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Booth, A.

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MANX ENGLISH:

A PHONOLOGICAL INVESTIGATION INTO LEVELLING AND DIFFUSION FROM ACROSS THE WATER

Andrew Booth

March 2020

A thesis submitted in partial fulfilment of the requirement for the degree of Doctor of Philosophy in the University of Westminster

Author's Declaration

I hereby declare that the research work presented in this thesis has been completed by the author. Where other sources of information have been used, they have been quoted.

No part of this thesis has been submitted in support of an application for any other degree.

Andrew Booth

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Abstract

This study aims to locate the Isle of Man within the sociolinguistic field of language variation and change. Stigmatised features of speech on island communities are often cited as examples to discuss accent levelling (the loss of traditional features), in addition, the research into geographical diffusion (the inclusion of features from outside) on islands demonstrates the extent of spread that certain features reach. However, there are also certain resistance strategies and barriers islanders can put up. The English spoken on the Isle of Man (referred to as Manx English) has had little coverage within the investigation of linguistic issues.

Both apparent- and real-time analysis methods are presented within this thesis. Previous phonological analysis from two separate studies (SED in 1950s/1960s and Recording Mann in 1999) were used to compare to the original corpus created for this thesis. Different generations of families were also analysed for synchronic changes in dialect features. Recordings were obtained through sociolinguistic interviews and were analysed auditorily and acoustically. The overarching aims of the research are to assess the influence of accent features from outside the community, investigate features, which may have been lost over time, and to discuss the social and linguistic factors, which determine the acceptance or resistance of some features.

Findings vary from feature to feature. This thesis discovered that there are elements of traditional Manx English that are upheld (vowel lenghtening). The GOAT vowel is showing interesting variation from young to old speakers depending on influences (Liverpool for younger speakers, traditional Manx English forms for older) and the incoming tide of the glottal stop is reaching the Island's shores. This thesis investigates the mechanisms of change and finds both internal and external factors affect the production of English on the Isle of Man.

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1 Contextualising the Study

This study is an investigation into the phonological accent features of English spoken on the Isle of Man (henceforth IoM). It is a diachronic and synchronic exploration into levelling[1] and diffusion[2] influences on speakers of Manx English (henceforth MxE). The study has replicated some procedures from the Survey of English Dialects (henceforth the SED) to include a real-time element (discussion under section 1.4). By comparing the phonological features of MxE in the past, to the accent on the IoM in 2016/2017, it is possible to situate this isolated dialect with respect to the developments and changes in the British Isles.

The background of this study comes from the theories behind language variation and change (Chapter 2). On listening to recordings from the SED (circa 1958), I found striking differences between MxE then and now. There has been very little research into the phonology on the IoM, but this research is timely as the predictions of past researchers are now highly pertinent. A phonetician working on the IoM in the 1960's said of MxE phonology:

---

[1] The loss of localised or less desirable features of an accent (Trudgill 1986a: 98). Further definition discussed in 2.1.

[2] Features that have spread over a wider geographical area (Trudgill 1983: 52-87). Further definition discussed in 2.2.

> It seems likely that north-west Midland, (especially Liverpool) phonology and RP phonology will vie with one another for dominance in the pronunciation of English in Man during the next fifty years (Barry 1984: 177)

It is now more than 50 years since the recordings were taken. Fortunately, extensive phonological records from the SED are available for comparison. There was also an interim study nearly 20 years ago which forms a large part of the diachronic data in this thesis. The use of synchronic and diachronic data offers unique insight into MxE phonology today. Not only will the synchronic element of my research add to the apparent-time (discussed in section 1.4) studies focusing on levelling and diffusion (see section 2.2), it will also add another stage in the phonological diachronic data on the IoM (chronicled in section 1.3.3).

Salient features of MxE and typical diffusion features were chosen based on previous research and investigated in this original corpus. Specifically, the study investigates five features which are attributed to the two mechanisms mentioned above: levelling and diffusion. Informed choices were made for the individual features; the motivations are all described in detail in each of the separate variable Chapters (4-8). The contribution to dialect studies in general is also noted. With the spread of the diffusion features being a well-studied area, it will be valuable to add the IoM for comparison with other accents of the British Isles. As described in Chapter 2, the case for studying language variation on islands is strong due to

isolation or perceived isolation from the other places. In this study I aim to align my own data with that of data collected in different locations.

The organisation of this thesis is as follows:

The remainder of this chapter presents the geographical location of this study followed by an overview of language on the IoM and previous research in MxE. It will also explore some of the neighbouring accents and dialects that have had some influence on MxE in the past and perhaps in the future.

Chapter 2 presents the areas of linguistics which inform this study. The sociolinguistic models are presented thematically, and these helped to inform decisions on methodology and provided direction when answering the topics presented in the aims. The literature review in this chapter provides the necessary background and contextualises the issues presented in the research objectives.

The methodology in Chapter 3 describes the procedures carried out to undertake the research and analysis. In this section, the informants are introduced along with the procedure used to recruit participants. Rationale and reasoning are provided in this section regarding the choices made.

Subsequently, the next five chapters introduce each of the features chosen for analysis. The environment the variables may have arisen from is considered as well as an explanation of their previous usage on the IoM or elsewhere. Each chapter presents a review of research for the particular phonological feature, a demonstration of the original empirical evidence, and the analysis and results for each accent feature. Results, analysis and discussion are all included in the separate chapters to allow uninterrupted examination of each feature. Each chapter will discuss why each feature was chosen (with reference to the research questions).

Chapter 9 reviews the thesis and compiles the findings of the study. Some sociolinguistic themes that arose in the interview will be discussed in this chapter. The chapter also demonstrates how the major outcomes of the study correspond to previous sociolinguistic research and add to the ever-growing field of phonology and language variation and change

Research Objectives

The overarching aims of this study are as follows:

1. To assess the influence of accent features coming over from other parts of the British Isles
2. To investigate features of MxE that may be lost
3. To investigate which social or linguistic factors may be influential in the acceptance or resistance of MxE features

The aims have all come from the key issues in the literature (Chapter 2). Aims 1 and 2 address the specific features that may change and will assess the mechanisms which may instigate these developments. For example, Chapter 4 addresses Hamer's (2007) statement that vowel lengthening is a feature which may be lost in future young generations; my research will look to directly answer this question.

The aims were derived from a gap in phonological research; the lack of exploration into levelling and diffusion on the IoM. During discussions with MxE researcher Andrew Hamer (personal communication 2015) (researcher on Recording Mann project, see 1.3.3), we concluded that there was a lack of synchronic evidence presented for diffusion and levelling; this is a gap I aim to fill. Previous research, presented in sections 2.1 and 2.2, led me to ask the question as to which features may be coming over to the Island (aim 1). The variables discussed in section 2.2 are ones which have been adopted in neighbouring dialects. The question I ask is whether MxE speakers will be accepting of these features (if so, is it because of the mechanisms discussed in 2.2.4 and 2.2.5?) or will they resist for any of the reasons outlined in 2.3 (aim 3 above)? Language variation and change issues are discussed within a social dialectological framework with regards to the findings and aims of this study (see Chapter 2).

1.1 The Isle of Man

Lying directly in the middle of the Irish Sea, it is said that on a clear day from the top of Snaefell (IoM's highest point) you can see the seven kingdoms of Mann (IoM, Wales, Scotland, Ireland, England, Heaven and Neptune). This proximity to other countries, whilst having the obstacle of the sea in every direction, gives the Island its distinctiveness within the British Isles. Figure 1 below is a map of the British Isles with the IoM visible in the centre.

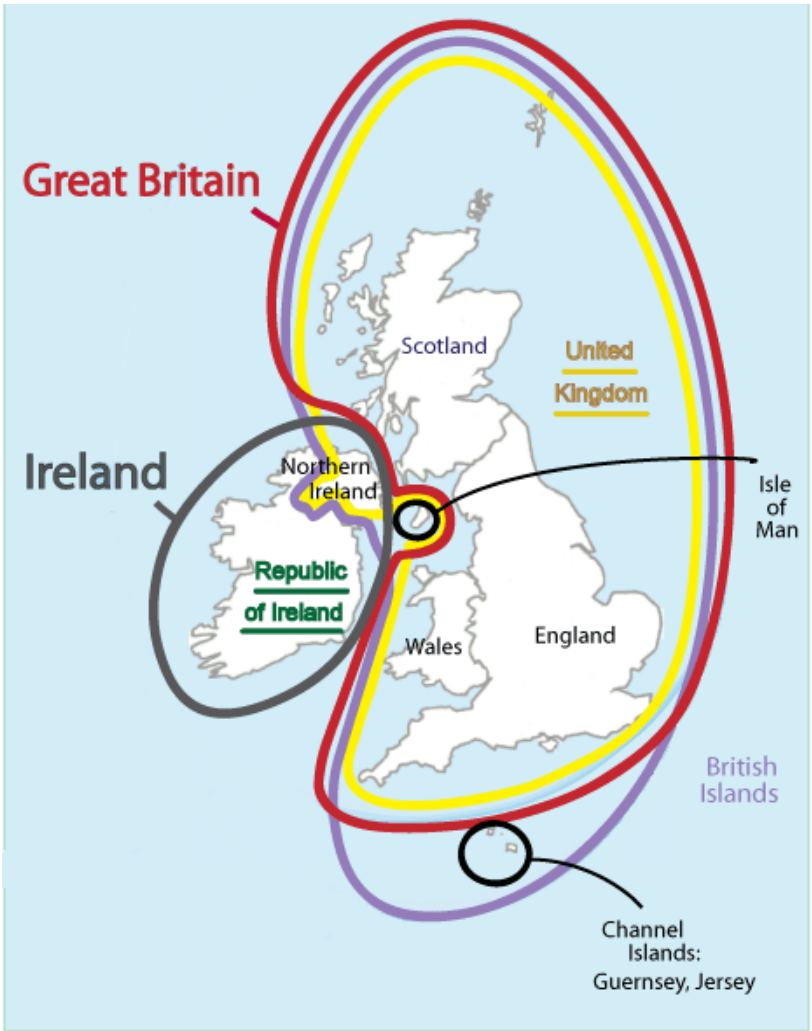


Figure 1: Terminology of the British Isles (Lewis 2008a)

The Island is home to approximately 85,000 people, with Manx born residents totalling just under 50% (Isle of Man Government 2016). Nearly 34% of the population were born in England, while the other British countries and Ireland make up around 8%; 5% from European nations and the remaining 3% from the rest of the world (Isle of Man Government 2016).

As a Crown Dependency, rather than part of the United Kingdom (UK), the IoM has control of most matters (apart from foreign affairs and defence) through the independent government in the High Court of Tynwald[3]. Figure 1 shows the terminology of the British Isles; the IoM is circled in purple (as it is labelled as the British Isles) and black along with the Channel Islands (as they are all Crown Dependencies). Note that the red and yellow lines do not encompass the IoM, therefore it is not in the UK or Great Britain.

[3] Tynwald is claimed to be the oldest continuing government in the world after having celebrated its millennium in 1979

1.2 Language research on the Island

1.2.1 Manx history

Manx Gaelic[4] (henceforth MxG) has been the most prominent language on the IoM in its turbulent and ever-changing linguistic history. MxG stems mainly from Irish Gaelic and was present in different forms from around the 4th century AD (Stowell and Gawne 2005: 384). MxG was the language of the populace until the 18th century (Stowell and Ó Breasláin 1996). In 1656 James Chaloner visited the Island and commented that "few speak the English tongue" (Stowell and Ó Breasláin 1996: 6). English was to be the language that superseded MxG as the native tongue for Manx inhabitants (see below). The resistance to the incoming tide of English began to fade in the mid-19th century. A census carried out by Jenner in 1874 showed 25% of Manx residents spoke MxG; by 1931 the percentage had dropped to around 1% (Broderick 1991: 102). However, the latest census reveals that Manx speakers are on the increase, just over 2% in the 2011 census (Isle of Man Government 2011)[5]. With government backing and a recent Manx medium primary school, the numbers of MxG speakers are increasing.

[4] Also referred to as *Manx*

[5] There are issues with the concept of census questions and language use. However, the focus of this thesis is on influences from other accents of English, therefore discussion on MxG demographics is not presented

1.2.2 The rise of English on the Isle of Man

By 1346, after a struggle for ownership with Scotland, England claimed rule over the Island (Stowell and Gawne 2005). This was to be the beginning of the rise of English on the IoM. It is likely that the gentry and wealthier patrons of the Island were the first to speak English. Speed in 1611 and Gibson in 1695 wrote that the richer and higher classes were more likely to converse in English (Stowell and Ó Breasláin 1996: 6). However, the IoM's higher society's knowledge of English did not seem to influence the rest of the population in their language choice. The factors that had an adverse effect on MxG include the Anglican Church, Education, the Revestment Act of 1765 and ever-growing tourism.

The Anglican Church came to the Island soon after the English reformation during the 16th century (when the Church of England broke away from the Pope and the Catholic Church). However, even before this, English or Latin was the language of religion on the IoM (Stowell and Gawne 2005). Even though a few bishops including Bishop Hildley, who took charge of the churches on the Island, were in favour of using MxG as the medium for religious sermons, many others thought that Manx had no place in the church (Stowell and Gawne 2005: 392). Bishop Wilson and Bishop Murray of the Church of England and John Wesley of the Methodist Church publicly condemned the use of MxG. All three claimed that English was required by the people of Mann and pressed for MxG to be removed from religion (Stowell and Ó Breasláin 1996: 11, 15 and Stowell 1996: 207). Wesley's Comments in 1783 were particularly scathing in saying:

> I exceedingly disapprove of your publishing anything in the Manx language. On the contrary, we should do everything in our power to abolish it from the earth (Mason 1839: 91)

Manx was seen as an uneducated language, and translation of religious texts were of little value as most of the population could not read or write Manx (Stowell 1996). Bishop Murray also tried everything in his power to abolish Manx, telling communities that Manx was forbidden under law (Stowell and Gawne 2005). This statement was a fabrication, but nevertheless, because of a growing negative attitude towards the language, society was inclined to believe this. A summary of the feelings of the Church by Hindley concludes that:

> Although the distinction is a fine one, both churches and schools in the eighteenth century were not so much anti-Manx as pro-English…The Anglican clergy, educated in England, shared prejudices of their social class which alone could afford education; but, significantly, the policies of the Methodists towards Manx were virtually identical. The attitudes of clergymen and schoolmasters reflected the political status of the language, its lack of use outside the Island and the general absence of printed books in Manx (1984: 17).

The Anglican Church wielded significant power on the IoM, and some bishops demanded that all schooling should be in English, this meant the

only schooling available "was virtually entirely through English" (Stowell 1996: 208). Manx was therefore not taught in schools for long periods.

The attitude of the Church was not, according to Broderick (1999), the biggest factor in the rise of English on the IoM. One of the most important factors was the Revestment Act of 1765, where Manx traders and merchants had to converse in English in order to trade (Stowell and Ó Breasláin 1996: 13). The increase of trade with the English (because of the Revestment Act) led to many more English settlers and Douglas was established as an English-speaking town (Stowell and Ó Breasláin 1996). With English confined to towns, Manx in the countryside was protected until the improvement of roads and transport brought English all over the Island. An economic depression ensued during this period which can be attributed to the Revestment Act (Stowell and Ó Breasláin 1996: 14). People moved to the larger towns for work where English was spoken. Moreover, emigration was rife, and English was the language needed in order to emigrate to England or America.

The final major factor was the increase in tourism. The regular steamer to England began in 1833 (Stowell and Gawne 2005). Barry (1984: 167) surmises that the rise of Lancashire dialect in Mann "owes much to the growth of the tourist trade and links with Fleetwood and Liverpool". Thus, the quick link with England established English as the language to know on the Island.

Hindley best summarises the decline in Manx in stating that:

> Immigrants had no need to learn Manx after the earliest years of the century for where strangers were present the Manx felt it proper to speak English. Everything pointed to its superior value and convenience: tourism, residential settlement, trade, Manx emigration, popular education and the lack of any secular Manx literature. By the end of the century English influences and English people were so omnipresent that knowledge of English was indispensable, knowledge of Manx was not. (1984: 29)

Therefore, it was knowledge of English that was essential for the residents of the IoM at this time. This requirement drove MxG out, as over subsequent generations, English became the mother-tongue of those born on the IoM.

At the beginning of the 19th century, Manx had still been the language of the majority. However, by the end of this century, the major language shift to English had been completed (Ó hIlfearnáin 2015). In the early part of the 20th century, MxG was left to the "peripheral communities and isolated speakers" (Ó hIlfearnáin 2015). Because of the dwindling numbers and loss of Manx contact situations, the 'authenticity' of the language and especially of the accent of MxG has been questioned (Ó hIlfearnáin 2015). Due to the lack of prestige MxG has had over the time period described, it is questionable as to how much influence MxG has had on the accent of MxE. This is a discussion point in the proceeding section.

1.3 Manx English

The term to describe English spoken on the IoM is either Manx English (MxE) or sometimes, Anglo-Manx. For the purpose of this thesis, I will use the term Manx English to describe the dialect of English spoken on the IoM. Some authors discussing accent on the IoM, have at times, used the terms (Anglo-Manx and MxE) interchangeably. This is not without its dangers, as Maddrell (2001: 246) states: Anglo-Manx is a "fixed unchanging code", which implies that as a dialect it will not adapt and grow as other dialects do. Chambers and Trudgill (1998: 6) see dialects as a continuum with many factors affecting the degrees of influence on its users. In this sense MxE is evolving and changing depending on time, place, history and social status factors. Dialects adapt and are flexible as time passes, therefore the term MxE will be used solely as I am describing the adjustable nature of language.

Kewley-Draskau describes MxE as:

> that variety of English which has been spoken on the Isle of Man since the incipient demise of Manx Gaelic, and the superimposition of English as the inhabitant's first language (1996: 225)

This description is a simple overview of the period of time when English came into real contact with MxG. Kewley-Draskau's statement ignores the English spoken by the gentry described previously (see 1.2). As

aforementioned, not much is known about the English spoken before the mid-19th century. It is reasonable to assume that 'traditional'[6] MxE (variables described below) developed when MxG and English were in contact. Moreover, MxE is described later, by Kewley-Draskau, as a "composite product of two identified and well documented languages in contact, and in conflict" (1996: 228). The majority of the authors mentioned in the subsequent sections agree that MxG has had various levels of input into the MxE spoken today (Barry 1984; Broderick 1997: 123; Filppula et al 2008: 166). MxE studies are not omnipresent, and those that have been carried out have mainly focused on intonation (Kewley-Draskau 1996).

Traditional MxE features of English were described by Hamer (2007). In the chapter about MxE in *Language in the British Isles*; Hamer talks about the SED being the principal source for MxE phonology. It is assumed that the description in Hamer's chapter of 'traditional MxE' was formed by contrasting the SED with modern features. The SED features which will be used for comparing the data in this study will be described in detail in Chapters 4-8.

The following sections are overviews of research which have focused on MxE through history. The following overview will be presented in 3

[6] The use of 'traditional' to describe some features of MxE was used by Pressley (2002) to describe features that were found in the SED but were not common in modern MxE, traditional MxE was also described by Hamer (2007)

different sections. First, I give an account of the research before the seminal Survey of English dialects. This research is mainly an account of lexis in MxE but with some mention of the phonetic makeup of the Island. This section covers the period of 1889 to 1962. The next part discusses research undertaken after the SED but that did not have an overt focus on phonology. This research is more descriptive in its data and more qualitative in its analysis. Finally, I will review the two studies which have a more analytical approach to MxE phonology. This section includes a review of MxE from the SED and the Recording Mann project. The studies have a description of accent features that can be used for comparative purposes; they utilise the International Phonetic Alphabet along with other replicable linguistic techniques. Moreover, these two projects are important for answering the question of which accent features are changing or have changed over time. There has not been a large amount of research into MxE, but compiled together, the following authors give an overview of how English has been spoken on the IoM since 1889.

1.3.1 Early records of Manx English

The earliest comments from a linguistic researcher came from Ellis' publication in 1889. Although as formerly mentioned there were other observations from visitors to the IoM previously (Speed and Chaloner (see section 1.2.2)), Ellis' study is the first which talks about MxE phonology. Ellis' research begins with a comment by Reverend Drury in 1879 saying that the "Manx peasantry are remarkable for their good English" and that their accent is "much more correct than that of the English peasants

generally" (Ellis 1889: 360). However, Ellis then goes on to refute these claims and states that the "dialect is mixed" and is by no means "remarkably good" (1889: 360). Ellis' main findings were that the accent on the IoM is merely a reproduction of neighbouring dialects; in particular the dialect of Lancashire. Ellis remarks:

> It is impossible to regard the speech of the Isle of Man as anything but a variety of m.La. [mid-Lancashire], having numerous points of agreement and only one point of real difference (1889: 361)

Similar to his views on Welsh English, Ellis sees the variety spoken on the IoM as copied from neighbouring dialects rather than learned from within their own schools (Ellis 1889). Barry (1984: 168) and Broderick (1997: 123) state that by reducing MxE to an offshoot of a neighbouring dialect, Ellis has understated the influence of Gaelic or other unique language changes. The biggest criticism of the findings is that the informants for Ellis' (1889) study were not living on the IoM at the time of the data collection. Although born on the Island, they were residents of Manchester.

The next sources are based on oral traditions and literature. They were created as a record of lexical items but also included some comments about MxE phonology. First, Moore, Morrison and Goodwin published the book *A Vocabulary of the Anglo-Manx Dialect* in 1924. It is considered by Broderick (1997: 124) as "the first substantial work on MxE". The dictionary is

compiled from oral traditions and literary sources from authors such as T.E. Brown and Josephine Kermode. One example is the common term:

> **YUESSIR** [jüso(r)], 'you sir', a disrespectful form of addressing a boy or man. Wharr are ye doin there, yuessir? ... yuessir, come here. (Moore, Morrison and Goodwin 1924: 206)

The items recorded were documented as they were seen as distinctive to the IoM, thus giving the researchers the scope to analyse MxE. In the phonetics section, Goodwin writes that the 'Lancashire peculiarities' have made a strong impression on MxE and that inflection from MxG has also shaped the English spoken on the IoM (Moore, Morrison and Goodwin 1924: x). It is meaningful to note that although Liverpool was part of the historical county of Lancashire, it became an independent county borough in 1889. Therefore, it is presumed that Goodwin is not referring to the Liverpool accent in the quote above.

Written initially as a critique to Moore, Morrison and Goodwin's (1924) publication, *Manx Dialect Words and Phrases* (Gill, 1934) adds an extra 250 words to Moore, Morrison and Goodwin's 750. Gill's new lexical items included loan words from Gaelic, such as *meighing* "meaning gentle, unassuming behaviour" (Gill 1934), which comes from the Manx *meighey* with the English affix *-ing* attached. Gill's findings were that MxE is more of a mixed and distinct dialect than previously thought. Gill states that:

> Manx English differs widely from any other English…it is not the modern representation of an early subdivision…but…a mingling of two distinct languages. (1934: 9)

Gill also hinted at levelling influences feeding into MxE; he cites education, tourism and the "blighting effect of the wireless" (1934: 10) as contributors to change.

Gill viewed MxE as a dying variety, believing that loan phrases from MxG were "a wasting asset in the dialect ever since the change over from Manx to English was finally accomplished" (Gill, 1934: 153). Presumably, Gill is referring to the loss of local dialectal forms in MxE. Gill also concluded that there was a growing influence from Liverpool on the Douglas dialect, something that is echoed in more recent findings (see Pressley (2002) below).

As readings of MxE phonology at the time, these sources must be treated with care. Maddrell argues that Anglo Manx as a dictionary of literary sources in the MxE dialect is acceptable but cannot be used as a specimen for natural MxE dialect as it is "codified and unnatural" (2001: 13). Written language cannot always be a true representation of spoken; especially within literature and poetry. Gill's (1934) claims of MxE also came from literary sources rather than recording Manx people on the Island.

A review of these early studies tells us a little about the influences on the IoM and what the researchers believe were the unique qualities of MxE. First and foremost are the statements of similarity between the English spoken on Mann and the Lancashire dialect. Ellis (1889), Moore, Morrison and Goodwin (1924) and Gill (1934) all recognise the importance of contact from Lancashire. A point of contention comes into play when discussing the level of influence from MxG. Ellis is said to have understated its influence (Barry 1984: 168, and Broderick 1997: 123), while Gill recognises the importance of MxG within MxE. The comments in which Gill discusses mechanisms of levelling in 1934 are of particular interest for this thesis, as it also hypothesises about the motivators of change. The fact that the radio was affecting MxE speech (although this is a contentious point in modern sociolinguistic studies) suggests a move towards a Received Pronunciation (henceforth RP) accent as the BBC were said to have encouraged conservative RP (emanating from the south east of England) accents within the 1920s and 1930s (Agha 2003). This thesis also investigates whether other accents of English have influence on MxE today.

1.3.2 Research with descriptive analysis of the phonology of Manx English

The following articles do not have an explicit phonological focus but do include some descriptive analysis of the subject. As the literature of the phonology of MxE is not extensive, these studies are valuable impressions of the accent spoken on the IoM.

The article *Gaelic Influences in Anglo-Manx* (Kewley-Draskau 1996) principally compares past and contemporary poetic and literary sources with a focus on MxE syntax, tense and aspect (Kewley-Draskau 1996). The connections between MxG and MxE are explored to discover distinctive MxE forms. Kewley-Draskau (1996: 230) talks of identity and the determination to keep MxG alive through MxE by the inhabitants. The writer feels that non-MxG speakers have saved the Celtic language from "total extinction" (Kewley-Draskau (1996: 230) by incorporating samples of Gaelic into the English spoken on the Island. The main conclusions of this thesis were that MxG is ubiquitous within MxE literature and that Manx identity is closely linked with the two languages living side by side. Kewley-Draskau (1996) also introduces the term of 'Manx Vernacular English'.

Broderick (1997: 125) declared that Kewley-Draskau's research was the "only substantial article on MxE since Barry [1984]". The conclusions about MxE from Kewley-Draskau seem to contradict previous predictions in saying that MxE will not decline into extinction (as it was thought that MxG would). This research is one of the first to imply that MxE can adapt and develop with English to live alongside other dialects of the British Isles. However, as with Moore, Morrison and Goodwin (1924) and Gill (1934), the research is based on language within literary sources. It therefore lacks examples of natural spoken MxE.

The main conclusions from both the articles are that MxG can be found in MxE. This coincides with Kewley-Draskau's thoughts about the integration of MxG; in 1999 Broderick noted:

> When the language shift had taken place a residue of the vocabulary from the abandoned language, or substratum (Manx), would have been retained in the target language (English) in Man (Broderick 1999: 167)

Although not overtly setting out to analyse MxE phonology, the two main researchers presented above give some detail about the motivators for change. Kewley-Draskau (1996) talks of how MxE was acting as a surrogate for Manx identity in a time when Gaelic was dwindling; therefore, the English spoken would incorporate as much MxG as possible.

1.3.3 The Survey of English Dialects (1962-3) and Recording Mann (1999)

The two projects described below are reviewed for their analytical approach to phonological data on the IoM to investigate MxE speech.

1.3.3.1 The Survey of English Dialects

The IoM was included in the SED in 1962-3, Michael Barry carried out the research and the recordings for the Island. The recordings examined and published were from two locations on the IoM; Andreas (north) and Ronague (south). The SED had strict guidelines as to the informants for the studies. Orton states that:

> The kind of dialect chosen for study was that normally spoken by elderly speakers of sixty years of age or over belonging to the same social class in rural communities, and in particular by those who were, or had formerly been, employed in farming, for it is amongst the rural populations that the traditional types of vernacular English are best preserved to-day. (1962: 14)

The SED was a vast study, which spanned many locations in England (and the IoM). The informants were mostly males from rural areas. The fieldwork consisted of an interview in which a series of questions was asked by the interviewer to elicit certain words that were then phonetically transcribed for publication. The main aim of the study was to create a 'linguistic atlas of England' (Orton 1962: 14).

Barry's (1984) findings about the IoM were linked with Gill's (1934) paper in saying that there is a "mixed nature of the Manx English Dialect" (1984: 177). This mixture is outlined by Barry in the conclusions of the distribution patterns of the MxE dialect, of the one hundred and twenty-five questions:

- 31 showed correspondences with the dialects of the north of England generally
- 30 showed correspondences with the dialects of the north west of England

- 4 showed correspondences with the dialects of the north north west of England
- 13 showed correspondences with the dialects of the west Midlands of England
- 11 showed correspondences with the dialects of Lancashire only
- 9 showed correspondences with the dialects of the north north east of England
- 19 proved to be 'standard' English forms occurring in Man
- 8 revealed forms apparently peculiar to Man

(Barry 1984: 177)

As can be seen from this summary, according to Barry, there were 8 different influences on MxE. Unfortunately, Barry did not provide examples of which forms he corresponded to the different locations mentioned above.

The SED came into criticism for its choice of informants and locations. The main criticisms being because of the limited spectrum of informants in the study; Chambers and Trudgill write:

> it is nevertheless true that the narrow choice of informants in dialect geography [in reference to the SED] is probably the greatest single source of disaffection for it (1998: 30)

The informants chosen for the SED were belatedly known as NORMs; a term coined by Chambers and Trudgill (1998). These NORMs were Non-mobile, Older, Rural and Male. By singling out people with these features,

a large swathe of the population is ignored. Britain (2005a: 1) argues that "dialectology should not just be interested in the very small proportion of the population who were old, rural and male"; especially when the main aim was to create a linguistic picture of England. Chambers and Trudgill (1998: 30) agree with Britain (2005a) in saying that, most of the population are the opposite of NORMs. By ignoring women, an over-simplistic linguistic picture is painted, suggesting that only males can represent traditional dialect, a claim that is dangerous to make (Coates 2004: 171). Moreover, Wells pointed out in a review of the survey that the title better suited to the project might be "The Linguistic Atlas of [Male] Working-class Rural England" (Wells 1999).

There is another criticism concerning the questions asked within the interviews and the manner in which answers were recorded. The one-word answers did not give a true representation of accurate dialect (Britain 2005a). The formal setting of a question and answer with an interviewer, coupled with extracted singular words, may have distorted results and interpretation as informants may not have used 'natural speech' (because it is an artificial setting). Also, Chambers and Trudgill (1998: 127) explain that the SED did not "fully exploit advances in technology" as all results were recorded by hand in phonetic transcription by one person. This makes comparison a little difficult, as transcription could be subjective because utterances (and phonological interpretations) were deciphered and transcribed by just one individual. By having a second person listening and decoding the utterances, the results may be less biased and more reliable. However, the SED remains the "principal published source

for our knowledge of Manx English in the late nineteenth and early twentieth Centuries" (Hamer 2007: 171).

Michael Barry published the article *Manx English* in Trudgill's 1984 book *Languages in the British Isles*. Barry was the researcher who originally collected data on the IoM for the SED in 1958, he then collected further data in 1966, and these two sources became the evidence for this article. The findings published in the chapter gave a succinct history of MxE and then a brief overview of the unique features, mostly through phonology and lexis. The article summarises the findings for each of the phonemes found on the IoM. The table below shows Barry's (1984: 168-172) overview of MxE phonology. Barry's descriptions of the chosen features in this thesis are described in Chapters 4, 5, 6, 7 and 8.

Table 1: Vowel and Consonant systems of Manx English (Barry 1984: 168-173)

Vowel system of Manx English

ɪ	ɛ	æ		ɒ		ʊ			
iː	æː		ɔː		uː		əː		
æɪ	əɪ		ɔɪ		æu		ou		
ɪə	uə				æɪə		æuə	eɪə	

Consonant system of Manx English

p	b			t	d			k	g	ʔ
		f	v	s	z	θ	ð		x	h
				ʃ	ʒ					
				tʃ	dʒ					
					l					
	m				n				ŋ	
ʍ	w				ɹ		j			

Barry's conclusion of MxE was as follows:

> It seems likely that north-west Midland, (especially Liverpool) phonology and RP phonology will vie with one another for dominance in the pronunciation of English in Man during the next fifty years, so long as Liverpool remains the main port of access. (1984: 177)

Barry (1984) saw the rise of English on the IoM as directly influenced by the influx of tourism, mainly from the ports of Liverpool and Fleetwood; the paper notes the influence of the Liverpool and Lancashire dialects on MxE.

The statement above that Liverpool English and RP would contend for power on the IoM (Barry 1984) was questioned by Pressley. In a more recent study, Pressley (2002) found that even though traditional MxE seemed to be in decline, RP and Liverpool English phonology was certainly not dominant. Pressley found that despite Barry's claims, RP and Liverpool English did not seem to be on the rise on the IoM and local prestige was leaning towards a "northern regional standard" (2002: 264). Pressley alludes to the speakers using more supra-local variants[7] (discussed in more detail in section 2.1).

[7] 'supralocalisation' is a term used to describe "linguistic variants with a wider socio-spatial currency become more widely adopted at the expense of more locally specific forms" Britain (2010: 193)

1.3.3.2 Recording Mann

'Glare Vannin' ('Recording Mann' in English), meaning *the speech of Mann*, is the Manx name adopted for the project led by Andrew Hamer in 1999. The project aimed to record an archive of Manx English spoken at the time (Centre for Manx Studies 2007). From the recordings, two full-time and three part-time students were able to analyse the data with different scope (Centre for Manx Studies 2007). The project most connected to this thesis and focused on for results is by Rachel Pressley; entitled *Phonetic Variation in the Douglas and Onchan Area of the Isle of Man*. Pressley's (2002) thesis is a phonological study and is therefore closely linked to my literature review and ultimately this thesis as a whole.

The 'Recording Mann' team used schoolchildren as volunteers. They distributed question banks and tape recorders to the children. Using these prompts, pupils could interview their parents or family members. The project would utilise both the children and parents as informants. This method brought around 700 informants into the project, around 1% of the Island's population (Centre for Manx Studies 2007). Not only did this allow for a large cross-section, it also alleviated the observer's paradox in the sense that the setting and conversations may have been more natural. The theoretical standpoint of the project as a whole was, as Maddrell (2001: 20) writes, that "English in Man should be considered as a continuum, with varying degrees of influence". To achieve this, for each variant chosen, Pressley (2002) assigns a variable with a certain influencing location (e.g.

'Scouse-type', 'Manx English', 'RP', 'northern, 'London'). They are then compared and described to observe the 'varying degrees of influence'.

Pressley's research was centred on Barry's (1984) prediction that RP and Liverpool English would contend for dominance in MxE in the next fifty years. Although not quite fifty years from Barry's 1966 data collection, Pressley set out to compare her findings to this statement. Her findings were that apart from a few unique phonological items (for example the choice of the diphthong [uˑə] over the long monophthong [uː] in the word *school*), the features of pronunciation from 'traditional MxE' phonology were declining (Pressley 2002: 265). Scouse-type variants do not seem to be the dominant phonological system but are more subject to age-grading (see 2.2.3 for more discussion). For example, the younger generation seem to use these more, however, they may replace the features as they get older (Pressley 2002: 265). In addition, Pressley adds, "there is no evidence of RP being the dominant accent either" (2002: 265). Her final conclusion is that there has been a swing towards northern Standard English. Like research before, Pressley connects the phonology of MxE to that of Lancashire and a wider northern standard. Moreover, similar to more recent research, there has been a movement towards features used over a larger regional area (for example: supralocalisation - see 2.2 for more discussion).

