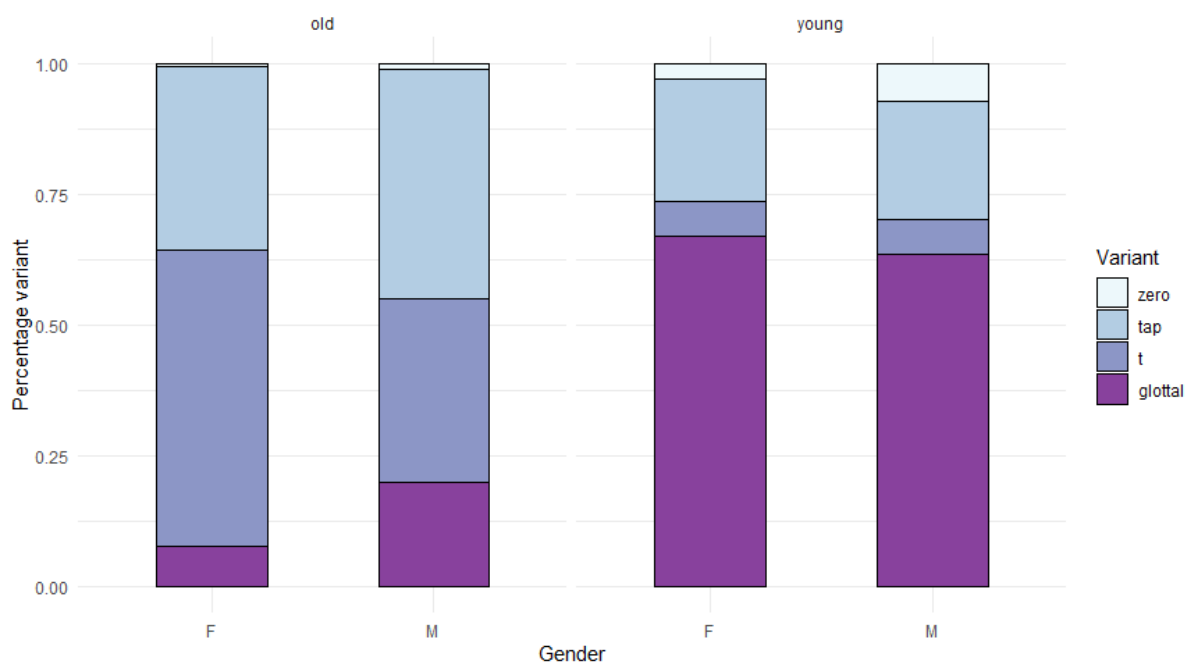


Figure 7.10 - Proportional distribution of variants by age and gender

The presence of a following *uhm* comes out as strongly significant in each comparison: this context favour glottals over CE variants, and [t] over glottals and CE variants. This finding will be discussed in Section 7.4.3.

Secondary predictions were that gender, education and occupation differences would be present in the older speakers but not the younger speakers regarding their use of the glottal, as this feature is nearing completion in its spread (e.g. Smith and Holmes-Elliott 2017: 349). To investigate this, only the Cardiff Voices dataset can be used because occupation and education information is not available for the St Fagans speakers. For these models, the dataset was split into two age groups and only the T1 and T2 comparison groups are used (as the T3 set does not contain glottal variants). The models were all fitted with gender, occupation, education and following *uhm* as fixed effects, and word and speaker as random effects.

As with the full dataset, gender was not significant in any of the comparisons, an interesting (absent) finding that will be discussed in the following chapter. The remainder of this section will look at socioeconomic differences regarding use of the glottal in the old and young groups separately.

Hypothesis 2 (Cardiff Voices older speakers only):

- i. T1: Speakers with lower levels of education and occupation will be more likely to produce CE variants than glottals.
- ii. T2: Speakers with lower levels of education and occupation will be more likely to produce [t] than glottals.

Hypothesis 2i) is confirmed in that older speakers in the lowest education group favour CE variants over glottals (Table 7.11), although occupation has no significant effect. However, Hypothesis 2ii) is only partially confirmed because older speakers in the medium occupation group significantly favour [t] over glottals while the lowest occupation group does not. It is difficult to see the cause of this in isolation, but when the data is compared with the younger speakers (Figure 7.11), it shows that young speakers produce more glottal and fewer CE variants according to occupation (Group 1 represents the highest occupation group). However, this (sociolinguistically expected) pattern is not found in the older speakers: groups 1 and 3 are similar to each other in their distribution of the variants, while group 2 use considerably more [t] and fewer glottals and CE variants than either of the other groups. In fact, they are more similar to the St Fagans data for which we do not have occupational information (shown as ‘SF’ in the graph).

Old	T1: CE (baseline) and [ʔ]			T2: [t] (baseline) and [ʔ]		
	Odds Ratios	CI	p	Odds Ratios	CI	p
Predictors						
Gender: male	1.16	0.30 – 4.48	0.835	2.29	0.42 – 12.45	0.337
Occupation group: 2	0.4	0.06 – 2.61	0.34	0.02	0.00 – 0.21	0.001
Occupation group: 3	1.35	0.31 – 5.88	0.693	0.21	0.03 – 1.35	0.1
Education group: 2	0.32	0.06 – 1.74	0.187	4.22	0.51 – 34.98	0.183
Education group: 3	0.12	0.03 – 0.44	0.002	0.34	0.06 – 1.81	0.207
Following NLI: yes	4.11	1.25 – 13.53	0.02	0.02	0.01 – 0.06	<0.001

Table 7.11 - Model results for older speakers, T1 and T2 comparison. Bonferroni correction applied to alpha level, $0.05/2=0.025$. Significant p-values in bold. Full model results in Appendix D.

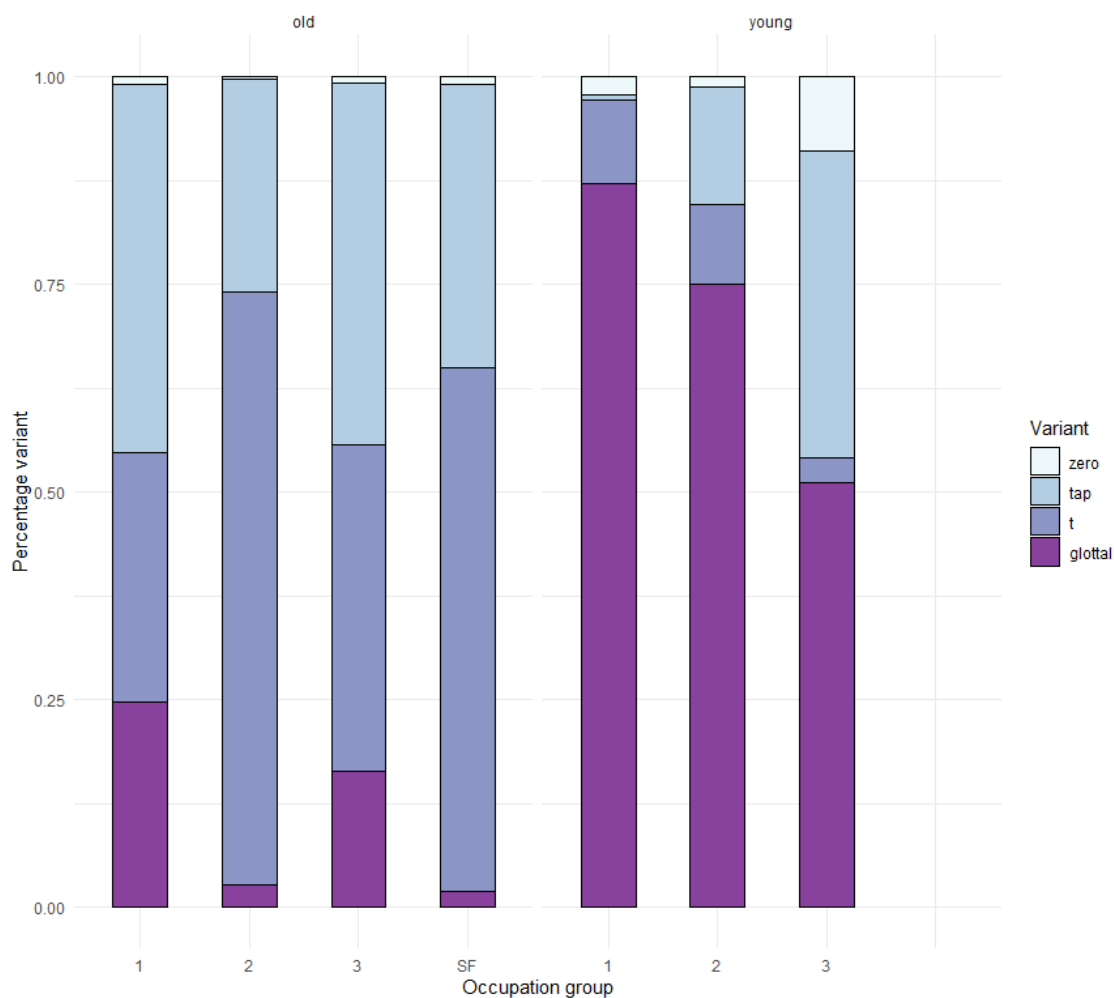


Figure 7.11 - Occupation groups by age group

There are a few potential explanations for this finding. One relates to the ‘linguistic insecurity’ of class groups that lie on the boundary between working-class and middle-class identity. This requires more detailed discussion, and will be returned to in 7.4.1. A second possibility is the small number of older speakers in Occupation Group 2: there are only two, Beverley and Marilyn, and they are both women, so results could be skewed in favour of the more standard speech often exhibited by women. As noted in Section 7.1.1, Coupland found that women consistently used more standard [t] realisations than men in each occupation group (1988: 81). A third possibility is related to the relative ‘newness’ of the glottal stop as a linguistic feature in Cardiff English. As mentioned earlier, the almost complete lack of glottal variants in the St Fagans data could indicate that the speakers in this dataset represent the time before the rise of the glottal. Ordering the individual speakers by year of birth in

Figure 7.12 supports this suggestion: the glottal is infrequently used by any of the speakers born before 1949 – including both Marilyn and Beverley.

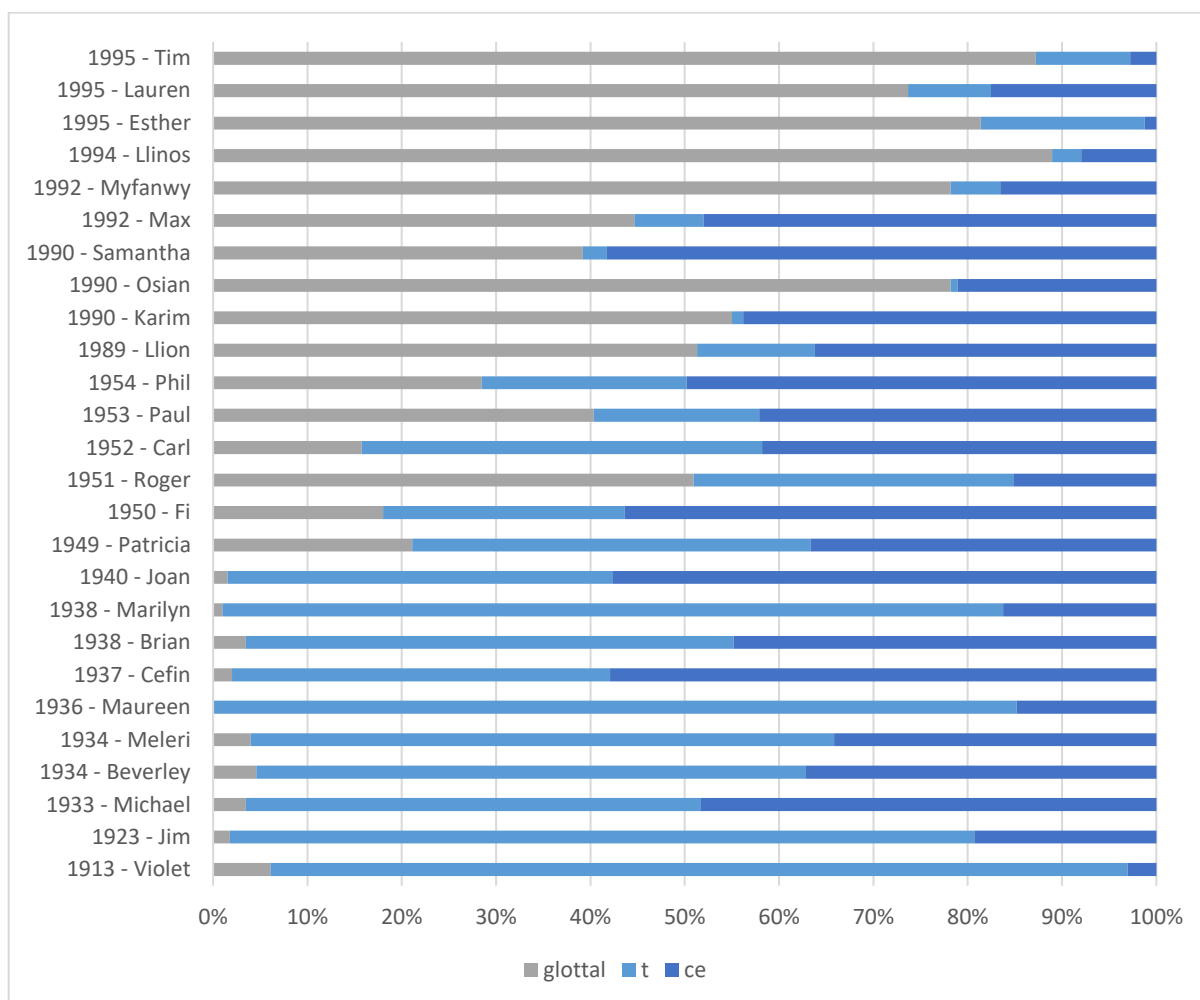


Figure 7.12 - Individual variation in proportional distribution of variants

Hypothesis 3 (Cardiff Voices younger speakers only):

- i. T1: Speakers with lower levels of education and occupation will be more likely to produce CE variants than glottals.
- ii. T2: Speakers will favour glottals over [t] regardless of education or occupation.

Turning now to the younger speakers, and the third set of hypotheses:

hypothesis 3i) is confirmed in that speakers in the lowest occupation group favour CE variants over glottals, although education is not a significant predictor (Table 7.12).

Hypothesis 3ii) is rejected, as occupation and education are significant predictors for the production of glottals. Young speakers in the lowest occupation group favour

glottals over [t], while those in education group 2 (college level) favour [t] over glottals.

Young	T1: CE (baseline) and [ʔ]			T2: [t] (baseline) and [ʔ]		
	Odds Ratios	CI	p	Odds Ratios	CI	p
Gender: male	0.78	0.20 – 3.06	0.718	1.22	0.31 – 4.82	0.776
Occupation group: 2	0.17	0.02 – 1.68	0.13	2.99	0.50 – 17.75	0.228
Occupation group: 3	0.06	0.01 – 0.58	0.015	43.87	4.26 – 451.90	0.001
Education group: 2	0.38	0.04 – 3.24	0.375	0.02	0.00 – 0.17	0.001
Education group: 3	0.39	0.10 – 1.56	0.185	0.29	0.06 – 1.31	0.108
Following NLI: yes	6.07	2.03 – 18.16	0.001	0.12	0.05 – 0.28	<0.001

Table 7.12 - Model results for younger speakers, T1 and T2 comparison. Bonferroni correction applied to alpha level, $0.05/2=0.025$. Significant p-values in bold. Full model results in Appendix D.

Visualising the distribution of variants by age and education group in Figure 7.13 shows that for young speakers, education groups 2 and 3 are more similar to each other than they are to the university-educated group, who use much more of the glottal at the expense of CE variants. For older speakers, use of the glottal decreases as education level decreases, and use of CE variants is higher in those who did not attend university: [t] is used more than glottals by those with only secondary school education (group 3). These results align with Mees’s conclusion that the glottal came into Cardiff English as a prestige feature, and suggest that this is still the case to some degree amongst younger speakers today.

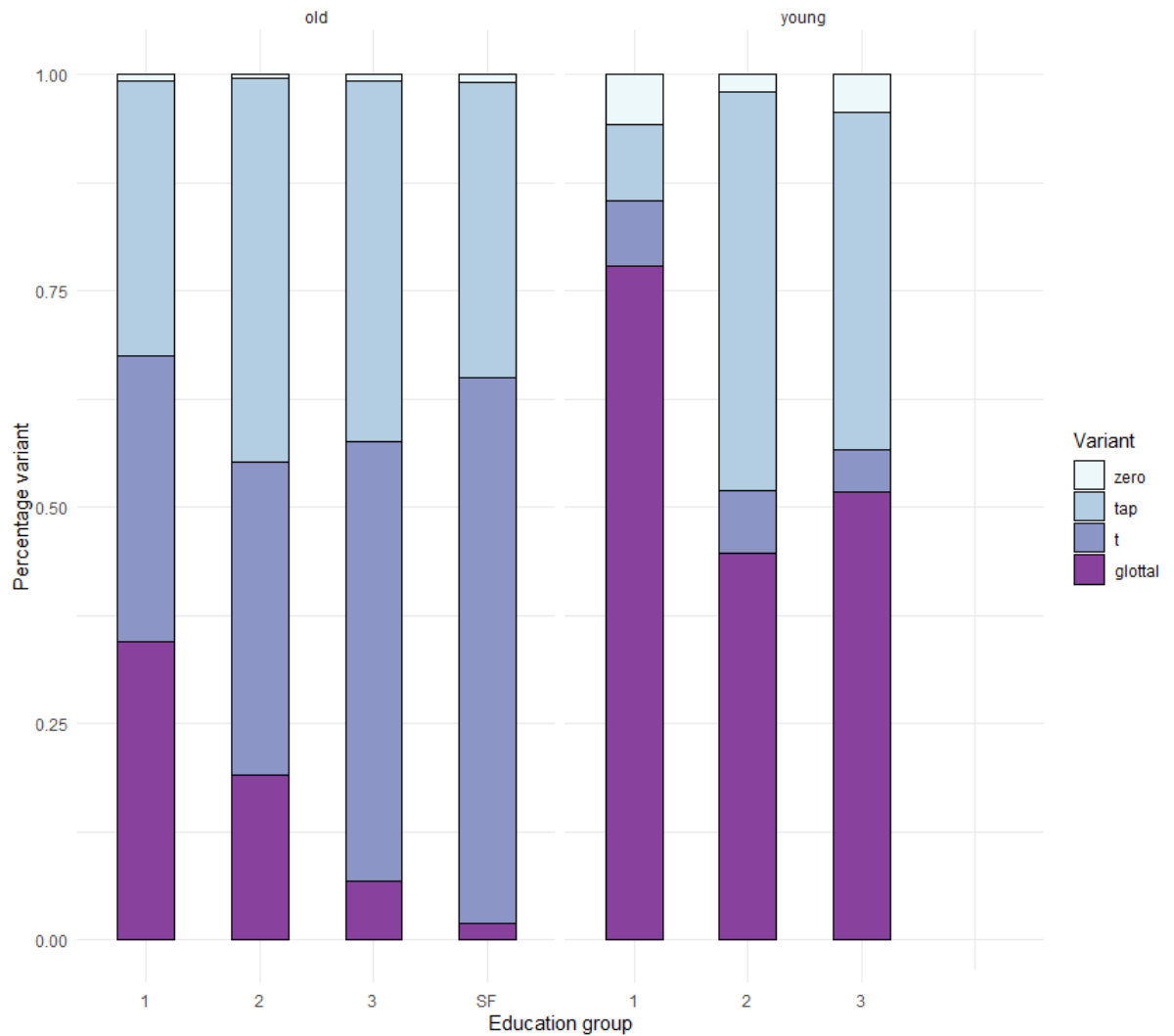


Figure 7.13 - Proportional distribution of variants by education and age group

7.4 Discussion

While there were nuances within the findings, the overall prediction for the research question was confirmed: the glottal has increased over time, and to such an extent that younger speakers of both genders and all socioeconomic statuses barely use [t]. In contrast, glottals were used 13.5% of the time by older speakers in this analysis, which is remarkably similar to the 11.7% glottal use reported from 1990 in Mees and Collins (1999), supporting the validity of the apparent-time methods used here.

Contrary to the usual outcome of dialect levelling which tends to reduce traditional variants, the increase of the glottal in CE was not at the expense of

traditional variants, except amongst younger middle-class speakers. Their counterparts with lower socioeconomic statuses had similar rates of CE variants to the older speakers. This points to the concept of de-standardisation, a process in which dialect levelling plays a part, which will be discussed in 7.4.2. First, the outstanding issue of linguistic insecurity from 7.3.1 will be addressed. This will lead into a discussion of the glottal as a paradoxically ‘prestigious’ feature and changing language standards in 7.4.2. I will then address the case of the following ‘*uhm*’, which will lead into the previously unmentioned linguistic aspects of lenition and debuccalisation, and their absence from dialect levelling studies on the glottal.¹¹¹ The outstanding issue of gender as a non-significant predictor will be put aside for now but returned to in Chapter 8, as it is a recurring finding across the analyses.

7.4.1 Linguistic insecurity and hypercorrection

A few possible explanations were given earlier for why older speakers in occupation group 2 (intermediate/non-manual) significantly favoured [t], something that disrupts the ‘usual’ sociolinguistic pattern by featuring more of the standard variant than in speakers in the class ‘above’ them. I deferred discussion of linguistic insecurity to here, as it is more complex and requires further engagement with the literature. Linguistic insecurity was first noted by Labov (1972), who found that people on class boundaries (e.g. lower middle class/upper working class) were not as secure in their status as those who are more definitively in one group or the other. In British English, the glottal is not perceived as a prestige feature by non-linguists, although it is categorised thus by linguists based on its sociolinguistic patterning. As such, for speakers who were brought up to be concerned with ‘speaking properly’, it is a feature that is likely to be avoided. An indication of this came from one of the speakers in this group, Marilyn, who commented on having her speech corrected as a child:

¹¹¹ An exception being Kallen (2005), but his focus is on the nature of the sound change and its implications for understanding ‘Neogrammarian’ sound change versus lexical diffusion.

And when I was little, my gran used to say if I was spo- didn't speak properly or said something, she would say to me, "where do you think you're from, Mary Ann Street?" (*Extract 7.1, Marilyn, 79*)

I was unable to get a more specific linguistic explanation when following up on this comment in the interview, but Marilyn implied that because Mary Ann Street was in the Irish quarter it was poor or lower class – “they were all very narrow terrace houses.”¹¹² Linguistic insecurity of the ‘boundary’ classes can manifest in *hypercorrection*, which occurs “when speakers attempt to shift their speech towards a perceived prestigious (overt or covert) speech variety but in their attempts to do so they miss or overshoot the target” (Giles and Williams 1992: 347). In Labov’s (1972) New York City study, lower middle class speakers had more rhotic pronunciation than upper middle class speakers, leading him to suggest that they were ‘over-producing’ rhotic forms in an attempt to replicate the pronunciation of the speakers with higher socioeconomic status.

Hypercorrection can be seen in the data here: speakers in occupation group 2 use less of the glottal than the groups both above and below them – perhaps in attempting to ‘match’ the glottal usage of the ‘higher’ class, they have overshoot and reduced their glottal use too much. However, as mentioned above, there are other potential explanatory factors for the low rates of glottals and CE variants in this group – namely speaker age and gender (with women being more likely to use and accept hypercorrect forms; Giles and Williams 1992: 350) and the small number of speakers. As such, the effect of linguistic insecurity may not be the strongest factor, but is important to consider here when making interpretations. The absence of this effect in the younger speakers is not unusual: Armstrong and Mackenzie (2013) argue that this previously important boundary or opposition between lower middle and upper working class in sociolinguistics “no longer appears pertinent” since the expansion of the middle class in postmodernity (Armstrong and Mackenzie 2013: 182). Linguistic insecurity may of

¹¹² It was remembered in local news as “the most notorious street in Cardiff” (WalesOnline 2006).

course still be relevant to younger speakers, but may not manifest in terms of these particular class boundaries.

7.4.2 The paradox of the glottal: changing language standards?

A surprising finding was that the use of CE variants has remained relatively constant between older and younger speakers in occupation and education groups 2 and 3 (excluding the case described above). The biggest reduction in CE variants over apparent time is actually between speakers in the highest education and occupation groups. However, instead of ‘standardising’ and using more [t], the young middle-class speakers adopted the glottal to the near exclusion of other variants. The complex interplay between education, occupation and which features are favoured over others detailed in 7.3.1 illustrates the paradox of the glottal, which can act as both a prestige and a non-prestige feature – it is used more by university-educated speakers and those in higher-level occupations, at the expense of CE variants, but also used more by those in lower occupations at the expense of standard [t]. This fits with the theoretical difficulties earlier researchers had in explaining the seemingly contradictory nature of the glottal’s spread: as concisely summarised by Smith and Holmes-Elliot (2017), the glottal was a change that was in some places led by men and the working class, indicating covert prestige, while in other places (including Cardiff) it was led by middle-class women.

Earlier theorisation about dialect levelling suggested that one of the factors that made levelling features such as the glottal so ubiquitous and appealing is that they represent neither the standard nor the local (Foulkes and Docherty 1999), and as such their use can index different meanings and identities for different groups or communities (e.g. Stuart-Smith, Timmins, and Tweedie 2007). Furthermore, recent perceptual research by Alderton (2020) shows the multiplicity of labels assigned by listeners to speakers with high rates of glottal replacement. The present data for the younger speakers in Cardiff could lend further support for this interpretation of the glottal’s position outside a straightforward standard/non-standard binary. However, it is clear that the glottal is still bound up with class, and its greater use by higher-class

speakers is indicative of de-standardisation. These issues and the relationship between dialect levelling and de-standardisation will be explored further in Chapter 8.

7.4.3 Linguistic constraints, lenition and Liverpool

The effect of a following *uhm* was observed impressionistically while coding the tokens, and found to demonstrate a constraint hierarchy with regards to which variant is favoured: [t] is favoured over [ʔ], which is favoured over CE variants. It is not immediately apparent why this non-lexical item should impact the phonetic conditioning so strongly: all of the tokens examined in this chapter are followed by vowels, which is the main constraint on use of the glottal found in other studies. Looking specifically at which words are followed by *uhm*, Table 7.13 shows that the vast majority (73%) of tokens occur with the word *but*. The next word that is most frequently followed by *uhm* is *that*, which makes up only 12% of the tokens.