The linguistic features in focus in Pressley's (2002) phonological study were:

Consonants

- /t/
- Glottal Stops
- Affricated /k/
- /θ/ and /ð/
- /r/
- /h/

Vowels

- /eɪ/
- /ʌ/
- /uː/
- /ɑ/

Other variables

- -ing endings

In Chapters 4-8, Pressley's findings are discussed with relation to the features in my own data.

The collection method of the data for this research was a real strength for the whole 'Recording Mann' project. As aforementioned, the sample size was proportionately large, and a lot of effort went in to ensure 'natural speech' (Hamer, personal communication). However, by using school children as interviewers the recordings were sometimes a little hesitant and some interviews were more 'formal' as the pupils treated it as a school project (Hamer, personal communication 2015). In Pressley's (2002) phonological research, informants were only used from the Douglas/Onchan area. English has been spoken for a longer period in this

location. As mentioned previously, settlers from Liverpool predominantly lived in Douglas and this could have had an influence on accent in the town today. Douglas is the main port and the link to Liverpool; this may have had an effect on the inhabitants. Also, Barry (1984) did not analyse data from Douglas and Onchan, therefore these studies may not be directly comparable. My thesis looks at different areas of the IoM and therefore fills in the gaps of comparison between the SED and modern MxE.

Pressley (2002) touched on the increase of a type of Northern standard dialect creeping into the IoM. The levelling studies in the north of England (discussed in 2.1 and 2.2), suggest a movement towards a standardised Northern variety (Watson 2006, Watt 2002, Dyer 2002 and Kerswill 2003). The levelling findings of supralocalisation from Pressley (2002) are therefore perceptive and can be seen as an extension of the results from other phonological studies from the north of England.

In conclusion, in terms of impact on MxE, Barry's analysis from his SED data shows a mixture of influences. Pressley (2002) also talks of different influences, but the study finds mainly that Lancashire and 'general northern' influences are the main drivers for change within MxE. Both these studies will be analysed in more detail when investigating the individual features I have chosen for this thesis (see Chapters 4,5,6,7 and 8).

1.3.4 Influences on MxE

Based on the views of Barry (1984), Pressley (2002) and Hamer (2007), I will now discuss the accents that have influenced MxE. Hamer summarises the influences on MxE by saying that:

> It will be apparent that the Isle of Man is potentially an area of accent levelling. Irish and Scots accents may almost certainly be ruled out as contributors to any such levelling, however, to judge from the speech of the school-age children of parents from Ireland or Scotland, who almost without exception do not have Irish or Scottish accents. RP, and accents from north-west England, including that of Liverpool, are the significant current influences on Manx English (2007: 171)

Therefore, I will concentrate on the accents outlined by Hamer above.

The next section focuses on locations and influences mentioned in the previous sections. I begin by presenting some thoughts from Trudgill about dialect boundaries in Britain and then discuss how MxE fits into these (with reference to the previous research discussed above).

The following maps, figures 2, 3 and 4, show the dialect boundaries in England according to Trudgill (1999a: 34, 65 and 83). Throughout this section I will refer to these maps with relation to the choices I have made. I discuss changes that Trudgill believes to have occurred in the past and

may occur in the future with regards to the movement of dialect boundaries and the IoM.

Figure 2: Trudgill's map of traditional dialect boundaries

Figure 3: Trudgill's map of modern dialect boundaries

Figure 4: Trudgill's map of potential future dialect boundaries

1.3.4.1 Traditional Manx English

Hamer (2007: 171) used the term 'traditional Manx English' to talk about the English spoken on Mann which was recorded in the 1950s and 60s, he explains:

> The Isle of Man was included in the Survey of English Dialects, which remains the principal published source for our knowledge of Manx English in the late nineteenth and early twentieth centuries (here referred to as traditional Manx English) (2007: 171)

Hamer is accepting that the SED is the major source for MxE and that the sampling methods (discussed in section 1.3.3) were sufficient in recording

the dialect of the IoM from an earlier period in time. The SED is therefore the source used to describe traditional MxE features.

1.3.4.2 The Linguistic North

The Linguistic North is a term to describe the features of most accents of the north of England. There are, of course, many subtleties and distinctions between different towns and cities of the north and this thesis does not discount the individualities of the differing Northern accents. Wells (1982) points out that:

> It is also probably true that local differences in dialect and accent as one moves from valley to valley or from village to village are sharper in the north than in any other part of England, and become sharper the further north one goes (1982: 350-351)

Despite their differences, the accents around the North have many similarities (e.g. seen as the 'Lower North' and 'Central North' in figure 3 above). The variables that I present below form part of the linguistic divide between the north and south of England.

As can be seen from the maps above (figures 2, 3 and 4), Trudgill (1999a) demonstrates a convergence of dialect areas in the modern map (figure 3), while the traditional map (figure 2) shows more dialect localities. The isogloss differences between figure 3 and 4 (show more influence from the

larger cities (see discussion about gravity model for more information. The only thick line that lies in the modern dialect map separates the Midlands and north from the south of England, thus showing a more related accent in the north than there was previously (see difference between figure 2 and 3). Also note the separation of Merseyside during the elapsed time period, and Liverpool breaking away from other accents in the North.

Another reason for the inclusion of this term the 'Linguistic North' is modern dialectological examinations of different Northern accents, and a proposed homogenisation of general northern English. Wales (2006: 173) uses the term 'pan-Northern' to describe the supposed compromise between the loss of local varieties and the adoption of supra-local variables[8]. This compromise is discussed below (section 2.2) within the issues of identity in Watt's 2002 study of Tyneside English. The stigmatised local forms were often supplanted by a regional version of a variant (Watt 2002). The modified features differed from RP variants and more localised ones. The existence of a levelled Northern accent is presented by the title of Watt's paper, which was a quote from a participant who said: 'I don't speak with a Geordie accent, I speak, like, the Northern accent' (Watt 2002). The paper also introduces other language researchers who see 'General Northern British English' as an establishing

[8] Supra-local: encompassing more than one local region to make up a conglomerate of locales. Represented by the movement of many dialects in figure 3, to fewer in figure 4 (Trudgill 1999a)

regional dialect in opposition to influences from the south of England (see Watt 2002: 58).

I will present features from studies, which are said to be following a 'general Northern pattern' (see Chapter 6). There may be some evidence or suggestions that the IoM is rejecting Southern features for Northern patterns (Pressley 2002, see section 1.3.3). Barry's (1984) account of MxE from the SED has the "dialects of the north of England generally" being the principle influence on MxE.

1.3.4.3 Liverpool

The Influence of Liverpool English (henceforth LE[9]) on Mann is well documented. As mentioned in section 1.3, references to Liverpool being a significant factor on MxE date back to early research (see Gill 1934). Much of the Liverpool influence is attributed to the quick ferry links between Douglas and Liverpool. Barry (1984: 177) proclaimed that the fight for 'dominance' in MxE would be between Liverpool and RP accents. Moreover, in the SED analysis of MxE, 30 out of 125 accent features were attributed to LE (Barry 1984: 178). In Hamer's (2007) more recent account

[9] Previous research has considered the terms *LE* and *Scouse* as synonyms (See Watson 2002; Pressley, 2002; Hamer, 2007). There may be issues when discussing Liverpool and prestige and separating the terms (LE and Scouse). However, as this thesis will not be delving into Liverpool prestige, I will also use the two terms interchangeably

of English on the IoM, he cites "Scouse features" as significant in the current developments of MxE. For these reasons I have treated Liverpool as a separate category from the rest of the north of England.

In addition, LE itself is a very distinct variety of English; Watson argues that it is "one of the most recognizable accents of the British Isles" (2002: 195). It is more Northern than Southern in its features but still stands out as a unique variety of Northern English (Hughes and Trudgill 1987; Wells 1984). The influences on LE have mainly come from Irish immigration, which was widespread during the nineteenth century (Knowles 1973). Influences have also come from Caribbean, Asian, African and Jewish settlers, as Liverpool has been a seaport and an important trader for hundreds of years (Elmes 2006). Elmes (2006: 211) believes this diversity and contact makes LE unique as "although Liverpool is part of Lancashire and has Lancashire dialect as its bedrock, it sounds nothing like it". It is maybe the distinctiveness of LE that has made it a resilient accent, Knowles points out that

> Scouse…has influenced middle and working class speech throughout Merseyside, and is spreading beyond its former boundaries. It is spreading north to Southport, northeast to Maghull, Lydiate, and Ormskirk, east to St. Helens and south-east beyond Halewood to Runcorn and Widnes. Over the water it has ousted the traditional dialect of Wirral, particularly on the Mersey bank down to Ellesmere Port and

> beyond. It is also having influence across Chester and Wrexham into North Wales (1973: 14)

In recent studies also, LE is still spreading despite its perceived 'low prestige' (Watson 2002: 196). Further studies by Watson also revealed that LE is resisting diffusion influences that are apparent around much of the British Isles (Watson 2006, also see section 2.2.3 for more discussion of resistance). According to Trudgill's (1999a) map boundaries (figures 2, 3 and 4), LE broke away from other northern accents and became an individual dialect in itself. It is also interesting to note how the isolated LE is predicted to grow in the future, covering areas of north Wales as well as other areas in Lancashire. LE has been known to resist many incoming features (see table 4 and section 2.2). This is of importance to the resistance of certain features in MxE (discussed in detail in section 2.3).

There is good reason to suppose that features of LE will be apparent in MxE. Younger speakers may be leading the growth of LE features, which might increase its presence on the IoM (Hamer 2007).

1.3.4.4 RP

The accent of RP derives from the south east of England (Trudgill 2008; Britain 2002a) but has been widely distributed. Historically, RP has carried prestige and has been ever present around the British Isles. By the 1920s, RP was chosen to be the voice of broadcasting and could be heard freely

all over the country (Hannisdal, 2007). With the introduction of RP as the broadcasting voice, the social prestige of the accent was validated, and it became the accent of intellectuals also (Hannisdal, 2007).

As previously mentioned, Barry (1984) predicted that in the future RP would be one of two accents fighting for dominance within MxE. He clearly also felt that a rise in popularity of the accent features could also reach the IoM. There are certain variables (described below), which Barry noted were from RP that he believed would become more prominent within MxE in the future.

1.3.4.5 Manx Gaelic

There may be some phonological elements of MxE that have derived from MxG. Those who do not speak the Manx language may have these influences (MxG) in the English they speak. Bourhis et al. (1973) found in Wales that non-Welsh speakers would demonstrate many features of Welsh phonology within the English they speak, this may also be the case for non-MxG speakers also. Barry (1984) included a short section of MxG for every feature under study in the SED, mentioning whether the Manx language did indeed contain the feature in question. Table 2 below highlights the vowel and consonant system of MxG.

Table 2: Vowel and Consonant systems of Manx (Broderick 1993: 234-235; Thomson 1992: 128-130)

Vowel system of Manx Gaelic

Short Vowels	Front	Central	Back
High	i		u
Mid	e		o
Low	æ	a	ɔ

Long Vowels	Front	Central	Back
High		u:	
Mid	e:	ø:	o:
Low	æ:	a:	ɔ:

Diphthongs	Front	Central	Back
High	ui		iə ~ uə
Mid	ei ~ əi ~ oi	eu ~ əu	
Low	ai	au	

Consonant system of Manx Gaelic

	Labial	Dental alveolar	Palatal	Palatal Velar	Velar	Glottal
Voiceless Stops	p	t	t’	k’	k	
Voiced Stops	b	d	d’	g’	g	
Nasals	m	n	n’		ŋ	
Laterals		l	l’			
Vibrant		r				
Voiceless Fricatives	f	s	ʃ	(x’)	x	h
Voiced Fricatives	v			(ɣ’)	(ɣ)	
Semi vowels	w		j			

1.3.5 Manx English in the media

In terms of non-academic descriptions of MxE, representations in modern media are also insightful as to the presentation of a MxE accent. Arguably the most prevalent MxE speaker in the media today is the cyclist Mark Cavendish. Journalists are quick to describe his accent, often in a surprised and curious manner. welovecycling.com describes it as “captivating” (Blazkova 2017) while other outlets describe the influences on MxE. Within seven articles, concerning Mark Cavendish’s accent, all of them mention

the Liverpool influence (Lewis 2008b; Gallagher 2008; Cycling Weekly 2008; The Week 2017; Bailey 2012; Cleverly 2017; Ford 2012). Even though Brendan Gallagher at the Telegraph highlights that Cavendish is certainly not English but Manx, he still describes him as having a "strong Scouse accent" (Gallagher 2008). In an interview with Cycling Weekly they describe that Cavendish, "to the untutored ear, sounds like the scouse" (Cycling Weekly 2008). In the same interview the interviewer records Cavendish as saying that the previous generations had less of a Liverpool influence. This implies that Cavendish himself is aware of the LE influence in his own MxE accent. The writer for TheWeek.co.uk notes that he is "softly spoken and has lost none of his Manx accent with its Liverpudlian/Lancashire lilt" (The Week 2017). Therefore, all the examples support the previous finding that LE is one of the major influences on MxE.

The quotes above are largely neutral, describing what the accent sounds like to outsiders. However, some journalists have also given some opinion on Cavendish's MxE accent. Tim Lewis of the Guardian is describing a 'calm' Cavendish when he says that "[h]is accent is softer, less Scouse than during his notoriously brash interviews on television" (Lewis 2008b). In this quote, Lewis is implying that the more 'brash' that Cavendish is being, the more influences from LE are heard. Cleverly (2017) echoes these statements by saying he usually sounds "Liverpudlian through and through", but when calm "there is a softer edge to the islander's words" (Cleverly 2017). These statements do not seem to be echoed within my participants' anecdotes: where LE is not seen as more brash (see 9.1). Being one of the most common MxE voices in the UK media, Mark Cavendish's

representation may have an effect as he is prominent in the sport of cycling and a role model for fans.

Associating the accent of sports personalities with regional identity is not a new concept. Dauncey and Hare cite the example of the sports commentator Eddie Warring, whose "warm personality… became… a symbol of Northern English culture" (2014: 20). A prominent Manx sports personality (Mark Cavendish) with a highly distinguishable MxE accent (including Liverpool features) can provide an example for younger speakers as other role models do (Pinker 2003: 18).

1.4 Real- and apparent-time studies

When studying linguistic variation or innovation, the factor of time is considered in order to compare and contrast the changing variables. When taking synchronic and diachronic changes into account, linguists use processes such as real- and apparent-time studies. Within this study, I use the MxE research described above as well as generational analysis to include both methods. This section describes the procedure of real- and apparent-time studies, compares the advantages and disadvantages of both, gives some example studies and also explains how real- and apparent-time methodologies were applied to this project.

1.4.1 Real-time study

Researchers who return to a location after a certain amount of time and observe a similar population are conducting 'real-time' studies (Chambers 2003). Evans and Iverson (2007) conducted a real-time study involving students from Ashby-de-la-Zouch. These students moved from the Northern town of Ashby to universities where Southern Standard British English (henceforth SSBE) speakers surrounded them. The researchers followed the production of different vowels over a three-year period, visiting the students once a year. They found that the realisation of the vowel in the BATH lexical set (see Wells' lexical set (1982) description in Chapter 2) merged with SSBE speakers' production, while the realisation of the vowel in the STRUT category generally stayed the same over time (Evans and Iverson 2007). The research was indicative of a typical trend survey as it followed the same participants over a three-year period. There are also real-time studies which revisit the same speech community rather than the same speakers (also known as a panel survey). For example, Blake and Josey (2003) revisited Martha's Vineyard 40 years after Labov's original study, interviewing similar participants and investigating the same features.

An advantage of a real-time study is evident when using it to track language change. It demonstrates empirical data that can "provide the basis for describing linguistic diffusion" (Chambers and Trudgill 1998: 150). However, the disadvantages of real-time studies are evident when considering the practical aspects of research. The Evans and Iverson study,

for example, began with twenty-seven participants and finished with nineteen because of dropouts (Evans and Iverson 2007). Therefore, it can be quite difficult to have a larger number of participants and to re-record them over the years. Also, many research projects do not have the time to wait for a number of years to observe natural change.

As mentioned, there are ways to conduct real-time study without analysing the same participants. Many researchers have been known to return to the site of a previous study and recruit a similar population (Chambers and Trudgill 1998). By using participants who may be in a similar social network or are of similar background or ethnicity, the researcher can make a comparative analysis and therefore track changes over time. Some earlier studies may have predictions about the movement of language change. By choosing a similar population in the same area many years later, it is possible to test the original hypothesis (Chambers 2003: 213).

The real-time element to my study comes from previous research on the IoM. As discussed previously, the SED recorded the phonology of MxE, and Barry (1984) made some predictions of the future of the dialect (see section 1.3.3). By comparing my findings to these predictions, I was able to add some validity to the apparent-time element (see subsequent section for apparent-time discussion). I also used the phonological interpretations from the SED and from Pressley's (2002) study to compare to my own. Pressley (2002) also compared her findings to Barry's comments (see 1.3.3);

she used a similar questionnaire to the previous research to enable comparability. As Pressley did, I have also modified and updated the SED and Recording Mann questionnaire (see section 3.3 for discussion of the interview). In the analysis section also, I discuss Barry's (1984) predictions about the trajectory of MxE dialect and track any changes.

1.4.2 Apparent-time study

Chambers and Trudgill explain that doing apparent-time study:

> [I]nvolves surveying the differences between the speech of people of different ages in the same community, while controlling the other independent variables such as sex, social class and ethnicity […] when different age groups are observed simultaneously and the observations are extrapolated as temporal, the result is 'apparent-time' study (1998: 151)

The researcher of an apparent-time study will observe a community during one time period. The participants must include a wide range of age groups. This is also called the 'synchronic approach', which Cukor-Avila and Bailey describe as the "corner stone of research in language variation and change" (2013: 239).

Despite much research depending on apparent-time to demonstrate language change over time, there are a few drawbacks to the method and

application. First, one life span may be too short for the analysis of diffusion (Chambers and Trudgill 1998). The argument is that apparent-time is based on a hypothesis that language use of a certain age group will remain fairly stable as that group gets older (Chambers 2003; Chambers and Trudgill 1998) (discussed in detail below). This first disadvantage is what Cukor-Avila and Bailey (2013: 241) refer to as "the stability of individual vernaculars". Researchers cannot be certain that over someone's lifetime they will not change their accents. Second, the occurrence of 'age-grading' is a potential problem. Age-grading can be a potential pitfall as changes over generations may be due to a "regular change that repeats in every generation" (Labov 1994: 46) (discussed in detail in section 2.2.3). This issue can be counteracted by comparing real-time studies from previous research.

The advantages of studying language change and variation using an apparent-time methodology are numerous. First of all, in comparison to real-time studies the practicalities of conducting research are more achievable. With regards to time-scale, the researcher is not waiting for time to pass before recording more data. The study can be completed within a few months rather than over many years. All the data in an apparent-time study are obtained at one time, making the whole study more practical in terms of time constraints (Chambers 2003). There may be much change in the world over the years that can affect comparability. For example, the questionnaire from the SED had to be changed to match modern developments; this means that the participants may not be directly comparable. However, with apparent-time, this problem is

avoided. Second, the data are not limited. The researcher may go back to the location to find more recordings if it is not sufficient the first time around; this is not possible with real-time studies as the original data must be from the past (Chambers and Trudgill 1998).

One criticism of apparent-time research was that the results and discussion may be subjective and that linguistic changes cannot be generalised. However, Chambers (2003: 212) states that "inferences are generally reliable" with apparent-time studies in linguistics. Sankoff (2006: 115) also agrees with the reliability of the data and explains "far from misleading us about the existence of change, apparent-time generally underestimates the rate of change". This is because adults modify their language slightly over time in the direction of continuing community change. Therefore, results are reliable and generalizable.

The apparent-time element will be found within the sampling of my participants. Different age groups (see 3.2.2 for more discussion) and different generations within families were chosen in order to utilise this method. Apparent-time issues and explanation will also be found within the analysis and discussion sections.

1.4.3 Implications for current research

Cukor-Avila and Bailey explain that:

> the apparent-time data are only a surrogate for real-time evidence, and apparent-time data cannot uncritically be assumed to represent diachronic linguistic developments

Apparent-time study can supplement real-time analysis of language. This thesis agrees with Sankoff's (2006: 110) explanation about the "validity and usefulness of apparent time as a powerful conceptual tool for the identification of language change in progress". The apparent time hypothesis assumes that language from different ages at one point of time can represent different stages of language. According to Tagliamonte:

> In an apparent time study, generational differences are compared at a single point and are used to make inferences about how a change may have taken place in the (recent) past. Age differences are assumed to be temporal analogues, reflecting historical stages in the progress of the change ... Analytically, apparent time functions as a surrogate for chronological (or real) time, enabling the history of a linguistic process to be viewed from the perspective of the present". (2011:43)

Therefore, the patterns of change within a community can reveal much about the interpretations of language change. This is visualised in the table below from Sankoff (2006):

Table 3: Patterns of change in the individual community (Sankoff 2006: 111 (adapted from Labov 1994))

Synchronic Pattern	**Interpretation**	**Individual**	**Community**
Flat	1. Stability	Stable	Stable

Regular increase/decrease with age	2. Age Grading	Unstable	Stable
Regular increase/decrease with age	3. Generational Change (apparent time)	Stable	Unstable
Flat	4. Communal Change	Unstable	Unstable

By looking at patterns of change within synchronic data we are able to interpret the type of change occurring. In summary, both real- and apparent-time approaches are used alongside each other during this project to complement findings.

1.5 Summary and conclusion

Although "linguistic studies [on the IoM] are far from abundant" (Kewley-Draskau 1996: 229), the research presented above acquaints us with some consensus of realisations of MxE throughout history. Most research post 1889 saw MxE as a mixture of different dialects; the main influences are from Lancashire, Liverpool, RP and MxG. Influence levels of each of the informing dialects were a little contested. The most recent studies suggested a movement towards a more 'general Northern English' that is also spreading on the mainland (see figure 2,3,4 and 5 in sections 1.3.4 and 2.1).

1.5.1 Implications for current study

The previous research carried out on MxE in the past is integral to my current study. First, the variables under discussion in the SED and the 'Recording Mann' projects informed my choice of variables to focus on in

the 2016/2017 data (see 2.7 for choice of variables). Second, I will be integrating previous findings into the methodology as I compare real-time results to apparent-time hypotheses. The influences mentioned in the previous chapter all contributed to the choice of variables (2.7) and the research objectives (presented at the beginning of this chapter).

2 Literature Review

This chapter aims to review relevant literature related to this thesis. To begin, I introduce the subsets of linguistics that form the framework of the project as a whole, namely dialectology and language variation and change. I then describe the mechanisms of language variation change that were central to the collection and analysis of the data. During this section the terms levelling, geographical diffusion and resistance are discussed in relation to past and present research. Subsequently, I concentrate on the variables and how they were chosen from the information of past research in order to answer the research questions unique to this study.

During the presentation of the accent features, lexical category sets are used to describe the realisation of the vowels. This thesis employs the standard devices used within descriptive dialectology by utilising the key words used by Wells (1982) to represent the lexical sets of English pronunciation. The keywords each represent a category in which the vowel in question is placed and will be represented consistently as words written in SMALL CAPITALS. Wells (1982: xviii) described them as being

"unmistakable no matter what accent one says them in". The lexical sets are related to vowel pronunciation in RP. Words in small capital letters represent the lexical categories to which the certain phoneme belongs. For example, the lexical set of KIT represents all words that are realised using the /ɪ/ phoneme, for example *kit, knit, sit,* and *fit.*

This thesis' starting point involved looking at the IoM from a traditional dialectology point of view by initially focusing on the SED and the records of traditional Manx English phonology. This was then extended into discussing the social reasoning behind changes and therefore would include sociolinguistics and theories of variation and change. Therefore, the theoretical framework applied which has informed the collection and analysis of this data is that of social dialectology through variation and change. Chambers and Trudgill succinctly observe that:

> Sociolinguistics thus provided a conceptual framework into which dialectology fit quite naturally and to which it could contribute significantly. The term 'sociolinguistic dialectology' is sometimes used for the intersection of the two disciplines (1998: 20-21)

This section will give an account of the key themes which will run throughout this research. The features chosen for study are then presented (taking into account the information from Chapter 1 and the theories from this chapter).

Dialectologists aim to research and record different variations of dialects, usually across space and time (Milroy and Milroy 1997). Dialect differences can be studied from area to area or in the same location but at a different point in time. The framework can also be used to record and preserve dialect diversity (Labov 1972). Trudgill defines traditional dialectology as:

> The academic study of dialects, often associated especially with the phonological, morphological, and lexical study of rural traditional dialects, which were the original concern of this discipline, and the spatial or geographical distribution of traditional dialect forms. (1983: 36-37)

Traditional dialectology was concerned with various patterns of language over different areas. According to Francis (1983: 1) these differing patterns may be either "slight and confined to a few aspects of language" or so large that they blur the boundaries of dialect and language altogether (Francis 1983). The concept of an isogloss is regularly used in this discipline to display boundaries of dialect differences (Francis 1983). The isogloss indicates where dialect variation happens by separating geographical areas where the same language is spoken but variation in phonology, morphology, syntax or lexis occurs (Chambers and Trudgill 1998). However, the dialect boundaries are never as clear and easy as lines drawn on a map. Modern dialectology is the study of any change that is occurring,

has occurred or is predicted to occur within a dialect speech community[10] (not limited to rural areas as stated above). Levelling and geographical diffusion are two subsets of this study; these analyse the levels of influence on a dialect which are incoming from other areas. Due to greater social and physical mobility in recent decades, dialects are in more contact with others, and researchers see this contact as a vehicle for change (Dyer 2002; Williams and Kerswill 1999). Modern dialectologists are concerned with variability and the direction a dialect is going in (Chambers and Trudgill 1998: 14) (see 2.2 for the mechanisms of change and routes into a dialect).

Both traditional and modern dialectological studies focus on, and measure, varieties of language. Francis (1983: 2) describes how dialectology is sometimes constructed as a single branch of sociolinguistics. This limits dialectology as it only concentrates on variation between geographical areas. Usually, dialects are measured across regional areas. However, language cannot exist in a vacuum and variation may also be due to societal differences and, is therefore, part of sociolinguistics (Petyt 1980: 28). Dialectologists can sometimes focus only on differences over geographical areas and not examine why changes may occur. Therefore, the language variation and change methods are also utilised.

[10] The definition of speech community used in this thesis is that "a speech community is a group of people who share a set of norms and expectations regarding the use of language" Yule (2010: 253)

Language variation and change can explore linguistic differences in different "dimensions" that are external to language (Milroy and Milroy 1997: 48). These dimensions can be natural, for example space and time (traditional dialectology), or they can be social, for example with regards to gender or age (relating to language variation and change methods). Labov is often regarded as the founder of variationist sociolinguistics, his work has "pioneered ways of investigating speech variation within speech communities" (Malmkjaer 2001: 483). Many of the techniques created by Labov will be discussed within the interview construct (Chapter 3) and analysis and discussion (Chapters 4-9).

Linguistic variation can be simplistically described as "different ways of saying the same thing" (Van Herk 2012: 20). Researchers in the field investigate dialect differences within and between speech communities. The analysis can often be quantitative; investigating how often different groups of people may use a linguistic feature. With this analysis, the findings can be replicated and combined with traditional dialectology to further describe language changes of geographical locations and time. Van Herk (2012: 20) explains that the stages of variationist sociolinguistics are threefold; first to "[f]ind the speech community" (sampling techniques discussed in section 3.1), then to "[c]ollect data" (using sociolinguistic interviews – see section 3.3) from willing participants; finally, to "[a]nalyze the data" by choosing a variable and counting variants and compiling the usage in that speech community.

Variation and change, as described by Trudgill (1986a: vii), results from contact between "mutually intelligible linguistic varieties". The aims are to predict what will occur when one dialect comes into contact with another by asking questions about the nature of dialect change coming from this contact (Trudgill 1986a: viii). Researchers who observe dialect change, as such, may utilise long-term accommodation theories (Dragojevic et al. 2016: 39). Accommodation is a theory that looks to explain speech changes which happen in individuals or communities that converge their styles to other individuals or communities. Accommodation may occur below the level of consciousness (Meyerhoff 2018); thus, speakers are not aware of the features that are needed to accommodate their language (further discussion regarding accommodation theories arise in section 2.1 and in Chapter 3).

The mechanisms of change are also an important step in describing language change. Labov's (1972) observations regarding these mechanisms have laid a platform upon which this thesis can discuss the variation on the IoM. In answering the question 'what is the mechanism by which sound change proceeds?' (Labov 1972: 178), Labov proposed that the changes can fall roughly into two categories; changes from above and changes from below. Changes from above involved changes that were initiated above the level of consciousness, the changes are noticeable and where "[o]ne variant is clearly standard or has clear overt prestige" (Meyerhoff 2018: 191). Whereas the changes from below stand in contrast,

they occur below the level of consciousness, taking place in the speech community and are not the "subject of overt comment" (Meyerhoff 2018:191). These mechanisms will be discussed in further detail with relation to the models of levelling and diffusion which are described below. The models and frameworks presented will aid discussion about the language change within this thesis. However, as Trudgill (1986a: viii) also notes, there must be an acknowledgement that humans are not 'sociolinguistic automata' and are unpredictable. Therefore, people may not always fit neatly into these frameworks.

2.1 Dialect levelling

The term levelling is defined by Trudgill (1986a: 98) as "the reduction or attrition of marked variants" (the marked variants are the forms which are unusual to the language but not to the dialect in question). This definition, although used by Trudgill (1986a) to explain changes in Norwegian dialect, is used by many other researchers to include dialects of English (Dyer 2002, Watt 2002, Williams and Kerswill 1999). Levelling, in this definition refers to the loss of one feature which is subsequently replaced by another, Kerswill explains that:

> [d]ialect levelling … is leading to the loss of localised features in urban and rural varieties of English in Britain, to be replaced with features found over a wider region (2002: 187)

Regionally restricted forms, which may be stigmatised, could become a barrier in an ever-mobile world (Dyer, 2002). Haigh (2015: 33) describes this as the "streamlining of local dialect in favour of one particular variant that may be found locally, but also has currency over a wider area". In other words, the supra-local form that can be more readily used in a wider society may then supersede the local variants. Watt (2002), Walters (1999) and Dyer (2002) found that middle class speakers are quicker to adopt the supra-local forms. This may be explained by higher mobility within the middle class in terms of contact with people of other dialects (because of work or social networks being spread further around the country). Therefore, the term is used to describe a process of homogeneity when two or more dialects converge in an area (Britain 2002a: 62). This process can be referred to as supralocalisation (Britain 2010: 193) which is illustrated by Kerswill in figure 5 below. The representation below shows the effects of supralocalisation whereby neighbouring accents may converge to form a more homogenous self-identity. However crucially, the variants are not spread more nationally. The figure below is a representation and prediction of the future of British accents. The Liverpool dialect below can be seen to have persisted over time, while the Cumbrian and Lancashire dialect seems to have merged to a more homogenous pattern. Both these dialects and other possible developments may have an effect on the MxE accent.

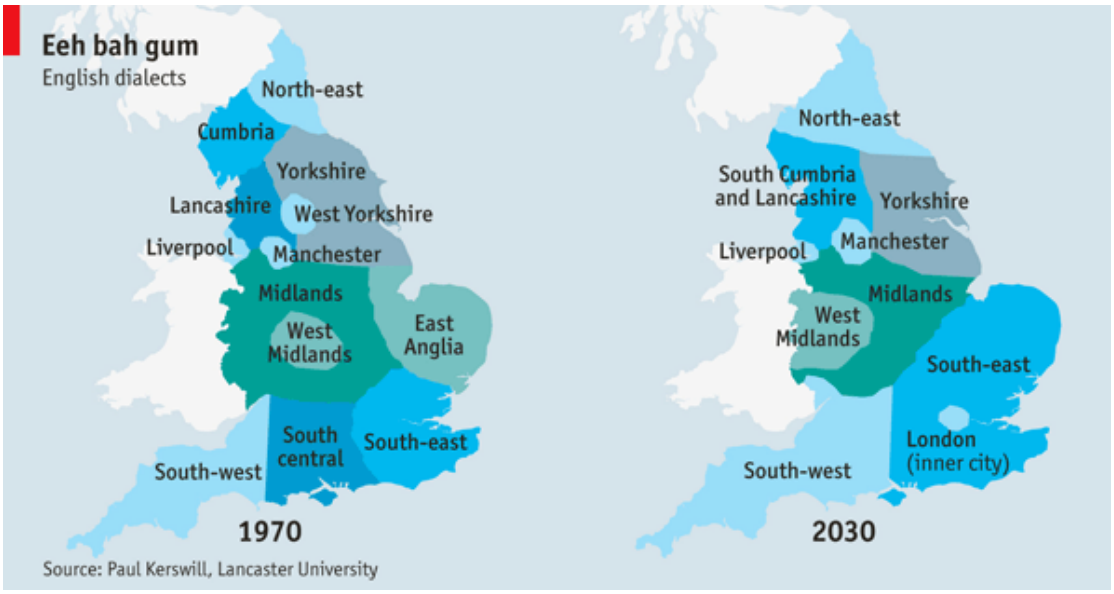


Figure 5: Economist article showing the revised regional dialect isogloss over time as a result of dialect levelling, Source: Paul Kerswill, Lancaster University (http://www.economist.com/node/18775029)

An example of levelling given by Britain (2002a) is that of the loss of rhoticity in the English countryside. Post-vocalic /r/ had been prevalent in many varieties of English pre 19th century. The rapid loss of post-vocalic [ɹ] within the strongholds of rural areas (Watson 2006) has been attributed to the "gentrification of the countryside" (Britain 2002a: 55). The middle classes moving out of cities into the "green and pleasant land" (Britain 2002a: 55) of the countryside brought with them a non-rhotic accent. The accents of the middle classes are often seen as more prestigious and rhoticity has frequently been associated with low prestige (Watson 2006). The working-class speakers in the countryside adopted a non-rhotic accent and levelling was achieved.

Britain (2010: 194) explains that commonly, levelling is described as a process where "one variant emerges victorious from the mixing of many different dialect variants of the same variable" (Britain 2010: 197). However, as Britain (2002b: 33) previously explained, it is not as simple as one dialect winning over another. Some marked features of traditional dialect are assimilated into the modern dialect through reallocation or simplification (Britain 2002b). The unusual variants are not simply lost but could be 'refunctionalised' or develop different rules (Britain 2002a: 16). Therefore, levelling does not need to be the attrition of marked variants but can also be an adaption of these features.

The consensus reached by recent analytical studies is that; supra-local features are replacing local variants of language. This validates the prediction of the direction of British accents in figure 5. In Newcastle (Watt 2002) the realisation of the FACE and GOAT vowel can be separated into three separate categories: local variants are [ɪə] and [ʊə] (specific to Tyneside), for supra-local variants [e:] and [o:] (Northern English), while the 'national' variants are the diphthongs [eɪ] and [əʊ] (associated with RP). Watt (2002) found that there is deviation from the local variants, some people wanted to dissociate themselves from negative attitudes towards Tyneside (see section 2.4 for discussion about identity). This resulted in lower usage of [ɪə] and [ʊə] for the vowels in FACE and GOAT words.

However, other research has shown a move towards a British national standard rather than any supra-local variables. The conclusions drawn by

Williams and Kerswill (1999: 162) were that the localised varieties in Reading were being reduced. Milton Keynes and Reading vernacular was leaning towards a 'standard-like' or 'less localised' accent (Williams and Kerswill 1999). Similarly, the realisations of diphthongal glides within the GOAT and FACE vowels in Cardiff, were more like the south eastern England varieties (Mees and Collins 1999: 201). Traditional and local variables were being lost and not replaced by a more supra-local Welsh form but by a standardised national one. This would suggest some levelling influences within Reading and Cardiff English.

Evidence here suggests that levelling occurs in many different accents of English within the British Isles. On some occasions, there is a movement towards the variables that are accepted all over the British Isles, however sometimes levelled variants are supplanted by supra-local features. Depending on which variable I investigate on the IoM, there may be more of a case for supra-local or national levelling.

2.2 Geographical diffusion

Diffusion is a term that describes features from a more populous or economically developed location that are spread over a wide geographical area (Trudgill 1983: 52-87, Watson 2006: 55). In comparison with levelling, diffusion relates to unmarked variants that come from other areas and diffuse into the local speech community. As with levelling, mobility and face-to-face interaction are motivators for change (Kerswill 2003) (see section 2.2.4). As the features are spread over a wider geographical area,

factors such as media influences or social identities would also be significant (Kerswill 2002: 212). While local vowel sounds often are not diffused, consonants are usually the protagonists of change (Kerswill 2003).

Features within geographical diffusion are spread nationally rather than in regions. The consonantal features of TH-fronting ([f] and [v] substitution for /θ/ and /ð/), [ʊ] replacing /ɹ/, and glottalisation ([ʔ] for /t/) seem to be the nationally diffusing features (Watson 2006: 56; Kerswill 2002: 207; Kerswill 2003: 8). Glottalisation, for example, has increased significantly from its rare use (pre-1950s (Trudgill, 1974)), to at least some realisation in most major urban areas (see Watt and Milroy (Newcastle), Docherty and Foulkes (Derby and Newcastle), Stoddart et. al (Sheffield), Newbrook (West Wirral), Trudgill (Norwich), Williams and Kerswill (Milton Keynes, Reading and Hull), Mees and Collins (Cardiff), Stuart-Smith (Glasgow), Chirrey (Edinburgh) and Hickey (Dublin) in: Foulkes and Docherty 1999). This vast distribution demonstrates how one feature has integrated into many areas of the British Isles.

Geographical diffusion describes how incoming supra-local or outside forms may supplant the local varieties. There are certain features that are more liable to be adopted by other accents. The following table was drawn up by Britain (2002a) and summarises the adoption of the four most notable features that are being assumed in the following locations.

Table 4: Diffusion features and their localities, adapted from Britain (2002a)

Location	Fronting of /θ/ and /ð/	Vocalisation of /l/	Labiodental /r/	/t/ glottalisation
London (Tollfree 1999)	✓	✓	✓	✓
Colchester (Johnson and Britain 2002; Meuter 2002)	✓	✓	✓	✓
Reading (Williams and Kerswill 1999)	✓	✓	✓	✓
Milton Keynes (Williams and Kerswill 1999)	✓	✓	✓	✓
Norwich (Trudgill 1999b)	✓	x	✓	✓
The Fens (Britain Forthcoming)	✓	✓	✓	✓
Derby (Docherty and Foulkes 1999; Foulkes and Docherty 2000)	✓	✓	✓	✓
Birmingham (Mathisen 1999)	✓	✓	few	✓
Hull (Williams and Kerswill 1999)	✓	x	✓	✓
Liverpool (Newbrook 1999)	x	x	few	x
Sheffield (Stoddart, Upton and Widdowson 1999)	✓	x	?	✓

Middlesbrough (Llamas 1999; 2000)	✓	x	✓	✓
Newcastle (Docherty and Foulkes 1999)	✓	x	✓	✓

As can be seen from the table above, the features are near ubiquitous in the areas located in the south east of England including London, Colchester, Reading, Milton Keynes, Norwich and the Fens. Throughout the rest of the country the features can also be seen in many other cities with traditionally diverse accents. The features are all said to be unmarked, which would go some way towards explaining why they are readily adopted (Britain 2002a; Trudgill 1986a). Therefore, there are arguments about whether the changes are internally or externally motivated (see 2.4 and 2.5 for more discussion). Perhaps the variables/variants are independently developed rather than influences coming from certain locations (Britain 2002a; Trudgill 1986a). In any case, I will be analysing these features among others to determine whether MxE is following any general trends.

The result of geographical diffusion is similar to that of levelling; the loss or an attrition of marked variants that may distinguish one accent or dialect from the next. Incoming supra-local or national forms can supplant local varieties, and differences in regional dialects are minimised. Perhaps it is because the consequences are similar, some studies prefer not to distinguish between the two mechanisms of geographical diffusion and levelling (see Watt 2002 and Dyer 2002). Researchers who do not

differentiate may believe that (see above) these categories contribute to the understanding of regional dialect levelling and do not differentiate between the mechanisms.

In Williams and Kerswill's study in Hull (1999), local variants of vowels were rarely lost over time (see section 2.3 for resistance factors). However, the accent was susceptible to incoming influences. An example of a new feature that was adopted over the wide geographical area was that of TH-fronting (Cheshire et al. 1993). Also, in the Scottish Islands, Shetland Islanders had many linguistic intrusions from (Smith and Durham 2011) the Scottish mainland. One example was the intrusion of the phonetic feature of final-syllable clear-/l/ (as opposed dark-/l/ in syllable rhymes), which is associated more with Scottish English. The younger generation of Shetlanders had low /l/ vocalisation rates, while the older and middle generation speakers had higher /l/ vocalisation rates. This showed a change in accent over generations. The incoming features in this case also came into the speech of younger people, perhaps giving an indication of the general avenues through which diffusion may enter into a dialect community (see 2.2.4 for more discussion). This change demonstrates that accent variation can be influenced by places which are geographically far away. The isolated island dialects can therefore be influenced by direct and indirect contact situations (see 2.2.5 for more discussion).

2.2.1 Models of diffusion: wave and gravity models

The wave model of diffusion, proposed by Johannes Schmidt, conceptualises language change over time as a ripple or wave emanating from a pebble dropped into a pond (Wolfram and Schilling-Estes 2003). The theory suggests that language change begins from a "single starting point and is gradually incorporated into the speech of the nearest neighbours" (Meyerhoff 2018: 291). Language change must be completed at one moment in time before it can be transferred (Meyerhoff 2018). The critique of the wave model is that it is not clear about how changes spread over physical and linguistic space as well as over time (Wolfram and Schilling-Estes 2003; Britain 2013). As Wolfram and Schilling-Estes note, the model does not account for the "social and linguistic mechanisms whereby forms spread" (2003: 714). The gravity model was therefore developed to fill this gap.

The gravity model (also known as the hierarchical model) was built on a human geography model of diffusion and brought to sociolinguistics by Trudgill in 1974 (Britain 2013; Meyerhoff 2018). The model incorporates factors which can explain the movement of language change more holistically than the wave model. The incorporation of population density describes how language innovation moves from one place to the next, Meyerhoff succinctly describes it as such:

> Social innovations (including linguistic innovations) have been observed to 'hop' between large population centres in a (spatially) discontinuous manner. At its simplest, the gravity

> model predicts that the larger the city/town, the sooner an innovation is likely to show up there. (i.e., the 'gravitational force' is provided by the weight of numbers of people). (2018: 291)

This description is visualised below by Wolfram and Schilling-Estes. It shows variation moving from place to place via larger cultural centres. Note that the bigger the circle, the larger the population density is. Wolfram and Schilling-Estes (2003) note that there may be more interpersonal contact between areas with larger populations, so more contact is sustained to enable diffusion. Trudgill (1974) demonstrates that similar, nearby dialects are more susceptible to convergence with their neighbours and are more easily influenced. If a feature is similar to one in the first dialect, there is a smaller adjustment needed in the second (Trudgill 1983). The formula containing population size and geographical distance must also be supported by communication between the two locations in question (Trudgill 1974).

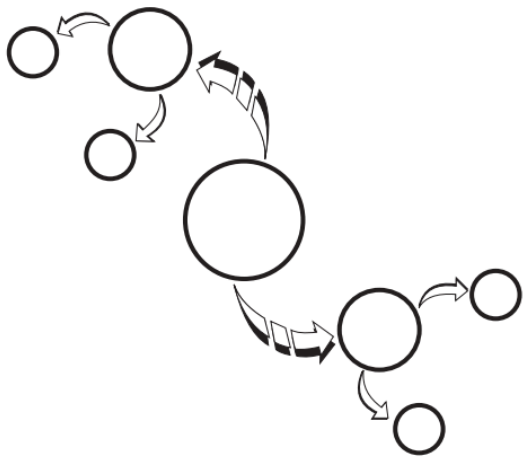


Figure 6: Wolfram and Schilling-Estes' visualisation of the gravity model of linguistic diffusion (2003: 724)

The diffusion of TH-fronting modelled in Kerswill's (2003) study displays gravity diffusion over England, Scotland and Wales (figure 48 included in section 8.1). The map presents the spread of a linguistic feature (described in detail in Chapter 8) and the locations and dates where the feature was found to be used. The order of adoption within the cities/towns of Norwich, Derby and Wisbech clearly demonstrate figure 6 above within a real environment. In the larger locations of Derby and Norwich the feature was found in 1960 while in Wisbech the feature was discovered significantly later (Kerswill 2003). Kerswill goes on to illustrate that not all locations and speakers will fit neatly into this pattern of diffusion and other factors, such as regional identity, must also be recognised.

What this model does not explore are the reasons for regional differences between locations. Also, resistance to the incursion of new features is observed in many locations (resistance factors discussed in section 2.3) where the gravity model may expect change to occur. One of the key explanations for the resistance to incoming features is one of difference in attitudes. Nagy's (2001) findings ran counter to the gravity model's prediction that speakers of New Hampshire would begin to use a certain feature of the nearby (large) city of Boston. According to Nagy, the potential reason for resistance was that of attitudinal differences and the speakers' wish to distinguish their own regional dialect. The final conclusion was that "New Hampshire's phonology lives free in spite of, or perhaps even because of, its proximity to Boston" (Nagy 2001: 41). Nagy

is explaining that the attitudinal difference was so great that the speakers refused to converge their speech (and therefore their identities) with their Boston neighbours. Therefore, there is an argument for the gravity model to include other factors within the discussion to explain such resistance to levelling or diffusion (section 2.3). Before focusing on resistance and identity, views on social dynamics are discussed. The following sections describe Milroy's (2007: 149) views on the "social dynamics of sound change" in two categories; 'off the shelf' or 'under the counter'.

2.2.2 Diffusion as an 'under the counter' or 'off the shelf' change

Milroy uses the terms above, first published by Eckert (2003), to conceptualise motivation for language change. New linguistic features are chosen by an individual for different reasons, they can be taken 'off the shelf' or 'under the counter' (Milroy 2007). According to Milroy the 'under the counter' features are ones that have had "repeated exposure provided by regular social interaction" (2007: 151). Variation can be passed down through generations of a community or come from outside. Conversely, TH-fronting (mentioned above) has been described as an 'off the shelf' (Milroy 2007) change by researchers. 'Off the shelf' changes are more 'visible' and 'accessible' (Milroy 2007), with readily available features easily accessed by the speaker (e.g. /f/ and /v/ are already part of the English speaker's linguistic repertoire). The variable can come from outside of the speech community and can be picked up by anyone with sustained contact to an outside community (the community may be cultural rather than a certain locale, see 2.2.4).

Milroy explains that 'off the shelf' changes can be closely connected with the construction if social identity:

> [O]ff the shelf changes highlight the role of attitude and ideology and the influence of particular identifiable speakers or groups of speakers. But the relationship between real world and fictional social groups is surely complex. (2007: 154)

Milroy is explaining that the social connection does not have to be in the 'real-world' terms, therefore, opening the possibility of this feature being adopted by people who may not have extensive face-to-face contact with outside sources. Identity issues can also be extrapolated from this quote. Milroy goes on to explain that speakers can use 'off the shelf' features "to position themselves socially to use variants which index affiliation with a fashionable youth culture" (2007: 164). The connection of TH-fronting and youth speak is often noted (as mentioned in 2.2.4 and 8.1).

The 'off the shelf' features are also linguistically salient. For example, they are noticeable and easily associated with a certain community. As mentioned previously, they are accessible because the speaker may already use the feature in other linguistic areas. With regards to TH-fronting, Milroy (2007: 162) also notes that the interdental fricatives (/θ/ and /ð/) are acquired later by children (compared to /f. and /v/). The issue of 'youth' is again one that links TH-fronting with 'off the shelf' features.

This point may also be pertinent when talking of age-grading and linguistic diffusion (see section below for discussion about age-grading).

The discussion of youth and constructing language in social situations leads on to the three waves of variation studies (Eckert 2012). There are three waves of variation studies as outlined by Eckert (2012). The first wave of quantitative studies of variation observes relationships between linguistic variability and demographic categories such as class, age, sex and ethnicity. The second wave utilises more "ethnographic methods" (Eckert 2012: 87) which makes more explicit links between linguistic features and identity markers (associating speakers with local or regional features). The third wave builds on the previous two; studies here investigate how speakers/listeners link linguistic features to specific social meanings (Eckert 2012). Much of the research presented in this chapter would fall into the second wave of variation studies whilst touching on the third wave in terms of which features speakers may recognise. This study also aims to incorporate and consider these two methods.

2.2.3 Age-grading

If the younger generation are using a certain feature that the adults are not, researchers may hypothesise that there is a change in progress within that speech community. However, if the community language stays stable over time, while the individuals change, then we may decide that this is the process of age-grading (Sankoff 2005: 1004). Chambers explains that:

> Age-graded changes are usually thought of as changes in the use of a variant that recur at a particular age in successive generations. They are, then, regular and predictable changes that might be thought of as marking a developmental stage in the individual's life (2003: 206)

Age-graded language occurs when a variant within a speech community is consistently used within one age range regardless of when the experiment took place. An example often cited for age-grading is the use of *zee* or *zed* for the final letter of the alphabet (Z) in Canadian speakers of English. As children, many Canadians learn the final letter as *zee* but by adulthood *zed* is more readily used (Chambers and Trudgill 1998: 151). This phenomenon is seen throughout many generations, the change occurs as a child matures and therefore is not showing a variant in transition.

Language over time can succumb to social pressures, accent diversification based on age and perceived social status can be prominent (Bailey 2002: 324). Bailey states that it is common to observe the "sociolectal adjustments that young adults sometimes make in response to the pressure of the marketplace" (2002: 234). The 'linguistic market place' is a term used by Sankoff and Laberge (1978) taken from Pierre Bourdieu. It is described as a "way of talking about the extent which an occupation or activity is associated with use of the standard language" (Meyerhoff 2018: 164). Research found that there is a 'peak' in people's lives where they would use the most standard language (Sankoff and Laberge 1978). The figure

below shows an example of this peak over 3 generations. The peak occurs when speakers reach their twenties. Social pressures, employability perception and status affirmation were all attributed to this age group using more standard language (Meyerhoff 2018). There may be pressure from parents, schools or jobs to change to standard features. This was found in Rickford and Price's (2013) research in California whereby the participants changed their vernacular over time due to job pressures. They felt that to progress in society, certain accent features had to change in order for them to move up the job ladder (Rickford and Price 2013). Therefore, in this model, the use of non-standard features are used more by the youngest and oldest speakers and display the certain life-span changes described above.

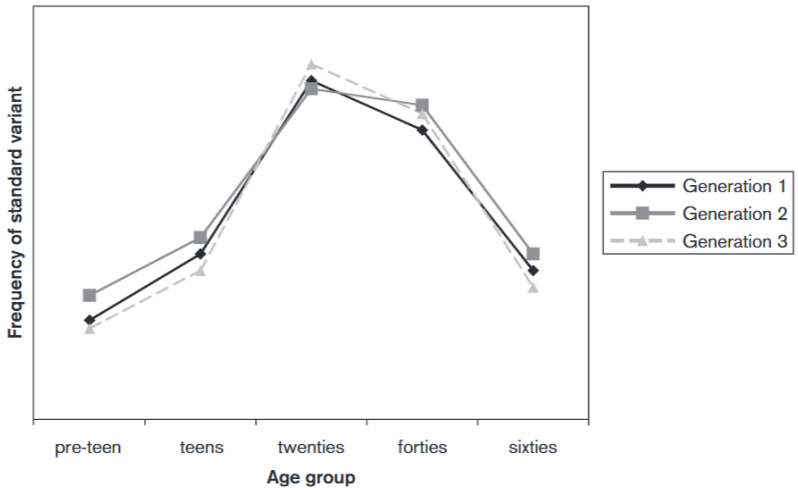


Figure 7: (Meyerhoff 2018: 164) A hypothetical age-graded variable and the pattern of frequency over generations and age groups

This is a significant issue within the discussion of TH-fronting as this feature is sometimes proclaimed to be childish or incorrect (Tollfree 1999 (see 8.1.1 for more discussion). For the older generation in today's speakers

then, the TH-fronting may carry this stigma. In more recent studies, in the north of England especially, [f] for /θ/ has been seen as a feature most associated with the south of England (Levon and Fox 2014). In the North, it is also seen as a "marker of a decreased professionalism" (Levon and Fox 2014: 204). Therefore, according to the theories above, the use of TH-fronting may be interlinked with age-grading. The issue of age-grading was also included with relation to discussion regarding apparent-time studies and will also be discussed with relation to the creation of the interview also. Potential links between age-grading and TH-fronting will also be discussed in section 8.6.2 with relation to the data collected for this thesis.

In conclusion, age-grading studies have shown that it is mostly the middle age range ('twenties' and 'forties' in figure 7 above) that use a standard form, while the oldest and youngest speakers are using more stigmatized or non-standard varieties (Chambers and Trudgill 1998; Romaine 1984; Macaulay 1977). Reasons conceived for adolescents in Edinburgh using stigmatized forms were that younger speakers might be more subject to peer pressure (Romaine 1984). Older speakers who also used similar forms were not subject to any social pressures and therefore able to deviate from standardised variants. The social and economic pressures on middle-aged speakers may cause them to steer away from stigmatised forms (Chambers and Trudgill 1998).

An apparent-time study relies on there being a change in linguistic variables between two or more age groups. However, the difference between age-grading and language transformation can sometimes be a little confusing. If a correlation between age and a linguistic change is identified, then "the issue is to decide whether we are dealing with age-grading" (Labov 1994: 46). To decide whether the variation is change in progress or it is due to age-grading, earlier records of dialect from that region can be consulted to check that differences are not repeated in every generation (Chambers and Trudgill 1998). As previously mentioned, the real-time element to this study will allow me to analyse previous data (e.g. Barry 1984; Pressley 2002) for comparison with my own. Therefore, I will be able to decipher whether any changes seen are due to age-grading or can be indicators of any linguistic changes in MxE.

2.2.4 Language variation and change: routes into the dialect

A recurring aim of this research is to investigate the routes of language change into the MxE dialect. I aim to assess influences of neighbouring accents. Change or innovation in linguistic patterns over time are inevitable, and one generation may not replicate the linguistic features of the last. The question is from where and why new features enter a dialect. Labov (2007) proposed that changes over time occur because of 'transmission' or 'diffusion'. Labov (2007: 344) states that:

> The transmission of linguistic change within a speech community is characterized by incrementation within a faithfully reproduced pattern characteristic of the family

> tree model, while diffusion across communities shows weakening of the original pattern and loss of structural features.

Whether language change is diffused or transmitted can answer some questions about the nature of language change in the researched community.

Transmission, as described above, is passed down from caregiver to child through accurate replication over generations (Mooney 2016; Cukor-Avila and Bailey 2011). Change through transmission comes from the process of 'incrementation' (Labov 2007) whereby "successive cohorts and generations of children advance the change beyond the level of their caretakers and role models" (Labov 2007: 346). Variation in different locations depends on the incrementation differences and at what point in time the features were introduced (Labov 2007). As an internal mechanism of change, it is believed that the development of language change will head in the same direction but just at different rates (Sapir 1921: 155). This process is connected to 'drift' and 'change from below' (without overt comment); internal mechanisms of change which are described in 2.5.

Diffusion on the other hand is the external route into a dialect (sometimes described as a change from above). Instead of being transferred from parent to child, the features are imported from another geographical location or social community (Mooney 2016: 9). Therefore, the change is coming from another variety. Modern dialectology splits diffusion into

two branches; 'levelling' and 'geographical diffusion' (described in detail in 2.1 and 2.2). Diffusion is often underpinned by the loss of a local feature or structure.

Most researchers now recognise the importance of both these routes and "[e]vidence from dialectology provides records of both DIFFUSION and TRANSMISSION" (Mooney 2016: 7). Therefore, both routes will be taken into account when analysing data for this thesis. Transmission and diffusion have described the possible routes into a dialect. The next section develops the discussion of the routes and describes the mechanisms and motivations for variation within speech communities.

2.2.5 Language variation and change without direct contact

The previous sections have discussed the concepts of levelling and diffusion as contact induced changes whereby the contact with outside varieties may change features of speech. However, these sections also discussed the examples of changes that may apply to the younger speakers of a community. This section will investigate how young people, who may have less direct contact with people outside their speech community, may acquire features from other locations. Williams and Kerswill (1999), Llamas (2000) and Dyer (2002) all talk of 'youth norms' or a 'youth market'. Young people can use the media (or now social media) to find variants that other young people use (and take these features in an 'off the shelf' manner (see 2.2.2)). These examples are very often not due to direct contact with outside speakers as young people may not travel as much as adults. Where

this has happened, linguistic researchers have discussed group association as an "ideological rather than physical space" (Schleef and Ramsammy 2013: 27). This ideological space explains diffusion and levelling without direct contact.

Researchers investigating speech in the younger speakers have discussed group associations in an ideological space. In Aberdeen, Brato found higher use of TH-fronting (diffused feature) for adolescents who felt they were "different from the group" (2007: 1492). These speakers wanted to associate with groups outside of the local area and therefore adapted their speech to align with them. This can happen, especially, in more remote dialects. Milroy and Gordon summarise Johnstone's work (Johnstone 1996; 1999; Johnstone and Bean 1997) and explain that variation in small, geographically isolated communities may be due to views of "place as a cultural rather than a geographical entity" (2003: 135). It is from the shared cultural norms (rather than physical interactions) that young speakers may be learning new features.

For young people in remote communities, the diffusion of features does not always detract from the use of local dialect. For example, despite the increase in diffused features in Aberdeen, young speakers also showed high rates for the retention of traditional features (Brato 2007). Williams and Kerswill 1999) also found that Hull adolescents chose features that confirm identification with both the youth culture of the day and ones associated with their regionality or social class. Research into youth

subculture describes the 'contradictory needs' (Cohen 1997: 59) that young people deal with. Cohen describes how young people may be attempting to express their own difference from the older generation whilst wanting to hold on to "parental identifications which support them" (1997: 59). Thus, the desire to use both youth norms and the models of their parents are operating here.

The issues raised within this section are highly relevant to the features of TH-fronting and glottal replacement (see Chapters 7 and 8). These features are being diffused around the British Isles through younger speakers. If speakers are using these features, and do not have much physical contact outside their speech community, then it is appropriate that this theory of associations by cultural norms rather than geographical ones can be applied. Coulmas (2013: 76) describes these as "deviant choices" which can differentiate the younger speakers from their elders. As will be seen in Chapters 7 and 8, the young speakers on the IoM are following the patterns described above.

Britain (2013) utilises the explanations of three kinds of 'space' in which the movement of language can migrate; euclidean space (see gravity model for description of physical space), social space (see section 2.3) and perceived space (described in this part). The interplay of these three 'spaces' are seen as integral to the transfer of dialect features.

2.3 Resistance factors in levelling and diffusion

With a wave-like diffusion dissipating through variations of English, it would be easy to dismiss the resilience of traditional dialects and accents. There are various examples of resistance to incoming levelling and diffusion in many different communities; there are also examples of last-ditch efforts by overwhelmed dialect speakers to hold on to their unique features (Dyer 2002, Watt 2002, Watson 2006 and Smith and Durham 2011; 2012).

Resistance to levelling is sometimes associated with rural or island communities, which have some geographical or cultural barrier between them and the incoming tide of change (Britain 2002a: 54-55). Labov's study of Martha's Vineyard found that certain islanders asserted their status as 'Vineyarders' by resisting linguistic features from elsewhere (Labov 1963). This statement was also true of the research on Smith Island (Schilling-Estes 1997 and Schilling-Estes and Wolfram 1999). Findings on Smith Island showed resistance to levelling and even an increase in the distinctive features produced by younger islanders (Schilling-Estes 1997). Some of the more distinctive morphosyntactic features of Shetland dialect were also intensified in their usage in the younger generations (Smith and Durham 2011). In this case, the dialect that was "under the potential threat of attrition" resisted encroaching influences (Britain 2009: 133). Therefore, when Islanders realise that some features are being eroded, more effort goes into preserving one or two distinctive features, and intensification ensues. These are examples of a 'concentration model' whereby "linguistic

distinctiveness is heightened among a reduced number of speakers" (Schilling-Estes and Wolfram (1999: 488)).

Resistance is not always limited to islands, Watson's (2006) study of phonological resistance showed divergence in the urban centre of Liverpool. The Liverpool accent is distinct amongst the north west of England and unchanging in certain features. The accent displays a refusal to conform in a landscape which is said to be merging to a supra-local general Northern dialect (Dyer 2002). Examples of the diffusion of glottal stop spreading through the country have been found in many urban areas. Traditional LE pronunciation of an aspirated /t/ at word final position was found in traditional dialects; this would be expected to have been ousted by the incoming glottalisation. However, Watson (2006) found the opposite, and the use of aspirated /t/ has been extended since the 1960s. In this case, LE is said to be "diverging from supra-local norms" (Watson 2006: 61) and holding on to local forms. It is usually the marginalised features which are lost in the levelling framework, however the emergence of '*t-h*' suggests that Liverpool English is not following the expected supra-local patterns. Levelling and diffusion resistance is demonstrated in this feature. This can be seen to an extent by the dialect prediction map in figure 5 (section 2.1) whereby Liverpool remains a distinct accent of English.

An example of the resistance to diffusion was also found in Cardiff. Mees and Collins (1999: 195) found that Cardiff English, unlike other urban

varieties of English, "has comparatively little glottalisation" and the amount of glottalisation decreases as "one moves down the socio-economic scale" (Mees and Collins 1999: 195). This is in direct contrast to the Reading, Hull and Milton Keynes data, which showed 'working class' adolescents' realisation of the glottal stop was far higher than that of the 'middle class' (Williams and Kerswill 1999: 160). During the first and second data collection in Cardiff, it seemed that glottalisation was on the rise, however in the more recent collection it was found that intervocalic [t] was realised more prevalently than the nationally diffused alternative ([ʔ]).

In Hull, where there is a closer knit and less mobile community, resistance to incoming features is not uncommon (Williams and Kerswill 1999). The marked variant of the realisation of the PRICE vowel, which is distinctive to Hull, is upheld. The words *bright, like* and *pipe* are realised with an [aị] sound, whereas *bride, five* and *mind* are realised with [aː]. This demonstrates certain resistance to levelling, as the distinction between the allophones is the same as the SED results (40 years prior) (Williams and Kerswill 1999: 142). The researchers attributed the lack of change to the close-knit networks which acted as "a conservative force and resisting change can be seen" (Williams and Kerswill 1999: 156). The community networks have been used to explain resistance of loss of localised features.

Evans and Iverson's (2007) real-time study of Northern students living in Southern university cities (in England) found that to be understood, some

features of the northern England English accent were modified. However, the particularly distinctive features such as Northern /ʊ/ for the more Southern /ʌ/ were kept throughout their university time. The under-accommodation in this vowel was perhaps to identify themselves as Northerners and to associate or disassociate with certain groups (Giles et al. 1991). 'Divergence' is a term used under the accommodation theory which could explain the language change (or no change in this example). This is a strategy of speech accommodation whereby speakers may disassociate themselves with other speakers by not using a distinctive language feature (in the case of /ʊ/ vs /ʌ/). Again, this is an example of resistance to change; this resistance may be linked with accent and identity.

An explanation for resistance is put forward by Britain who argues the features in question were not simply eradicated but went through a process of 'reallocation', 'simplification' and 'focusing' (2002b: 35-36). Where traditional features appear to be lost from a vernacular, they may still be employed in the dialect in different situations (reallocation). 'Simplification' refers to speakers developing and simplifying rules of marginalised features while 'focusing' implies that features are merged rather than diffused (Britain 2002b: 35-36). These methods of creating new meaning or functions from old features may explain some resistance to levelling, and they may be attempts by speakers to save a dying dialect. Some forms have taken on more social meanings (Schilling-Estes 1997) in an attempt to hold on to the vestiges of old dialect. Speakers use features (seen as speech identity markers) in alternative situations. This thesis,

along with Smith and Durham (2011) and Watson (2006) is pointing in the direction of resistance of isolated dialects and an "increasing sense of solidarity in the face of attrition" (Smith and Durham 2012: 220). In the next section I explore some models which cite potential reasons for change or resistance.

2.4 Variation and identity

The theoretical models discussed in previous sections will help frame the discussion of data acquired and the analysis of different variables in Chapters 4-8. In addition, language ideology issues are considered with regards to language variation and identity on the IoM. This section will introduce some models used to discuss language variation and change.

Definitions from an anthropological viewpoint show that identity can display "properties of uniqueness and individuality, the essential differences making a person distinct from all others" and also "it refers to qualities of sameness, in that persons may associate themselves, or be associated by others, with groups or categories on the basis of some salient feature" (Byron 2002: 292). Identities are somewhat linked to language attitudes; Cavanaugh (2005) explains that accents and dialects are indexical to location and certain locations are associated with different characteristics. Therefore, linguistic features can be used to associate with one community or disassociate with another. Accents and the "attitudes towards them also play a part in the national identity" Durham (2016: 182). This section discusses the notion of what Le Page and Tabouret-Keller

define as "acts of identity" (Le Page and Tabouret-Keller (1985). 'Acts of identity' are defined as: the conscious choice of linguistic variables used in order to associate oneself with an identity they wish to portray (Meyerhoff 2018). Therefore, promoting a more speaker centred version of language choice (counter to the audience centred choices of the "accommodation-based models of style-shifting" (Meyerhoff 2018: 293)).

According to Meyerhoff, the acts of identity proposal describes how "a lot of the differences in how speakers use language depends on what kind of person we perceive ourselves to be, or how we want to be perceived by others" (2018: 18). The process of displaying identity is fluid and changing constantly, and it can be performed by utilising different accent features at different times. Perception played a large role in Watt's study, who explained that in Tyneside:

> Accent features stereotyped as parochial, unsophisticated, old-fashioned (etc.) are liable to be unattractive to the young, educated and mobile, and we would therefore predict that features evoking these attributes would rapidly disappear where levelling is underway (2002: 55)

The stereotyped features mentioned above refer to the local variants [ɪə] and [ʊə] (specific to Tyneside), which were seen as more backwards looking (Watt 2002). Watt's (2002) study demonstrates the importance of identity as a factor in choosing variants to be used when being perceived by others.

The inclination to position oneself within a community beyond the local but not at a national scale, is also seen as an important determining factor (see discussion on supralocalisation in section 2.1). This may be because of an opposition to a national identity from which some may want to distance themselves. In Newcastle there was not a merger towards the national forms [eɪ] and [əʊ] (Watt 2002). The perception of these forms was associations with the south east of England. Tynesiders identity of being 'not from London' and not wanting to be associated with the south east of England may have been the reason for the rejection of national variants (Watt 2002). The strong sense of identity is characterised in a quote by Younger (cited in Watt, 2002: 54), which explains that when asked about his nationality, Younger cannot bring himself to say English but instead is "Northumbrian, which is next to Scotland" (Younger, cited in Watt 2002: 54). Participants chose the supra-local variants ([e:] and [o:]) as "a trade off between modernity and regional loyalty" (Watt, 2002: 57). The identity issues discussed from the anthropological viewpoint above come through in this research; we see the desire to be dissociated from one place but associated with another.

The conclusions drawn from Watt (2002) were that levelling influences were not coming from the South East (from where they are usually identified), nor are they coming from the bigger cities in the area (Newcastle), but are coming from a general northern standard that the youth are relating to (Watt 2002: 57). This goes against the gravity model introduced at the beginning of this chapter (identity issues playing a part in this). The speakers reject RP influences because the accent represents the

South East. Some speakers believe that this area is a repressor of the North Eastern interests and values (Watt 2002: 55-56). Watt (2002: 57) summarises that informants who are realising more supra-local forms are attempting to balance modern language with local traditions.

Wales (2000) explains that Newcastle is a place that is often forgotten and therefore Geordies may feel like outsiders. This may be something in common with the Manx people (IoM is sometimes confused with other islands of the British Isles[11]). Feeling as an outsider may also contribute to both Tyneside and Manx English reaching for alternative linguistic features. Edwards and Jacobsen (1987) share the view that there is a shift towards a general northern England English rather than levelling influences coming from the more populated South (also seen in Pressley's 2002 study). Another similarity between the Manx (from my own observations) and Tynesiders (from Watt's paper), is the balance between pride in the region but, on the other hand, some negative beliefs about Tyneside English from a history of stigma (Watt 2002: 54). This is echoed on the Island in comments made throughout history (see Chapter 1).

Within island and isolated communities there is a danger that once a dialect is overrun with another then it may not be able to return. Smith and Durham (2012: 2) argue that the Shetlands is undergoing "rapid dialect

[11] (mainly the Isle of Wight), see Emma Thompson mix up: http://www.bbc.co.uk/news/world-europe-isle-of-man-11259479)

levelling" to the point where the original accent is on the verge of obsolescence. They cite developing infrastructure and large socio-economic change as a driving mechanism for levelling. In this case the younger speakers are exhibiting techniques of bidialectalism, displaying knowledge of the old dialect while merging with more modern supra-local features. As the Shetland dialect is more marginalised, speakers have made more of an effort to resist eroding features (Smith and Durham 2012). This was also found in other island studies including Smith Island (Schilling-Estes and Wolfram 1999), Scilly (Moore and Carter 2015), the Shetland Islands (Van Leyden 2004) and Mersea Island (Amos 2011). This is especially relevant as it is an island community being studied for this thesis.