Word	All tokens	Percent of total words	Tokens of each variant		
			CE	glottal	t
but	287	72.47%	20	32	235
that	46	11.62%	1	3	42
got	13	3.28%	1	7	5
quite	12	3.03%		3	9
about	10	2.53%		2	8
at	9	2.27%			9
it	8	2.02%		1	7
not	4	1.01%		2	2
get	2	0.51%		1	1
out	2	0.51%			2
what	2	0.51%		1	1
right	1	0.25%			1
Total	396	100	22	52	322

Table 7.13 - Token numbers and proportional distribution for each word that is followed by *uhm*; token numbers of /t/ variants for each word.

However, this does not explain why [t] is favoured so strongly in words followed by *uhm*, in contrast to when it occurs before other words starting with a vowel. A study by Clark and Fox Tree (2002) argues that *uh* and *um* should be treated as conventional words as they are planned for, formulated and produced in a similar way to other words, and also have different functions depending on e.g. prolongation and

prosody (2002: 107). So why do they have such an influence on [t] production, when they should behave similarly to the other following words in the dataset which all start with vowels? When coding, I did not include examples where there was a pause between the word final /t/ and the start of the next word, whether *uhm* or a ‘real’ word, because this would be in pre-pausal context as opposed to intervocalic. While it is possible that small pauses may have ‘slipped the net’, this still does not explain why [t] would be favoured, as pre-pausal contexts are usually found to favour glottals over intervocalic contexts (e.g. Smith and Holmes-Elliott 2017).

Other variants can and do occur so production is clearly flexible, but the majority variant is [t], even for younger speakers who rarely produce this variant. This indicates that there are some intervocalic contexts where realisation is more constrained by linguistic than social factors, and the following paragraphs will provide an explanation for this based on the reallocation of syllable boundaries and stress such that the process of lenition seen elsewhere is disfavoured. Clark and Fox Tree note that *uhm* sounds are often cliticised onto the preceding word, causing syllable boundaries to be readjusted and the word-final /t/ to be produced at the start of the following sound – in their notation, “bu.tum” for *but um* (2002: 104). The stress is placed on the *uhm*, and the final phone /t/ is reallocated to the onset of *uhm*. Glottalisation is disfavoured in syllable-onset position – it can occur, as reported by Smith and Holmes-Elliott (2017) in Buckie, north-east Scotland, and Tollfree (1999) in London, e.g. in words such as *routine*, *cartoon*, *nineteen*, but this context is one of the last to “succumb’ to glottal replacement” (Smith and Holmes-Elliott 2017: 345).

This can be explained by looking at glottalisation in terms of lenition, a type of segmental change in consonant production referred to by the metaphor of phonological ‘weakening’ (Honeybone 2012: 773). Phonological aspects of the glottal have so far been overlooked in this thesis to focus on its sociolinguistic patterning and indexicality, but glottalisation is also known as *debuccalisation*, whereby oral articulation is lost such that the target consonant becomes a glottal – for example, [t] to [ʔ] or [x] to [h]. Debuccalisation is sometimes not included as a type of lenition as it requires a change in place of articulation, but it is generally considered to be doing

“the same kind of thing” as other forms of lenition (Honeybone 2012: 774). Lenition disfavours strong positions (ibid: 775), and in varieties such as Irish English, /t/ can only be lenited in a syllable coda (Hickey 1996: 4).

In the examples given above of contexts where glottalisation is disfavoured, the second syllable takes the stress, putting the /t/ in syllable or onset-initial position. And in my data, ‘*but uhm*’ has stress on the following *uhm*, so the /t/ would indeed be reallocated to syllable-onset position. Accepting glottalisation as a leniting process helps to explain why following *um* or *uh* exert such a strong influence on production of [t] over the other variants even in the younger speakers whose overall rates of [t] are very low: it is not the ‘word’ itself that has an effect, but rather the reallocation of stress boundaries. This also provides an explanation for why certain words e.g. *at* and *out* favoured [t] realisations as presented in Table 7.5. While it was outside the scope of this chapter to analyse the words following the /t/, the top collocate of *at* was *all* in the phrase *at all*, with the stress on the latter word – suggesting a similar phone reallocation in this phrase as with *but uhm*.

The concept of lenition also provides an insight into why perhaps the glottal has been so successful in Cardiff English. Other forms of /t/ lenition are tapping and elision, both of which have been demonstrated here to be robust and relatively stable features of CE. Tapping (or flapping, to use his term), is noted by Honeybone to have “innovated endogenously” in different varieties of English then “spread exogenously” (Honeybone 2012: 777). Lenition in Welsh English has rarely been discussed¹¹³ but it is a morphophonological feature in all Celtic languages including Welsh,¹¹⁴ and lenition in Irish English, for example, has received considerable attention from Raymond Hickey (e.g. 1996). Contact with Irish English due to 19th century migration has also been linked to the prominence of lenition in Liverpool English, affecting a wider

¹¹³ With the exception of Paton’s (2013) unpublished Master’s thesis on the influence of Welsh on Liverpool English.

¹¹⁴ Although it is not called lenition in Welsh, two of the mutation processes in Welsh would affect /t/ in ways considered to be lenition – the *treigladd meddal* or soft mutation of [t] to [d], and the *treigladd llaes* or aspirate mutation of [t] to [θ].

variety of consonants and contexts than just the intervocalic /t/ which is the focus of this chapter. Liverpool English, or Scouse, is popularly seen as similar to Cardiff English (BBC 2002), with the similarities between the accents raised by two of my participants in the following extracts:

Don't mind Liverpool. You know with the [non-lexicalised sounds] maybe it's because there's that hacky Welshness to it, you know, that thing in the throat. (*Extract 7.2, Karen, 42*)

Um once, not s- um very long back actually, somebody thought I was from Liverpool, but I think they probably had a bad ear. (*Extract 7.3, Phil, 63*)

In particular, Coupland (1988: 49) notes that affrication of initial stops and flapping of intervocalic /t/ to [ɾ] (both lenited features) are shared features between Scouse and Cardiff Englishes. While Irish migration to Cardiff was less than that to Liverpool,¹⁵ Cardiff's Irish population was still sizable, and as such lenition in Irish English may also have had an influence on Cardiff English, if not (or additionally to) influence from Welsh English. Regardless of possible substratal or contact influences in Cardiff English's history, lenition is a common cross-linguistic process (Honeybone 2012: 774) and it is clear that the variety was already prone to leniting /t/ when Mees and Coupland conducted their studies in the 1980s. As such, could the extensive uptake of the glottal in CE be partly due to the variety's pre-existing tendency to lenite /t/? This raises a new perspective on the glottal: the raft of studies citing it as a feature of dialect levelling do not seem to have queried whether it could be considered a language-internal change, despite its well-acknowledged status as a type of lenition. Even if we do not accept the glottal as a lenited form (which as mentioned above, can be debated), its rapid spread and adoption into so many varieties suggests that its prominence could be attributed to a combination of exogenous and endogenous processes, as Holmes-Elliott (2015) demonstrated to be the case with TH-fronting.

¹⁵ Direct comparison is difficult because ports in South Wales did not record this information, unlike Liverpool, but the Irish-born population of Cardiff in 1841 was 7.1% (Neal 2004: 17) compared to 17.3% in Liverpool in the same year (Kelly 2014).

Lenition and the Liverpool connection present exciting opportunities for future research – studies on Liverpool English have shown that rather than losing its traditional fricated, debuccalised and elided variants in the general trend of de-dialectalisation of British English, the variety has seen an expansion of the contexts where lenited forms are possible (Honeybone 2012: 782). Could this also happen in Cardiff English? A limitation of the study here is its restriction to the small set of words that were chosen by Mees (1983) on the rather circular basis that they displayed a high propensity to lenite. While this has allowed direct comparability with previous studies and illuminated the dramatic increase of the glottal in real and apparent time,¹¹⁶ it has not allowed for the possibility that leniting processes other than glottalisation may have expanded over time, or allowed for a fuller investigation of why these words in particular are prone to lenition. It seems plausible that these words in intervocalic contexts are likely to be unstressed and spoken quicker, meaning that the /t/ is in a weak context that favours lenition, but further study would be needed to verify this. Additionally, extreme forms of lenition can and do occur outside the monosyllabic, grammatical or pseudo-grammatical words examined here: Mees (1983: 123) noted that /t/ elision occurred in the following words and phrases: *pocket money, favourite group, shot, forgot, jacket, part of*. Future studies could thus examine lenition in Cardiff English more widely.

Another limitation of the current analysis is that the data had to be split into three pairwise comparisons in order for statistical tests to be carried out. As MacKenzie (2020) notes, this approach is much-used in linguistics, and has the potential downside of artificially creating binary divisions that do not reflect speakers' cognitive model of linguistic choices. Splitting the data in this way suggests that for each realisation of /t/, the speaker makes a choice between either [t] and [ʔ], or [ʔ] and local variants, while the reality could be that each realisation represents a choice between four variants. Bayesian statistics get around this by allowing all comparisons

¹¹⁶ As mentioned at the start of 7.4, glottal use amongst older speakers in the present analysis and Mees and Collins' (1999) data collection point in 1990 were very similar.

to be present in one model, and they have been successfully used in linguistic studies including MacKenzie (2020). However, they were beyond the scope of the current analysis due to factors such as the extra computational time needed. For future studies examining the glottal and lenition, Bayesian methods provide the means to avoid imposing potentially inappropriate binaries on linguistic variables with multiple possible realisations. This will be discussed in more detail in Chapter 8.

Chapter 8 Discussion

The main contribution of this chapter is a new conceptualisation for working with the complexity of language change in the contemporary context of societal change. Processes relating to our current era of ‘late modernity’ such as individualisation and the complexification of society will be discussed in relation to processes of language change. In the course of the discussion various questions will be raised regarding the reliability of the social categories used in sociolinguistic research, given significant societal shifts since the inception of variationist sociolinguistics, and indeed the comparability between contemporary and older studies. This chapter will bring the findings from the analysis chapters together in order to explore them in new ways, covering the following five principal areas:

- 1) Section 8.1 will summarise the findings for each variable in relation to these directions of change in order to feed into later sections that bring these together;
- 2) Section 8.2 will investigate some of the arising questions regarding social factors such as gender and class that have not yet been addressed in detail;
- 3) Section 8.3 will pull together the variables to ask what role dialect levelling plays in the phenomenon of *de*-standardisation (8.3.1), and to explore individual variation and attitudes towards standard language ideology (8.3.2);
- 4) Following on from this discussion, Section 8.3.3 will present a new conceptualisation for the effects of these wider social processes on language change. This new approach aims to avoid the potential over-simplification caused by dichotomous relationships such as endogenous versus exogenous change that have already been problematised in this thesis;
- 5) Finally, Section 8.3.4 will address methodological implications arising from this study and language studies more generally in such circumstances of increased societal complexity.

8.1 Directions of change

The central aim of this thesis was to investigate change over time in the Cardiff accent and dialect. It was reasoned that changes in Cardiff English (CE) might be in response to various types of pressure, not all of which would push in the same direction. To attempt to tease apart these different potential factors, four features were examined that might signal one or another aspect of change contributing to the overall picture. Each of the four analysis chapters examined a separate feature, and results from mixed-effects models showed that variation in the (ing) and existential (*there* + BE) variables was relatively stable, while diachronic change was occurring in the (t) and (a) variables – namely, that glottal realisations have all but replaced intervocalic /t/ in CE, and that the (a) vowels in the START/PALM and BATH lexical sets are moving towards the back of the vowel space. Given these observations, it is time to consider whether these changes in CE were due to internal, external, or semi-external forces. As outlined earlier, these forces were represented in this study by looking for evidence of drift, standardisation and dialect levelling respectively, as these were considered to be the most relevant directions of change for this British English variety.

In light of the finding that (*there*'s) and (ing) were 'relatively stable', an important question to address before proceeding further is what 'stability' means in this context. Stability, as the opposite or inverse of change, is entailed when setting up research questions predicated on language change. But in reality, the situation is slightly less clear-cut. Reporting these features as 'stable' does not necessarily tell the full story, as the descriptive data (both here and in other studies) suggests that (*there*'s) has increased over time, but at a slower rate – indicative of drift, or a 'natural' language change. Additionally, these first two variables represented two types of stability: grammatical non-agreement with (*there*'s) is a gradual global trend that is already well-advanced in CE, while (ing) exhibits 'stable variation' in the form of age-grading.

The (ing) variable was chosen to assess whether any changes in the variety could be a result of standardisation, as it has two main variants: [ɪŋ], considered 'standard',

and [ɪn], seen as ‘non-standard’.¹¹⁷ The statistics do not support the interpretation that the variable is standardising, but there was an interesting example of polarisation in the younger speakers that could indicate a ‘tipping point’ towards obsolescence of the non-standard variant. While individual older speakers tended to use both variants somewhat equally (though some displayed clear preference for one or the other variant), individual younger speakers were more categorical in their preference – five had almost complete use of [ɪŋ], while three had almost complete use of [ɪn]. However, other interpretations such as age-grading are more likely and are supported by the literature (e.g. Labov 2001, who found it to be an age-graded feature), so this would remain the most convincing interpretation of the findings in this study.

The (ing) and (*there’s*) features are both ‘global’ in that they are not unique to CE. Conversely, the other two variables, (a) and (t), represent tensions between local realisations and supralocal, or levelling, influences. The success of the ‘unstoppable glottal’ (Smith and Holmes-Elliott 2017), the so-called ‘torchbearer’ of levelling (Kerswill 2003), was discussed in Chapter 7 in relation to leniting processes, other versions of which have long been a feature of CE. Findings from Mees and Collins’ (1999) small sample of female CE speakers suggested that dialect levelling as indicated by use of the glottal stop would be found in the present data to have increased, but the rapidity of the change is such that the glottal is now almost ubiquitous in CE. Young speakers have almost completely given up using [t] in the word-final, pre-vocalic context analysed here – a context which, as mentioned before, tends to disfavour use of the glottal. However, the picture is slightly more complicated than that sometimes portrayed in situations of dialect levelling, which usually involves the reduction of *local* variants. The younger speakers here continue to use a relatively high number of local variants (tap and zero realisation) alongside the glottal – all of these are preferred over [t]. Indeed, in this variety, the increase of the glottal has not greatly impacted the local CE variants, tap and elision, which seem to be robust, particularly in lower

¹¹⁷ CE has a third variant [ɪŋk] that is fairly infrequent and lexically restricted to *-thing* words, which were excluded due to their different morphological make-up that favours velar [ɪŋ] realisations.

socioeconomic classes, although there has been an overall reduction in local variants in the younger speakers. In sum, realisations of (t) cannot be simplistically labelled as dialect levelling without further qualification since the increased use of the glottal is not entirely at the expense of other CE options.

Turning now to the (a) vowels, we again see a more complicated picture because of the role of salience, which potentially affects the two main lexical sets, START/PALM and BATH, differently. Young men appeared to be leading a backing change away from locally-stigmatised START/PALM vowel, the ‘Kerdiff A’. The duality of salience has previously been discussed in 2.1.5 in terms of its possible effects on a dialect: if a feature is salient in its difference, and above the level of consciousness, it can become stigmatised and subject to change. However, depending on local context, a feature’s salience can also allow it to become enregistered and act as a point of pride for a community. The case of the ‘Kerdiff A’ is an interesting one in that it does not seem to have salience outside its community, but it is stigmatised within it. This could suggest that its salience has left it vulnerable to change, unlike the CE variants of /t/ which do not seem to be commented upon or locally-recognised.

Change in the BATH lexical set was interpreted as further evidence for dialect levelling, as backing of this vowel was found in the younger speakers, shifting it towards a southern English and/or standard realisation e.g. [ba:θ] instead of [baθ].¹¹⁸ A high degree of inter- and intra-speaker variation is still displayed, as has been found in earlier works on Cardiff English (Mees 1983; Coupland 1988), but the overall pattern of change is one of steady, if inconsistent, establishment of the TRAP-BATH split that started over 300 years ago in south-east England and has been spreading into the south-west in a similarly inconsistent fashion (e.g. Bristol; Blaxter and Coates 2020). BATH-backing appears to be a levelling change which is progressing idiosyncratically (lexical diffusion) and also not along class or gender lines. The phonetic outcomes of dialect levelling and standardisation ‘look’ the same in the case of BATH-backing, and

¹¹⁸ Vowel length is an additional point of difference and variation that was not examined here.

as such these directions of change cannot be easily disentangled. This will be addressed further in 8.3.1.

8.2 The influence of sociolinguistic factors

While the central research questions did not explicitly ask about social factors, as was discussed in Chapter 2, these are often considered key to interpreting sociolinguistic results and ascertaining directions of change (cf. ‘change from above’, ‘change from below’ in 2.1.4). Thus, having used the linguistic variables to look at the macro-level directions of language change in the previous section, this section will turn to the meso-level of social factors. It will first outline the main findings related to gender and class, then will consider the interactions between these factors and question what role these categories play in a changing social world.

8.2.1 Gender

Gender was expected to be a significant factor when looking at change over time, as women tend to lead language change. Conversely, men tend to be more conservative – meaning here that they stick to local or traditional variants (as opposed to standard forms) and are slower to adopt incoming variants (Labov 2001). These widely-accepted trends have been turned slightly on their head in the case of dialect levelling, with some levelling changes being led by young working-class men (e.g. Stuart-Smith and Timmins’ (2006) study on TH-fronting in Glasgow), and some by young middle-class women (e.g. Mees and Collins’ (1999) findings regarding the glottal in Cardiff). Thus, the boundary between ‘changes from above’ and ‘changes from below’ is less clearly delineated, and often related to ‘localisation’ – that is, how different features interact with specific local contexts, acquiring different indexical relations. Later discussion will consider this issue from the perspective of levelling features as a combination of internally- and externally-motivated change.

Notably, however, for the features studied in this thesis, gender was rarely found to be a significant factor predicting the use of a particular variant, with the exception of START-backing, where a significant interaction was found between gender and class in the younger speakers – younger working-class males favoured ‘backer’

realisations. Hypotheses for some features (the glottal stop and existential *there* clauses) predicted no gender difference in younger speakers due to the advanced nature of the change, but it was surprising to see this lack of gender differences in the older speakers too. Even features such as (ing) that supposedly display stable stratification by gender in other varieties did not reveal gender to be a significant predictor of either variant. It must be said that the results of statistical tests do not mean there are no gender differences – descriptive data for most of the features showed the ‘usual’ differences with men using more non-standard or local forms, but gender was not a significant factor in the mixed-effects models.

One explanation, therefore, could be due to the advancement in statistical methods used in sociolinguistics studies since Mees’s thesis on CE in 1983, which did show significant gender differences. She used Kruskal Wallis and Chi square tests to test for significance, but these violate the assumption of independence – that is, there should only be one observation per subject. This is not unique to Mees; many other (socio)linguistics studies used these tests as the best at the time for analysing language behaviour. However, many linguistic studies are based on multiple tokens from each speaker, often with mean scores per speaker added together for group means. Later studies partly compensated for this by using variable rules analyses which provided a more complex method for analysing ‘structured variation’ in language forms, using multivariate logistic regression to take into account multiple factors at once (e.g. gender, class, phonological context). This allowed linguists to see the ‘factor weight’ of each independent variable and thus how significant each was in influencing the variation. However, this method too has the assumption of independence, which is violated by any study that uses multiple tokens from one speaker.

As such, making comparisons with any studies using these common methods (when it comes to significant differences anyway) is potentially problematic: the fact that my analyses have not replicated significant gender differences could be due to the differences in statistical tests. Hay (2011: 212-213) notes that as mixed-effects models are more conservative than standard regression, fewer significant effects may be found. In many of the mixed-effects models used in this thesis, individual speaker

variation as a random effect was found to account for much of the variance in the model. This could help to explain the lack of gender differences, if the effect of individual speaker was stronger than group effects of gender. This is interesting in itself, and raises questions about gender differences in previous studies: did earlier statistical approaches assign more weight to gender than is warranted? Or is a lack of gender differences one outcome of a changing social landscape that affords more rights and opportunities to women of later generations?

Notwithstanding this statistical explanation, the findings here are reminiscent of the lack of gender differences found in the (t) and (ing) variables in Drummond's (2011) PhD thesis. While his work specifically looks at acquisition of local and/or non-standard variants by L1 Polish immigrants in Manchester and so is not directly comparable, he uses third-wave sociolinguistics theory to suggest that "gender is no longer the most appropriate broad division to be using when describing patterns of linguistic behaviour" (2011: 220). Instead, he suggests that occupation is more relevant, as this was a stronger predictor in his analyses. Of course, this could reflect the gendered nature of many occupations, but constructionist viewpoints would encourage us to view this as something pertaining to anyone working in that occupation or sector as opposed to the gender of the person undertaking that work. Occupation is strongly linked to class, and so that is what we turn to next, before examining the interaction between gender and occupation/class in 8.2.3 with reference to the linguistic marketplace.

8.2.2 Class

As discussed in the account of the methodology in 3.2.2.1, class as a variable in sociolinguistic research is a complex one to deal with. The approach taken in this thesis was to use measures of education and occupation, each grouped into three categories.¹¹⁹ Socioeconomic information was collected after recruiting participants, which meant that there were some unbalanced groups with as few as one member per

¹¹⁹ For one variable, the occupation categories were further collapsed into 'working' and 'middle' class.

'cell' when making comparisons between older and younger speakers. As such, any conclusions based on occupation or education group were made with caution, but where these factors were found to be significant, they generally aligned with sociolinguistic expectations – that is, that groups with lower levels of education and/or occupation would use more local and non-standard variants.

Does this mean that Drummond's suggestion above, that occupation is a stronger predictor than gender today, also applies here? Not necessarily. It certainly did have greater predictive power than gender in the present study, in that it was sometimes a significant factor in the models, but it was not consistently so. This could be for a number of reasons. Firstly and most importantly is the caveat given above that some cells consist of an individual speaker, making it impossible to separate class effects from individual variation. Secondly, some class indicators may be more relevant for some features than others – for example, education is potentially a more relevant factor for (ing) than BATH, as the former has a prescriptively standard realisation while the other marks regional variation and is less linked to prescriptive norms. Finally, there is the difficulty of demarcating class boundaries meaningfully (or in a way that is meaningful for those who belong to particular class groups). The complexity and 'fuzziness' inherent in demarcating boundaries was discussed in Chapter 3, and it should also be noted that the latter half of the 20th century has seen increasing complexification of society (e.g. Block 2018: 87). This is reflected in new organisational models of labour and workplaces worldwide, but particularly in societies such as modern Britain where there has been a shift from a secondary (e.g. manufacturing) to a tertiary (e.g. services) economy (Armstrong and Mackenzie 2013: 183). There has been a concomitant 'professionalisation' of working class jobs such as customer service that deal in language as a resource (traditionally the preserve of middle class occupations), part of a wider context of "important symbolic social changes" that nonetheless have not disrupted the economic structuring of society (Armstrong and Mackenzie 2013: 180). This makes attempts at occupational stratification more difficult (both from a class consciousness and a sociolinguistic/sociological research perspective) because "contemporary division of

labour is now so complex as to blur something of its hierarchical organisation” (Armstrong and Mackenzie 2013: 183).

The breakdown of ‘traditional’ class stratification is a feature of late modernity, which will be discussed below in 8.3.1 in relation to the ‘vernacularisation’ or de-standardisation of language. Another strand of late modernity relevant to this and the above discussion of social stratifications such as class and gender is increasing individualism, which has weakened the cohesive elements of traditional class groups (e.g. Armstrong and Mackenzie 2013). Both of these aspects cause difficulties when considering how to approach class in sociolinguistic studies: it is undoubtedly important, but, as pointed out by Armstrong and Mackenzie (2013) and Block (2018), has not received much attention in the literature since the early days of Labov. The cultural or ethnographic turn that has been so illuminating for understanding linguistic identity along other social lines such as gender, race and sexuality cannot be as appropriately applied for this dimension, which is “first and foremost about the distribution and redistribution of material resources” (Block 2018: 94).

The following section will bring together two of these major social dimensions of sociolinguistics, gender and class, with reference to nuances brought about by late modernity and the new service economy.

8.2.3 Gender and class in interaction: the linguistic marketplace

Gender is a social construct, and few if any sociolinguists would suggest that gendered linguistic differences are innate, save those directly impacted by biology. Accordingly, one of the theories that has been proposed for why gendered differences are often found in sociolinguistic studies is that women have fewer resources through which to secure social status, making language (and in particular, standard or prestige language) more important for women than men (e.g. Trudgill 2000 [1974]). This can also be related to the concept of the *linguistic marketplace* that was discussed in Chapter 5 in relation to standard/non-standard use, and which can also be considered with regard to gender. It has traditionally been the case that female-gendered roles such as secretaries involve greater interpersonal communication skills. While society

has undergone much change in relation to gender and the workplace, the nuances of the gendered linguistic marketplace are not necessarily captured by the ISCO categories used in this thesis to classify participants by occupation. Taking a linguistic marketplace approach to which occupations require more linguistic resources, it could be considered appropriate to separate – for example – customer-facing workers such as waiters from ‘back office’ workers such as chefs. The former must have access to a range of linguistic resources to understand and reciprocate the communicative needs of their customers, while the kitchen staff communicate mostly with their co-workers. However, the ISCO combines both categories of workers under category 5, ‘service and sales workers’, making such occupation categories potentially difficult to reconcile with sociolinguistic analyses.