When talking of identity, Smith and Durham (2011) highlight the lexical item *yon*, which is seen as a more local form. Some younger speakers were using this item in higher frequencies. *Yon* had become an 'Act of Identity' (Le Page and Tabouret-Keller 1985) when portraying the youngsters' status as Shetlanders (Smith and Durham 2011). The researchers use Wolfram's explanation of 'Sociolinguistic Focusing' (2002: 780); whereby a stigmatised feature may become a point of focus that symbolises the network or group with which the speaker may want to associate. Schilling-Estes also sees islanders in Okracoke using language to display their identity. Schilling-Estes observed speakers using 'performance speech' (1998: 57) whereby a certain phrase was acted out using the dialect. The sentence was *"high tide on the south side"*, a phrase commonly used in Ocracoke which exploited the unique variant in vowel features that were

associated with the traditional dialect. Islanders may not use the same vowel sound in other words or phrases but have learned that the performance of the above sentence must come with the particular and individual vowel sounds. Therefore, speakers hold on to identity through long-established expressions. The unique features are fossilised into frequent phrases in that community.

The importance of close-knit communities is also a theme within identity and linguistic differentiation (Williams and Kerswill 1999 in Hull and Schilling-Estes 2002 in Lumbee). Social meanings can be created by closer-knit communities through linguistic divergence from neighbours (Schilling-Estes 2002: 79). Schilling-Estes notes that:

> Certainly it is not uncommon to find cases where a strong inward focus, or strong sense of ingroup identity, has led to the heightened distinctiveness of salient linguistic features

Identity markers in language can be of major importance when linguistic choices are made. Speakers may be aware of a downturn in their dialect and therefore choose to focus on features which may display identities. This 'concentrating' or 'intensification' of dialect was said to be an intentional effort on the part of Smith islanders in Schilling-Estes' study (1997). Many of these themes were observed and are discussed using IoM specific data and references from my own participants (qualitative data displayed in Chapter 9).

2.5 Internal mechanisms of change

The studies and theories presented thus far have mostly been concerned with the external mechanisms of change. Internal mechanisms are described as "[a]ny change which can be traced to structural considerations in a language and which is independent of sociolinguistic factors" (Hickey 2012: 388). The principal linguistic theorists[12] proposed changes in language which often occur with the aim of simplifying; this is for ease of communication or articulation (Jones and Singh 2005). Within the internal principles of dialect variation, the theories presented include the theory of 'drift' (Sapir 1921).

The concept of drift was first mentioned in Sapir's research in 1921; the term describes language change as a predetermined movement based on natural physiological processes. Britain and Sudbury (2002: 211) determine that Sapir's work is:

> arguing that language varieties that have derived from some common source may evolve linguistically in similar directions as a result of the inheritance of a shared tendency to develop in a similar way

[12] Neogrammarians – scholars in the 19th century studying associations between Indo-European languages and language change (Jones and Singh 2005: 183). Structuralist scholars however, focused more on the symmetry and function within language systems (more associated with 'drift') (ibid.)

Britain and Sudbury (2002) use the drift theory to explain the similar use of 'plural existentials' in both the Falkland Islands and in New Zealand. The varieties of English spoken on the two islands were introduced around the same time but are geographically thousands of miles apart. However, the researchers discovered grammatical convergence in the use of 'plural existentials': e.g. 'there's sheep, there's penguins' (Britain and Sudbury 2002). The researchers found that even though the two varieties had very little contact, they both began to use this variation (what would have been 'there are sheep' or 'there are penguins') over a similar time period. This convergence could not have been explained by contact or another external mechanism of change but may be better explained by internal factors. The features that change due to 'drift' are usually 'unsalient' and not subject to any social constraints (Britain and Sudbury 2002: 209). Sapir (1921) describes the changes that happen to these features as gradual, innate and directional.

Although a good example of internal language change, Sapir's drift is in contrast with the neogrammarian viewpoint. According to Wang (1969), Sapir believed that relations between phonetics and grammar are interlaced whereas a neogrammarian view would focus only on sound change as an exclusively phonetic process (Wang 1969: 9). Wang (1969) also stood in contrast to the neogrammarian view in the belief that sound changes may not be lexically abrupt. The neogrammarian perspective of language change explained that changes occur abruptly in all lexical items (in that all words which are capable of undergoing change do so); operating in all speakers and for all eligible lexical items (Wang 1969: 10

citing Bloomfield 1933). However, Wang (1969) notes that sound change can originate in a single word or phrase but that it does not necessarily spread to all words to which it could apply. In the article *Resolving the Neogrammarian Controversy* (1981), Labov proposed that the neogrammarian viewpoint was presenting evidence pointing in different directions. Labov's resolution was to develop the characteristics presented in the table below. According to Labov (1992), regular sound change and lexical diffusion are indicative of the early and later stages of internal change. The phonological changes described below are loosely arranged into the regular sound change and lexical diffusion.

Table 5: Labov's (1992: 44) characteristics of phonological sound change

Regular Sound Change	Lexical Diffusion
Vowel shifts	Shortening and lengthening of segments
Diphthongization of high vowels	Diphthongization of mid and low vowels
Changes in manner of articulation	Change in place of articulation
Vocalization of liquids	Metathesis of liquids and stops of deletion of obstruents
Deletion of glides and schwa	

Hickey (2012) demonstrates internal mechanisms of change with relation to two variables discussed in this thesis: *TH-Fronting* and *T-glottaling*. The change from the voiceless dental fricative /θ/ to a voiceless labiodental fricative [f] could be attributed to "an internal motivation as the shift leads

to more audible friction and hence the /f/ has a perceptual advantage over /θ/" (Hickey 2012: 397). If *T-glottaling* is viewed as a form of lenition chain (from [t] - [t̰] - [ʔ] - [h/r] - [ø] as it is evident in Dublin English (Hickey 2012: 400), then it is clearer as an internally motivated change. This is because the changes are phonetically motivated. However, where it is not part of a chain, it could be argued that the use of [ʔ] for /t/ is more socially motivated. This was the case for southern Irish English speakers who were socially motivated to not use the glottal replacement as an avoidance of vernacular Dublin English (Hickey 2012). It is therefore important to investigate both the internal and external motivations for change.

It is not always easy to distinguish between internal and external motivations. Milroy explains that the "interrelationship between psycholinguistic and social constraints on language change renders problematic a straightforward distinction between "'internal' and 'external' determinants of language change" (2007: 159). Farrar and Jones (2002: 3) agree and believe that "separation is possible, but of little use, since it is too much of an abstraction". It may be difficult to recognise the internal mechanisms when analysing speech data. However, it is important to be aware of the possibility as these theories may intersect with the external mechanisms of change for certain features.

2.6 Conclusion

From the previous research presented there seems to be a contest of strength between levelling or diffusion effects and resistance strategies. Levelling and

geographical diffusion around the British Isles has been a factor within dialect and accent difference throughout history. Where there is a lot of social and economic change in a community there is also an increase in these mechanisms. Over the last 50 years the influx to the IoM has been substantial, and this may well lead to changes within the MxE accent. In the case study of Williams and Kerswill (1999), people coming into a community have brought in new features, which others readily take up. Other mechanisms came from the younger speakers. With youth culture among social media, younger people may be quicker to adapt the features of their peers wherever they are from (rather than following the accents of the parents). There may also be an internal mechanism of change that is apparent. It is important to be aware of the interplay of both internal and external mechanisms of change.

Much of the resistance research discussed deals with adapting old language forms to fit in with new (Britain 2002c, Dyer 2002 and Smith and Durham 2011). Having the ability to adapt may signal the journey towards dialect death. However, it might also decrease the speed of attrition of some features within a local speech community (Smith and Durham 2011). In the case of Liverpool (Watson 2002), traditional features may be on the rise, thus confronting the tide of levelling. I hope to increase our knowledge of which way the IoM is leaning and whether the accent here can resist or is conforming to the norms of levelling and geographical diffusion.

2.6.1 Implications for current research

This literature review has provided a basis for investigation, both in terms of the variable choices and the method of analysis. The choice of variables (described in detail in 2.7) is influenced by previous research in both the IoM and in diffusion and levelling research in general. I chose some variables based on whether they had been mentioned in previous MxE research and some variables because they are directly comparable with research in diffusion and levelling studies. Discussion about the specific choice of variables will also be included in the initial part of each of the results chapters (Chapters 4-8).

The awareness of the mechanisms of change will allow me to better analyse the variables chosen in a manner that can indicate the influence of other accents of the British Isles. In section 2.2, I reviewed theories of how variables may enter a new dialect. Whether the changes exist below or above the level of consciousness will not only inform where the changes came from but will also presuppose how ingrained the accent feature has become in MxE. The understanding of the interplay between internal and external mechanisms of change will inevitably play a part in the analysis of why features are arriving and through which entities.

This section has also shown different dialects of English which are socially or linguistically resisting levelling. Through these informative studies on resistance (section 2.3) and the models (2.1 and 2.2) provided, I can hypothesise as to the possible direction of MxE. Through strong links to

Liverpool I predict that MxE may follow Liverpool in the adoption or resistance of new variables. In addition, through the motivators of change (section 2.3 and 2.4) it can be hypothesised that Manx identity may play a part in the resistance of some features that are seen as intrinsically salient to MxE.

2.7 The variables

Past research on dialect levelling, geographical diffusion and resistance was carefully considered with regards to the choice of variables to focus on in this study. In this section I introduce the specific features that are affected by diffusion and levelling according to the research discussed in section 2.1 and 2.2. These features are presented in table 6 below. The rationale and previous research for the specific features are discussed in the individual Chapters 4-8. This subsequent table presents the variables I have chosen to analyse. Table 6 shows an overview of the features with regards to the findings of the two datasets: the SED (Orton and Halliday 1962-3; Barry 1984) and Recording Mann (Pressley 2002; Hamer 2007)) and their variables. I have also included the analysis technique that most suits the variable to be analysed.

Table 6: An overview of the variables and the findings of previous research

Variable	SED data	Recording Mann Data	Analysis Technique
Vowel Lengthening	/æ:/ - common especially before voiceless fricatives. Over half of the BATH and TRAP words realised with /æ:/	Pressely (2002) - /æ:/ - found sometimes from older males Hamer (2007) – feature not used by younger group	Acoustic and auditory measurement - see 3.4.2 for timings and procedure.
Simplification of Final Consonant Clusters	/t/ or /d/ lost in word final consonant clusters in many examples	Pressley (2002) - No mention in analysis	Auditory analysis with visual acoustic analysis as support
GOAT	[ou], [oʊ] and [o:] recorded in the GOAT lexical set.	GOAT lexical set not analysed Hamer (2007) – 'Scouse-like' fronted variant [ɛʊ] found in speech of younger speakers (may not be LE influenced (see section 6.6.1 and 6.6.2)	Auditory analysis to distinguish between monophthong or diphthong Acoustic analysis of F1 value to determine how fronted the feature is
TH-fronting	No mention in analysis	Pressley (2002) – TH-fronting only in younger people. Less than 10% for each feature Hamer (2007) – not found in speakers over 30, but more common for children and teenagers	Auditory analysis

[ʔ]	Occurs as substitution for /t/ only when in proximity with /n/	Pressley (2002) - realisation of /t/ as [ʔ] in high proportions, particularly with younger participants Hamer (2007) – glottal replacement common among children and teenagers, part of growing trend	Auditory analysis

With regards to the research aims (see Chapter 1); the first two features in the table (vowel lengthening and simplification of final consonant clusters) were chosen to address the question of what features of MxE may or may not be in decline (research objective: 2). The other three features (GOAT vowel, TH-fronting and glottal stop) will directly answer the first question about the influence other locations are exerting on the IoM. A combination of all the features is used to discuss the question regarding the social and linguistic factors in play which may be shaping the MxE accent (research objective: 3).

There were many variables discussed prior to this study which could have been central to this investigation. There were many initial features that Andrew Hamer (previous researcher of MxE) thought may be lost over time. During an email correspondence, Hamer gave the examples of the following features which may have been lost over time:

- **Glottaling** (when in proximity with /n/)

- **Devoicing of final consonants**. Not just final /s/ in plurals - though this is common; also /d/: *years, eggs, thaws, neighbourhood, stupid, hundred.*

- **Simplification of final consonant groups.** Second consonant lost: *twelve, second, breakfast, child, pounD of tea*

- **Dental /t/** - interesting to see if you find any among older informants: *three, eight, bit of, steep, daughter, thistle*.

- **Lengthening of <a, e, o>:** *after, back, have, has, haven't, seven, backEnd, boss, gossiping, cross, soft*.

- **/ɑ/-fronting**: *half, aunt, father, farmer*

- **Lowering of [ɪ] to [e] before nasal cons**: *pinch, slinger, ring*

- **<-ook>** (long vowel /uː/): *crooked, took*

- **-ing reduction to -in**: schwa + /n/: *grinden-stone, hangen- post, cutten* (with glottal stop)

(Andrew Hamer, personal communication 2016)

Practical considerations were essential when deciding which features would be included. For example; vowel lengthening was chosen, but only lengthening of /a/ (as this had the most tokens to analyse). This was also the case with dental /t/. The respective chapters also give a brief indication of why that feature was chosen with relation to previous literature.

The literature review and previous dialectological studies posed some interesting questions that would relate to the choice of variables for study. First of all, in terms of previous study of geographical diffusion in phonology (see section 2.2), the features of TH-fronting and glottal

replacement are the principal features. To investigate these on the IoM would demonstrate their spread and influence. If these features were to make it over the water to the IoM it may be very informative as to their significance. As mentioned, island research is important for measuring the extent of spread. For features which are subject to levelling, I chose a vowel and a consonant component. Within previous MxE research (Hamer 2007; Pressley 2002; Barry 1984) there were many possibilities for levelled features which were identified by the researchers. For example, Hamer (2007) discussed the possibility of certain features (vowel lengthening) not being spoken by the younger generations and therefore lost in the future. With the variables chosen, I now turn to how the data was collected.

3 Data and Methodology

This chapter presents the methods used to carry out the research for this study. I describe how the data was collected, prepared and analysed. The proceeding sections outline how participants were chosen; I will then describe how the interview process was conducted and finally how the data was analysed.

3.1 Data collection method and critique

This section describes the preparation method used to obtain willing participants. Before the data was collected, I first considered from which part of the Manx population I could obtain the data. Therefore, in this part

I explain how I approached participants, how many participants were recorded and how data could be used to show change over time.

3.1.1 Sampling

In order to comply with ethical and practical constraints, the method chosen to find participants was: judgement sampling. Judgement samples, as the name suggests are based upon human judgement. Schilling explains that:

> This type of sampling involves identifying in advance the types of speakers you want to study and then obtaining a certain number of each type of speaker - for example, older, middle-aged, and younger speakers; males and females; African American and Whites. The categories or 'cells' are then filled either randomly, by researcher judgement or suitability / representativeness, or by working through participants social network, following Lesley Milroy's 'snowball' technique (Schilling 2013a: 33)

By identifying the correct candidates to answer the research questions, researchers are able to fill in the categories or 'cells' and complete the given project. Connected with the terminology of judgement sampling are the terms 'opportunity samples' (Sapsford and Jupp 1996) and 'convenience samples' (Lewis-Beck et al. 2003). Opportunity and convenience sampling are terms that apply to participants who are willing and easily accessible

for interviewing. These are said to be factors in any project as researchers need to use participants who are willing and are able to attend the study. Rasinger used this method in 2007 to choose appropriate Bengali-English speakers in London; Rasinger explains, "this method is used due to limited resources" (Rasinger 2013: 50). When time or funds are restricted, it is more practical to use those accessible for the study. Also, by using those that are willing, there would be fewer ethical hurdles to overcome. To make recordings without willingness would oppose any ethical procedures.

The biggest drawback of judgement sampling is that it cannot ever be completely free from bias (Rasinger 2013). The researcher must make judgements on a person's willingness to participate, and their appropriateness for the study. This verdict is a subjective choice based on preconceived ideas of who is right or wrong for the project. Due to the systematic choice of participants, some social science projects may be deemed unable to "ensure statistical representativeness" (Schilling 2013a: 35). However, due to the relative regularity of linguistic behaviour (in comparison to other social behaviours) and the typical uniformity of language within social groups, a judgement sample technique can be used to give generalizable results (Schilling 2013a: 35; Labov 1966: 180-181).

Therefore, for this project, I chose to use a judgement sample to fill in categories or 'cells' (discussed above) in order to best address my research objectives and choose the right people to represent MxE accents. Schilling (2013a: 34) explains that

> Because the categories in our own judgement sample come directly from our research questions […] they enable us to get right to the heart of our research question without simply hoping that our sampling technique will yield appropriate speakers

Therefore, judgement sampling was chosen as the technique to obtain participants. The second question then was how to fill the 'cells' or categories of people to best represent MxE today.

According to Schilling (2013a: 33) the categories chosen can be filled through Milroy's social network or 'snowball' technique (Milroy and Gordon 2003: 32). The snowball method of gaining participants can be defined as "gathering research subjects through the identification of an initial subject who is used to provide the names of other actors" (Atkinson and Flint 2003: 1043). This technique is also referred to as a network sampling as it "utilizes the social networks of the participants in the study to recruit new participants" (Milroy and Gordon 2003: 32). By talking to my participants, I was able to gain introductions to new people in their social network group, thus extending my own system of connections.

An advantage of gaining participants through a social network, highlighted by Atkinson and Flint (2003: 1044), is that it allows the researcher an introduction through an informal avenue. Milroy (1987: 66) also used this method of being introduced as a 'friend of a friend' when meeting participants for the Belfast study in 1980. Milroy was able to

acquire the position of an 'insider' of the community even though she was not from Belfast. As a non-Manx person this approach also helped me to gain an informal avenue into the society.

Milroy used this method for the Belfast study; the process was described as follows:

> I introduced myself initially [...] not in my formal capacity as a researcher, but as a `friend of a friend' [...] mentioning the name of a person categorized as an insider with whom I had previously made contact and who had given me the names of persons who might initially be approached. As a consequence of the reciprocal rights and obligation which members of close-knit groups contract with each other, the mention of the insider's name had the effect of guaranteeing my good faith (Milroy 1987: 66)

I was also introduced to people through different networks that I had already built up. In addition, I created new contacts that I developed during my time on the Island (see below for the different social networks).

The main disadvantage of the 'snowball' technique is that of 'gatekeeper bias' (Atkinson and Flint 2003). The researcher is relying on participants to introduce them to other people in their network. Therefore, each advisor brings in their own bias about what the project needs. Using this method relies on the participants deciding who is recorded for the study. Atkinson and Flint (2003) describe how respondents may shield or promote other

participants because of preconceived ideas of the direction of the project. Consequently, the researcher may be adding more bias into their research. One way of circumventing this problem is to attempt to gain access into a community through different people. By asking for introductions from many different people of one society, the researcher can increase their chances of meeting all the people needed within that group. Another disadvantage of the technique is that the population as a whole cannot be generalised upon based on the network of 30 or 40 people who associate only with each other (Labov 2001). To mitigate this issue of only interviewing one social group, I targeted many different networks through different methods. To gain access to various groups, I introduced myself in numerous social situations. I went down a number of paths to attain members of different groups:

- First of all, I went to farmers' societies; I attended an annual 'ploughers meeting'. I gained an invitation to this meeting from a linguist on the Island. Following an annual ploughers meet-up; I was able to talk to a few participants and follow their social network which mainly included different farming families on the IoM
- Second, I targeted business-orientated people on the IoM. I volunteered to do a talk about linguistics and MxE to a

Rotary club[13] on the Island. I gained this invitation through an acquaintance. During the talk to the business professionals I explained that I was looking for candidates. The members assisted me by giving me telephone numbers and introducing me to other small business owners on the Island

- A friend of the family invited me to a traditional school fair that her daughter was involved in. The mother introduced me to parents of other children there who would become a new network I was able to record
- I also used the local newspaper and radio to attract an audience who might be more locally orientated. One person contacted me after a radio interview. I was able to then contact their friends gaining yet another alternative network
- I also used social media to gain a new network. I contacted the creators of some of the most viewed Manx videos / websites and then was able to connect with an audience of social media users on the IoM

[13] 'Rotary International' is an international service organization whose stated purpose is to bring together business and professional leaders in order to provide humanitarian services (Rotary.org 2019)

- Finally, I met with a person who was a MxG learner, they showed me around the MxG school, and in turn I was able to utilise the contacts of the MxG language learning community

Through gaining different networks in unrelated areas, I believe I was able to find samples of the population with differing interests or views. This kind of sampling is described as being most "profitably adopted by researchers examining social network as an analytical construct" (Milroy and Gordon 2003: 32). I wanted to gain participants from different areas on the IoM, so I joined different networks (see above) in the north, middle and south of the Island. I also wanted to gain some MxG speakers; therefore, it was useful to integrate into a MxG speaking society (see above). Other requirements for participants are discussed in section 3.2.4.

Each community must be assessed separately to gain a real insight into the language to be researched. The category of class is quite common within sociolinguistic study but was not used within this research. During pilot recordings I asked participants to fill out a class survey. Typical class questions that pertain to postcodes or place of birth were inconsequential on the IoM, as there are not many postal areas and there is only one maternity ward on the Island. This means that the majority of people born on the Island were born in Douglas. My initial discussions about class on the Island yielded some interesting comments. During an email correspondence with a journalist on the Island; he noted that the "The idea

of class division is virtually nonexistent in IOM" (John Caine (pseudonym) personal communication, July 2016). The journalist explained that he had met with many people on the IoM in many different walks of life and concluded that "trying to categorise Manx society into upper/middle/working classes stretches the idea to breaking point". With respect to education also, the schools on the Island are very similar (with the exception of the one fee paying secondary school). Unemployment as an indication of class may also be misleading as it is incredibly low (approximately 0.7% (gov.im) – compared to 3.8% in England or 4% (ons.gov.uk 2019) on the Isle of Wight (IW Radio 2019)).

Some studies have dispensed with class divides, deciding to focus on gender or other variables to study. Milroy and Milroy (1997: 56) note that "it can be suggested that gender difference may be prior to class difference in driving linguistic variation and change". I decided to omit class as a variable for analysis as I believe that a definition of class on the IoM is not straightforward. Therefore, class may not yield many results that could add to the discussion of MxE for this study.

3.1.2 Sample size

Numbers for a dialectological study are a very important consideration and is one of the initial questions asked of a researcher. However, the answer is not as straightforward as it seems (Schilling 2013a: 31). This section analyses the theories behind the choice of sample sizes for previous

linguistic studies and demonstrates the sample sizes other researchers have used and also gives the final numbers of participants for this study.

Linguistics may have different boundaries with regards to sample size when compared with other social studies. Generally, studies utilising sociolinguistic interviews may not have comparable numbers to the large sample sizes that other social science studies use. Milroy and Gordon (2003: 28-29) use a quote from Sankoff (1980) to explain that "[i]f people in a speech community can understand each other with efficiency […] this limits the extent of possible variation". Therefore, the mutual understanding of a community would make a group's linguistic behaviour more homogenous. Thus, a smaller sample size would still be meaningful for researchers to generalise from. In agreement with Milroy and Gordon, Schilling (2013a) also affirms that a statistically representative sample size (as predicted by other social science research) may not be necessary for sociolinguistic research which can be a far smaller size (e.g. Labov 1966: 180-181; Sankoff, 1980: 51-52).

Other than the ability to generalise, there are also different practical considerations. The feasibility of a study will "partly dictate sample size" (Milroy and Gordon 2003: 29). The example of Shuy et al.'s (1968) study of Detroit's African American English is a good one for demonstrating the consideration of practicalities. The researchers there interviewed around 702 participants but realised that the amount of data generated would be impossible to analyse in the allotted time frame. Ultimately, they used a

'judgement sample' (see 3.1.1) of just 36 to describe the dialect of this speech community (Schilling 2013a, Milroy and Gordon 2003). Pressley (2002) encountered a similar situation in the 1999 study of MxE. The wider project of 'Recording Mann' logged around 700 participant voices, and the data were studies by 6 different researchers. Pressley chose just 32 of the recordings for her phonological analysis of MxE dialect in Douglas and Onchan.

A sociolinguistic study should not be too big due to practical and analytical considerations. However, it should also be large enough that we can make generalisations about the remainder of the population of that speech community. With regards to participant numbers, Milroy and Gordon explain that:

> If the sample size is to be representative of a society that contains persons of different social statuses, different ages and both sexes, we will be obliged, if we want to make more generalisations about any of these subgroups, to subdivide an already small sample (2003: 29)

Milroy and Gordon explain how the 'cells' or categories must be filled for any subgroup that the researcher has defined. With equal numbers for each subgroup, the ideal number for generalisation is around 4 for each category. Labov found that '25-30 cases' were sufficient to demonstrate a summary of stylistic language variation of a speech community (Labov 1966: 638).

Other research with sociolinguistic interviews has included: Labov's New York Studies (1966) which had 88 participants, Trudgill (1983) in Norwich included 60 participants, Walters in the Rhondda (1999) had 60, Pressley in Douglas and Onchan (2002) used 32, Smith and Durham (2011) on the Shetland Isles recorded 30 participants. Therefore, there is no one answer to the question of sample size and it depends entirely on the research questions and the grouping of the participants. The overall numbers for this research interview process were as follows (table 7 shows the total number of interviewed speakers. Table 8 shows the number chosen for analysis):

Table 7: Demographic overview of all participants recorded

Number of Participants	57
Number of Interviews	22
Average Interview Length	45 minutes
Total Interview Time	12 hours 16 minutes

Table 8: Demographic overview of participants used in Analysis

Number of Participants	32
Number of Interviews	18

The participants were chosen for analysis due to their demographics. From the 57 participants interviewed (table 7); I wanted an equal number of

males and females in each of the four age categories; this gave me a total of 32 participants for analysis (table 8). I also needed an even spread between the south, middle and north of the Island. I chose the participants who would best meet these categories while also thinking about the amount of time they talked (some of the less talkative participants may not have given enough tokens of a certain feature/features for analysis). Another judgement was based on families. I made sure not too many members from one family were present in the study, but I did want to include a generational dimension to the analysis. As an apparent-time study it was important to investigate changes in different generations. Using a family for this type of research can be beneficial in many ways. First, it may be that some social factors have not changed a great deal over generations (more discussion in 3.2.4) (Wray and Bloomer 2012). In addition, from a practical standpoint, it is easier to record a family group than to get different families together at one time. Also, 'natural speech' may be aided with conversation between family members rather than with strangers. Finally, from an ethical standpoint, when recording participants under 18 years old, I would always record them with a family member present. After filling the categories, the remaining 32 participants were analysed for the study.

3.2 Informants

All names have been changed for anonymisation of participants. Also, all names of workplaces or schools or areas have been removed or changed. Finally, the data has not been made publicly available.

The previous section described the reasoning for the choices made when recruiting participants, how to access a community and how many participants were used. The following section describes which members of the community were chosen and for what reason. In order to best understand the phonology of MxE, I decided who best represents the community that I was analysing as it is "impossible to include every individual from a community" (Schilling 2013a: 31). This part addresses the issues of age, sex, location and the demographics of the participants. Each topic is considered with reflections of past sociolinguistic studies and then applied to this MxE project.

3.2.1 Language variation and sex

When discussing variables of sex within linguistics and other social sciences, it is initially important to approach the question of whether the focus should be on participant's sex or gender. Some researchers have dismissed this difference; Chambers (2003) cites Eckert's 1989 paper that argues "variation between men and women are a function of gender and only indirectly a function of sex" (Eckert 1989: 247). Chambers subsequently demonstrates where "failure to make the distinction between gender and sex has disguised significant correlations of linguistic variation with gender on the one hand and with sex on the other" (2003: 118-119). In recognising the difference between sex and gender in language variation, I use Chambers' (2003: 118) definition that "sex is a biological stratification, gender is a social construct when talking of language".

Eckert and McConnell-Ginet (2013: 10) describe gender as something we 'perform' rather than something we are born with. It could be described and utilised in the same way other social categories are used in sociolinguistics Eckert and McConnell-Ginet (2013). Each gender 'performance' changes depending on the society where someone grew up. Therefore gendered language may be influenced by society. In order to compare to studies of a similar nature in different locations, it is useful to use sex as a determiner rather than gender.

From the earliest dialectological and sociolinguistic studies, sex and language variation have not been consistently focused on. In the past, many linguistic studies have excluded female participants. The SED is a case in point whereby only males from the countryside were analysed (see Orton 1962). Trudgill (1986b: 395) noted that there were only a "small number of linguistic articles and discussions" that have deliberated sex differences and language. More recent studies have focused on language variation and sex (Nance et al. 2018) and our knowledge of the subject has grown 'astronomically' since the 1970s (Coates 1998: 2).

There are four theories that attempt to define the approaches to language and gender: the 'deficit' methodology (attributed to Jespersen 1922), the 'dominance' and 'difference' concepts (described by Coates 1990) and finally the 'social constructionist' approach (the most modern approach by sociolinguists). The theories are all based on negative motives (Coates 1998: 413). Chambers (2003) presents how researchers in the past have

hypothesised that women use more prestige language because of societal norms or as passive oppression. Previous theories of language and gender present females being affected by 'social trappings' (Chambers 2003: 147). Eckert and McConnell-Ginet (2013) agree that the negative theories are also insufficient in characterising women's speech.

Much of the research, especially in the 'difference' and 'deficit' approach has failed to appropriately categorise the male or female speakers, opting to simply compare males and females. The research therefore failed to subdivide the female or male categories further. However, in Milroy's (1987) study in Clonard, and Cheshire's (1982) study in Reading, the female groups were stratified further by social networks or by a "vernacular culture index" (Cheshire 1982: 92-107). The findings for both of these studies were that females displayed higher levels of non-standard vernacular than their male peers. Both findings challenge previous research which said that female participants use a more standardised variety of English.

Labov's gender principles investigate the preferences for conforming to local norms or deviating from them. Labov states that:

> Women deviate less than men from linguistic norms when the deviations are overtly proscribed, but more than men when the deviations are not proscribed (2001: 367)

The pattern of behaviour that Labov observed was as follows:

Table 9: Conformity pattern of behaviour (Labov 2001: 367)

in	*women are more*	
Stable sociolinguistic variables	conservative	conforming
Change from above	progressive	conforming
Change from below	progressive	noncomforming

The language use Labov attributes to women (table above), account for both conservative- and progressive-language use in different situations. When looking at old and new variants, this paradox will be considered in the analysis sections.

In relation to the IoM and this study, there is reason to suppose that there may be linguistic differences between sexes. As a sociolinguistic practice I have chosen an equal amount of men and women. However, Pressley (2002 in Douglas and Onchan), states that:

> The informants analysed do not view gender in the sense that women are respectable and men are not. Rather, it seems likely that sex differentiated behaviour is the result of one sex having more of a sense of local loyalty than another (Pressley 2002: 219)

Even though Pressley implies that sex has little effect on language on the IoM, sex can be a predictor of language change. I will be using sex differences to distinguish between my Manx participants. The reason

being that I do not want to make any assumptions about sex-based variation and so I include this in the analysis as per variationist methods. For the purpose of my own study, this separation is sufficient.

3.2.2 Language variation and age

Comparing linguistic variation with different age groups has been a staple method in sociolinguistics for a number of reasons. As discussed previously, apparent- and real-time variables within variation of MxE have been considered. If variation is observed between age ranges, it may be indicative of language change in that certain area (Chambers 2003). However, there are some occasions whereby difference in language use between age categories may be down to 'age-grading' (see discussion in section 2.2.3). Categorising speakers in different age groups can reveal some details about language change and variation within the speech community.

In concluding that age is certainly a significant factor by which to stratify my sample, the next question is how to group people of different ages. Schilling (2013a: 50) explains that it is "difficult to draw lines based on arbitrary dates" within sociolinguistic and dialectological studies. The researcher goes on to describe how making more "ethnographically informed categorizations" based on qualitative observations is a better solution (Schilling 2013a: 50). For the IoM, we can look at the introduction of MxG into the curriculum as a possible factor for age appropriate categorisation.

Three key events in recent history may have had some effect on the teaching and building awareness of MxG in young people. In 2001 the MxG medium primary school was established, allowing pupils the first ever opportunity to go through primary school solely speaking MxG. Also, in 1997 the GCSE for Manx was first introduced for secondary school pupils, although initially only in one school (gov.im 2017). Moreover, the Education Act of 2001 also decreed "the curriculum shall include the provision for the teaching of MxG and the culture and history of the Isle of Man" (gov.im 2017). The aims of the Education Act were to

- provide Manx language teaching in schools for those pupils whose parents wish them to learn
- foster a sense of identity and develop self-confidence
- promote positive attitudes to Manx culture
- promote positive attitudes to language learning

It is interesting to note the aims to promote positive attitudes. The fact that the government had to seek to influence these attitudes in schools may be a clue towards previous perceptions.

The Education act of 2001's objectives were to:

- enable pupils studying Manx to experience a range of learning situations which will be designed to be both enjoyable and successful
- enable pupils to speak, understand and (to a lesser extent) write some Manx in a range of practical situations

- enable pupils to follow a continuous and progressive programme which, ultimately, can lead to a General Certificate in Manx. (gov.im 2017)

Therefore, this act was one of the first government-backed schemes that could afford all children on the Island a real chance to learn MxG and Manx culture. Three points of the objectives were connected strongly to identity and feelings of identity centred on Manx language and culture. For this reason, I have stratified the ages based on which of my participants were given significant opportunity to expand their Manx knowledge (culture and language) throughout school life. This means that anyone who was born after 1990 will have spent some time in primary school after the bill had passed and therefore would have had more exposure to Manx culture and language. Within my study, there were 5 children who went to the MxG primary school.

Anyone born after 1990 would be around 26 years old in 2016. To make sure that the participants had had some opportunity for schooling in MxG I have included anyone over 35 in the middle age group. The age ranges are as follows:

Table 10: Participant age categories and numbers

Age Group	Age Range	Number of Participants
Under 18s	10 - 14	8 (4 female, 4 male)
Young Adults	18 – 34	8 (4 female, 4 male)
Middle Adults	35 – 64	8 (4 female, 4 male)
Retired Adults	65 +	8 (4 female, 4 male)

The first age group were the 'Under 18s' (from 10-18), then 'Young Adults' (19-35), 'Middle Adults' (36-65) and 'Retired Adults' (66+). This spread of ages is used for cross-generational purposes. There were some interviewed families who were represented in more than one age group. (Informants' ages are also visualised in section 3.2.5 below).

3.2.3 Location

The locations on the IoM chosen for sampling aimed to give a broad spread of different towns and villages from North, Middle and South; the breakdown was as follows:

Table 11: Localities on the IoM and number of participants

Locale	Number of Participants
North	15
South	7
Middle	10

Due to the restrictions on ages and ratio of female to male, the locales are not perfectly even. However, there is a representative from each location on the IoM in each age group. (Locations of informants are also discussed in section 3.2.5).

The SED investigated two rural areas on the Island, one in the North one in the South. The variation was limited to a few tokens of smaller differences. In his description Barry (1984) conflates both localities into the description of MxE. Pressley only investigated the phonology of Douglas and Onchan (both in the middle of the Island). The reason for limiting the localities in her studies were down to other projects within the overall Recording Mann survey. The sub-projects had all focused on different areas and Pressley (2002) investigated Douglas and Onchan. In Lewis' (2004) ethnographic study of the IoM, there was no mention of locality differences on the Island regarding the feelings of identity.