A further and more nuanced perspective to this notion of linguistic marketplace can be seen in the example of Samantha, a customer service manager (ISCO 5) in a call centre. Across all variables analysed in this thesis, she had the highest rates of non-standard or local variants out of the younger women, and impressionistically, the ‘most Cardiff’ dialect. Based on traditional notions of linguistic marketplace, this perhaps does not make sense: as someone who deals with the trickiest customers and is responsible for training and setting standards for her team, it might be expected that she would be a more standard speaker. However, there are two potentially explanatory factors for this: firstly, she may well have the ability to ‘codeswitch’ into more standard speech but did not feel the need to do so in an informal interview setting. Secondly, the needs of linguistic marketplaces have shifted somewhat in recent years, particularly in the case of the call centre. Call centres are often situated in deindustrialised areas such as the north of England and south Wales (Armstrong and Mackenzie 2013) – places that also have strongly identifiable regional accents. While this has undoubtedly been done for economic and workforce reasons, some companies have used regional accents to their advantage: a large funeral company stated that it chose Newport, South Wales, for its new call centre location partly because of the “sympathetic and consoling” Welsh accent (B. Meechan 2017). Armstrong and Mackenzie report other examples of call centres choosing locations based on informal perceptual dialectology, and suggest that the companies exploit

these positive perceptions of certain regional accents “perhaps partially in the interests of lessening the tensions inherent in service encounters” (Armstrong and Mackenzie 2013: 187). This also represents an example of vernacularisation, something that will be discussed more in 8.3.1. As such, the call centre environment represents a more complex ‘linguistic marketplace’, where communicative skills are not necessarily linked to standard or non-regional, overtly prestigious language use,¹²⁰ and in which gendered expectations are also somewhat eroded.

8.3 Bringing together directions of change and ideology

This section will now contextualise the directions of change presented above by bringing them together with wider questions of (language) ideology. The glottal will provide a focus, as a key feature through which we can understand the interplay between these. Section 8.1 grouped the different variables according to directions of change. I will now engage with the concepts of horizontal and vertical convergence, which were discussed in Chapter 2.1.3 and can be glossed as dialect levelling and standardisation respectively. These concepts will be used to explore how externally-motivated changes interact with each other and with drift. Separating the variables out allows us to assess and compare the relative strength of each influence, for example, the external influence of a prescriptive standard versus internal drift.

With the (ing) variable, for example, it seemed that standardisation (‘vertical’ levelling) on its own was not a strong enough force to exert significant change. But when vertical levelling is combined with or amplified by ‘horizontal’ levelling, there is greater potential for change, as suggested by the increase of BATH-backing which represents both a standard and a levelled realisation. This relates to the difficult final ‘stage’ of standardisation in Haugen’s (1966) model, *implementation*, which Coupland and Kristiansen interpret as the ‘spreading’ process; that is, the acceptance and diffusion of standard forms into the wider population (2011: 21).

¹²⁰ Though this will likely depend on the company and their clientele – when I worked in a call centre in Glasgow providing customer service support for a prestige department store, there were complaints about the use of local dialect phrases such as “nae borra” for “no bother”.

The inverse of this can be seen in cases of drift. Standard language, or language standards, attempt to reduce variation and as such are more resistant to change. However, the default singular in existential *there* clauses shows that this naturally-occurring de-lexicalisation is only somewhat held in check by language standards/standard language. This is especially true of spoken language as compared to written language, in which the implementation of standards is easier to achieve (Coupland and Kristiansen 2011: 23).

As for the glottal, we can see how it has become so prevalent if we apply Holmes-Elliott's (2015) perspective on dialect levelling as the amplification and acceleration of 'natural' or language-internal changes thanks to external mechanisms such as diffusion and dialect contact. As discussed in Chapter 7, the glottal as a levelling feature has characteristics of internal and external types of language change – it sprung up in geographically distant locations (Glasgow and London) in the 19th century, and later appeared in New Zealand English too. Its growing acceptance within the standard language variety, as attested by its increasing use amongst native speakers of RP (e.g. Fabricius 2002), has given rise to debate: Is the glottal becoming a 'new standard'? Is it part of the process of de-standardisation or vernacularisation (e.g. Coupland and Kristiansen 2011)? Or is it, as suggested in Chapter 7, increasing because it is an exogenous form amplified by endogenous forces? That is, that varieties of English prone to leniting /t/ can more quickly adopt the glottal once it has entered the 'feature pool' available to speakers via external factors such as dialect contact and diffusion.

In order to bring together the variables analysed in this thesis and assess where the glottal might 'fit' in relation to standard or vernacular use, I have made a correlation matrix of the variables using each speaker's percentage use of the glottal relative to the other 'standard' variants. The extent to which covariation, or intercorrelation, occurs between variables can indicate whether they are part of the same 'sociolect' (e.g. Guy 2013). As the variables studied here all have different measures – some are categorical, some are continuous – calculating percentage use allows them to be compared against each other, but is necessarily an

oversimplification of the more complex pictures presented in the analysis chapters. For the (a) variable, only the BATH lexical set is used here, with back realisations representing the standard. Year of birth (labelled ‘year’ in the figure) has been included to illustrate the time dimension, but should not be interpreted as providing an alternative analysis to the mixed models in previous chapters.

The correlation matrix in Figure 8.1 shows that there is a strong correlation between age and glottal realisations, and a moderately strong correlation between age and back BATH realisations. There are also significant correlations between the glottal and back BATH and [ɪŋ] for (ing), but no correlation between *there’s* agreement and the glottal. Taken together, we see that the glottal co-occurs with other standard features – with the exception of agreement in existential clauses, which may present a different case due to their advanced grammaticalisation in speech. This provides some additional support, albeit limited in statistical validity, for the glottal as a ‘new standard’ realisation of /t/. However, this still leaves us with the issue of what a new

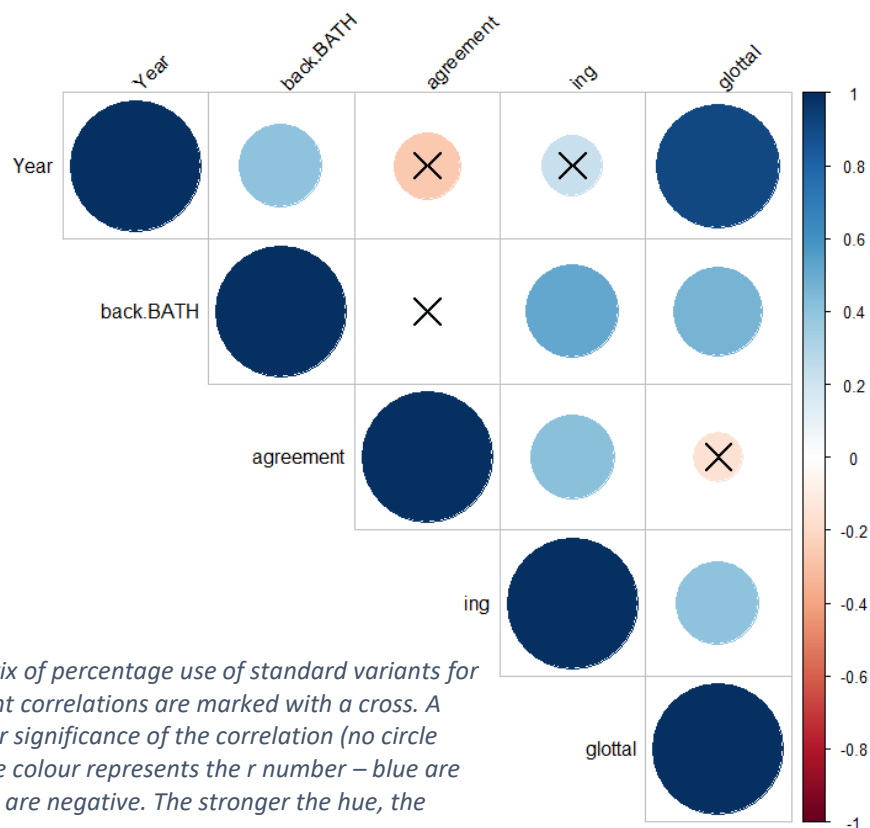


Figure 8.1 - Correlation matrix of percentage use of standard variants for each variable. Non-significant correlations are marked with a cross. A larger circle indicates greater significance of the correlation (no circle indicates no correlation). The colour represents the *r* number – blue are positive correlations and red are negative. The stronger the hue, the stronger the correlation.

standard means in the context of de-standardisation. This will be explored in the following section.

8.3.1 Standardisation and de-standardisation

I have thus far avoided the thorny political and ideological issues behind the concept of the ‘standard’, while attempting to distance the use of the term ‘standard’ from any judgment values associated with it – namely, that non-standard forms or dialects are lesser, or ‘substandard’. However, as Coupland and Kristiansen (2011) argue, the ideological dimension must be acknowledged in sociolinguistic research looking at these processes. This section will again focus on the glottal as it exemplifies the theoretical tensions or dialectics discussed below.

Language standardisation and language standards have been theorised as belonging to the project of nation state building, and ‘civilisation’, but Coupland and Kristiansen question what happens to standard language ideologies now, “as we pass from the ‘constructive’ age of nation state building to the ‘deconstructive’ age of globalisation, or late modernity?” (2011: 28). As discussed in Chapter 2, dialect levelling has been linked to globalisation, and is also considered to be an aspect of de-standardisation. However, the analysis presented here and in Chapter 7 for glottal replacement in CE suggests that this feature is more accurately described as a ‘new standard’ than a newly accepted non-standard feature: it correlates with other standard features, and is used more by speakers with higher socioeconomic statuses.

This is not to say that its rise is not linked to, or ‘helped’ by, processes of de-standardisation – there is a reciprocal relationship between the standard and the vernacular. Rather, this is to suggest that the relatively nascent shift towards de-standardisation currently exists in parallel with the long-established and well-enforced process of standardisation – thus, (British English) language is currently subject to both ‘pulls’. Coupland and Kristiansen (2011) connect the dots between sociological theorisations of late modernity and processes attested by (socio)linguists such as

vernacularisation in mass media,¹²¹ ‘conversationalisation’, and the decline of RP in Britain (2011: 33), and ask:

More radically, is there evidence that the ideological systems that have supported attributions of standard and vernacular language may be crumbling, losing their potency or being restructured? Is it appropriate to see late modernity as an era when linguistic standardisation is in some ways and in some places being reversed, or at least rendered more complex and multi-dimensional? (Coupland and Kristiansen 2011: 13)

While an exploration of de-standardisation was not the aim of this thesis, I would suggest that dialect levelling and the rise of the glottal in particular indicates that the concept of the standard is indeed now “more complex and multi-dimensional”. As Garrett et al. (2011) note in the context of the ‘standardising’ of vernaculars through popular culture, ‘standard’ and ‘non-standard’ are “even less reliable as a simple conceptual pair” (Garrett, Selleck, and Coupland 2011: 63). The glottal is a prime example of this as it resists binary categorisation as either a standard or a non-standard feature. Instead, I would suggest that its prominence can be attributed to the coincidental confluence of three forces: the endogenous nature of the glottal stop which allowed it to be widely accepted by language systems; the exogenous mechanisms by which it diffused; and the macro-social (extra-linguistic) processes of late modernity outlined above that contributed to its wider acceptance.

8.3.2 Individual variation, meaning, and indexicality

Coupland and Kristiansen’s focus on the macro-social has also been spearheaded by Eckert (2019), albeit from a different perspective in which the social meaning of variation is positioned as central to the progression of a sound change:

It is common to acknowledge the social meaning of variation but to treat it as epiphenomenal. What I propose here is that while the origin of a sound change

¹²¹ See also the call centre discussion in 8.2.3. Armstrong and Mackenzie suggest that call centres are “comparable to the broadcast media in diffusing language widely from a fairly narrow base” (2013: 188).

may be purely phonological, it must take on meaning to spread. And that meaning emerges as part of a semiotic system that expresses everything from macro-social membership to affect – a system that is essential to human society, hence to language. (Eckert 2019: 12)

Eckert's extensive ethnographical research has given sociolinguistics a deep understanding of indexicality and the layers of social meaning that accrue around linguistic variables, and the different ways speakers employ these to position or construct themselves as members of particular communities. Connecting this to the above discussion of standard language ideology, we can apply Milroy and Milroy's (2012) conceptualisation of standard language as "an idea in the mind rather than a reality – a set of abstract norms to which actual usage may conform to a greater or lesser extent" (2012: 19).

A more detailed look at speaker variation for the variables explored in the correlation matrix in Figure 8.1 shows that individuals have different 'constellations' of features. Figure 8.2 shows percentage rates of the 'standard' variant for each feature – i.e. plural verb agreement in existentials; velar realisations of (ing). The lines should not be taken to mean there is a steady progression from one speaker to the next, though they have been ordered by year of birth to allow broad pictures of change over time to be visible.