The participants in this study have come from many different locations and split into three areas (see above). Even though most areas on the Isle of Man can be classed as rural (Lewis 2004), Douglas and Peel are both in the top four towns by population. These are in the middle of the Island, one on the west coast the other on the east. The other areas in the North and South are spread out in order try to capture as many localities on the IoM as possible. There are not any assumptions about language difference between these areas as movement is very easy from north to south (around 40 minutes by car at most). However, analysis will investigate any statistical differences that may have occurred.

3.2.4 Other requirements

Other requirements for participants were that they were born and brought up on the IoM with at least one Manx parent. As per other island research, these stipulations were to "control the sample as much as possible" (Smith and Durham 2011: 205). It was essential that English was their first language (so as to assess MxE accent change over time). Also, it was stipulated that the participants had not spent a long period of time off the Island (2 years or more). The IoM does not have a university and Manx people will often go off island to attend higher education. This was not an exclusion for this study. Those that had lived off island for university had returned for holidays and during breaks. Therefore, those who had left for university but had come back afterwards were included in the study.

As was briefly mentioned previously, the practical choice of using families was considered and this impacted on the choice of informants. I wanted to reduce the number of variables by including participants with other family members born on the IoM. This would mean that, theoretically, I could address some other sociolinguistic questions. Comparing several generations of the same family, who have lived in the same location, controls the number of variables. The differences between subjects (in the same family) such as "place of birth, residence, social class, extent of travel, gender, level of education and so on" may be limited (Wray and Bloomer 2012: 118). I saw this as a major advantage for this study as the primary focus is on language change over time. With the focus being on age, I could also concentrate on factors such as age-grading (discussed in detail in section 2.2.3.). Hazen (2006: 503) highlights certain studies that have relied on family orientated research to either explain the presence or absence of age-grading.

Another advantage of using different generations of the families within interviews is the issue of language use amongst family and close friends. Hazen (2006) uses Ferguson's (1959: 327) explanation of a 'low' variety to describe language used with friends and family. Contrasted to a 'high' variety, 'low' can be more regional and natural (Ferguson 1959). As a sociolinguistic interviewer I hope to alleviate some formality and would like the conversation to be as natural as possible (discussed in section 3.3). I believe that using family interviews may help with this. However, I have not chosen only families to be analysed. Some have been analysed as

individuals, but they may have been interviewed alongside another friend or family member.

3.2.5 Informant relationships

This section will describe where the informants are from and their relationships. As was mentioned in the previous section, utilising family networks was an important part of the sampling of this data. The figure below shows a map of the IoM and approximately where the participants are from. The participants whose names are in black are all individuals and do not have another family member in the study. Where participant names are the same colour (other than black) they are part of the same family - parent or grandparent and child (interview pairings shown in appendix 2; also, sociogram displayed in figure 9 below).

Figure 8: Map of the IoM and approximate location of participants

Blue

The participants in different shades of blue are part of an extended family; Juan Carine (grandfather) – Amy (daughter of Juan Carine / sister of Hannah), Hannah (daughter of Juan Carine / sister of Amy) – Caly, Essa,

James (grandchildren of Juan Carine / children of Amy) and Oliver, Adam (grandchildren of Juan Carine / children of Hannah). As can be seen from table 12 below, this family had a member in each age category.

Gold

Mary Christian and Andrew Christian are mother and son.

Red

Juan Kewish and John Kewish are father and son

Green

Kathleen is the grandmother (mother-in-law of Carly), Carly is the mother of Mark and James who are brothers.

The table below displays the age categories in which each individual is placed.

Table 12: Participant age categories

Under 18s	Young Adults
Illiam Mark James Caly Breesha Essa Oliver Aalin	John Brian Lucy John Kewish Natalie Fin Charlotte Adam Rhiannon
Middle Adults	**Retired Adults**
Ellie Juan Kewish Andrew Christian Carly Amy Hannah John Kissak Matthew	Mary Callister Emily Mary Christian Andrew Teare Clague Kathleen Ricky Juan Carine

As was previously mentioned, there are 4 females and 4 males in each age category. Also, the children who went to the MxG primary school were Caly (12), Essa (14), Illiam (10), Mark (13) and James (13). The others in the Under 18's category (Breesha (11), Oliver (14) and Breesha (12)) went to English speaking primary schools. For all other age groups and speakers,

the amount of MxG input is limited. Although some have learnt MxG as adults, their levels were not described as fluent.

The figure below displays a sociogram of the participants mentioned above. This was not necessarily the way in which the participants were interviewed (see appendix 2 for interview pairings).

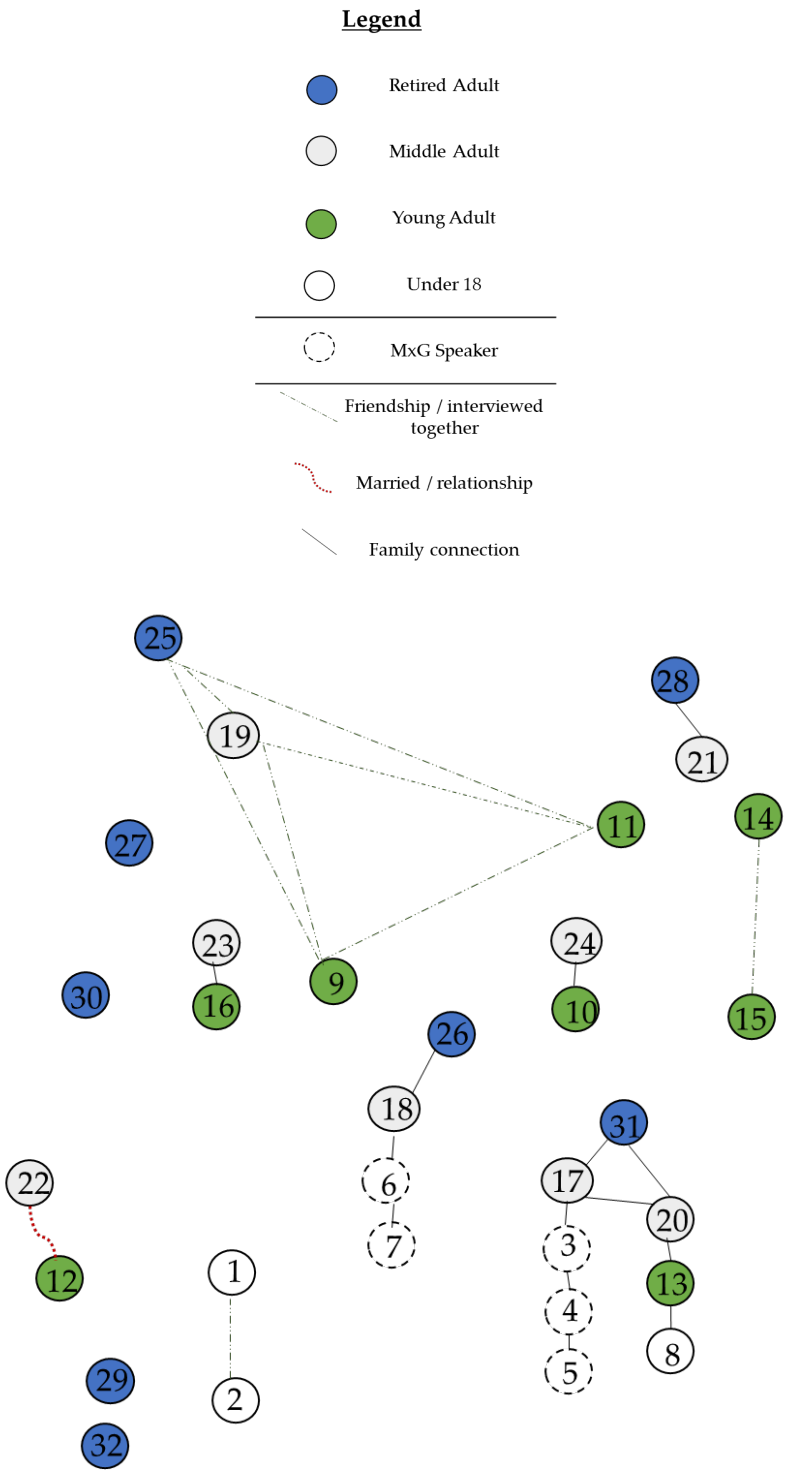


Figure 9: Sociogram displaying relationships between analysed participants

Table 13: Participant Numbers linking to sociogram above

	Under 18s		Young Adults		Middle Adults		Retired Adults
1	Aalin	9	Charlotte	17	Amy	25	Emily
2	Breesha	10	Lucy	18	Carly	26	Kathleen
3	Caly	11	Natalie	19	Ellie	27	Mary Callister
4	Essa	12	Rhiannon	20	Hannah	28	Mary Christian
5	Illiam	13	Adam	21	Andrew Christian	29	Andrew Teare
6	James	14	Fin	22	John Kissak	30	Clague
7	Mark	15	John Brian	23	Juan Kewish	31	Juan Carine
8	Oliver	16	John Kewish	24	Matthew	32	Ricky

3.3 The interview

This section focuses on the interview process. Whereas in section 3.1 I discussed how I obtained willing participants, this part I discuss what went on during the interview.

3.3.1 Interview planning

Before recording I made sure that I had met or spoken to the participants at least once before conducting a full interview. Being introduced as a 'friend of a friend' (Milroy 1987) or knowing the participant first allowed the contributors to be more comfortable in my presence. Interviews were

informal and located in either the house of the informant or in a public space they knew (coffee shop or pub). I asked the participants where a good place in their local area would be to record; so as to elicit places where they would feel comfortable. My participants knew what the research was about as we had had some dialogue before the event. Due to ethical consent, all under 18 participants were interviewed with a family member.

The interviews were recorded with a Zoom H1MB Handheld Recorder. The recorder was chosen for its high quality and also relatively small size. With this small recorder, I was able to place it in an unobtrusive location. When interviewing in participants houses for example, I would often leave it on the coffee table alongside a mobile phone or a few television remotes. I would also make sure the red recording light was off which may have allowed participants to momentarily forget that it was there.

3.3.2 Spontaneous conversation

Wolfson (1976: 195) argues that the "spontaneous interview is not, however, a speech event", and therefore may not yield natural speech. Wolfson (1976) argues that having a conversation with an interviewer cannot be spontaneous as the event is not a recognisable one within a speech community. However, the interviews are not 'valueless' as Wolfson (1976) goes on later to mention. Building a relationship with the participants can help among other factors to create more natural speech. Wolfson (1976) also suggests that having more than one participant can

aid spontaneous speech. Wolfson (1976: 199) quotes Labov in saying that the most "powerful determinant of verbal behaviour" is one that is in a familiar social situation. The paper then goes on to accept that group interaction can direct attention away from the fact that the participants are taking part in an interview. Where possible, I have paired up participants with one or more friends or family members in order to create a casual conversation. There were two occasions where I interviewed one to one; this was due to dropouts.

The strengths of the face-to-face qualitative interview are well highlighted by Braun and Clarke (2013: 80). The following table outlines the strengths and limitations put forward by Braun and Clarke with my own thoughts on how my project fits into these categories (the headings and ideas are taken from Braun and Clarke 2013: 80):

Table 14: Strengths and limitations of face-to-face qualitative interviews, adapted from Braun and Clarke (2013: 80)

Strengths	Limitations
Rich and Detailed Data Allowed me to compare many different target phonemes with past research and offer a breadth of different MxE features.	***Time Consuming*** Finding participants and interview length was considered with regards to sample size and the time allotted for the project.
Flexible Some questions were answered more fully than others; with my prompts I was able to move conversation in line with participants preferences	***Lack of breadth*** In terms of conversation style, I think that having more than one participant at the interview introduced different levels of formality into the conversation
Smaller Samples The smaller sample allowed for more in-depth analysis of conversation, permitting for some qualitative and quantitative data	***Time Consuming for Participants*** By pre-warning participants about the interview time, I believe that they and I have realistic expectations about the length of conversation
Accessible By using the friend of a friend approach, and inviting a friend to the interview I was able to obtain enough participants (see 3.1.1 for more)	***Lack of Anonymity*** The participants who accept to do the interview may be more extroverted than those who are unwilling. This may skew the results as I analyse only these personality types. Necessary steps were taken to hide the identities of everyone who took part (names/places and identifiers were all bleeped out of conversation)
Researcher Control Useful to steer conversations into topics where target words may be, for example when looking to elicit words with <oo> orthography I asked participants about education to elicit words like *school* or *book*	***Not necessarily 'empowering' for participants*** I tried to allow participants free speech and time to answer questions about themselves. There will always be an interviewer /interviewee relationship, however I made some attempts to limit power roles within the interviews (see 3.6 for more discussion)

The interview itself followed a semi-structured pattern with a reflexive or open construction. The conversation questions have been adapted from Barry (1984) and Pressley (2002) and their interviews with Manx residents.

Tagliamonte (2006) suggests a funnelling approach to the sequence of questions. The questions would be best ordered going from general to specific. During the interviews I would always ask 'how was your day?' as a warm up question, then quite general and open questions about living on the Island and school days. Then, I may delve into more detailed issues such as Manx identity (See Appendix 1 for question/prompt sheet).

The most important strategy of a sociolinguistic interview is "to record one to two hours of speech and a full range of demographic data for each speaker within one's sample design" (Tagliamonte 2006: 37). Labov's (1984) design of sociolinguistic interviews involved certain modules. Each module contained a topic and a series of ordered questions which is referred to as the 'interview schedule' (Labov 1984). As mentioned earlier, a funnelling approach is apparent with the questions; starting with general and moving to more specific. Labov (1984) believed that certain questions would elicit a storytelling style that would provide 'rich' vernacular. Tagliamonte explains that:

> The ideal structure of a sociolinguistic interview is to begin with questions relating to demography, community, neighbourhood, etc. and progress into more personal modules such as Dating, Dreams and Fear. If you are going to be including a module on Language, always put it at the very end of the interview when your informant has exhausted all the more personal topics (2006: 38)

The interview modules are laid out in appendix 1. The modules begin with demography (local area / school / neighbourhood) and then move to more personal questions about identity. Within the topic areas the questions are designed to elicit a storytelling style (for example: "what are some good memories of _____ (school)?").

The interviewer's part must of course be minimal during the interaction. If the recording is mostly the interviewer then it will not gain the appropriate amount of data. During the interview an interviewer can offer their own experience, follow the main subject areas, seem interested, take an insider's viewpoint and also be a learner (Tagliamonte 2006). There is a fine line to being the interviewer. I brought with me my own knowledge of the IoM to be able to relate to what the participants were saying. Also, I had to be interested and ask follow-up questions to familiar subjects. Again, the main aim is to keep the participants talking. During the interview, I also had to keep the conversation flowing and informal. Finally, flexibility is key (Tagliamonte 2006). The interview questionnaire is labelled as 'prompt questions' because conversation must not be too rigid. During my interviews, some participants would want to talk less or more about certain subjects than others. Of course, this was taken into consideration; for example, one participant said they did not have a great time at school, I did not press them on this subject.

Within the interview situation participants were mainly paired with friends and family (see interview pairings in appendix 2). As mentioned

previously, the interviewer did not share the same linguistic background as the participants. Both these points may have some impact in terms of accommodation. The accommodation theory suggests that individuals can change their style of speaking to more or less like the audience they are talking to (Crystal 2008). The interview structure may have been an opportunity for the participants to display both convergence (whereby "individuals adapt to each other's communicative behaviors" (Giles et al. 1991: 7)) in speaking styles with each other and divergence (whereby "speakers accentuate speech and nonverbal differences between themselves and others" (Giles et al. 1991: 8)) with the interviewer. Convergence and divergence are not seen as mutually exclusive and can be found to work concurrently (The observer's paradox is discussed in detail, in section 3.6). With this in mind, I attempted to stay out of conversation as much as possible and let the participants talk to each other.

3.3.4 Word list

In order to add to modern dialectological studies, I decided to include a word list (see appendix 3). This would collect data for formant frequencies in vowel production. Ferragne and Pellegrino (2010) conducted a formant-based investigation of 13 accents of English in the British Isles (See appendix 4); the IoM was not included. By using results from the adapted word list (appendix 3) I will be able to directly compare MxE to that of other accents. I have adapted the word list to include predicted homophones in MxE that may not be apparent in other dialects of English e.g. the addition of *Who'd* which may be homophonous with *Hood*.

The word list includes words with a /hVd/ structure; each word begins with a /h/ sound and ends with a /d/ sound; with the target vowel in the middle. This allowed the best method for easily extracting the nuclei in computer software programmes. I replicated Ferragne and Pellegrino (2010) method of having the participants read it five times, however, with some of the younger participants getting bored and tired, some only read it two or three times.

As with many word list exercises, the action is very unnatural and some participants would not take it seriously. With all word lists "authenticity" (Schilling 2013c: 96) is an issue. Also, as they are unnatural, many word list exercises were rushed or full of laughter. The word list exercises were not always usable in the analysis of some of the chapters presented below. This was because I was unsure of the targets to be analysed. The word list data is used within Chapter 6 to compare formant values of GOAT within natural speech and within formal word lists.

3.4 Analysis methods and critique

The subsequent section will consider which analysis techniques are suitable for this project and will critique methods used for previous phonological examination. The aim of the thesis is centred on phonological variants. The two processes I used were: auditory and acoustic analysis.

The specific techniques for each feature are presented in each chapter subsequently as they may be slightly different for each variable.

3.4.1 Auditory analysis

The approach that would best suit the investigation of two distinct variants would be that of auditory analysis. This analysis requires the researcher to first be familiar with the allophones in question; they must then distinguish between different variants to form a judgement of the allophones used (Williams 1980; Milroy and Gordon 2003). This process has been very popular throughout sociolinguistic history (Milroy and Gordon 2003: 144) as it requires only one researcher and perhaps a secondary analyser. Viereck (1968) used auditory analysis to judge whether a vowel sound within Geordie English was being realised as a monophthong or diphthong. The distinction between the two vowel sounds is quite clear and therefore auditory analysis is a suitable method. This is highlighted by Watt and Milroy (1999: 32); they explain that it is "easy to categorise tokens as either 'diphthongal' or 'monophthongal'" using auditory analysis. I used auditory analysis to distinguish whether a speaker used a monophthong or diphthong to realise a certain vowel as the two are easy to differentiate.

A method used by Walters (1999) to make auditory analysis more reliable was to employ a second trained listener to check against the initial judgements. In addition, Walters (1999) listened to the itemised targets again after a month without checking his previous judgements, these two

processes can make the results less subjective. The data were run through the programme *Praat*. This programme allows observation of the spectrogram for the audio signals. By viewing the speech spectrogram, I am able to observe the directions of the formants. The programme will show whether there is a large glide onto the preceding segment giving visual clues to the sound in question. Acoustic clues can make auditory analysis clearer and more objective (Ball and Rahilly 2014).

This method is quick and useful for where there are clear distinctions between allophones. However, it can lack the accuracy and objectivity of using a programme to measure the exact formant values of different vowel sounds. In cases where distinctions are subtler, I used a method called acoustic analysis.

3.4.2 Acoustic analysis

Acoustic analysis uses spectrograms and computer software like *Praat.* The process of acoustic analysis takes the final examination out of human hands and puts more emphasis on the sound waves that make speech; giving us the 'physical facts' (O'Grady 2012). By utilising a programme like *Praat*, the researcher is able to plot the formant values of target sounds. The formant values are measured in Hertz; they allow the researcher to view the exact position of articulation of the realised surface form. This provides researchers with a "firm phonetic underpinning for phonological analyses" (O'Grady 2012: 4).

There are some potential problems with acoustic analysis; in particular when it comes to comparing vowel qualities of the same person at different times. There are many factors that may affect the formant values given by computer programme software. First, the recordings need to be of a certain quality and there cannot be any overlaps or interruptions. This was sometimes difficult to achieve when attempting to record natural conversation where interruptions and interference may be commonplace. The interference of bird song had a surprisingly negative effect on the spectrograph analysis. For this reason, acoustic analysis was unavailable for an interview which was conducted outside. Age may be a factor in people's formant values, the formants may be different when a person ages, because of transformations to the vocal tract and other physical changes that may occur (Hollien and Shipp 1972). Someone's body posture is another factor that can distort formant values; Fant (1960: 111-112) found that F1 and F2 values were affected by head positioning. Therefore, when a comparison is made in the analysis, these factors may have to be taken into account.

Much modern sociolinguistic and dialectological research uses acoustic analysis to compare the realisation of vowels between different users, formant analysis has become "the default method of analysis in many circles" (Foulkes and Docherty 1999: 18). This analysis method enabled me to compare with other acoustic formant values of accents from around the British Isles. Therefore, acoustic analysis allowed for direct comparisons

and correlations. Both acoustic and auditory analysis were valuable during the project.

Acoustic analysis was mainly used for vowel lengthening (Chapter 4) and the vowel in the GOAT lexical set (Chapter 6). Monophthong values were taken at vowel midpoint while the diphthongal difference was measured by taking measurements at the vowel start and end. The spectrograms were set up in the following settings:

Table 15: Spectrogram Settings

Maximum Frequency (Hz)	**Time Step (s)**	**Frequency Step (Hz)**	**Window Shape**
5000	1000	250	Gaussian

3.4.3 Statistical analysis

The quantitative elements of this sociolinguistic study come after the descriptive statistical analysis in each chapter. Where there are enough tokens to warrant statistical analysis, inferential statistics are provided. The data has been compiled using the statistical software R from: https://www.r-project.org/. Once all the data has been entered into R, it is then processed through the computer software: Rbrul (Johnson 2009; http://danielezrajohnson.com/Rbrul/R). This software allows for cross tabulations and a factor-by-factor analysis of the data. The multiple

logistical regression analysis can "quantitatively evaluate the influence of multiple factors on variation" (Stamp et al 2014).

3.5 Normalisation techniques

The normalisation procedure is essential in the analysis process of a sociolinguistic study. The procedure and method used to normalise the data depends on the objective and method of the study in question. This section describes an evaluation of the procedures, along with a pilot study in which I tested my own samples against some of the methods and formulae put forward by previous researchers.

As listeners, we account for many physiological differences between speakers and concentrate more acutely on the accent than is initially achieved by computer models. Morrison and Nearey describe why researchers normalise data:

> Vowel normalisation procedures seek to remove inter-speaker variance due to factors such as vocal tract size, which human listeners discount when identifying vowels. (2006: 94)

The sociolinguistic differences between groups are better evaluated when the anatomical or physiological elements of speech are removed (Adank 2003). The vowel normalisation process, according to Adank, is defined as a "transformation of the acoustic representation that aims at minimizing

the acoustic consequences of anatomical/physiological speaker related sources of variation" (2003: 3). In this sense, any sociolinguistic variation can be retained while biological differences can be eliminated. For example, a gender-based study where the differences between males and females are examined should be evaluated on the gender norms of the society not on the assumption that females may have smaller vocal tracts than males (Labov 2001: 157-158).

The duty is on the researcher to assess their own research objectives and data to choose a fitting normalisation technique (Flynn 2011; Thomas 2004). Flynn explains that the techniques are usually classified depending on whether they are "vowel intrinsic or extrinsic, formant intrinsic or extrinsic, speaker intrinsic or extrinsic, or a combination of these six categories" (2011: 3). My objectives for this project are one of a study which includes phonetics and sociolinguistics. I examined a range of different vowels realised by many different speakers. Holmes-Elliott (2015) undertook a similar study which concluded that variationist studies were best normalised using this combination:

> "- Vowel extrinsic: they are calculated with reference to the formant measures of other vowels
>
> - Formant intrinsic: without reference to the other formants for that particular token

- Speaker intrinsic: tokens are normalised with reference to that particular speaker's vowel space and not the vowel spaces of the entire sample" (2015: 66-67)

The three formulae which would encompass the arrangement above (vowel extrinsic, formant intrinsic and speaker intrinsic) are the Lobanov method (Lobanov 1971), Nearey 1 method (Nearey 1978) and the modified Watt and Fabricius method (Fabricius et al. 2009). I have tested these three methods with two of my speakers from the IoM to see which would best suit my data. The data was run through the online NORM suite (Thomas and Kendall 2007) which uses the formulae as follows:

(1) ***Lobanov*** - $F_{n[V]}{}^{N} = (F_{n[V]} - MEAN_n)/S_n$

(2) ***Nearey 1*** - $F^{*}_{n[V]} = \text{anti-log}(\log(F_{n[V]}) - \text{mean}(\log(F_n))$

(3) ***Watt & Fabricius*** - $S(F_1) = (BEET_{F1} + BAT_{F1} + SCHOOL_{F1})/3$
$S(F_2) = (BEET_{F2} + BAT_{F2} + SCHOOL_{F2})/3$

Two speakers were used for this pilot examination; Essa James (Female, 15 years old) and Andrew Teare (Male, 75 years old). Tokens for the TRAP/BATH/PALM and START vowels were compared using the three methods above. The results were as follows:

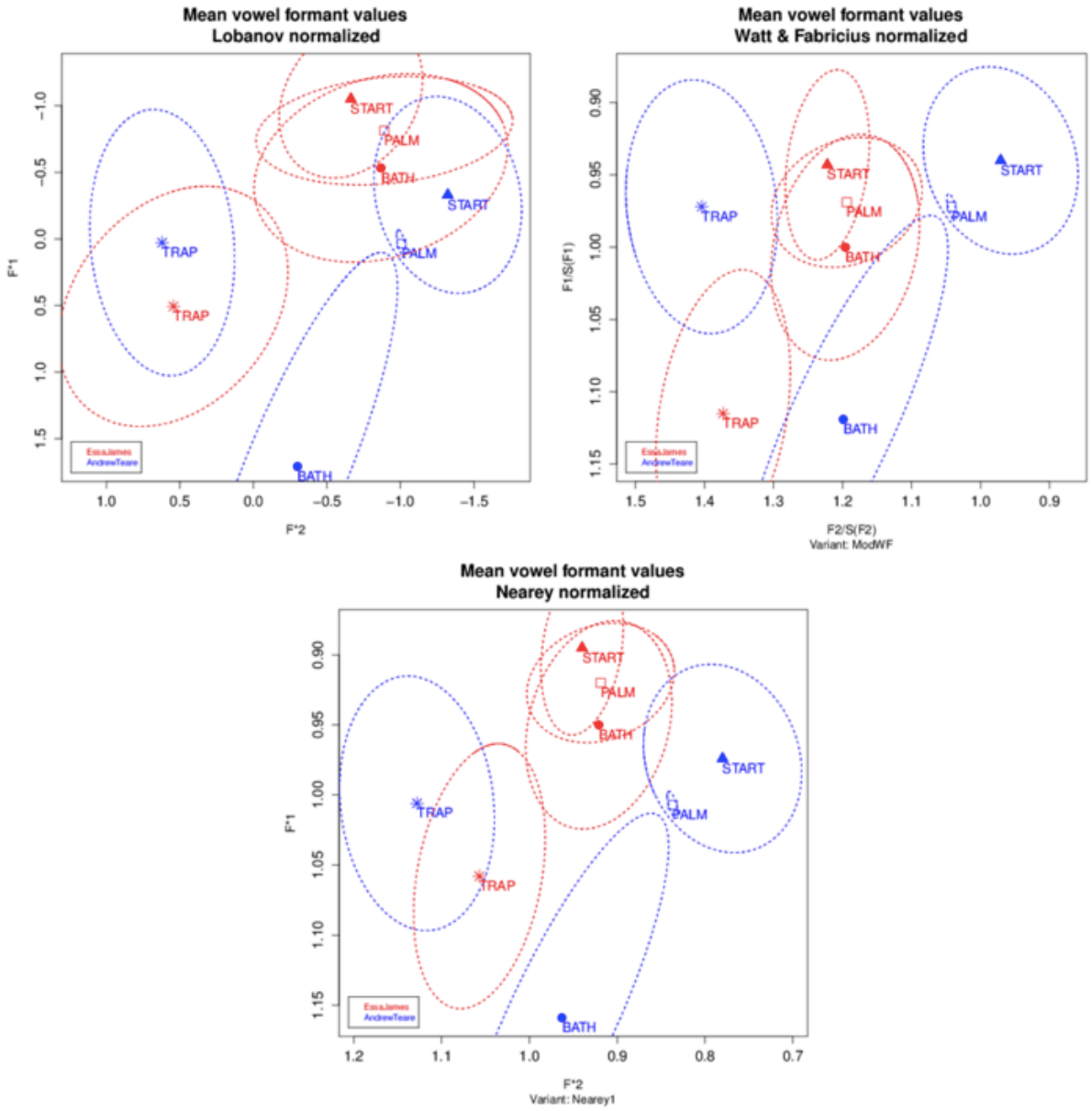


Figure 10: Comparison of normalisation methods for formant values for Essa James and Andrew Teare

As can be seen in figure 10, the biggest overlap in the vowel means (plus standard deviation) is within the Lobanov method, particularly within the TRAP and START vowels. These overlaps would suggest that this may be the best method for my data. The Lobanov method was judged to be the 3rd

best method (out of 20) in the overall results in Flynn's 2011 data. Flynn comments that the Lobanov method performed "considerably better than the majority of the procedures tested. Its existing widespread use in the sociolinguistic world is, therefore, warranted" (2011: 23). In Adank's (2003) paper, the Lobanov method was considered to be the best for that data set, although Adank did not include the Watt & Fabricius method for the analysis of that data set. Another advantage for me using the Lobanov method was that it was the normalisation method which was used by Ferragne and Pellegrino's (2010) study which compared vowel formants of British vowels. I directly compared my results to Ferragne and Pellegrino's paper in some sections (see Chapters 4 and 6). Therefore, using the same method would make the data more comparable.

In conclusion, the results of the tests and the analysis of previous research pointed me in the direction of using the Lobanov (1971) method of normalisation for my IoM data.

3.6 Handling the observer's paradox

The common idea that the appearance of an outside eye, be it an observer or a tape recorder, can affect natural speech has influenced the methodology of sociolinguistic interviews for many years (Gordon 2013). The 'observer's paradox' (Labov 1972) revealed how the presence of an interviewer influences the production of 'naturally-occurring' human interaction. Labov presents the problem that:

> [T]he aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed, yet we can only obtain data by systematic observation (Labov 1972: 97)

There are many different methods that researchers use to mitigate the influences of the observer's paradox. Labov suggested that researchers should attempt to make their participants forget they are being observed. The 'danger of death' question asked speakers to recall an incident of fear in their lives (Labov 1972: 93); this would hopefully distract participants into slipping into 'natural speech'. I did not use this technique as I had questions and prompts from previous research. As mentioned in 3.3.1, I attempted to hide the recorder among other similar looking objects (TV remote, mobile phone etc.). I hoped that speakers might forget the recording process and speak more naturally.

Researchers often use local people to conduct the interview so as to create a more natural environment for the participants. One reason is that it may be easier to find more participants as an insider of the community (Edwards et al. 1984). Also, researchers use insiders as they believe it will again mitigate the observer's paradox and help the speakers to be more relaxed when using vernacular (Edwards et al. 1984). Fortunately, I have close connections with many people from the IoM and was therefore able to use these associations to form networks (I am married to a Manx person). However, I am not from the IoM; I come to the participants with

a clear Welsh accent and I often produced Welsh cakes for us to share during the interview. I aimed to be considered as an outsider but to share some common values and ideologies. When asking the question of what nationality the participants felt they were; the majority answer was 'Manx, not British'. In this sense they perhaps felt a connection to the other Celtic nations of the British Isles who may also feel more Welsh or Scottish than British (Fenton 2007). As such I can act as an outsider and an insider.

There are some researchers who believe that the observer's paradox is not necessarily a bad thing. They believe that observation can bring out a kind of 'performance speech' (Schilling-Estes 1998). This speech can "constitute rich symbolic texts that are subject to multiple interpretations and provide insight into the culture being studied" (Monahan and Fisher 2010: 363). Schilling-Estes also investigated speech performance in Ocracoke. Findings of people who were conscious of their vernacular were that:

> [P]erformance speech may further our understanding of issues related to speaker perception of dialect variants (1998: 77)

Monahan and Fisher (2010), Gordon (2013) and Schilling-Estes (1998) all argue for the positives of the observer's effects on participants' speech. If the observer is seen as an outsider, informants will produce speech that they want the outside world to hear.

My initial aims are to record the variety of English being spoken by Manx people on the IoM. Gordon (2013) believes that the recorder enables

participants to demonstrate their identity. If the identity that Manx people wish to portray is of a certain speech pattern, then that is what I wish to record. I am not the only outsider to speak to Manx people and if the situation dictates that they are modifying their speech to talk to me, then they are probably modifying their vernacular to converse with others. Searching for the optimum natural speech is sometimes a lost cause for linguists (Schilling 2013a: 114) as the fundamental issue of whether there is such a thing is questioned. The variation within a speaker's repertoire has therefore become a focus for researchers (Schilling 2013a). Dialects interacting if different situations are valuable resources to analyse.

4 Vowel Lengthening to /æː/

The first two variables ('Vowel Lengthening to /æː/' and 'Simplification of Consonant Clusters') I have labelled as features which may be subject to levelling. This section describes the feature of vowel lengthening. I discuss why this feature was chosen, what the past research tells us, the history of this feature on the IoM and the objectives met when analysing this feature.

Before describing the definition of vowel lengthening and the past research on this variable, I will give an account of the 4 main lexical sets associated with this chapter. The TRAP, BATH, PALM and START lexical sets are essential in the discussion of vowel lengthening for /æ/ on the IoM.

TRAP

The TRAP vowel is traditionally called the 'short A' and is derived from Middle English short /a/ (Wells 1982: 129). The underlying representation of TRAP in RP is usually displayed as /æ/ as it lies between cardinal vowels 3 and 4 (Wells 1982). The surface representation could be anywhere from [æ] to a more open [a] (which is more regular in the north of England especially) (Wells 1982). Typical spelling for words within the TRAP lexical set are:

> tap, cat, back, batch, gaff, math(s), mass, dash,
>
> cab, mad, rag, badge, have, jazz,
>
> ham, man, hang, shall,
>
> scalp, lamp, ant, hand, thank, lapse, tax,
>
> arrow, carriage, banner, abbey, tassel, cancel, panda,…;
>
> plaid. (Wells 1982: 130)

Importantly, the TRAP vowel is usually short rather than long, and it is more fronted than the longer and less fronted BATH /ɑː/ vowel.

BATH

The BATH lexical set is composed of words with the vowel sound /ɑː/ being realised. It is differentiated from the TRAP vowel in both quality and length. The eighteenth-century TRAP-BATH split involved a two-step

process; first, the original surface forms of [a ~ æ] were lengthened to form [aː ~ æː]; then later, the realisation became more backed to [ɑː] (Wells 1982). According to Wells (1982), the TRAP-BATH split came about due to lexical diffusion. This may be the reason why some words in modern RP are realised using the TRAP vowel and some using the BATH vowel; even though their direct phonetic environment is similar (e.g. "in RP, in the environment _s#, we have /ɑː/ in *pass*, *glass*, *grass*, *class*, *brass*, but /æː/ in *gas*, *lass*, *morass*, *amass*" (Wells 1982: 232)). There are many words in the BATH or TRAP lexical set that are difficult to predict based on phonetics alone. This is because the split in RP is only a "half completed sound change" (Wells 1982: 233).