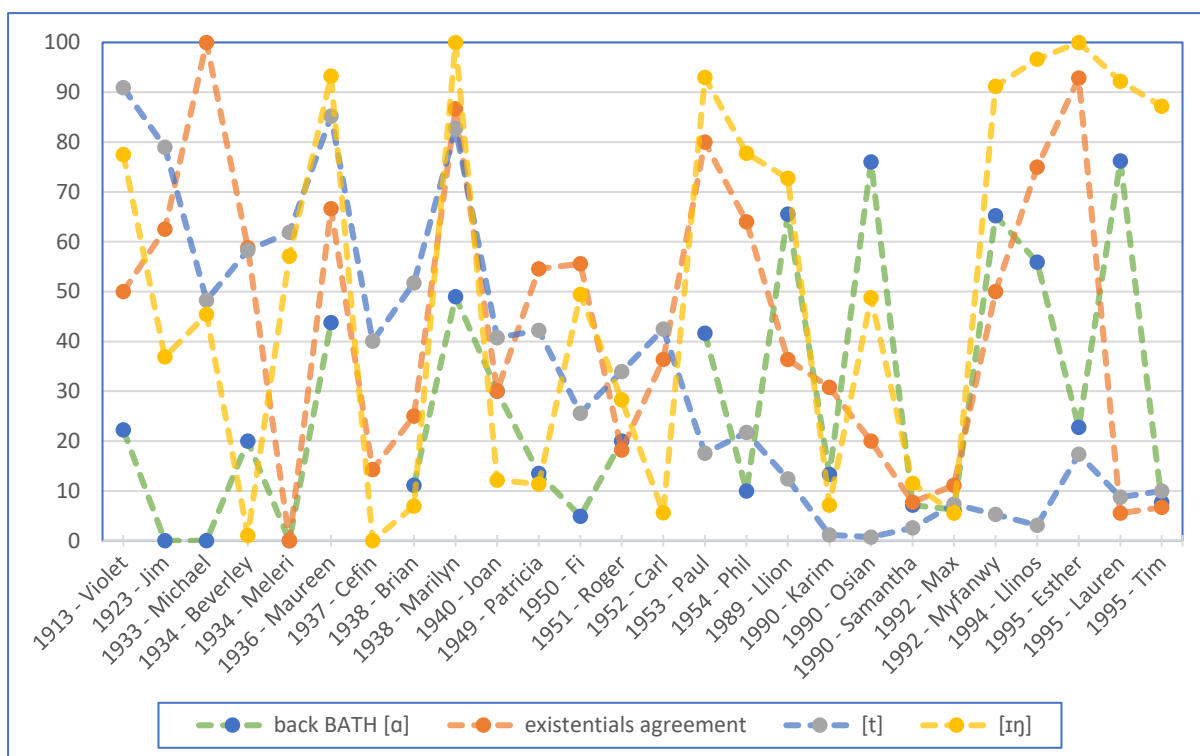


Figure 8.2 - Individual co-variation. Percentage realisations of standard use for each variable and speaker. No data for BATH for Carl and Cefin.

The figure shows that some speakers were consistent in how standard their pronunciation was across different variables – i.e., Samantha and Max rarely use any standard variant while Marilyn and Maureen have high rates of each standard variant (except back BATH, which is to be expected as it is more variable and increasing over time). For others though, particularly younger speakers, their ‘constellations’ are more mixed – Esther’s high rates of standard variant [ɪŋ] and grammatical agreement for existential *there* are not matched by high rates of back BATH (23% compared to higher users who range between 56% and 76%). Osian’s relatively high back BATH and [ɪŋ] are not matched by high existential agreement, while Karim has relatively high rates of agreement but low rates of the other features. This adds more nuance to the correlations given in Figure 8.1, and illustrates the layers of indexicality that sociolinguistic variables accumulate, as opposed to a unidirectional one-to-one relationship between form and meaning (or association). Discussing the variables (ing), (dh-stopping) and (oh) and (aeh) raising in New York City English, Eckert notes that “while all of these variables correlate on the macrosocial level with class, they do

so differently. ... These differences lie in the fact that these variables are expressing slightly different things” (2019: 2). The implications of this will be returned to when discussing Extract 8.5 below.

Returning to the correlation matrix in Figure 8.1, the only variable with which agreement in existential *there* clauses correlates significantly (and positively) is [Iŋ], although the correlation is not particularly strong. This correlation could be related to these two variables being the most prescriptively managed by standard language ideology, of the features analysed in this thesis. This can be illustrated by Esther, whose high rates of [Iŋ] and existential agreement were mentioned above. In the interview, she displayed possible instances of self-correction with subject-verb agreement as shown in examples 8.1-8.3 below. These examples were excluded from analysis as it is impossible to know whether the correction is related to verb agreement or is simply a decision to change what she is saying, for example from a singular to a plural noun phrase, but I include them here as they suggest a degree of self-monitoring and careful adherence to standard grammar.

8.1. I mean, there's- there are- yeah, most head offices

8.2. there was a- there were a few lectures where

8.3. there's no- there are obvious classes, obviously

Blommaert argues that quantitative changes observed in language need to be verified by qualitative or ethnographic research (Blommaert 2016: 256). While this was outside the scope of this investigation, when possible I did include metalinguistic questions towards the end of my interviews in order to gain a sense of participants' attitudes towards CE, using a method similar to that outlined in Fabricius and Mortensen (2013). This gives us a small window onto the sociolinguistic aspects that Cardiff speakers perceive as relevant to their dialect. Some metalinguistic comments have already been discussed in previous analysis chapters, and the following extracts build on these to show that standard language ideology (as represented here by class, specifically middle-class status) is strong even amongst younger speakers – or at least, that their awareness of it is acute.

Interviewer	do you think there's um I guess kind of accent differences in different parts of Cardiff?	1
Esther	yeah! [laughs] Definitely. It's a class thing.	2
	[some dialogue cut to condense the extract]	
	... apart from the class thing, I don't- I haven't noticed any differences.	3
	Um there's also a Welsh- Welsh-speakers accent.	4
	That's kind of more ge- it's not very Cardiff, it's more generic Welsh.	5
	I think a Welsh-speaker's accent especially in ... in South West Wales is very similar.	6
	Um ... yeah, so in Cardiff I'd say there's a c- more of a harsh Cardiff accent.	7
	And then ... an accent where you do hear a twang that's not as strong- not maybe for kind of ...	8
	not- oh god, this is sounding awful, as if I'm- [laughs] but yeah,	9
	not ... many people I think who are middle class have a very strong Cardiff accent.	10

8.4. Esther, 22, bilingual English and Welsh speaker

In line 9, Extract 8.4, Esther explicitly links a strong Cardiff accent to not being middle class, which is quite rare in the interviews as speakers tended to use proxies for class such as education or location, as we saw in excerpts from Max's interview in Chapter 6. In a similar way to Esther here in line 9 acknowledging that by mentioning class, she is "sounding awful", Max also distanced himself from making classed, or negatively prejudiced, comments by saying "it's bad to say at this day and age" (Extract 6.5). Both of these metalinguistic comments echo the 'detached' stance found by Fabricius and Mortensen (2013) in their qualitative analysis of a modern RP speaker's attitudes towards British accents. Their speaker was hesitant to go 'on-record' with her thoughts on accents in the UK, but was able to do so once the question was reframed to be more explicitly general in relation to other people's attitudes. Once she had distanced herself from potentially being seen to have negative attitudes, she demonstrated awareness of wider public attitudes regarding which accents are 'bad', such as Birmingham and Welsh accents – both of which ranked poorly in Coupland and Bishop's (2007) attitude perceptions study.

Fabricius and Mortensen's findings, along with the evidence here from Esther and Max's interviews, suggest an inherent tension when discussing accents in this way:

people know that accent prejudice exists, but cannot (or should not) admit to having negative attitudes towards certain accents themselves. This is exemplified on a personal level by Tim in Extract 8.5 below, who starts off by immediately recognising the ‘Kerdiff A’ vowel as a stigmatised marker of class before distancing himself from this viewpoint (lines 9-12). He then goes on to tell a generalised anecdote (lines 14-16) about being gently mocked by his friends when a stronger Cardiff accent “comes out”. The telling of this reveals both an element of self-conscious awareness of his ‘unfavourable’ accent, and a desire to protect his friends from being labelled as ‘accent prejudiced’: while they do not ‘actively ridicule’ him for it (line 13), they do laugh about it.

Interviewer	going to the kind of accent side of things with Cardiff, um what do you think is the most kind of striking feature?	1
	You know, if you hear someone talking, you think, "yeah, they're from Cardiff."	2
Tim	I mean, um, ... definitely the A's.	3
	Um you know, the ‘ah’ [æ] rather than a ‘aw’ [ɑ:].	4
	Um that's one of the major things, and I think a lot of people in Cardiff as well try consciously to not pronounce ((their)) A's in that way.	5
	Especially um especially I find it in ... m- sort of more I think more educated people see it as a sort of ... marker of class.	6
	I mean, I don't really know- I don't know why, I can't describe it,	7
	but I know, growing up in Cardiff that's it always sort of something that's a bit ... loo- looked a bit down upon, you know.	8
	It's not really considered to be great, which I- I mean, I don't see it myself,	9
	because as far as I'm concerned, you know, your accent is your accent,	10
	if anything it is something about you that you've picked up, you know,	11
	it's something that's developed with you, but I know um you know, from living here,	12
	that it's definitely something that is sort of um not like actively ridiculed, but you know,	13
	if- if you- if I go out with my friends and it- occasionally the odd sort of Cardiff- really, really strong Cardiff accent'll come out,	14

	a- and they'll sort of be, like, "oh, what was that?" you know. "That was" ...	15
	and then they'll- you know, like, not- not ridiculing, but sort of laughing about it-	16
	it's not considered um ... it's not considered favourable to have here.	17

Extract 8.5. Tim, 22

Looking at Tim's use of other language features, he has very high rates of [ɪŋ] but low rates for each other 'standard' variant. Using the definition of language standards given earlier as an abstract set of norms called into play by individuals, this vignette of intra-speaker variation adds insight to the correlation matrix discussed earlier: variables co-vary in different ways because speakers have different conceptions of the standard, and different constellations of identities as indexed by differential use. Thus, while Tim is aware that the 'Kerdiff A' is 'looked down on' and 'not considered favourable to have', his attitude towards accent as identity does not prompt him to use more back BATH realisations. On the other hand, his high use of [ɪŋ] shows that he is aware of what is 'acceptable' standard dialect deviation, and what is not – he is the only younger speaker in occupation group 1 (managerial and professional), and while the glottal stop appears to be an acceptable feature in this environment, non-standard [ɪn] is not.

This closer look at metalinguistic awareness, and individual variation and identity, demonstrates that standard language ideologies might have broken down in some areas (i.e. for some features, for some people) at the same time as being maintained in others. But how, then, do we explain these different constellations of features and language use, that can converge and diverge for different features and different speakers, both within and across different groups? The following section will address how we can scale up from these more individualised accounts and interpretations of variation to the wider context of language change, and this thesis's focus on *directions* of change.

8.3.3 From the individual to polyphony: breakdown of dichotomies

Chapter 2 presented many dichotomous directions and motivations for language change: for example, that change is motivated by something outside the language system and is thus external, or caused by ‘natural’ movement within the language system and is thus internal. These dichotomies were problematised in relation to dialect levelling which bears elements of both, and that I argued reflects late modernity’s paradox between homogeneity (e.g. globalisation) and heterogeneity (e.g. individualisation).

Other dichotomous relationships can be seen in the use of social factors to understand language variation and change. Gender and class, particularly in interaction with each other, have often been used as indicative of a direction of change: if a change originates with working class men, it is a ‘change from below’, and thus language-internal; if a change is led by middle class women, it is a ‘change from above’ and thus language-external. However, studies of dialect levelling started to turn these direct relationships on their head somewhat, as these patterns were less clear-cut; variable from place to place and feature to feature. For example, in Chapter 6, working class men appear to have led the START-backing process – a change that cannot easily be argued to be a change from below due to it being a feature of both RP and southern English dialects more generally, thus positioning the change as an outcome of dialect levelling and/or standardisation. While it could be a similar situation to that of the glottal whereby internal tendencies and external influences combine, that is a less likely explanation for this feature as START-backing was not adopted by all younger speakers, unlike the glottal.

Earlier in this chapter the lack of consistent results according to gender and class categories was suggested to reflect the increasing complexification and individualisation of late modernity, and the phenomenon of dialect levelling has further exposed the difficulty of applying binary or dichotomous explanations for directions of language change. How then do we understand and interpret language change in late modernity at a theoretical level, after once-rigid social factors such as

gender and class have started to become less reliable as indicators or predictors for directions of language change?

A concept originally founded in art and philosophy and now applied in various disciplines such as ecology and critical urbanism is that of *assemblage*, which could be appropriately applied to language as another example of a system like an ecology or a city. Assemblage is focused on relationships and interactions, and as such “allow[s] us to ask about communal effects without assuming them” (Tsing 2015: 23). Tsing goes on to qualify her variant of the term as *polyphonic*, like a madrigal or fugue. She describes this type of music as “archaic and strange” to today’s listeners because “we are used to hearing music with a single perspective”, while in contrast polyphonic music comprises “separate, simultaneous melodies” that can come together or diverge at various points to create harmony or dissonance (2013: 23-24). While Tsing uses this concept to critique the simplistic and unidirectional ‘progress’ narrative of late-stage capitalism in her anthropological analysis of the globalised matsutake mushroom trade, I believe it can also be usefully applied to language. For one, language is not separate from the conditions and societal changes of late modernity – “What we see as changes in language are artefacts of adaptations of speech community towards changes in society” (Xu 2015: 104). Furthermore, the same point has been made by sociolinguists, cultural theorists and critical ecologists about the homogenising effect of global capitalism, but also the heterogeneity and diversity that springs up (like the fruiting of a mushroom) despite or because of homogeneity, which is exemplified by dialect levelling and its ‘glocalisation’ potential. Additionally, the metaphorical aspect of a polyphony of voices is quite apt and pleasing for studies of variation in spoken language.