The use of /ɑː/ is very different in the north and south of England due to the TRAP-BATH split being incomplete. Wells (1982) uses the terms 'flat A' and 'broad A' to describe these differences. In this context, a broad-BATH accent would realise words in the BATH lexical set similar to words in the PALM lexical set (long /ɑː/; see below). A flat-BATH accent would realise the same vowel in some words in the BATH lexical set as in the TRAP lexical set. Therefore, we could say that RP has a broad-BATH accent and northern English has a flat-BATH accent. The typical spellings for words are presented below in three sections ((a), (b) and (c)); according to Wells (1982: 134-135), words in section (a) would be realised with [ɑː] in a broad-BATH accent while the flat-BATH accents would use the same vowel in the TRAP lexical set [a ~ æ]. The same variant would be the realisation by flat-BATH accents in (b), while a broad-BATH accent may sometimes use the

same vowel from the TRAP lexical set in these words. The words in (c) however are realised using [ɑː] by both flat and broad-BATH accents.

(a) Staff, giraffe,

path, lath,

brass, class, glass, grass, pass,

raft, craft, graft, daft, shaft, aft, haft, draft,

clasp, grasp, rasp, gasp,

blast, cast, fast, mast, aghast, last, past, contrast, vast, avast,

ask, bask, mask, flask, cask, task,

after, rafter, Shaftesbury,

master, plaster, disaster, castor, pastor, nasty, disastrous,

basket, casket, rascal,

fasten, raspberry, ghastly, castle,

laugh, laughter, draught;

(b) dance, advance, chance, France, lance, glance, enhance

prance, trance, enhance v.,

grant, slant, aunt, chant, plant, advantage, vantage,

chantry, supplant, enchant

branch, blanch, ranch, stanch, stanchion,

demand, command, remand, slander, chandler,

commando, Alexander, Sandra, Flanders,

example, sample,

chancel, chancellor, France, Francis, lancet, answer;

(c) calf, half, calve, rather, Slav,

shan't, can't,

Iraq, corral, morale, Iran, Sudan, banana. Wells (1982: 135)

These differences along with further explanation of vowel lengthening will be described in section below.

PALM

In RP, the vowels in the PALM lexical set "belong phonetically with START (and BATH)" (Wells 1982: 142). Therefore, the words below are realised using a long, open, unrounded vowel; it is positioned between the back and central vowel space and represented phonemically as /ɑː/ (Wells 1982: 158). Words in this lexical set would be realised with /ɑː/ by most speakers in British English (apart from some regional exceptions). Wells describes the words in this lexical set as "unusual and difficult to circumscribe" (1982: 143), the words are:

> No more than a handful of really common everyday words belong to it unambiguously e.g. *father*. Most of the PALM

> words are recent borrowings from foreign languages in which the foreign [a]-type vowel is rendered as the PALM vowel, e.g. *sonata* (Wells 1982: 143)

A list of possible words in this category proposed by Wells (1982: 144) are:

> calm, balm, psalm, alms, father,
>
> bra, ma, pa, mamma, papa, aha,
>
> ah, ha(h), blah, hurrah,
>
> baht, Bach, façade, couvade, roulade, raj, taj,
>
> salaam, Brahms, Khan, Afrikaans, kraal, Transvaal, Taj Mahal,
>
> spa, Shah, Pooh-Bah, Armagh, schwa,
>
> cantata, inamorato, legato, sonata, staccato, pizzicato, Lusaka, Karachi,
>
> Dada, bravado, incommunicado, Mhadi, Mikado, laager, lager,
>
> Zhivago, (maha)rajah, kava, guava, Java, Swazi,
>
> baa, bah,
>
> Koran, khan, Pakistan, Shan, chorale, rationale, locale,
>
> khaki, pasha, Nazi,
>
> Colorado, enchilada, Nevada, aubade, lava, palaver, plaza,
>
> Almond, drama, pajama/pyjama, panorama,

Ghana, nirvana, sultana, soprano, piranha, Bali, final

START

Sharing similar phonemic properties with the words in the PALM lexical set, START is seemingly easier to phonetically describe. Again, the underlying representation is /ɑː/. The START vowel is derived from Middle English /ar/ and the Pre-R Lengthening rule. This rule states that V(vowel) -> lengthened / _r {C, #} (Wells 1982: 201). For non-rhotic accents the R-Dropping rule would apply before the Pre-R Lengthening rule which states that r -> ø / _ {C,#} (Wells 1982: 218). The spellings for words in the START lexical set are *ar* and *arC*. Below is a list compiled by Wells (1982: 158-159) to show general spellings:

far, star, bar,…;

bazaar, Saar,

sharp, part, bark, arch, scarf, farce, harsh,

garb, card, large, carve, parse,

farm, barn, snarl, Charles,

party, market, marvellous,…;

heart, hearken, hearth,

sergeant,

aardvark,

sari, Bari, safari, cascara, curare, Mata Hari, aria, scenario, Sahara, tiara

4.1 Introduction to vowel Lengthening

The term adopted by this thesis of vowel lengthening refers to the process of elongating the duration of typically short vowel sounds. For example, the pronunciation of the vowel in the word *dad* may typically be much shorter than the vowel in the word *palm*. The term was adopted from previous MxE research; Hamer (2007) used the term to describe the short vowels which are most predisposed to being lengthened in MxE. The vowels subject to lengthening include /ɛ/, /a/ and /ɒ/ to form /ɛː/, /æː/ and /ɔː/ (Hamer 2007). The 3 vowels are not subject to the same lengthening process, but it can affect the rhythm of speech (Hamer 2007). For this thesis, only the lengthening from /a/ to [aː ~ æː] will be investigated. This was because of discussions with Andrew Hamer (personal communication 2015) and looking at what my participants had noticed themselves. Compared to the other potentially lengthened vowels, /æː/ seems the most noticeable to participants and also it was the vowel to yield the most numerous tokens. This section describes the process of lengthening /æ/ to [aː ~ æː] in the context of other accents and will then discuss the previous research on the IoM.

When discussing the TRAP and BATH vowels' realisation in English in Britain; the most prominent factor is the division this feature holds between the north and south of England. In the debate of the so-called TRAP-BATH split (Wells 1982: 353) the IoM stays rooted within the Northern boundaries. The short underlying representation of /a/ in BATH words, such

as *path* and *last*, is followed by most MxE speakers (Pressley 2002; Hamer 2007). However, a traditional and quite "important process" (Hamer 2007) of MxE is of vowel lengthening from /a/ to [aː ~ æː]. It is notable that, in the south east of England, the BATH vowels are longer in duration than their TRAP counterparts; however, the vowel quality itself can be very different. In the South East, the more backed /ɑː/ is used within BATH words. MxE however, retains a Northern /a/ but lengthens it to [aː ~ æː] to give rise to this unique process.

The accents in the north of England have not undergone the process of the TRAP-BATH split, therefore the vowel is short in both these lexical sets. The accents of the North include a longer /ɑː/ vowel in words in the PALM or START lexical sets (see above) (Wells1982; Hughes et al. 2005). The lengthening and backing of the /a/ vowel are said to have been a development of the 17th and 18th centuries (Beal 2004). Kettig (2016: 1) refers to the split at this time as "primary /æ/ lengthening", whereby the south of England began to differentiate between the vowel in TRAP and BATH words.

The table below demonstrates the distribution of vowel sounds among different accents of English within the lexical sets BATH, TRAP, PALM and START.

Table 16: Distribution of /a/ in differing varieties of English, adapted from Piercy (2011: 156)

One Phoneme Dialects	
/a/ TRAP, BATH, PALM, START	Scottish English Northern Ireland English
Two Phoneme Dialects	
/a/ TRAP, BATH /aː/ START, PALM	Northern England English Welsh English South western England English
/a/ TRAP /ɑː/ BATH, PALM, START	RP South east England English

Looking at northern England English, the BATH~TRAP vowels are the same in terms of vowel length (short); as are the vowels in the START~PALM lexical set (lengthened). Comparing this to southern England English, we see that the vowel quality is further back for START and PALM, while the vowel length is different for the BATH vowel. MxE would be expected to follow the patterns of the North. However, as will be seen later, the distinctive pronunciation is that the realisation of BATH and TRAP words are the same quality as the table above for the north of England (Underlying representation of /a/) but the same length as the START, PALM vowels in the North (BATH, PALM and START in the South). MxE is not the only accent to display signs of vowel lengthening to [aː ~ æː] as will be discussed in the section below.

Previous reports on vowel lengthening in the accents in England are twofold; first, research from areas where the BATH~TRAP (south east England English) split is evident; and second, where it is not (south west England English).

Starting with the south east of England, the research focuses on what Kettig (2016: 1) calls 'secondary /æ/ lengthening'. Previous research in this area has not been extensive, and Kettig collates a few thoughts from researchers who describe the lengthening process of the short /a/ vowel in some TRAP words. The list of words where elongation is present was judiciously described by Kettig as an "ill-defined subset of words" (2016: 1). Most researchers in this locality agree that lengthening can occur preconsonantally before [b d g dʒ] (Jones 1972: 235; Cruttenden 2001: 111; Wells 1982: 288). However, Jones (1972) states that the lengthening in this situation can only be in adjectives before the above consonants (but also in the words *that* and *back*). Wells (1982: 288) differentiates between the words *bad*, *glad*, *bag* (pronounced with longer /aː/ vowel) and *cad*, *dad* and *fad* (realised with a shorter vowel) but without an explanation of why. Apart from Kettig (2016), the past research does not display statistically supported evidence of vowel lengthening in RP or SSBE. The findings of Kettig's own research was that "there was inconclusive evidence for a lexically specified split" (2016: 1). The south east of England research shows that vowel lengthening of TRAP words is occasionally evident but may be due to individual differences rather than a prescribed set of rules that a locality can follow. With relation to MxE, the subset of words and rules do not match up with the description of previous IoM data (see

below). Also, MxE never went through the primary /æ/ lengthening process (as described earlier), and therefore there may be different reasons for MxE vowel lengthening.

The other area of the British Isles that has had some coverage in terms of vowel lengthening is the south west of England (Piercy 2011; Blaxter and Coates 2019). The linguistic context whereby lengthening can occur in TRAP words is extended in this dialect to: word initial and medial before the consonants mentioned above as well as [f s n θ m d] (Piercy 2011: 161). The difference between BATH and TRAP words in the South West is unclear in terms of both vowel quality and length (Hughes et al. 2005: 62; Wells 1982: 345). Piercy (2011) found that there are more environments where vowel lengthening occurs in Dorset than in SSBE. However, the vowel quality between TRAP and BATH seems to be becoming more distinct in younger speakers; therefore, they are following the SSBE pattern (/a/ for TRAP and /ɑː/ for BATH) (Piercy 2011: 159-160). The reason given for the use of longer /æː/ in the south west of England was because of post-vocalic /r/. In areas where post-vocalic /r/ is preserved, the duration difference between START, PALM and BATH and TRAP may not be much at all. This is because the difference is only highlighted between the use or non-use of [ɹ] (Kurath and Lowman 1970: 19). These are interesting findings; however, they may not be directly relatable to MxE. Unlike some accents in the south west of England, the IoM accent is not rhotic and therefore would not have post-vocalic /r/ in START words. Therefore, the most reliable comparison to MxE vowel lengthening would only be able to come from past research on the IoM.

4.1.1 Past research in Manx English

To begin chronologically: the SED collected instances of /æ/ lengthening, as Barry describes; "[l]engthening [æː] is quite common, especially before nasals" (1984: 169). He goes on to say that because of lengthening and off glides; the division between [æ] and [æː] is often obscure. Barry (1984) does not include any quantitative data in his analysis of this feature but describes the process as "common" and "frequent" (1984: 169); thus implying this feature was a prevalent one. From the SED data, Barry (1984) talks about off glides for the underlying representations for both /ɛ/ and /a/ implying that vowel lengthening is something he noticed. Regarding vowel quality, the realisation [a] is not mentioned. With words relating to the BATH or TRAP lexical set, [æ] is used. In terms of lengthening, Barry (1984: 169) recognises that MxE has much overlap and 'blurring' between [æ] and [æ:]. The table below summarises the variants recorded in the SED. It shows all realisations of words that fall in the TRAP or BATH lexical set as outlined above: words include *snack*, *laughing*, *ash* and *ram* (full list found in appendix 5).

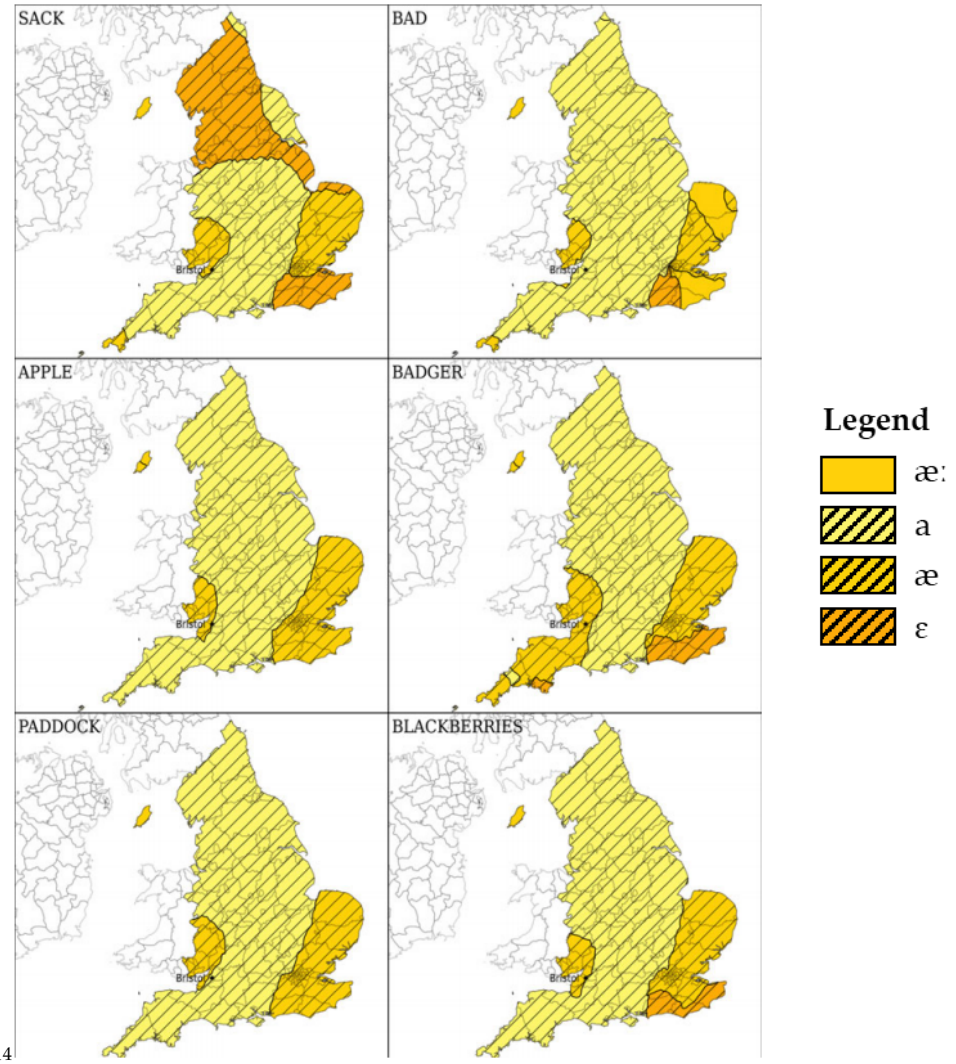
	Location 1	Location 2
a	0	0
æ	19	32
æ̝	18	13
æ·	8	6
æ̝·	40	3
æː	4	4
æ̝ː	6	0
æᵊ / æ·ᵊ / æ̝ᵊ	0	7
ɛᵊ / ɛ·ᵊ	3	35
ɑ̈ː	1	0

Table 17: Allophonic variation and number of variables of BATH and TRAP words from the Survey of English Dialects

After recording the variants from all BATH and TRAP words in the SED it is easy to see the extent of the vowel lengthening Barry recorded. The red line in table 17 above, indicates where the vowel is distinctly short or long. Over half the BATH and TRAP words in the SED were recorded as 'long ([æː])', 'half- long ([æ·])' or with an 'off glide ([æᵊ])' (Barry, 1984). Therefore, the percentage of short realisations was 41% to 59% of long realisations of BATH and TRAP vowels.

In Table 1 (section 1.3.3.1 – displaying the vowel consonant systems of MxE), Barry records the separate phonemes of /æ/ and /æː/. The allophones of these phonemes can be seen in the table 17 above. It is also worth noting that Barry did not record the short variant as an expected [a]. This was the

recording from other researchers for the other northern English variants. The two figures below display the difference in pronunciations of BATH and TRAP words from the SED in England and on the IoM:



14

Figure 11: Realisations of TRAP words in the SED (adapted from Blaxter and Coates 2019: 10)

[14] The legends refer to the different weights of each variant in that location and the number of tokens recorded for these words (for more information see Blaxter and Coates 2019: 9).

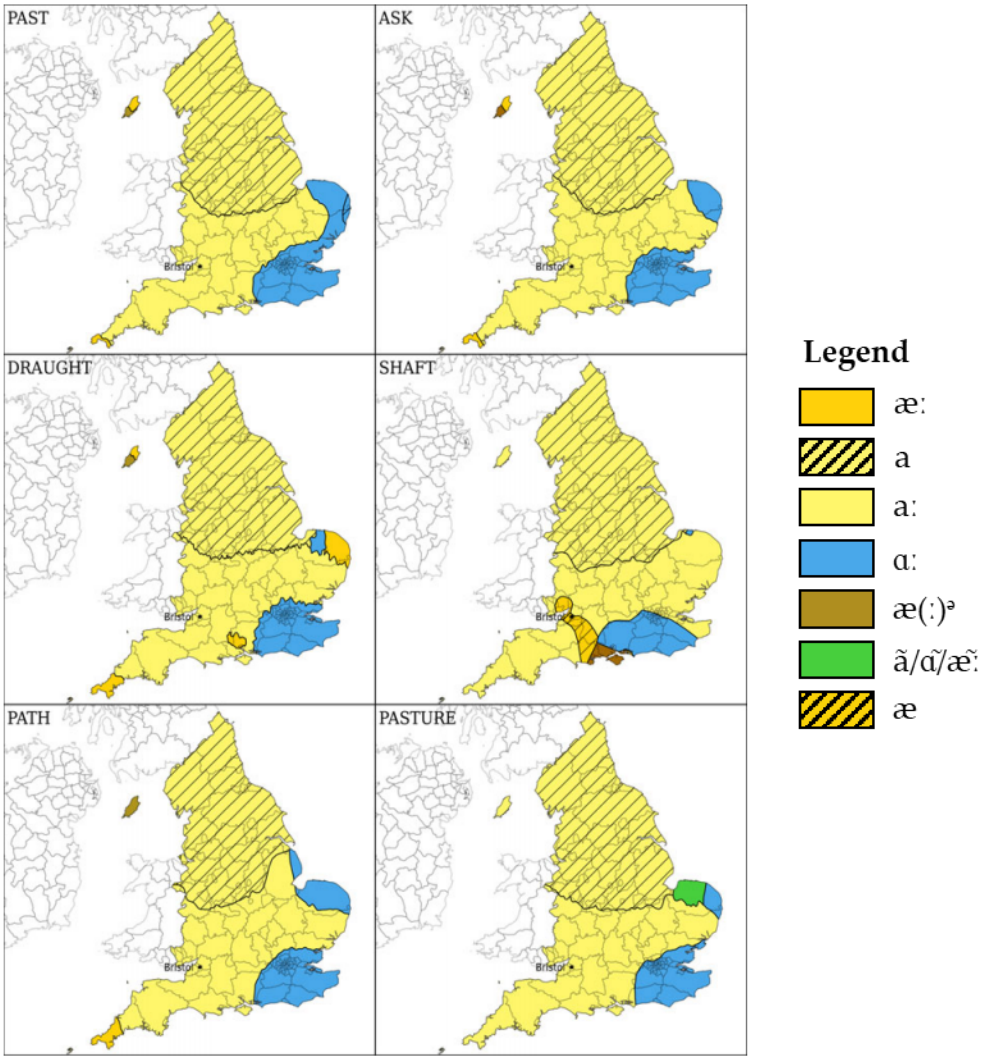


Figure 12: Realisations of BATH *words in the SED (adapted from Blaxter and Coates 2019: 11)*

Figures 11 and 12 above display the differences in MxE and vowel realisation of some BATH and TRAP words. As can be seen in the TRAP words (figure 11), the realisation of [æː] is quite rare, being found on the IoM and small areas in the north of East Anglia and Kent only (in light brown in the figure above). For TRAP words, most of England preferred a

shorter vowel sound. Within the BATH lexical set (figure 12), words in the north of England were realised with a short [a] vowel; in the south west of England you might find a longer [aː] vowel; in the South East the majority realisation was a long backed [ɑː]. However, within this set, the IoM preferred [æː] (the same as the TRAP vowel) or an off glide long [æ(ː)ᵊ]. The difference between many Northern areas and Mann is quite clear from the SED data. Present data from the IoM showed quite different results.

From the 'Recording Mann' data, Pressley (2002) also looked at lengthening of /æː/ in the research in 1999. Pressley found that only older men used this feature. The overall percentage of instances was around 12% in BATH and TRAP words. The usage has dropped since the SED (59% to 12%) but the feature was still used in 1999. The most common realisation of BATH and TRAP words for Pressley's speakers was [a], while there was a very small percentage of the south east variant of [ɑː]. This research also suggested that the vowel lengthening feature was not acquired by the younger generations in this data set. Only one 'boy' used the lengthened [æː] variant, and only on one occasion. In the older group, [æː] was realised around 12% of the time, and only by men (Pressley 2002: 212). Therefore, Pressley concluded that the feature was only used by older male speakers in this dataset. Hamer (2007) supports the notion that younger people were not using this feature.

In terms of the linguistic environment, Hamer provided certain rules that may apply to vowel lengthening in MxE; they are as follows:

- /e/ and /a/ are lengthened before voiceless and voiced stops e.g. *gap; wet; sexton, back; glad; eggs, bag*

- /e/ and /a/ are lengthened before voiceless and voiced fricatives e.g. *nephew, after; west, last; seven, haven't*

- /e/ and /a/ are lengthened before nasals e.g. *remember, dams; fence, anvil*

- /e/ and /a/ are lengthened before approximants e.g. *twelve, pals, buried*

Adapted from Hamer (2007: 173)

The phonetic environment is not limited to just a few situations as Hamer is pointing out. Therefore, in the past /æ/ lengthening was not confined to just one subset of words and not confined to a limited number of phonetic positions. It will be necessary to explore whether the use of lengthening in my own data is limited to a subset of words or a certain phonetic environment.

In conclusion, this feature is one that has been highlighted as a potential for dialect levelling (see section 2.2.1). From research in other localities we

can see that it is a unique feature for the IoM as it does not follow the patterns from other localities. Also, this feature was not found in the speech of younger speakers in 1999 and therefore may not have carried on through the generations.

4.2 Rationale

I have identified vowel lengthening to /æː/ as a feature that could be subject to levelling because of previous research presented in Chapter 2. As can be seen from table 17 (variation of BATH and TRAP words from the Survey of English Dialects); the data shows high prevalence of vowel lengthening to /æː/ in Barry's research from the 1950s and 60s. Subsequently, the data collected in the 'Recording Mann' project showed a certain downturn in use of the [æː] allophone. However, vowel lengthening was still apparent among older males. Hamer also points to the possible obsolescence of this feature, noting that "[y]oung adults and children now rarely show vowel lengthening" (2007: 173). Nearly twenty years on from that data collection (Recording Mann), it is interesting to investigate whether this feature has been lost from the speech of younger speakers or is it still being used on the IoM.

Anecdotally, from my participants, vowel lengthening was demonstrated as being a salient feature of MxE. This claim was also found in many different subdivisions of society. The first excerpt is from a girl who is living away at a university in the north of England. She regularly travels

back and forth, and her friends from off the IoM noticed her accent (my own phonological interpretations are in square brackets [] and commentaries are added in brackets ()):

Extract 1

LUCY TAYLOR

Uhm a lot of people mention it when I go back (to university from the Isle of Man) they just think it's funny most of the time it's just when I say certain words and they're like th yeah they're like oh you've t you've reverted back to your Manx state

INTERVIEWER

what kind of words?

LUCY TAYLOR

uh it's uh I don't know uhm like uh 'book' [bʉ:k] and uh apparently, I say 'spoons' [spʉ:ns] really weird, like yeah uhm. And apparently the past couple of, uh the first couple of weeks, I came back from Easter I was accentuating my a's a lot like, so if I was saying, I was going 'last' [læ:st] and stuff like that, and they were like oh my god you've gone so Manx

LIZ TAYLOR (mum)

but that's what we say is 'last' [læːst]

Lucy Taylor (age 19) is demonstrating two of her own accent features that her friends identify as uniquely MxE. The vowel lengthening feature is in the word 'last' and is described by Lucy as being 'accentuated'. She demonstrates the word in a typical 'Manx accent' by using vowel lengthening ([æ:] in *last*). Her mother explains afterwards that is 'what we say'. Both Lucy and Liz are attesting to the fact that lengthening in the word 'last' is a natural accent feature for them that may be different for others.

Examples of the phenomena were not limited to the word 'last'. When describing to the interviewer what makes a MxE accent, I was also told:

Extract 2

JEMMA CLAGUE

(when describing her own accent) we eat pasties ['pæːs.tiːz] don't we

Also, from a separate interview:

Extract 3

ELLIE CAIN

(talking about why someone lost their Manx accent) but he reckons what happened to him he brought up in Douglas and if you said something like pasties ['pæːs.tiːz] in Douglas they all laugh at them

From the extracts above, the vowel in the word 'pasties' is lengthened. The word and therefore the vowel lengthening feature are used to exemplify an archetypal 'Manx accent'.

The other anecdotal evidence given by participants were three performance soundbites of the word 'wasp' (ˈwæːsp). They were demonstrated as a particular pronunciation of a word by 'Manx people', however the instances were all coded as a performed speech action (demonstrating to the interviewer) and therefore could not be included in the analysis of this feature. However, once again, the lengthening of the vowel was said to have been a typical feature that traditional MxE speakers may use. Previous research is suggesting the obsolescence of this particular feature; however, my own participants are signalling their own use of it. The hypothesis is that this is a feature that MxE speakers are using and that it is resistant to the levelling mechanism.

4.3 Research objective

The feature of lengthening has been chosen to address research aim 2 – To investigate features of MxE that may be lost.

To investigate levelling, the analysis of the data must:

- Examine the variable by age to assess the realisations over the age groups
- Compare the findings on lengthening of the previous two studies

- Examine the linguistic constraints in order to identify the patterning of vowel lengthening

4.4 Linguistic constraints

To investigate vowel lengthening to /æː/, the words which are situated in the BATH and TRAP lexical sets were analysed. As can be seen from table 16 in section 4.1 (Distribution of /a/ in differing varieties of English, adapted from Piercy (2011: 156)), the northern English pronunciation of the BATH and TRAP words are expected to be short while the vowels in the PALM and START lexical set are expected to be long. I used the PALM and START lexical set words as a control group to distinguish between what can be coded as a long or a short vowel (see 4.5 for more coding discussion).

Hamer (2007) explains that lengthening may happen before nasals, approximants, fricatives or stops. Barry (1984) recorded lengthening in his phonetic transcriptions, all found preceding the above consonant types as well as affricates (*latch, catch*). Therefore, all these constraints were included when measuring for vowel lengthening in the BATH and TRAP words. Barry also recorded the long [æː] allophone in word initial and medial position; the vowels in all word positions were included.

BATH, TRAP, PALM and START were extracted from the transcribed data. Each participant gave a minimum of 10 tokens. Sample words are outlined

above in the introduction to this chapter (see Wells, 1982 vol.1) (all extracted words for the four lexical sets can be found in appendix 6).

It is also worth noting that Hamer explains that "Where RP has /ɑː/ <ME /a/ + /l/ or /r/ many speakers have a fronted vowel [æː]: half, arm" (Hamer, 2007: 173). These words (half and arm) were included into the long category (PALM and START).

4.5 Analysis and coding

The analysis is composed of two separate sections. First, to discover the vowel quality, it was necessary to extract all instances of the BATH, TRAP, PALM and START words and to record the F1 and F2 frequencies (Full word list can be found in appendix 6). Second, the vowel duration was addressed for each of the lexical sets. Within the first section, the envelope of variation is focusing on the vowel quality: namely how fronted or backed the vowel sounds are in the BATH and TRAP words vs the PALM and START lexical sets. Therefore, the analysis discusses the difference between /æ/ or /ɑː/. As was seen in section 4.1.1, MxE speakers were differentiated from northern English speakers in the vowel quality as the speakers in the north were recorded as using [a] while on the IoM it was [æ]. The minimal pairs for these two allophones are difficult to utilise in English to show phonemic contrast. Barry (1984) recorded MxE phoneme to be /æ/. As I am testing for vowel lengthening, in this paper [a] and [æ] are presumed to be allophones of the phoneme /a/ in MxE. /a/ is therefore presumed to be

similar to the Northern pronunciations of BATH and TRAP words as it is not backed proportionately to the RP [ɑː] realisation.

It is the vowel quantity that will identify vowel lengthening on the IoM. It is expected that the vowel quality on the IoM will be fronted: similar to that of the north of England. Using the tokens which have followed this quality, I then focus on the duration of these vowels to distinguish whether there is lengthening of the fronted /a/ phoneme. The next section discusses more detail about the coding of the quality and quantity of the vowels in BATH and TRAP.

4.5.1 Vowel quality

The initial analysis of vowel quality was auditory (described in detail in section 3.4.1). Another researcher and I listened to each word containing a BATH and TRAP vowel and decided whether the vowel had more of a back or fronted quality. We essentially listened for either an RP sounding /ɑː/ or a more fronted /a/ vowel. Results were a 100% match between the two researchers.

There was also an acoustic analysis for vowel quality. Each token from the 4 lexical sets (BATH, TRAP, PALM and START) was extracted and concatenated into one sequence. For the formant values, the sequences were analysed in *Praat* (see section 3.4.2 for acoustic analysis method) to distinguish the F1 and F2 values (see results below) (Formant values were

taken at vowel midpoint). Formant values were normalised in the NORM suite (Thomas and Kendall 2007) using the Lobanov method (see section 3.5 for full analysis of normalisation procedures).

4.5.2 Vowel duration

For the vowel duration, the analysis was set up in a two-stage process in order to increase the criterion-related validity i.e. the concurrent validity (whether similar results would be present regardless of the analysis method). First, an auditory test was conducted by me and another phonologist on separate occasions and without any deliberation. This was carried out by listening to the occurrences of each word within the BATH and TRAP lexical set and deciding whether the vowel was long or short. The inter-rater reliability was high within this test as over 90% of vowels were recorded the same between the two researchers.

Second, for the acoustic analysis, calculations for vowel lengthening were obtained by first measuring the duration of each of the tokens in *Praat*. This gave the raw vowel durations, and these were then normalised to account for different speaker rates (see normalisation techniques in section 3.5). The method to discover speech rate was similar to the process proposed by Piercy (2011). Speech rate was calculated by extracting sample sentences from each speaker (containing the target vowel) and then dividing the number of syllables in the intonation phrase by the duration in seconds. The means of the syllables of sentences were then multiplied by the raw vowel length to give the normalised vowel duration. The

reason this was done was because some speakers may have quicker utterances compared to others; and therefore, may not have any comparably long vowels when contrasted with other participants. However, If the scores are individually normalised then it is clearer to distinguish between whether their vowel duration is longer or shorter within their own speech.

The START/PALM scores were used as a control group. To statistically differentiate between whether a vowel is long or short; I had to come up with a number which represented the cut off between long and short. The mean of the PALM/START normalised duration was 0.7955 ms, while the variance number was 0.0786 ms. By subtracting the variance from the mean of the PALM/START values I decided that a long vowel would have a value of above 0.7169 ms. The equation and chart below show the workings for the final long/short vowel dividing figure:

/æː/ = Normalised PALM/START duration mean – Variance

/æː/ = 0.7955ms – 0.0786ms

/æː/ = 0.7169ms

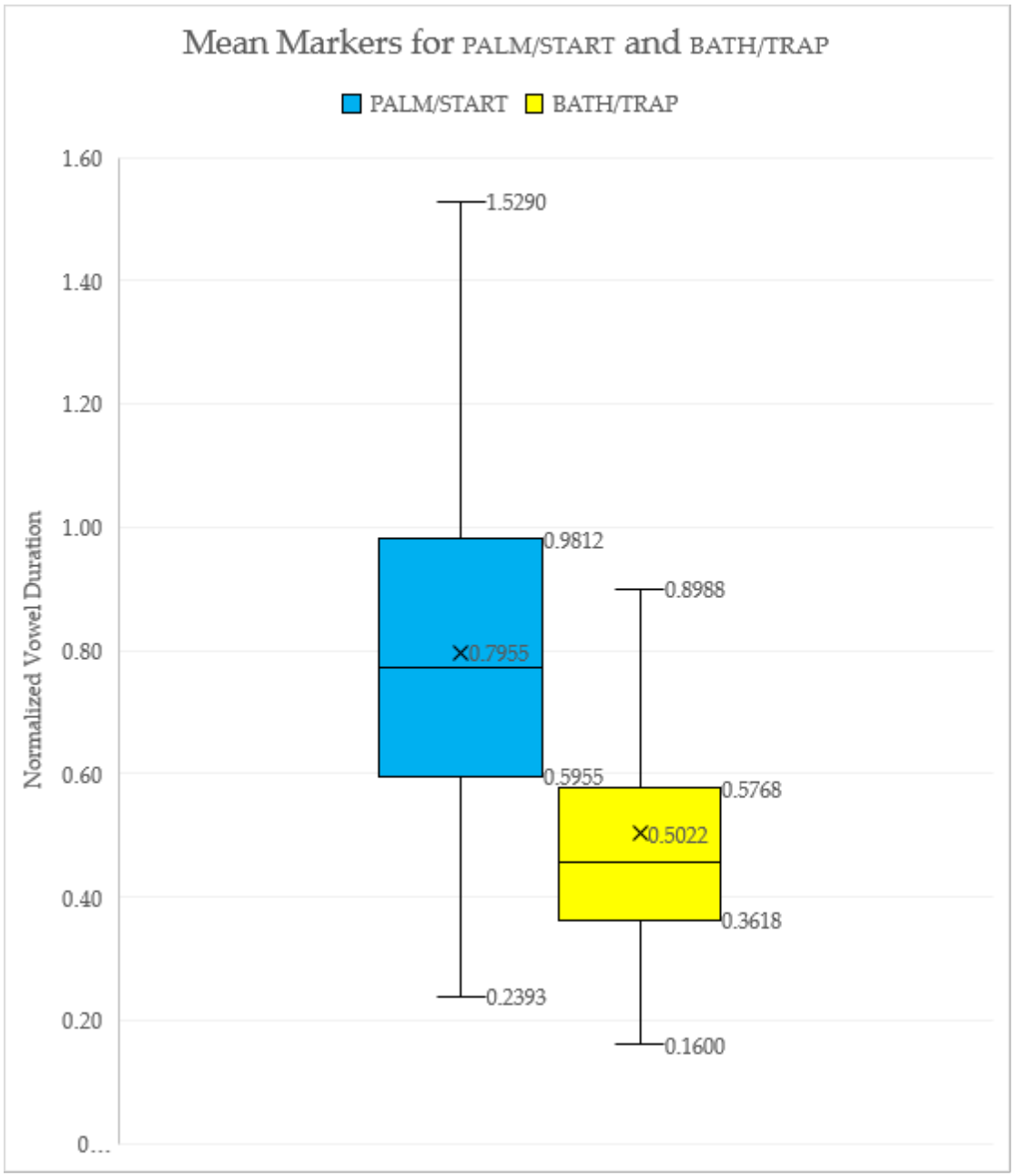


Figure 13: Mean Markers (in ms) for PALM/START and BATH/TRAP

I then extracted all the BATH and TRAP words over 0.7169 ms and analysed these for any linguistic and social constraints. Figure 13 displays the overlap between the PALM / START vowel length and the BATH / TRAP length using mean markers. There is some overlap between

the vowel lengths as can be seen. The results section will describe what the overlap represents in terms of the social and linguistic findings.

4.6 Results

The results presented below are in three parts. As per the variationist framework, the linguistic constraints found on the lengthened vowels are presented first (words recorded with /æː/ are presented in Appendix 7). Sections 4.6.2 and 4.6.3 then describe the 2 analysis methods which allowed me to categorise the vowels as long or short. These sections also include the social constraints.

4.6.1 Linguistic constraints of the lengthened Vowels

As discussed previously, Barry (1984) and Hamer (2007) mention many different word positions and phonetic environments where the long /æː/ can be used. Hamer (2007) states that vowel lengthening can be found preconsonantally before nasals, fricatives, plosives and approximants (only affricates are omitted from potential phonetic environments). Therefore, I tested for all these phonetic environments. The following table represents the phonetic environment where vowel lengthening was found (The process and justification of finding the lengthened vowels will be discussed in detail in sections 4.6.2 and 4.6.3). As can be seen in table 18, long /æː/ was found preceding plosives, fricatives, nasals and approximants, while not found before the affricates /tʃ/ or /dʒ/. This

finding is directly in line with Hamer's (2007) comments on the subject (see 4.1.1).

Table 18: Following phonetic segments after long /æ:/

	Following Segment	Number of long /æ:/	Total number of BATH/TRAP	% long /æ:/
Plosives / Stops	p	1	19	5
	b	1	3	33
	t	3	35	9
	d	18	56	32
	k	15	148	10
	g	1	10	10
	ʔ	4	6	67
Fricatives	f	5	39	13
	v	1	8	13
	s	19	109	17
	z	1	4	25
	θ	2	4	50
	ð	0	2	0
	ʃ	1	7	14
	ʒ	0	0	0
Nasals	m	17	73	23
	n	22	153	14

	ŋ	9	215	4
Approximants	ɹ	1	1	100
	l	2	18	11
	w	0	0	0
Affricates	tʃ	0	8	0
	dʒ	0	2	0

The preceding segments and vowel lengthening was also a factor and the breakdown was as follows:

Table 19: Preceding Segment and Number of Tokens Lengthened or Not

	Lengthened	Not Lengthened
Word beginning	6	45
Plosive	49	207
Liquid	38	200
Nasal	24	269
Fricative	5	67
Approximant	0	9
h	0	21

Table 20 below presents the instances of /æː/ and in which lexical set they were mostly found in. As can be seen, instances are split (relatively) evenly between BATH and TRAP words. This provides further evidence that there is little to split the BATH and TRAP vowel in MxE. The speakers are not discriminating between BATH and TRAP and use lengthening in similar amounts in both environments.

Table 20: Number and percentage of /æː/ realisations in BATH or TRAP words

BATH/TRAP	Number of instances of long /æː/	Total number of words	%
BATH	22	139	16
TRAP	101	802	13

In terms of the different lexical items, my initial expectations were that the long /æː/ variant was one which may be found in words about the IoM or related to the Island. Place names or IoM specific words were extracted to test this theory. The table below shows that this was not the case. Words such as *Braddan*, *Glen Chass* and *Mananan* were realised with a long /æː/ 100% of the time, but with only one or two instances of these words. Words with a higher number of tokens (e.g. *Manx* (and its derivatives), *Ramsey* and *Isle of Man* – 194, 25 and 22) had a lower percentage of realisation of /æː/ with 4%, 12% and 18% respectively (see table 21 below). This may suggest that vowel lengthening is in everyday use and is not simply fossilised into an IoM specific genre.

Table 21: IoM specific words and the instances of long /æː/

Word	Number of long /æː/	Total number of words	%
isle of man	4	22	18
manx (er/ie/man/ified)	7	194	4
ramsey	3	25	12
braddan	2	2	100
balla	0	10	0

glen chass	2	2	100
manannan	1	1	100
castletown	0	2	0
Laxey	0	8	0
macvanin	0	1	0
Total	19	267	7

Previous research in vowel lengthening had not investigated lexical frequency in great detail (Piercy 2011; Blaxter and Coates 2019). However, low frequency items can often yield slower vowels and therefore be perceptively longer vowels (Mousikou and Rastle 2015). Lexical frequency depends heavily on the corpus collected, and therefore can be difficult to replicate and design. I decided to analyse lexical frequency in two dimensions; first, by comparing the words that had yielded vowel lengthening to a national corpus; and second, to take all words into account and decide on high frequency and low frequency items based on the data collected here.

First, the words that included vowel lengthening were tested for lexical frequency through the British National Corpus (https://www.english-corpora.org/bnc/). It was found that 17 of the 50 different words with vowel lengthening were found to be low frequency words (not found within the top 200 words in the BNC by frequency). Therefore, the other 33 were considered high frequency. For example, words where this feature was found were: *bad*, *dad*, *after*, *laugh (ed, ing)*, *back*, *exam*, *fantastic*. In theory the 33 high frequency words would be more susceptible to being produced with a shorter vowel sound (according to Mousikou and Rastle's (2015)

theories presented above). This suggests that word frequency does not play a part in the vowel lengthening in MxE.

The second way to investigate lexical frequency was to focus solely on the items in the MxE data. In Hay et al.'s (1999: 1390) study of lexical frequency, they coded items as 'frequent' if "occurring five or more times in our small corpus" and 'infrequent' "occurring fewer than five times". Following this previous example; I coded all words occurring fewer than five times as low frequency items. The results of whether low or high frequency items were lengthened or not lengthened is displayed in the table below:

Table 22: High and Low frequency words and whether lengthening occurred (raw number)

	Lengthened	Not Lengthened
High Frequency Items	81	520
Low Frequency Items	42	298

As can be seen from the table above, the percentage of lengthened high frequency items was at 16% while low frequency items were lengthened 14% of the time. This shows very little differentiation between the two sets (statistical analysis is discussed in section 4.6.4).

Word class was investigated as a potential motivator for vowel lengthening. The table below displays the different word classes and which category allowed for the highest rates of vowel lengthening:

Table 23: Vowel lengthening and Word Class

Word Class	N	Number of Lengthened Vowels	% of Lengthened Vowels in Word Class
Noun	459	35	8
Proper Noun	162	32	20
Adjective	273	17	6
Verb	229	23	10
Adverb	119	13	11
Preposition	16	2	13

As can be seen the percentage of lengthened vowels in the different word class categories ranges from 0-20. Vowel lengthening is not preferred in one word-class over another, the relative stability suggests that [æː] realisation is possible in most word classes (statistical analysis for linguistic and social constraints are presented in 4.6.4).

4.6.2 Vowel quality

As aforementioned, the initial auditory analysis of vowel quality differentiated between hearing either a backed /ɑː/ or a more fronted /a/ vowel. The results were that just 2 of the 941 tokens in BATH and TRAP words were realised using the south eastern England English [ɑː] variant. An undisputed number between the two researchers showed a clear preference for the Northern variant by auditory analysis alone.

Second, I undertook acoustic analysis for vowel quality. The F1 and F2 values below show that the BATH and TRAP lexical set words are relatively similar overall. As can be seen below the BATH and TRAP realisations are very close to each other. This is characteristic of the northern English pronunciation.

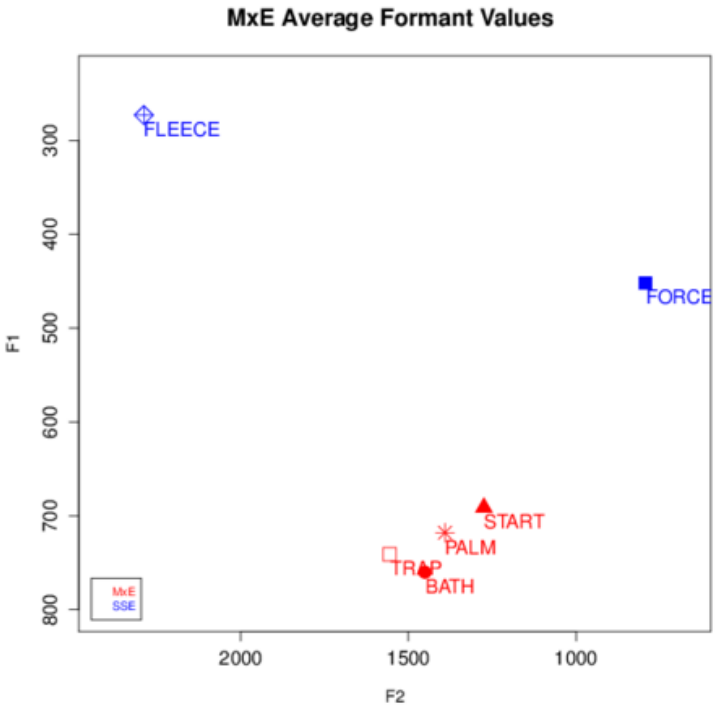


Figure 14: Average Formant values for BATH, TRAP, PALM and START words for MxE informants

Table 24: Average Formant values for BATH, TRAP, PALM and START words for MxE informants (SSBE formant values from Ferragne and Pellegrino (2010: 28))

Group	Lexical Set	F1	F2
MxE	BATH	760	1451

MxE	TRAP	741	1556
MxE	START	691	1275
MxE	PALM	718	1391
SSBE	FLEECE	273	2289
SSBE	FORCE[15]	452	793

The findings of Ferragne and Pellegrino (2010) were used to compare the formant values for all the BATH and TRAP words from MxE to other parts of the British Isles. As previously mentioned, I have used the same normalisation process as Ferragne and Pellegrino (2010) to make the findings more comparable. The British Isles data only tested for the START and TRAP vowels, therefore I have only included the same vowels from my own MxE data.

The (zoomed in) formant values in figure 15 (below) show the MxE comparison with other accents of the British Isles (see appendix 4 for formant values as per Ferragne and Pellegrino (2010)). The TRAP vowel for MxE is very close to the Southern Standard English vowel sound. However, the START vowel formant values are reasonably close to the TRAP

[15] The FLEECE and FORCE vowel formants (Ferragne and Pellegrino 2010) from Southern Standard British English have been added for perspective of the cardinal vowel chart (to better represent tongue position in the mouth).

F1 and F2 values; only north Wales and east Yorkshire had such similar START and TRAP values. Southern Standard English has very different START and TRAP vowels and the two are quite far apart in the figure below. Therefore, the two vowel sounds are quite distinct in Southern Standard English , but less so in MxE.

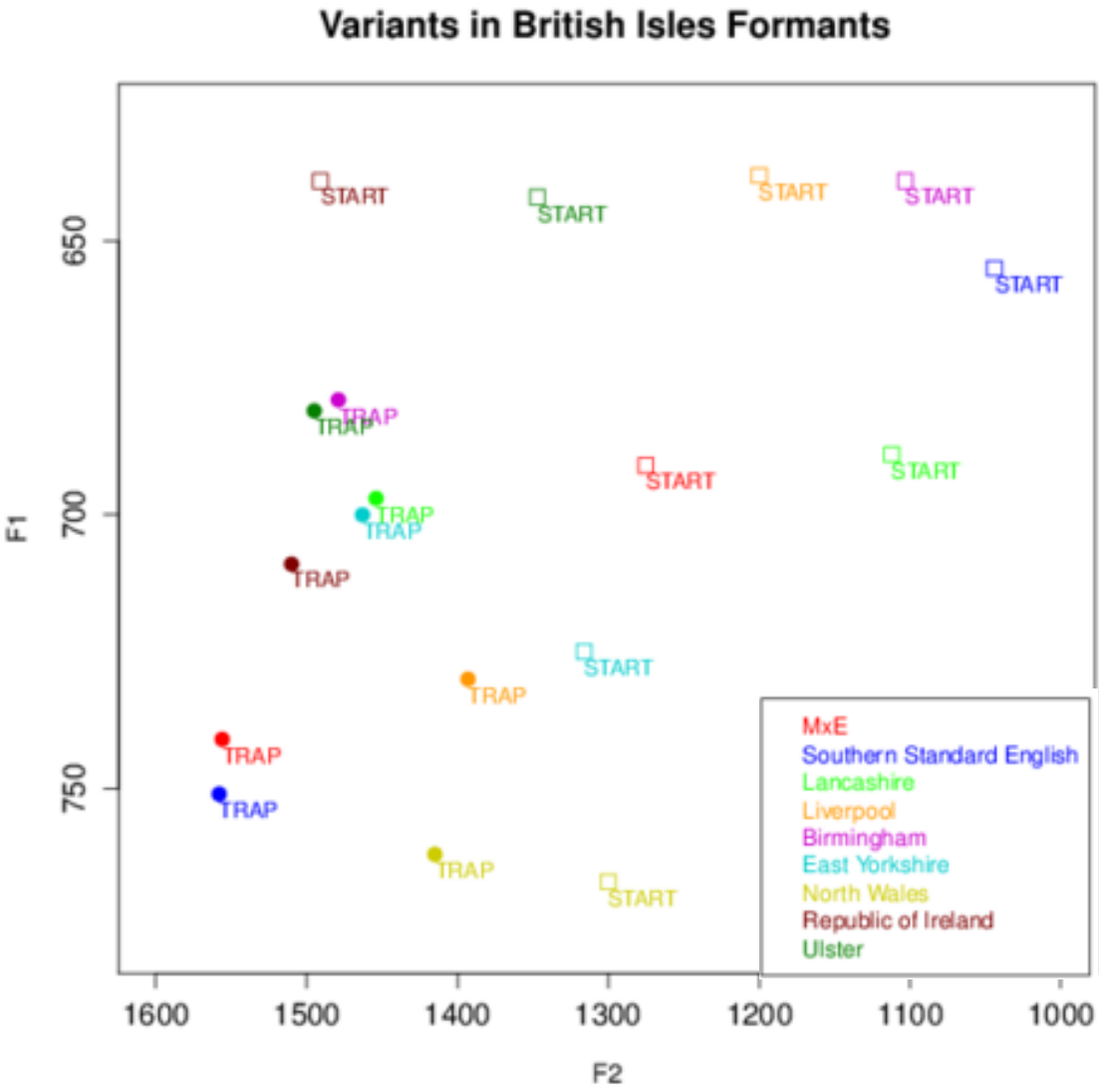


Figure 15: START and TRAP F1 and F2 values for different localities in British Isles, data from Ferragne and Pellegrino (2010)

When discussing the BATH vs TRAP divide, I compare the difference in the F2 values, the reason for this is because the F2 value measures how far front or back the tongue position is; therefore, deciphering whether there

is an /ɑ/ or /a/ vowel. The average F2 values can be seen in table 25 below, the values show the BATH and TRAP vowels for different age groups. The comparable vowel sound for SSBE has an F2 value of around 1044 for BATH and 1558 for TRAP (figure 15). MxE realises the BATH vowel further forward. For all the age groups we see a more fronted sound, therefore supporting the overall auditory analysis that the sounds were more like /a/ than /ɑ/.

Table 25: Average F2 values in the different age groups for BATH and TRAP vowels

	BATH (F2)	TRAP (F2)
Under 18s	1409	1475
Young Adults	1536	1563
Middle Adults	1432	1567
Retired Adults	1454	1577

It is important to investigate further into the age groups for variances and also to check for statistical differences. Below are the representations of F1 and F2 mean scores for the BATH, TRAP, PALM and START vowels for each individual by age group. I will discuss each group for any description of similarities and anomalies.

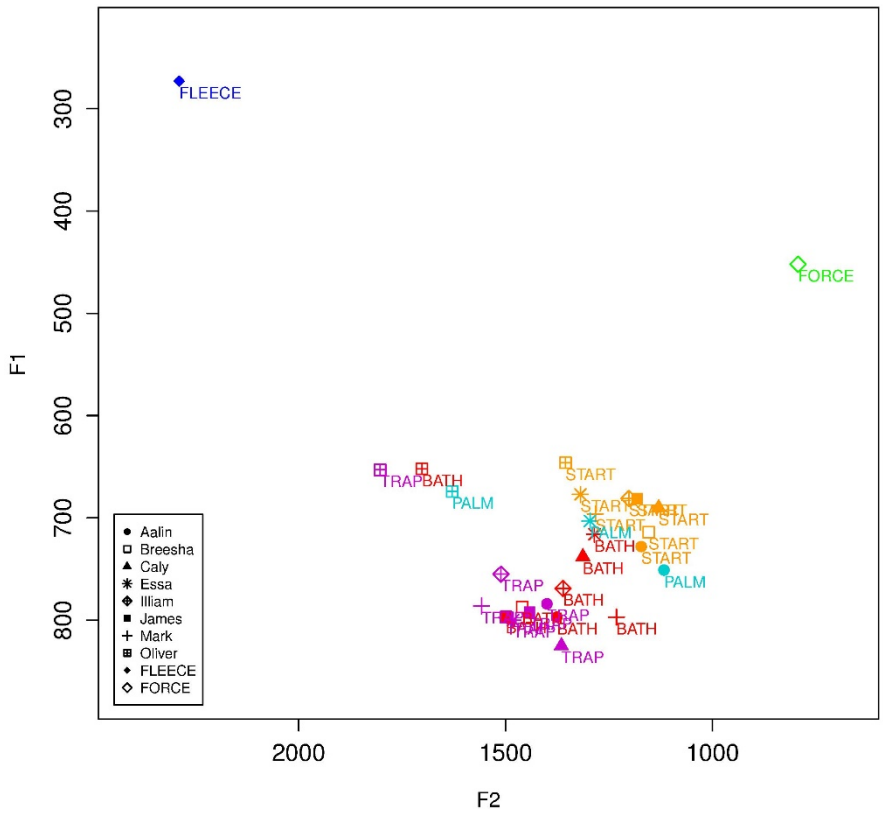


Figure 16: Mean F1 and F2 value for speakers in the Under 18s age group (BATH, TRAP, PALM and START vowels)

Figure 16 above shows the values for the Under 18s age group. The overlap or proximity between BATH and TRAP is evident for most of the speakers. The biggest difference in F2 values was from Mark, who can be seen marked with a '+' in the figure above. Unfortunately, there were not enough instances of vowels in the BATH lexical set realised by Mark to decipher whether this was statistically significant. Other potential outliers were Essa, Caly and Oliver whose F1 values were quite low, however as their F2 values were very similar between the BATH and TRAP vowels, the fronted nature of the vowels was similar.

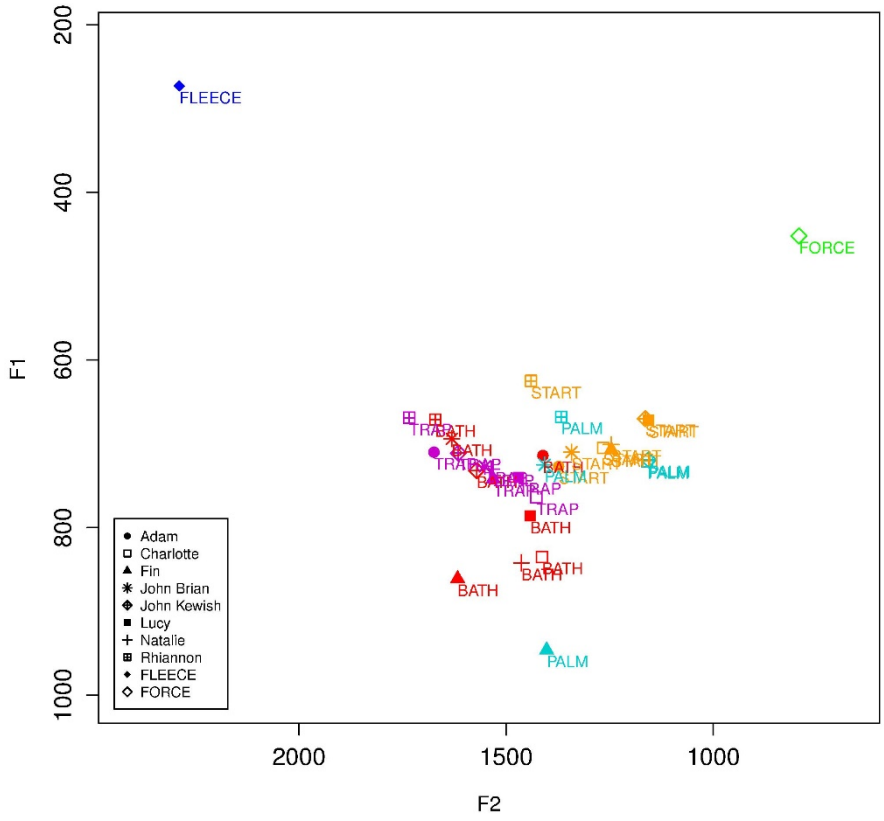


Figure 17: Mean F1 and F2 value for speakers in the Young Adults age group (BATH, TRAP, PALM and START vowels)

The Young Adults age group had even closer F2 values for BATH and TRAP vowels as can be seen in the figure above. The average F2 for the BATH vowels was 1536 while TRAP was 1563. Therefore, they are realising a very similar fronted variant.

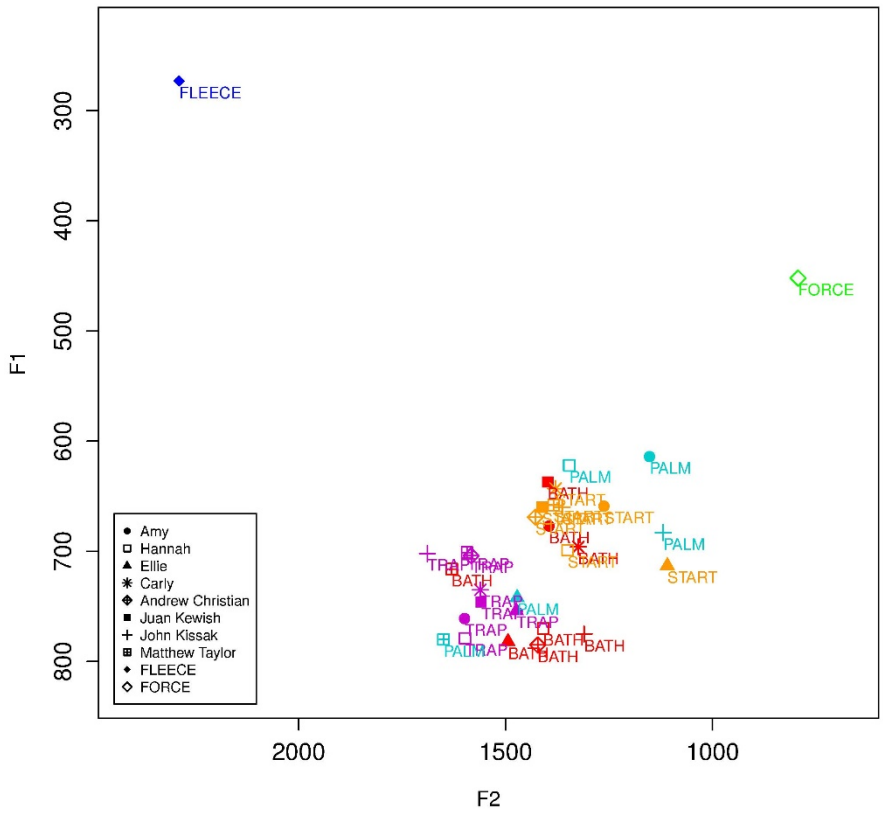


Figure 18: Mean F1 and F2 value for speakers in the Middle Adults age group (BATH, TRAP, PALM and START vowels)

The Middle Adults group have once again overlapping F2 values for the BATH and TRAP vowels. There are three speakers who have further back BATH realisations (Carly, Juan Kewish and Amy). However, during the auditory analysis Cary's tokens were not flagged as being more backed. Therefore, the F2 values were sufficiently close to conclude that the BATH and TRAP vowels were perceptively similar.

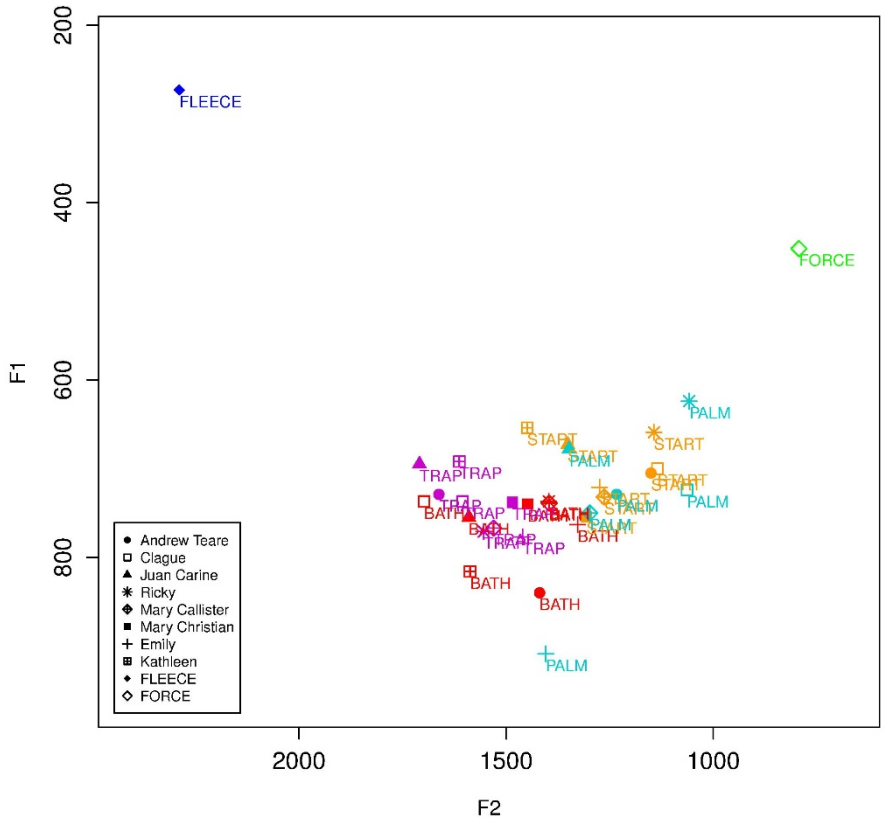


Figure 19: Mean F1 and F2 value for speakers in the Retired Adults age group (BATH, TRAP, PALM and START vowels)

The older Adults had a larger difference in F2 values than the other age groups as can be seen from the figure above and the means below (figure 20). However, there is still some overlap between the BATH and TRAP vowels and the F2 values.

The estimated marginal means for the F2 values can be seen in the chart below. The difference between the F2 values for BATH and TRAP is lower for the Young Adults and Under 18s. The statistical differences can also be seen below.

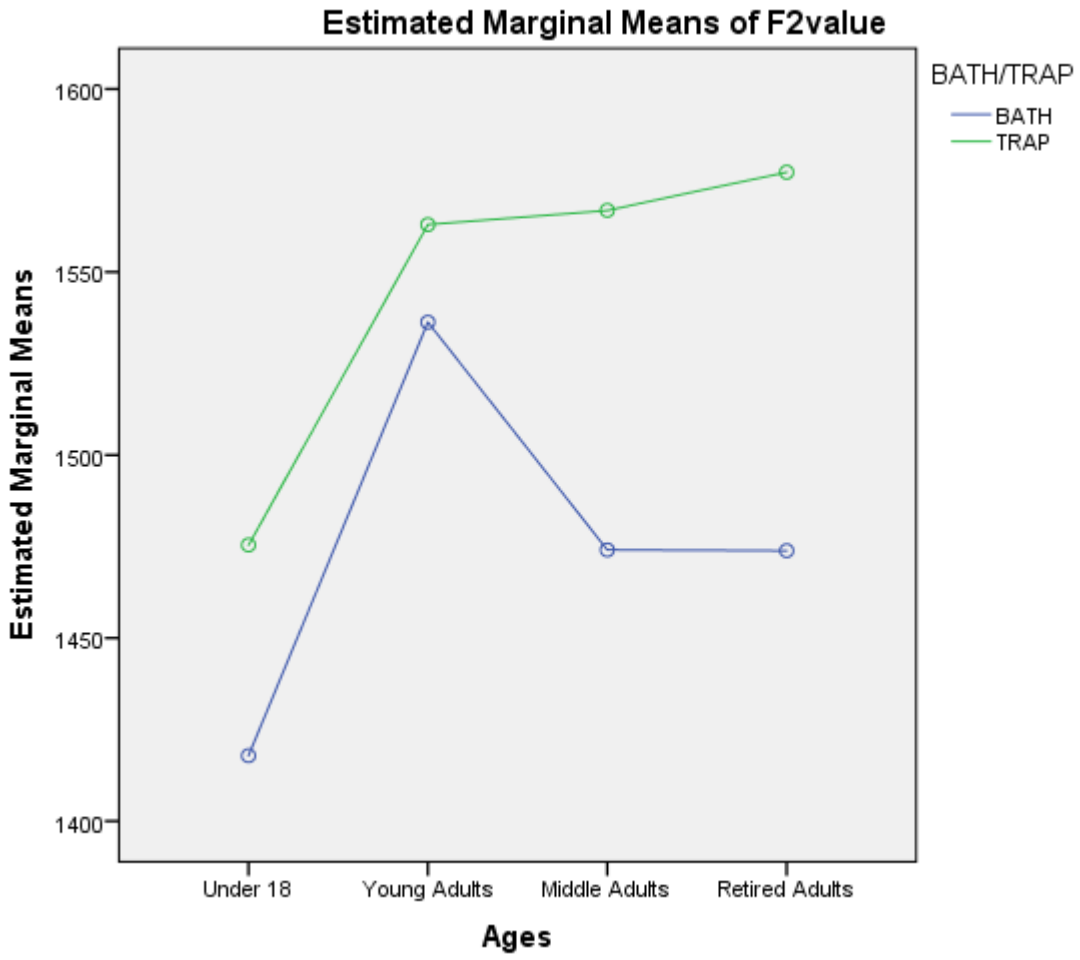


Figure 20: Estimated marginal Means of the F2 value over different age groups

The following table (table 26) displays a pairwise comparison test. This examination was run to analyse the differences in the F2 values across different factor groups. The results show no significant difference between the different age groups (i) or the overall F2 values for BATH and TRAP (ii). However, the test run to investigate the difference within groups regarding the F2 vowel value did show a significant difference (iii). To

discover more about the difference here, I ran a series of T-Tests for each age group (table 27).

Table 26: Pairwise comparison test displaying significance levels between different variants

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
(i) AgeGroup	781910.152	3	260636.717	10.717	<0.05
(ii) F2vowel	532568.487	1	532568.487	21.899	<0.05
(iii) AgeGroup * F2vowel	96694.472	3	32231.491	1.325	>0.05
Error	22690317.172	933	24319.740		
Total	2263611712.000	941			
Corrected Total	24821811.146	940			

I normalised all the individuals for the different amounts of tokens collected for each person and lexical set using the formula:

$$\sqrt{a\text{person}}\left(\bar{X}_{\text{TRAP}}^{Person} - \bar{X}_{\text{BATH}}^{Person}\right) \sim N\left(M_{\text{TRAP}}^{Age\ Group} - M_{\text{BATH}}^{Age\ Group}, \sigma^2\ (\text{AgeGroup})\right)$$

I was then able to run separate tests for each age group. The results for the independent T-tests for the equality of means shows that: for the F2 values in the Under 18s (t (7) = 2.169, p = 0.067), Young Adults (t (7) = 1.322, p = 0.228) and Middle Adults (t (7) = 2.124, p = 0.071), the p value is greater than 0.05; therefore, we accept the null hypothesis; the sample is the same as the population. In the Retired Adults however the p value is less than 0.05 (t (7) = -7.847, p = 0.0001) meaning we reject the null hypothesis; the sample is different from the population. Therefore, there is a significant difference in how fronted the BATH and TRAP vowels are for the oldest age group but not for the other groups. Even though the values are not similar,

they do not correlate with SSBE BATH words, as the realisation is still far more fronted. Therefore, even though there is some split, it is not perceptively an /ɑː/ vowel. These tests display a closer vowel sound for BATH and TRAP in the younger speakers, similar to the speakers of the north of England generally.

Table 27: Independent T-tests in each age group for differences in F2 values

					95% Confidence Interval of the Difference	
Under 18s	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
	-2.169	7	0.067	-196.70000	-411.1392	17.7392
					95% Confidence Interval of the Difference	
Young Adults	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
	-1.322	7	0.228	-78.38011	-218.6216	61.8614
					95% Confidence Interval of the Difference	
Middle Adults	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
	2.124	7	0.071	138.04250	-15.6245	291.7095
					95% Confidence Interval of the Difference	
Retired Adults	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
	-7.847	7	0.0001	-474.51125	-617.5049	-331.5176

To summarise, the vowel quality displays what we may have expected. MxE pronunciation of BATH and TRAP is very similar in terms of how fronted it is. The younger speakers are merging the two vowel sounds more than the older speakers; thus, matching a northern English realisation of this feature. If the vowel duration is found to be low, the MxE

feature of vowel lengthening may be lost due to a convergence with northern England English.