Situating this concept in the context of this thesis’ central question, I propose that we can look at different directions of change, or influences, or motivators, as different ‘voices’ in a madrigal, such as that in Figure 8.3. For example, voices coming together to create harmony could reflect when external, extra-linguistic and internal factors combine to support the spread of the glottal stop. Alternatively, dissonance can happen where there are tensions, such as when the standard ideology that enforces

subject-verb agreement in existential clauses is not strong enough to halt natural language tendencies that favour the ‘ungrammatical’ form *there’s*. In this way, we can view language change as a process of interweaving strands of influence that sometimes work in concert and sometimes create dissonance, rather than as dichotomous relationships between simple pairs such as standard and non-standard, or homogeneity and heterogeneity. Standard language ideology, in this ‘song’, is one voice among many (although for some people or situations it may be one that holds more sway than the others, like the bass line in a madrigal). An element of this ebb and flow is also raised by Stuart-Smith (2011), who suggests that what is happening with standard language ideology is that we are seeing “shifts away from the standard and at the same time shifts to different standards operating in specific domains of use” (2011: 226).

Hai rott'e spente

Carlo Gesualdo
(1560-1613)

The musical score is for a five-voice madrigal. It features five staves: Soprano, Alto, Tenor I, Tenor II, and Bass. The lyrics are written below each staff. A circled number '5' is placed above the Soprano staff in the fourth measure. The lyrics are: Soprano: E spen-t'a po-c'a po- co, Hai rott'e; Alto: Hai rot-t'e scio-lto, e spen - t'a po - c'a po - co, hai rott'e scio-lto; Tenor I: Hai rot-t'e scio-lto e spen- t'a po-c'a po- co; Tenor II: E spen - t'a po - c'a po - co, Hai rot-t'e; Bass: (no lyrics shown).

Figure 8.3 - The opening section of a madrigal for five voices, chosen as it illustrates the rhythmic and melodic interplay of the different voices.

This conceptualisation bears similarities to Dynamic Systems Theory, which has been applied to language acquisition (e.g. De Bot, Lowie, and Verspoor 2007) but does not appear to have been adopted in sociolinguistics. The idea of polyphony can also apply at an individual level: for which aspects of their language does a particular speaker display standard, local or supralocal variants? An individual’s multiplicity of styles could also be considered a polyphony. And whether at an individual level or community level, the multidirectional melodies of the madrigal reflect the complexification of late modernity. Each ‘line’ has its own trajectory that is shaped and

constrained (to a greater or lesser extent at different points) by the other lines, but which is not necessarily a reflection of any other line. There is thus a risk in setting up studies based on dichotomous or binary relationships that we might overlook important parts of the textural whole that do not fit neatly into expectations of, for example, 'standard' or 'non-standard' language use, or view them as 'noise'.

8.3.4 Implications for methodology

This theoretical tension between dichotomous categories and multiplicities of meanings has at times been replicated in the methods used, and thus raised when discussing their limitations in this thesis. In particular, Chapter 7 questioned the appropriacy of splitting multiple variables into binary pairwise comparisons. A similar issue was obliquely raised in Chapter 6: as the only analysis using a continuous dependent variable, this was the only place where I was able to use participants' years of birth rather than the perhaps over-extended binary categories of 'old' and 'young'. While the younger speakers were all born within ten years of each other, the older speakers comprised a wider-ranging age group which also included the St Fagans interviewees, some of whom were born considerably earlier than most of the older speakers in the contemporary data. Their inclusion did not impact overall findings for age (and they were excluded when socioeconomic factors were included) but it is worth mentioning here as another example of methodologically imposed binaries.

This issue with binaries reflects an ongoing challenge of sociolinguistics: how to balance the qualitative or ethnographic approaches of, for example, Eckert and Coupland, which have been necessary to capture aspects of style and identity in language variation, with the quantitative approaches favoured by first and second wave variationist studies that allow us to make statistical inferences regarding language change. Using Bayesian statistical methods is a fruitful way forward, and Chapter 7 introduced the possibility of applying these instead of the linear mixed-effects regression models used throughout this thesis. The main advantage of the latter is that multiple tokens from each speaker can be accounted for as a random effect of the individual, but a disadvantage is that linear regressions assume a linear

relationship between dependent and independent variables.¹²² Furthermore, as discussed in Chapter 7, categorical variables must be binary – that is, there cannot be more than two levels for the dependent variable. This was not a problem for (ing), whose third variant was excluded due to very small token numbers, but meant that the (t) data had to be split into three groups for multiple pairwise comparisons. While alpha levels for significance were corrected accordingly, this does not solve the problem of imposing an unnatural binary choice on the data.

Bayesian models allow for multinomial categorical variables and can be suitably applied to linguistic research (MacKenzie 2020). Furthermore, and pertinent to the above discussions of the individual and polyphony, Jensen (2008: 68) notes that the epistemic nature of Bayesian statistics gives them an advantage when explaining language change phenomena: “probabilities (i.e., uncertainties of outcomes) can be said to lie in the language user, not in the language system.” On a theoretical level, models using Bayesian inference are “used to overcome the limitations of frequentist approaches in the analysis of complex structured data” (Nalborczyk et al. 2019), some of which have been outlined above. Without going into the differences between frequentist and Bayesian approaches to statistics, Bayesian models offer linguists a more fluid way of analysing natural language data consisting of repeated measures, thus reducing the chances of inflating the effect of predictor variables on the outcome variable. I believe that they are also methodologically suited to the individualised conditions of late modernity, where social group membership is no longer as reliable a predictor for linguistic variables. Thus, it is recognised here that any ambition to complexify future understandings of the intricate relationships between social and extra-linguistic factors shaping how people use language must be matched by the deployment of sufficiently sophisticated tools for tracking those patterns quantitatively.

¹²² Non-linearity is another feature of late modernity that has not been discussed here.

Chapter 9 Concluding remarks

At the start of this thesis I posed two central research questions:

- Is the Cardiff accent and dialect becoming less distinctive to other British accents?
- If this is the case, is it due to externally influenced processes of change such as dialect levelling and standardisation, or due to natural language drift?

While the first question cannot be addressed directly without comparative analyses involving other British English dialects, which was beyond the scope of the thesis, the external phenomena of dialect levelling and standardisation were used as proxies because both result in dialect convergence and a reduction in variation. Change was assumed to be taking place in Cardiff English (CE) due to the maxim ‘all languages change, all the time’, and the second question aimed to disentangle the directions or influences of change: would the dialect succumb to ‘top-down’ pressure due to the presence of an external ‘standard’ language variety (i.e. vertical levelling)? Would horizontal dialect levelling, that is, convergence to the relatively new mainstream ‘supraregional southern British English’ be occurring? Or could changes be attributed to system-internal fluctuations or drift?

I analysed four linguistic features chosen to tease apart these directions, before drawing them together in Chapter 8. No statistically significant change over time was found for (*there* + BE) or (ing), and thus the evidence did not support the notion that the dialect is standardising. The analyses of (t) and (a) were more complex as there is more variation possible for each feature, but both supported claims of dialect levelling to some extent.

In Chapter 1, the sociocultural context of Cardiff was discussed, and I questioned whether the city’s prominent status as the capital of the devolved country of Wales could protect it from the convergence and homogenising effect seen on a wider level across British dialects. Based on the two phonetic features studied here that have local realisations, the answer is slightly mixed: there is considerable evidence for convergence towards supraregional English features – back (a) vowels and the glottal

stop – but also some stability in the Cardiff variants of /t/. The low vowels in lexical sets BATH, START/PALM and TRAP were all found to be moving further back in the vowel space, bringing pronunciations more in line with both supraregional and standard southern Englishes. However, the ‘leaders’ of the START/PALM change subverted the usual pattern for this type of convergence, leaving it somewhat less clear if this is an internal change or one influenced by external and extra-linguistic socio-psychological factors. For /t/, the supraregional ‘new standard’ of the glottal stop was found to almost completely replace [t] in intervocalic contexts. However, as discussed in Chapter 7, this example of dialect levelling was not wholly at the expense of the local CE variants, tap and elision. Furthermore, the rise of the glottal was suggested to be a situation where language-internal factors ‘amplified’ external factors, as CE was already evidenced to be prone to lenition of /t/.

As such, while these conclusions can be summarised fairly neatly and concisely, these summaries mask some of the inherent complexity of language change, which were explored as they arose in the analysis chapters, and then in a deeper and more theoretically contextualised manner in Chapter 8. There I attempted to link macro-social or societal changes that have taken place in the last 50 years of ‘late modernity’ (within the lifetimes of my older participants) to precisely those complexities that arise when analysing contemporary linguistic data.

There is a danger that many sociolinguistic studies conclude that the messiness and complexity inherent in life and language cannot be captured by quantitative means, which by necessity involve some simplification. I agree with scholars such as those mentioned in Chapter 8 (e.g. Blommaert, Eckert, and Coupland) who forcefully assert the need to go beyond purely quantitative methods, while acknowledging that it is difficult for one study to do all of these things. As such, I concluded that we need a new model for conceptualising the relationship between variables associated with change over time, and proposed the adoption of *polyphonic assemblage* as a way to help us do this. I also suggested that this conceptualisation has the potential to fit well with a different statistical approach that has been gaining ground in linguistics but is yet to be more widely used, particularly in sociolinguistics: Bayesian inference. In this

way, I believe it is possible to apply statistical methods that do not force interpretations or simplifications onto difficult, messy data.

9.1 Limitations

The complexities inherent when analysing and attempting to group together idiosyncratic individuals also link in with the limitations of this thesis. While the number of participants, and the data collected from each, exceeded the minimum accepted standard in sociolinguistic studies, numbers were too small for finer-grained analysis of age and/or gender interactions with education or occupation. Additionally, this socioeconomic information was missing for the St Fagans archive data participants which meant that these speakers were excluded from analyses involving socioeconomic factors. There were also some cases where a particular occupation or education category was represented by a single speaker, and some issues of non-orthogonality. Most significantly regarding non-orthogonality, four of the five younger women were all university-educated and had middle-class occupations categorised as Group 2 (intermediate/non-manual). Thus, any effects of either gender or socioeconomic status were impossible to disentangle for this group.

This and other limitations specific to each feature analysed have been discussed in their respective chapters – for example, the decision made in Chapter 6 to discard incorrectly aligned tokens rather than manually align them. Mis-alignment due to issues such as background noise from recording in cafes or outdoors also obliquely raises a wider methodological point: in prioritising the comfort of the participants, the audio quality of recording was potentially compromised at times (Section 3.3.1.2). This was decided to be an appropriate ‘trade-off’ for recruiting enough participants and eliciting ‘natural’ language data; however, it impacted some analyses more than others and further mitigating efforts could be considered in future, such as recording participants in phonetics laboratories to supplement data from more natural settings. In light of these various limitations, care has been taken throughout not to make over-confident statements, or to generalise beyond what is reasonable.

9.2 Future directions for study

This thesis has provided an in-depth variationist sociolinguistic analysis of four variable features in CE and concluded that there is evidence of dialect levelling, but also of some maintenance of local features such as CE variants of /t/ in working-class speech. This links in with the theory of dynamic equilibrium discussed in Chapter 2, whereby some aspects of regional dialects appear to be converging but an overall distance between them is maintained. Chapter 7 in particular suggested that further research into the CE variants of /t/ could be a fruitful site for assessing how the dialect retains distinction. The thesis also presented a finding in Chapter 6 that was not discussed further: that TRAP appears to be undergoing backing in younger speakers. Further analysis of changes in this lexical set could help to situate and contextualise the changes in the other low vowels, START/PALM and BATH. On the evidence here it was suggested that these were levelling changes motivated by stigma, but there could be a wider movement in the low vowel system, whose state of flux in the last 200 years has been charted by Hickey (2020).

In addition to these avenues for future research raised by the present analyses, the ‘longlist’ of features presented in Chapter 2 noted other locally-distinctive vowels that would be valuable to analyse. Thus, there is a wealth of possibilities for future research on CE. As noted in Chapter 1, Cardiff is a unique site of urban diversity in both the Welsh and the British contexts, with its growing Welsh-speaking population, high proportion of residents from Black, Asian and minority ethnic backgrounds, and long-standing multicultural communities. While these aspects were outwith the scope of this thesis to explore, the complexity apparent within the linguistic and sociocultural environment could make it a useful site in which to develop a polyphonic assemblage model for sociolinguistics. As such, this quantitative variationist study can serve as a foundation from which further research can build, beyond the second and third waves of sociolinguistics.

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Appendices

Appendix A: Full model results for Chapter 4

Table 4.6	Non-agreement		
<i>Predictors</i>	<i>Odds Ratios</i>	<i>Confidence interval (CI)</i>	<i>p</i>
(Intercept)	0.32	0.10 – 0.97	0.044
<i>Age (baseline: old)</i>			
Young	1.23	0.32 – 4.76	0.768
<i>Tense (baseline: past)</i>			
Present	6.6	3.14 – 13.90	<0.001
<i>Determiner (baseline: bare)</i>			
Adjective	1.44	0.51 – 4.08	0.489
Numeric	0.87	0.29 – 2.63	0.807
Definite	1	0.21 – 4.82	0.996
'No'	2.38	0.73 – 7.75	0.149
'a'-quantifier	12.03	2.60 – 55.76	0.001
Other quantifier	2.65	1.03 – 6.84	0.044
Random Effects			
σ^2	3.29		
τ_{00} Speaker	2.1		
ICC	0.39		
N_{Speaker}	26		
Observations	306		
Marginal R^2 / Conditional R^2	0.222 / 0.525		

Table 4.8	Old			Young		
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	0.27	0.09 – 0.83	0.022	0.39	0.04 – 3.93	0.427
<i>Tense (baseline: past)</i>						
Present	7.52	2.81 – 20.10	<0.001	7.19	1.79 – 28.92	0.005
<i>Determiner (baseline: bare)</i>						
Adjective	1.37	0.35 – 5.40	0.654	1.6	0.26 – 9.71	0.608
'a'-quantifier	9.27	1.66 – 51.71	0.011	45.67	0.68 – 3079.47	0.075
Other quantifier	2.96	0.95 – 9.24	0.062	3.06	0.45 – 20.90	0.253
Definite	5.88	0.65 – 52.79	0.114	0.15	0.01 – 1.56	0.112

'No'	2.7	0.70 – 10.45	0.149	2.35	0.15 – 35.90	0.538
Numeric	0.97	0.27 – 3.42	0.956	0.98	0.08 – 12.40	0.99
Random Effects						
σ^2	3.29			3.29		
τ_{00} Speaker	1.05			5.3		
ICC	0.24			0.62		
N Speaker	16			10		
Observations	179			127		
Marginal R ² / Conditional R ²	0.259 / 0.438			0.190 / 0.690		

Appendix B: Full model results for Chapter 5

Full dataset	Variant: [In]		
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	1.02	0.22 – 4.64	0.982
Young	0.22	0.02 – 2.13	0.19
<i>Preceding phonological context (baseline: alveolar)</i>			
Glide	1.27	0.76 – 2.13	0.361
Liquid	0.6	0.34 – 1.04	0.071
Other consonant	1.04	0.67 – 1.63	0.847
Velar	1.61	0.92 – 2.80	0.095
<i>Following phonological context (baseline: alveolar)</i>			
Glide	0.67	0.32 – 1.42	0.299
Liquid	0.84	0.39 – 1.79	0.649
Other consonant	1.56	0.95 – 2.56	0.078
Pause	0.96	0.55 – 1.67	0.886
Vowel	1.22	0.75 – 1.99	0.428
<i>Grammatical category (baseline: gerund)</i>			
Noun	0.94	0.57 – 1.56	0.819
Other	1.06	0.61 – 1.86	0.825
Verb	1.64	1.22 – 2.20	0.001
Random Effects			
σ^2	3.29		
τ_{00} word	0.36		

τ_{00} speaker	8.1
ICC	0.72
N_{speaker}	26
N_{word}	467
Observations	2238
Marginal R^2 / Conditional R^2	0.059 / 0.737

Table 5.7	Old			Young		
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	0.91	0.02 – 45.72	0.963	0.04	0.01 – 0.29	0.001
<i>Education (baseline: university)</i>						
Tertiary	4.74	0.01 – 2287.98	0.621	312.33	3.20 – 30455.17	0.014
Secondary	1.46	0.01 – 207.23	0.881	16.86	0.86 – 328.95	0.062
<i>Preceding phonological context (baseline: alveolar)</i>						
Glide	1.05	0.48 – 2.30	0.905	1.5	0.72 – 3.15	0.28
Liquid	1.19	0.47 – 3.03	0.717	1.21	0.46 – 3.19	0.706
Other consonant	1.22	0.62 – 2.39	0.57	1.6	0.78 – 3.28	0.201
Velar	1.37	0.60 – 3.14	0.461	2.9	1.21 – 6.94	0.017
<i>Grammatical category (baseline: gerund)</i>						
Noun	1.01	0.46 – 2.18	0.989	0.71	0.30 – 1.68	0.43
Other	1.05	0.46 – 2.43	0.9	0.49	0.19 – 1.27	0.14
Verb	1.33	0.81 – 2.17	0.254	2.34	1.44 – 3.78	0.001
Random Effects						
σ^2	3.29			3.29		
τ_{00} word	0.44			0.38		
τ_{00} speaker	11.66			4.41		
ICC	0.79			0.59		
N_{speaker}	10			10		
N_{word}	238			289		
Observations	878			928		

Marginal R ² / Conditional R ²	0.022 / 0.791	0.321 / 0.723
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Appendix C: Full model results for Chapter 6

BATH F2 – full dataset			
<i>Predictors</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	104.81	16.30 – 193.31	0.02
Year of birth	-13.87	-25.55 – -2.20	0.02
Following liquid	-0.02	-0.23 – 0.18	0.81
Following nasal	0.12	-0.11 – 0.35	0.294
Random Effects			
σ^2	0.63		
τ_{00} word	0.03		
τ_{00} name	0.14		
ICC	0.21		
N _{name}	24		
N _{word}	93		
Observations	625		
Marginal R ² / Conditional R ²	0.045 / 0.244		

START F1 – full dataset			
<i>Predictors</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	-29.21	-109.93 – 51.51	0.478
Year of birth	3.96	-6.69 – 14.61	0.466
Following liquid	0.11	-0.09 – 0.31	0.288
Following nasal	0.53	0.00 – 1.06	0.05
Random Effects			
σ^2	0.4		
τ_{00} word	0.02		
τ_{00} name	0.13		
ICC	0.27		
N _{name}	24		
N _{word}	202		
Observations	1602		

Marginal R ² / Conditional R ²	0.007 / 0.272
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START F2 – full dataset			
<i>Predictors</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	94.71	33.42 – 156.00	0.002
Year of birth	-12.6	-20.69 – -4.52	0.002
Preceding glide	0.3	-0.05 – 0.64	0.094
Preceding liquid	0.13	0.04 – 0.23	0.006
Random Effects			
σ^2	0.16		
τ_{00} word	0.01		
τ_{00} name	0.08		
ICC	0.35		
N _{name}	24		
N _{word}	202		
Observations	1602		
Marginal R ² / Conditional R ²	0.098 / 0.417		

TRAP F1 – full dataset			
<i>Predictors</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	-34.1	-128.66 – 60.47	0.48
Year of birth	4.67	-7.80 – 17.14	0.463
Random Effects			
σ^2	0.55		
τ_{00} word	0.07		
τ_{00} name	0.19		
ICC	0.31		
N _{name}	24		
N _{word}	889		
Observations	3574		
Marginal R ² / Conditional R ²	0.005 / 0.318		

TRAP F2 – full dataset			
<i>Predictors</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	85.67	30.25 – 141.08	0.002
Year of birth	-11.31	-18.62 – -4.01	0.002
Following fricative	0.16	-0.01 – 0.33	0.066

Following liquid	-0.07	-0.15 – 0.02	0.108
Following nasal	0.06	-0.00 – 0.12	0.07
Random Effects			
σ^2	0.37		
$\tau_{00 \text{ word}}$	0.02		
$\tau_{00 \text{ name}}$	0.06		
ICC	0.19		
$N_{\text{ name}}$	24		
$N_{\text{ word}}$	889		
Observations	3574		
Marginal R ² / Conditional R ²	0.054 / 0.236		

Table 6.7	BATH F2 – Cardiff Voices dataset only		
<i>Predictors</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	154.01	34.32 – 273.70	0.012
Year of birth	-20.36	-36.14 – -4.58	0.011
Working class (baseline: middle class)	0.12	-0.28 – 0.51	0.56
Following fricative cluster	-0.05	-0.26 – 0.17	0.674
Following nasal	0.12	-0.13 – 0.38	0.338
Random Effects			
σ^2	0.68		
$\tau_{00 \text{ word}}$	0.02		
$\tau_{00 \text{ name}}$	0.15		
ICC	0.2		
$N_{\text{ name}}$	18		
$N_{\text{ word}}$	86		
Observations	518		
Marginal R ² / Conditional R ²	0.075 / 0.259		

Table 6.9 START F2	CV Young			CV Old		
<i>Predictors</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	-1.17	-1.33 – -1.01	<0.001	-0.61	-1.02 – -0.19	0.004
Class (working)	0.55	0.21 – 0.89	0.002	-0.11	-1.03 – 0.81	0.818
Gender (male)	0.13	-0.13 – 0.40	0.327	-0.51	-1.42 – 0.41	0.277

Preceding glide				0.32	-0.10 – 0.74	0.138
Preceding liquid/cluster	0.21	0.08 – 0.34	0.001	0.22	0.06 – 0.37	0.006
Class (working) * Gender (male)	-0.53	-0.98 – -0.09	0.017	0.31	-1.05 – 1.67	0.655
Random Effects						
σ^2	0.08			0.23		
τ_{00} word	0.03			0.02		
τ_{00} name	0.02			0.17		
ICC	0.4			0.45		
N _{name}	10			8		
N _{word}	114			124		
Observations	637			778		
Marginal R ² / Conditional R ²	0.228 / 0.533			0.089 / 0.501		

Appendix D: Full model results for Chapter 7

T1	CE (baseline) and glottal – full dataset		
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	0.19	0.07 – 0.52	0.001
Young	23.25	7.19 – 75.19	<0.001
Male	1.01	0.32 – 3.20	0.985
Following <i>uhm</i> : yes	5.83	2.71 – 12.55	<0.001
Random Effects			
σ^2	3.29		
τ_{00} Name	1.99		
τ_{00} Word	0.34		
ICC	0.41		
N _{Word}	17		
N _{Name}	26		
Observations	2653		
Marginal R ² / Conditional R ²	0.313 / 0.598		

	T1 – older speakers only		
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	0.92	0.28 – 2.99	0.883
Male	1.16	0.30 – 4.48	0.835

Occ. Group 2	0.4	0.06 – 2.61	0.34
Occ. Group 3	1.35	0.31 – 5.88	0.693
Edu. Group 2	0.32	0.06 – 1.74	0.187
Edu. Group 3	0.12	0.03 – 0.44	0.002
Following <i>uhm</i> : yes	4.11	1.25 – 13.53	0.02
Random Effects			
σ^2	3.29		
τ_{00} Word	0.5		
τ_{00} Name	0.49		
ICC	0.23		
N_{Word}	15		
N_{Name}	10		
Observations	1052		
Marginal R^2 / Conditional R^2	0.178 / 0.368		

T1 – younger speakers only			
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	58.78	6.02 – 574.23	<0.001
Male	0.78	0.20 – 3.06	0.718
Occ. Group 2	0.17	0.02 – 1.68	0.13
Occ. Group 3	0.06	0.01 – 0.58	0.015
Edu. Group 2	0.38	0.04 – 3.24	0.375
Edu. Group 3	0.39	0.10 – 1.56	0.185
Following <i>uhm</i> : yes	6.07	2.03 – 18.16	0.001
Random Effects			
σ^2	3.29		
τ_{00} Word	0.41		
τ_{00} Name	0.61		
ICC	0.24		
N_{Word}	17		
N_{Name}	10		
Observations	1468		
Marginal R^2 / Conditional R^2	0.271 / 0.444		

T2		[t] (baseline) and glottal – full dataset	
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	0.08	0.02 – 0.29	<0.001
Young	203.45	50.63 – 817.54	<0.001
Male	2.38	0.63 – 9.07	0.203
Following <i>uhm</i> : yes	0.06	0.03 – 0.10	<0.001
Random Effects			
σ^2	3.29		
τ_{00} Name	2.71		
τ_{00} Word	2.07		
ICC	0.59		
N_{Word}	17		
N_{Name}	26		
Observations	2466		
Marginal R^2 / Conditional R^2	0.545 / 0.815		

		T2 – older speakers only	
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	1.4	0.32 – 6.17	0.654
Male	2.29	0.42 – 12.45	0.337
Occ. Group 2	0.02	0.00 – 0.21	0.001
Occ. Group 3	0.21	0.03 – 1.35	0.1
Edu. Group 2	4.22	0.51 – 34.98	0.183
Edu. Group 3	0.34	0.06 – 1.81	0.207
Following <i>uhm</i> : yes	0.02	0.01 – 0.06	<0.001
Random Effects			
σ^2	3.29		
τ_{00} Word	0.81		
τ_{00} Name	0.8		
ICC	0.33		
N_{Word}	17		
N_{Name}	10		
Observations	1102		
Marginal R^2 / Conditional R^2	0.556 / 0.702		

T2 – younger speakers only			
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	9.19	1.20 – 70.33	0.033
Male	1.22	0.31 – 4.82	0.776
Occ. Group 2	2.99	0.50 – 17.75	0.228
Occ. Group 3	43.87	4.26 – 451.90	0.001
Edu. Group 2	0.02	0.00 – 0.17	0.001
Edu. Group 3	0.29	0.06 – 1.31	0.108
Following <i>uhm</i> : yes	0.12	0.05 – 0.28	<0.001
Random Effects			
σ^2	3.29		
τ_{00} Word	3.85		
τ_{00} Name	0.2		
ICC	0.55		
N_{Word}	17		
N_{Name}	10		
Observations	1131		
Marginal R^2 / Conditional R^2	0.189 / 0.637		

T3			
CE (baseline) and [t] – full dataset			
<i>Predictors</i>	<i>Odds Ratios</i>	<i>CI</i>	<i>p</i>
(Intercept)	3.12	0.85 – 11.41	0.086
Young	0.16	0.04 – 0.64	0.009
Male	0.29	0.08 – 1.06	0.062
Following <i>uhm</i> : yes	125.39	70.05 – 224.43	<0.001
Random Effects			
σ^2	3.29		
τ_{00} Name	2.65		
τ_{00} Word	2.42		
ICC	0.61		
N_{Word}	17		
N_{Name}	26		
Observations	2465		
Marginal R^2 / Conditional R^2	0.333 / 0.738		