4.6.3 Vowel duration

The method of analysis for vowel duration was described in detail in 4.5.2. To measure duration, two methods were used. First, the results of the auditory analysis were as follows:

Table 28: Auditory analysis of long vs short vowel sound in BATH and TRAP words

Auditory					
	Under 18s	Young Adult	Middle Adult	Retired Adult	Overall Total
Number long æ:	15	19	40	36	110
Total number BATH/TRAP	170	234	272	265	941
% long æ:	9	8	15	13	12

The initial auditory analysis shows an overall of 12% of the BATH / TRAP words being realised with a long [æː]. In order to quantitatively analyse the data, I also ran an acoustic analysis on the BATH / TRAP words (method also described in 4.5.2). As previously mentioned, the validity of the results would be increased by applying two methodological processes to the data. The results for the acoustic analysis were as follows:

Table 29: Acoustic analysis of long vs short vowel sound in BATH and TRAP words

Acoustic					
	Under 18s	Young Adults	Middle Adults	Retired Adults	Overall Total
Number of long æ:	19	34	42	28	123
Total number of BATH/TRAP	170	234	272	265	941
% long æ:	11	15	15	11	13

Overall totals have remained quite similar at 12% and 13% respectively, however the Young Adult use of long [æː] has risen while the percentage of Retired Adults has dropped. This is due to the difference in speech rates. In general, as the Younger Adults had higher speech rates, the number of long vowels increased when normalised and vice versa for the Retired Adults. The overall percentage was similar for auditory and acoustic analysis; therefore, there is good criterion-related validity.

Compared to previous research, the overall results reveal a lot about the use of vowel lengthening on the IoM. First, the overall total within the quantitative analysis was just 1% more than Pressley's (2002) research in 1999 (see 4.1.1 for Pressley's findings). This suggests great similarity, over real time results and between the age groups there is stability: suggesting no change in this feature (Honeybone and Salmons 2015: 604).

Moreover, there is an interesting change when looking at the younger speakers. Pressley (2002) and Hamer (2007) both stated that the rates for vowel lengthening were rare among younger speakers (only one token

was found outside of the older male category). This data however demonstrated the use of vowel lengthening among Young Adults and Under 18's. This finding suggests that vowel lengthening to /æ:/ is a feature that is not being lost over the generations (more analysis in discussion section).

In terms of males and females, the numbers of speakers using the long /æ:/ is reasonably similar with females using this feature (14% for females; 12% for males). See the table below

Table 30: distribution of use of lengthening in BATH and TRAP vowels between males and females

	Female	Male
Number of Speakers	12/16	14/16
Number of long æ:	71	52
Total number of BATH/TRAP	502	439
% long æ:	14	12

As mentioned, there seems to be an even split of speakers over gender and age group using this feature. The breakdown of the individuals using this feature is represented in the table 31 below. The table displays that just 6 of the 32 participants failed to use any vowel lengthening, with rates ranging from 3% to 50% of instances. The majority of participants in this study therefore are using vowel lengthening (/æ:/) in their speech.

Table 31: distribution of use of lengthening in BATH and TRAP vowels amongst individual participants

	Name	Number of long æː	Total number of BATH/TRAP	% long æː
Under 18's	Aalin	6	39	15
	Breesha	2	22	9
	Caly	1	19	5
	Essa	5	26	19
	Illiam	3	24	13
	James	1	18	6
	Mark	0	13	0
	Oliver	1	9	11
Young Adults	Charlotte	13	31	42
	Lucy	0	26	0
	Natalie	5	35	14
	Rhiannon	8	44	18
	Adam	2	10	20
	Fin	1	36	3
	John Brian	4	36	11
	John Kewish	1	16	6
Middle Adults	Amy	0	28	0
	Carly	0	35	0
	Ellie	17	66	26
	Hannah	0	11	0
	Andrew Christian	3	30	10
	John Kissak	2	30	7
	Juan Kewish	1	34	3
	Matthew	19	38	50
Retired Adults	Emily	7	47	15
	Kathleen	1	18	6
	Mary Callister	3	31	10

	Mary Christian	3	24	13
	Andrew Teare	7	52	13
	Clague	5	49	10
	Juan Carine	0	20	0
	Ricky	2	24	8

The family element to this study gives an insight into the use of vowel lengthening between different generations. Cross referencing the results with the family connections (sociogram found in section 3.2.5, figure 9) displays some inconsistencies. (Referencing the sociogram in figure 9, section 3.2.5 in brackets) First, we look at the family composed of Juan Carine (speaker 31 - grandfather), his daughters; Amy (speaker 17) and Hannah (speaker 20), and their children; Essa (speaker 3), Caly (speaker 4) and Illiam (speaker 5) (Amy's children = MxG speakers), and Adam (speaker 13) and Oliver (speaker 8) (Hannah's children = non-MxG speakers). The usage rate for the speakers in the Retired and Middle Adult category were 0% (Juan, Amy and Hannah), while the Young Adults and Under 18's had similar rates to each other at 20% (Adam, Young Adult), 19%, 5%, 13% and 11% (Essa, Caly, Illiam and Oliver). Therefore, for this family the children are using the features far more than the older generations.

In the other family with young MxG speakers, we have slightly different results. Mark and James (speakers 6 and 7) (Under 18's – MxG speakers) had usage of 6% and 0% respectively. Their mother (Carly (speaker 18))

used vowel lengthening 0% of the time, while their grandmother (Kathleen (speaker 26)) used it just 6% of the time.

For parent and older children there is also some discrepancy. Lucy (Young Adults) and Matthew (Middle Adults) (speaker 10 and 24) had vastly different usage with Lucy 0% and Matthew 50%. Whilst Andrew Christian and his mother Mary Christian (speakers 21 and 28) used vowel lengthening 10% and 13% of the time. (speaker numbers in brackets refer to the sociogram in figure 9, section 3.2.5).

4.6.3.1 Word list results

The same method to read the duration of vowels was applied to the data from the word list. The two words that fit the question of vowel lengthening of /æː/ were the words 'had' (TRAP lexical set) and 'hard' (START lexical set) (see appendix 3 for word list). It is unsurprising that the word list yielded very different results from the conversation analysis as vowel duration has been found to be significantly longer in word list style (Eriksson and Heldner 2015). In terms of duration, all tokens from the words 'had' and 'hard' were longer than the cut-off lengthening point described in 4.5.2 above. This may have been because of the careful speech style. Looking at the speaker means below it is possible to see some individual differences.

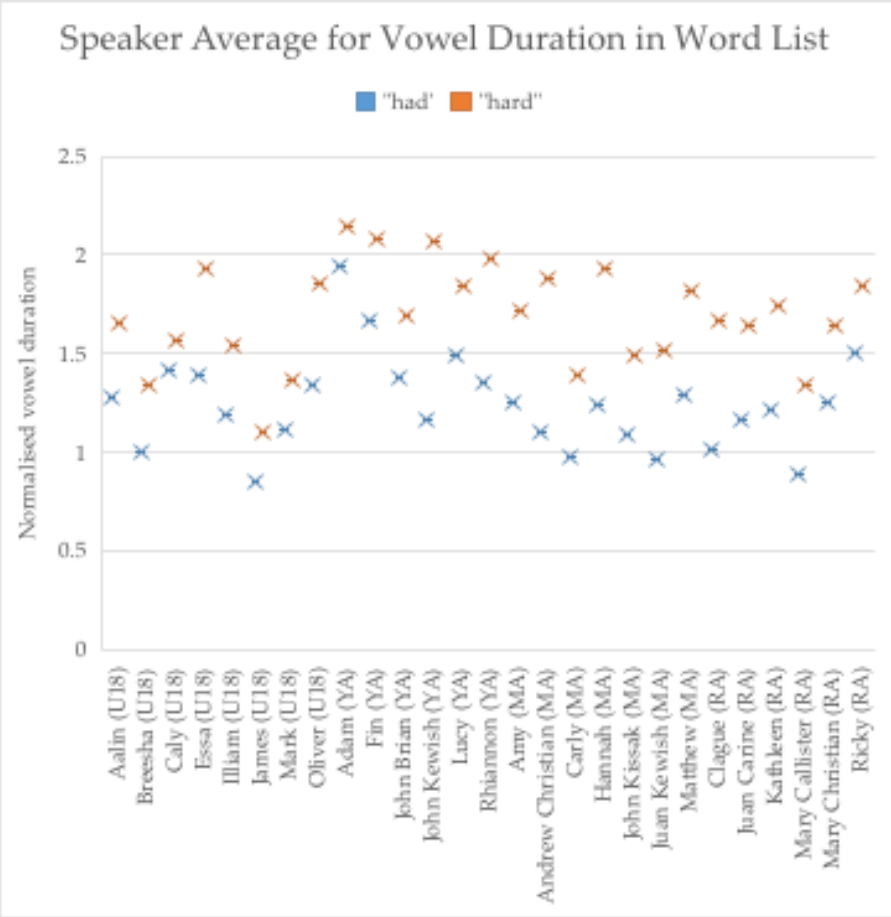


Figure 21: Word List vowel duration (normalised) for the words 'had' and 'hard'

As was previously mentioned, not all speakers had appropriate word list data and therefore there are not 32 speakers mentioned in the above chart. Figure 21 shows just 3 speakers with quite similar START and TRAP vowel lengths: these were Adam, Mark and Caly. Interestingly in spontaneous speech these three speakers had a low number of lengthened tokens (3, 0 and 1 respectively). It is very difficult to compare the word list with the spontaneous conversation data directly.

4.6.4 Statistical analysis

Vowel lengthening was coded to represent a binary category. Words within the BATH and TRAP lexical set were coded as either lengthened or not lengthened according to the procedures outlined above. A multiple logistic regression analysis displayed whether a variable was shown to be significant or not (note that factor groups which are significant are marked with an *) :

Table 32: Multiple logistic regression analysis for vowel lengthening and different factor groups

Factor Group	**Factor**	**Log odds**	**Tokens**	**Factor Weight**
Sex	Female	0.049	502	0.512
	Male	-0.049	439	0.488
Word Position	Medial	0.392	857	0.597
	Initial	-0.392	84	0.403
*Preceding Segment	Plosive	4.929	256	0.993
	None	4.675	51	0.991
	Liquid	4.585	238	0.99
	Nasal	3.922	293	0.981
	Fricative	3.883	72	0.98
	Approximant	-10.714	9	< 0.001
	h	-11.279	21	< 0.001
Following Segment	Fricative	3.652	173	0.975
	Plosive	3.306	281	0.965
	Nasal	3.232	442	0.962
	Approximant	2.563	36	0.928
	Affricate	-12.753	9	<0.001

Lexical Set	TRAP	0.089	802	0.522
	BATH	-0.089	139	0.478
Location	South	0.032	231	0.508
	North	-0.012	467	0.497
	Mid	-0.020	243	0.495
Age Group	Middle Adults	0.272	272	0.568
	Young Adults	0.150	234	0.538
	Retired Adults	-0.190	265	0.453
	Under 18s	-0.233	170	0.442
Lexical Frequency	High	0.176	0.135	0.544
	Low	-0.176	0.124	0.456

(*Factor groups significant at $p<0.05$. 'Preceding Segment' was seen as significant in this model. Input probability = 0.00207, Intercept = -6.18, Deviance = 698.346, $R^2 = 0.674$)

As can be seen in the figure above, the social factors of age, location and sex were not found to be significant. The only factor group which was found to be significant was what segment preceded the target vowel. Vowel lengthening was not found preceding [h] or approximants. With these environments removed, the factor was still significant. It is much more likely to find vowel lengthening to /æː/ following a plosive or a liquid. The remainder of the lexical factors were also not found to be significant. Overall the lack of significant social and linguistic factors reveals much about the state of vowel lengthening on the IoM (as will be discussed in the section following, and in the conclusion and discussion section).

4.7 Summary

This section sets out some conclusions based on the research objectives and presents some potential reasons for the resistance to levelling of this feature (discussed in more detail in the final chapter).

The feature of vowel lengthening was chosen to investigate whether features of traditional MxE are being lost. Previous comments suggested that this was a feature in decline and that it may be undergoing change (see 4.1.1). However, the initial thoughts of my participants indicated that the vowel lengthening feature still plays a part in MxE speech. This feature was pointed out during interviews which indicated metalinguistic awareness from participants. The analysis showed a consistent use of the long /æː/ vowel across different age groups. Younger speakers are continuing to use this feature and in environments of everyday speech. This is a substantial result and may signify continuing usage of a traditional MxE feature.

The test for phonetic environment showed no tangible preference for the proceeding consonant. The feature was realised in all locations that Hamer (2007) set out. Also, comparing the phonetic environment to those of other accents, MxE uses vowel lengthening of /a/ in a wider range. As aforementioned (see section 4.1), SSBE may lengthen the TRAP vowel in adjectives, preceding the consonants /b d g d dʒ/ (Jones 1972: 235;

Cruttenden 2001: 111; Wells 1982: 288). In the south west of England English, the feature may be realised before /f s n θ m d/ (Piercy 2011). Whereas, according to this data, MxE allows lengthening before /p b t d k g ʔ f v s z θ ʃ m n ŋ ɹ l/. Therefore, this feature is used in a wide variety of phonetic locations in MxE.

The conclusions about the vowel lengthening are that:

- It is a salient MxE feature for my speakers
- Numbers of realisations have dropped since SED (1960s)
- Numbers of realisations remained stable since 1999
- Realised by younger speakers
- Auditorily and acoustically present
- Not fossilised to Manx centric vocabulary

4.7.1 Research objectives

Returning to the initial question of whether this is a feature being lost, I believe that it is not (for all the reasons outlined above). A secondary finding from this research can address the research objective 1, to assess the impact of other accents of the British Isles. It is clear from the vowel quality results that the influence from RP on this feature is non-existent. MxE speakers follow the northern English quality of fronting this open vowel.

5 Simplification of Final Consonant Clusters

5.1 Introduction

Simplification or reduction of final consonant clusters is a widespread feature of English around the world. Childs and Wolfram (2004: 445) point out that "all dialects of English reduce clusters preconsonantally" as in *west side* to *wes' side*. Examples of simplification of *st*, *ld*, *nd*, ft, *sk*, *sp*, *sk*, *lm*, *nt* at word final position can be found in some form in world Englishes: such as Newfoundland English (Clarke 2004), Gullah (Weldon 2004), Cajun Vernacular English (Dubois and Horvath 2004), Chicano English (Santa Ana and Bayley 2004) and Bahamian English (Childs and Wolfram 2004).

The deletion or simplification of the consonant /t/ or /d/ or /f/ in word ending consonant cluster is the feature in question in this section. As is seen in past island research (see below), the deletion of the final consonant was prevalent in MxE during the time of the SED (being realised in 64% of instances where a word ended in a consonant cluster). This was not a feature that my participants mentioned much as being typically MxE. However, the deletion of the final consonant in a cluster did feature highly in dialect poems in MxE. I was directed to a poem by TE Brown called 'Betsy Lee'; it is read by a prominent MxE dialect advocate. The third line of the excerpt ends with the word *best* with a clear deletion of cluster final /t/. A phonological transcription of the line is as follows:

/wɛl ɪt̪s ɪn ə ˈkaʊhaʊs juːl gɛr ɪʔ ðə bɛːs/

The feature can also be heard on the recordings from the SED on the British Library website. A British Library researcher, noticed the word *harvest* is realised as *harves'* (British Library Board, n.d.).

Only one of my participants mentioned this feature as part of MxE speech; Ellie (54 years old) explained that:

Extract 4

> **Ellie**
>
> Yeah you had to say pounds, and we never been brought up to say pounds. Its ten poun', twelve poun', fifteen poun', but it's not fifteen pounds. Uh I can remember being pulled up at school on that

This was the only mention of this feature by any of my participants. Ellie describes being 'corrected' by teachers on how to pronounce the word *pounds*[16]; which she had been initially taught (presumably by parents) to realise without the word ending consonant cluster. Her friend Emily (62) seems to agree with Ellie's discussion on the subject (adding in positive responses 'yeah', 'yes' and 'uh huh'), while the other interviewee in the conversation (Charlotte, 33 years old) does not have anything to add with regards to this feature. This feature is clear in traditional MxE but the

[16] It must be noted that the reduction of *pounds* to *pound* is a widespread feature of vernacular English (Kortmann and Szmrecsanyi 2004). The reduction may be a morphosyntactic rather than phonological process.

question was whether it would be apparent in the speech of my participants in 2016/2017. Only one participant mentioned this feature; therefore, it may be susceptible to levelling.

Even though deletion of /t/ and /d/ in final consonant clusters is seen as a common phenomenon (Foulkes and Docherty 2007; Clarke 2004; Weldon 2004), research on final consonant cluster simplification is not widespread in the British Isles (Foulkes and Docherty 2007). Tagliamonte and Temple (2005) aimed to include British English into the conversation by investigating deletion of /d/ and /t/ in York. The results found that deletion is a "robust phenomenon" in the English spoken in York (Tagliamonte and Temple 2005: 281) with around 24% of possible /t, d/ endings being deleted.

Other research in the British Isles has found final consonant cluster simplification in Irish English whereby "stops after fricatives or sonorants are liable to deletion" (Hickey 2004: 84) (examples such as *lef'* for *left* and *poun'* for *pound*). It is also so common for deletion in word ending clusters in Lowland Scots and Hiberno English. Loss of final /t/ can be found in the past tense of *sleep* (*slep*) and *keep* (*kep*) (Trudgill 1986: 20). Also, loss of final /d/ after /l/ and /n/ is widespread. Trudgill also mentions that the loss of /t/ and /d/ in final consonant clusters is more prevalent in "dialectal English than in standard" (1986: 20). It seems that many dialects in the British Isles would include deletion as a feature.

5.1.1 Past research in Manx English

The MxE past research shows significant loss of word final consonant clusters. Hamer (2007: 172) uses the SED data to explain that "final consonant clusters */nd ld lt st lv/* are regularly simplified" to give realisations such as *"husban', len', poun'; chil', gol'; faul'; breakfas', firs', las'; twel'"* (Hamer 2007: 172).

The simplified consonant clusters recorded by Barry (1984) were in words like *best, loft, against, harvest* - where the clusters ended in /t/. The words recorded with a simplified cluster ending in /d/ were *field, old, mould, pound, land, ground* and *bind*. Barry (1984: 173-174) states that "/t/ may be lost in final position in clusters" while "/d/ is lost in final position"; this implies that elision of /d/ is perhaps more uniform than the loss of /t/ in these words. I get the impression that this feature was therefore quite widespread in MxE in the SED data. In the SED, words were elicited as single answers, and not in sentences; therefore, did not succumb to influences of connected speech.

Using the SED, I analysed the words ending in *ld, lt, lv, nd, nt, st,* and *lf*; there were a total of 130 instances which ended in these consonant clusters. The number of instances where the consonant cluster was simplified and reduced was 83, meaning that consonant simplification in the SED occurred 64% of the time. The breakdown was as follows:

Table 33: Word Ending consonant clusters in the SED

Cluster Group	Number of tokens	Number reduced	Percentage of instances
-ld	29	22	76
-lt	9	0	0
-lv	2	1	50
-nd	44	33	75
-nt	4	0	0
-st	31	24	77
-lf	11	3	27
Total	**130**	**83**	**64**

Simplification of final consonant cluster was quite frequent with words in most cluster groups. Words such as *myself, must, round, twelve,* and *old* were reduced to *mysel', mus', roun', twel'* and *ol'*.

Pressley did not focus on the word-ending consonant clusters. As can be heard from my data in the proceeding section, there is some evidence that MxE may have changed in its use of word ending consonant clusters.

5.2 Circumscribing the variable context

As will be discussed below, the MxE context of simplification of consonant clusters goes beyond /t/, /d/ deletion at word final. However, much of the previous research has focused on these consonants being deleted from word final position (likely because they are more commonly deleted). Therefore, most of this review targets the variation of this process only. There are three main linguistic constraints that are discussed in previous research: the preceding context, following context and the morphological identity of the word.

Preceding environment

The segment which precedes word final /t/ or /d/ could have some influence on deletion. Labov (1989) noted that deletion was approximately equated to the preceding segments level on the sonority scale. The finding was that the "less sonorous segments (stops and fricatives) tend to favor deletion, whereas more sonorous segments disfavor it" (Tagliamonte and Temple 2005: 283). The exception was /s/ which was the most likely to be followed by a deleted segment. The ordering from most likely to least likely deletion when /t/ or /d/ is preceded by: /s/ > stops > nasals > other fricatives > liquids (Labov 1989).

A secondary argument by Guy and Boberg (1997) focused on the phonological differences of the preceding statement to /t/ or /d/. They stated that: segments distinguished from /t/ and /d/ in more than one distinctive feature would be less likely to trigger deletion ("namely, [-cont(inuous)], [+cor(onal)] and [-son(orant)]" (Tagliamonte and Temple 2005: 283)). For example, /n/, which is [-cont], [+cor], [+son] differs from /t/ and /d/ in just one feature ([±son]) and is more likely to trigger deletion than /f/ (which has two differences – [+cont] and [-cor]).

As will be seen later, the preceding environments chosen to investigate deletion are /n/ /l/ /s/ (as discussed later). Following the theories above, the patterning in which deletion is more likely to occur would be: /s/ > /n/ > /l/.

following environment

The linguistic environment following the final cluster arguably has the strongest effect on deletion (Tagliamonte and Temple 2005). According to Tagliamonte and Temple (2005) "[o]bstruents (and nasals) trigger the most deletion, followed by liquids, then glides and finally, following vowel or pause, the latter two contexts varying in order between dialects". The usual pattern for the following segment most effecting deletion is: obstruents > nasal > glide > vowel > pause.

Morphological identity of the word

The final linguistic constraint looks at the morphological context of the word. As /t/ and /d/ are common at word ending in the past tense, it is likely they would occur frequently in this word form. Therefore, the past tense regular verbs form one category (also inclusive of past participle which seem to form a pattern with this category (Tagliamonte and Temple 2005)). It is the past tense regular verbs (such as *packed* or *moved*) which have been found least likely to trigger deletion (Tagliamonte and Temple 2005). Monomorphemes (such as *mast* or *lend*) are the most likely to prompt deletion, this category is made up of words without any added morphemes. Finally, the irregular past tense verbs, which Guy calls semi weak (such as *left* or *told*) are placed in the middle. Thus, the hierarchy from most likely to least likely morphological identity to prompt deletion would be: Monomorphemes -> Past tense Verbs (semi weak) - > Past Tense Verbs (regular weak) (Tagliamonte and Temple 2005: 285; Lim and Guy 2005: 160).

Potential problems in interpretation

The danger of focusing on the surrounding context may be threefold according to Temple (2009). First, the effects of assimilation whereby the features of the following segment are supplanted onto the previous (e.g. the [LABIAL] feature of /b/ may influence place of articulation in the /n/ of the word *handbag*, thus /ˈhænd.bæg/ becomes /ˈhæm.bæg/). Also, neutralisation may play a part in the deletion of final /t, d/. One neutralisation effect may come about whereby the voicing of a previous

segment matches the /t, d/ and it becomes difficult to differentiate the two segments in a spectrogram. In the phrase *spend two*, it may be difficult to observe the end and beginning of the /n/ and /d/ in this sequence (Temple 2009). Finally, awareness of masking effects is important; Temple (2009: 154) describes this as "an articulatory gesture, possibly an incomplete one, which is physiologically and/or acoustically hidden by the articulation of surrounding consonant". In summary, particular attention is paid to ambiguous lexical settings within /t, d/ deletion.

5.3 Research objective

Deletion of word ending consonant clusters has been chosen to address the research objective 2 – To investigate features of MxE that may be lost.

To investigate levelling and therefore the question above, the analysis of the data must:

- Investigate the variable by age - to examine the realisation spread in different generations
- Compare the findings of previous research
- Examine the linguistic constraints in order to identify the patterning of vowel lengthening

5.4 Linguistic Constraints

To investigate the feature of the simplification of final consonant groups, I chose to analyse all words ending in a consonant cluster. This would

include words ending in underlying /nd, ld, lt, st, lv, lf/. Hamer's (2007) description of this feature in traditional MxE only included the endings of /nd, ld, lt, st, lv/. I also investigated /lf/ ending as I found that the SED recorded some simplification of these words. As per Tagliamonte and Temple (2005), I excluded the conjunction *and* as it would often be found in a weakened form. Words such as *pound, old, most, twelve* and *myself* were extracted for analysis (see appendix 8 for full word list).

5.5 Analysis and coding

To begin, I extracted all words with the cluster endings described above. I then auditorily analysed each word to distinguish whether the final consonant sound was made in the cluster. Doing the analysis in PRAAT offered some visual clues as to whether a second consonant was realised within the waveform. The sounds for a single consonant versus a cluster sound are distinctive enough that auditory analysis alone was sufficient. I repeated the analysis process a month after the first analysis and also employed a second researcher to check over results. The results between the 3 different testing times were identical.

I coded whether the final consonant cluster was lost or not for each word and what the proceeding segment of the word was. As previously mentioned, the final consonant in a cluster may be influenced by the proceeding segment in terms of assimilation or connected speech.

5.6 Results

There were a total of 380 words with a consonant cluster ending extracted from the interviews (full list of words and linguistic environments in appendix 8). Even though there were not a large amount of data, all participants had at least two tokens of words ending in a consonant cluster. The overall results were as follows:

Table 34: Total number of simplified consonant clusters in 2016/2017 data

Total tokens	Number of simplified clusters	Percentage of simplified clusters
380	19	5

As can be seen, the percentage of clusters is now at 5%, compared to the SED results which were 64%. A test for correlation across the two samples displayed that there was a clear significant difference in the number of simplified consonant clusters ($\chi^2 = 209.6394$; $p < .05$).

5.6.1 Linguistic factors

The following table displays the different environments where consonant cluster deletion was found. The lack of deleted clusters has slightly skewed results, particularly in the first category. Even though preceding a nasal and /s/ produced deletion 100% of the time, there were only 7 instances of

this linguistic sequence. Also, later it will be shown that these sequences were only realised by one participant.

Table 35: Linguistic environments for the deletion of final consonant in the consonant clusters

	Percent of cluster reduction (N in brackets)	**Total Number**
Following phonological segment		
Nasal	100% (6)	6
/s/	100% (1)	1
Pause	4% (8)	188
Vowel	2% (4)	181
/h/	0% (0)	1
Glide	0% (0)	1
Obstruent	0% (0)	2
Preceding phonological segment		
Sibilant	5% (7)	141

Nasal	3% (5)	156
Liquid	8% (7)	83
Morphological class		
Monomorpheme	6% (19)	318
Irregular past	0% (0)	31
Regular past	0% (0)	31

Linguistically, the breakdown of the differing clusters was as follows:

Table 36: Consonant cluster tokens and simplifications by cluster pairing

Cluster	Total tokens	Number of simplified clusters	Percentage of simplified clusters
-lt	8	0	0%
-nd	156	5	3%
-st	141	7	5%
-ld	63	7	11%
-lv	8	0	0%
-lf	4	0	0%

In comparison to the SED results, the clusters with the highest percentage of final consonant deletion have remained the same. In the SED, the clusters which were simplified the most were: /ld/, /nd/ and /st/ with 76%, 75% and 77% respectively. Within my data /ld/, /nd/ and /st/ were the only simplified clusters with 11%, 3% and 5% of instances being shortened. The cluster reduction pattern is still upheld even though tokens have been greatly reduced. This pattern is not in line with previous research off the IoM, (outlined above) which stated that the hierarchy for likely deletion was: /s/ > /n/ > /l/ (my MxE data shows a hierarchy of /l/ > /s/ > /n/). However, the lack of instances and the small difference between the variants does not allow for direct comparison. It is also imperative to investigate the individual words and the speakers; the table below displays all words which were simplified from this data set:

Table 37: Individual words with consonant cluster simplification

Speaker	Word	Possible Connected Speech	Preceding Segment	Following Segment	Morphological Category	Age Group
Ellie	pound	N	n	-	Monomorpheme	MA
Ellie	pound	N	n	-	Monomorpheme	MA
Ellie	pound	N	n	-	Monomorpheme	MA
Ellie	pound	N	n	-	Monomorpheme	MA
Ellie	pound	N	n	-	Monomorpheme	MA
Ellie	old	Y	l	m	Monomorpheme	MA
Ellie	old	Y	l	m	Monomorpheme	MA
Ellie	old	Y	l	m	Monomorpheme	MA
Ellie	old	Y	l	m	Monomorpheme	MA
Ellie	old	Y	l	m	Monomorpheme	MA

Ellie	old	Y	l	m	Monomorpheme	MA
Ellie	old	Y	l	s	Monomorpheme	MA
John Kewish	most	Y	s	V	Monomorpheme	YA
Juan Kewish	most	Y	s	V	Monomorpheme	MA
Matthew	just	N	s	-	Monomorpheme	MA
Matthew	just	N	s	-	Monomorpheme	MA
Andrew Christian	just	N	s	-	Monomorpheme	MA
Clague	just	Y	s	V	Monomorpheme	RA
Ricky	just	Y	s	V	Monomorpheme	RA

As previously mentioned, the linguistic environment following the final consonant can also be a trigger for deletion. The usual pattern for following segments which prompt the most deletion was: obstruent > nasal > glide > vowel > pause. The data above show the pattern of pause (8 instances) > nasal (6 instances) > vowel (4 instances) > obstruent (1 instance). It is surprising to see that there were mostly deletions before a pause and that deletion before a vowel ranked above obstruents and glides. However, it must be noted again that instances were so low that it makes it difficult to generalise. The final linguistic constraint concerned the morphological identity of the word. Monomorphemic words were the only category to include final consonant deletion with 8 instances (N = 318; 2.5% of all monomorphemic words). There were 31 words in each of the categories: past tense semi weak verbs and the past tense regular weak verbs; both yielding no final consonant cluster reduction. Again, the instances were very low and could not be reliably compared to older data.

Therefore, some investigation into the speakers themselves was warranted (see section below).

The column entitled possible connected speech is present in table 37, and it can be seen that some of the consonant clusters may have been affected by connected speech. When a consonant is at the end of a word and proceeded by a vowel there will not be deletion but there may be 'resyllabification' where the final consonant may be carried over to the next word (e.g. *blin/d ‿eye* (Celce-Murcia et al 1996)). Therefore, the words where a cluster precedes a vowel sound (*most of, just imagine, just eleven*) would not be expected to be simplified. The only words that may be subject to elision due to connected speech rather than deletion due to the traditional MxE speech: is the word *old* said by Ellie. As the word is followed by a consonant sound, some might expect the /d/ to be deleted due to elision (Celce-Murcia et al 1996). The pronunciation of *old*, by Ellie, is unique because the vowel used is the monophthong /æː/ and not the diphthong /əʊ/ (which she uses in the words *cold* and *hold* (no deletion with these words)). Therefore, the noun phrase *old man* ['æːl.mæːn] (meaning dad or father) may be a traditional MxE phrase learned without the /d/ realisation (this pronunciation was found in the SED in MxE). There were no instances of Ellie realising the word *old* at a phrase final position to allow comparison.

As mentioned, the father and son Juan and John Kewish both used the phrase *most of the time* when deleting the /t/ at the end of *most* (speakers 16

and 23 in sociogram - also interviewed together (see interview pairings in appendix 2)). This may have been a phrase past down from father to son. In addition, even though there were 96 different words, just 4 were found to have some deletion or simplification (*most* (deleted 15% of the time (N=2)), *just* (deleted 14% of the time (N=5)), *pound* (deleted 71% of the time (N=5)) and *old* (deleted 50% of the time (N=7))). It may be possible that the phrases *most of the time* and *old man* have fossilised consonant cluster simplifications within them. It may be that simplification of consonant clusters may be a lexically motivated conditioning. However, as there are so few tokens and so few speakers simplifying the clusters, generalisations are difficult to make.

5.6.2 Social and individual factors

The social breakdown of age and use of consonant clusters were as follows:

Table 38: Simplified consonant clusters by age group

Age Group	Total tokens	Number of simplified clusters	Percentage of simplified clusters
Under 18s	80	0	0
Young Adults	85	1	1
Middle Adults	94	16	17
Retired Adults	121	2	2

The low number of realisations makes it difficult to generalise, but what is clear is that the vast majority of instances were limited to the Middle Adults age group. Under 18s and Young Adults used this feature 1% of the time between them. This indicates that this is a feature in decline.

To break down the results even further, the individuals were investigated. 7 out of the 32 participants realised simplified consonant cluster endings. Only 1 participant realised more than 2 simplified consonant cluster endings. The subsequent table displays this:

Table 39: Individual users of the simplified consonant clusters

Speaker	Total tokens	Number of simplified clusters	Age Group
Ellie	37	12	Middle Adult
Andrew Christian	11	1	Middle Adult
Clague	26	1	Retired Adult
Matthew	8	2	Middle Adult
Juan Kewish	6	1	Middle Adult
John Kewish	4	1	Young Adult
Ricky	9	1	Retired Adult

There is one female speaker and six males; however, Ellie's (female) tokens outweigh all of the males put together. Ellie has simplified the final

consonant cluster a third of the time. The only issue with Ellie's utterances of this feature is that the first three realisations of the word *pound* were said to explain this feature to the interviewer (see quote from Ellie in extract 4 in 5.1), therefore this was not during conversation. This realisation of the word pound may also be a morphosyntactic reduction rather than a phonological process (Kortmann and Szmrecsanvi 2004). Also, the amount of utterances by Ellie was still much fewer than the SED average but is far more than any other speaker in my data. The one Young Adults cluster reduction realised by John Kewish was the same phrase used by his father Juan Kewish. The other participants were all in separate interviews. Overall, the number of simplified consonant clusters was far lower than previous SED data.

5.6.3 Statistical analysis

The statistical analysis for the simplification of consonant clusters consisted of running the above results through a multiple logistical regression analysis. The results are displayed in the table below:

Table 40: Multiple logistic regression analysis for simplification of consonant clusters and different factor groups

Factor Group	Factor	Log odds	Tokens	Factor Weight
*Cluster	st	6.658	141	0.999
	lf	6.178	4	0.998
	nd	5.715	156	0.997
	lt	4.459	8	0.9889
	ld	-10.647	63	<0.001
	lv	-12.362	8	<0.001
Preceding Segment	s	0	0.050	N/A
	l	N/A	0.084	N/A

	n	N/A	0.032	N/A
*Following Segment	Consonant	26.841	11	>0.999
	Pause	-12.996	188	<0.001
	Vowel	-13.844	181	<0.001
*Age Group	Middle Adults	6.427	94	0.998
	Retired Adults	4.376	121	0.998
	Young Adults	3.556	85	0.972
	Under 18s	-14.359	80	<0.001
Lexical Category	Monomorpheme	6.730	318	0.999
	Regular	6.048	31	0.998
	Irregular	-12.779	31	<0.001
Location	South	0.685	63	0.655
	North	-0.148	219	0.463
	Mid	-0.537	98	0.369
Gender	Male	0.356	180	0.588
	Female	-0.356	200	0.412
*Lexical Frequency	High	9.651	257	>0.999
	Low	-9.651	123	>0.001

(*Factor groups significant at $p<0.05$. 'Cluster', 'Following Segment', 'Age Group' and 'Lexical Frequency' were all seen as significant in this model. Input probability = < 0.001, Intercept = -22.462, Deviance = 71.104, $R^2 = 0.986$).

As can be seen above, the factor groups found to be significant were both social and linguistic factors. As was seen in the descriptive statistics, none of the Under 18s displayed any simplification of final consonant clusters and only one token was found from the Young Adults group. In terms of lexical frequency; once again tokens found with 5 or more occurrences

were labelled as high frequency. All the words coded as simplified were labelled as high frequency items in this corpus. The preceding segment and cluster type were also found to be significant. However, once again, the tokens were so low and came from such a small number of speakers that generalisations are difficult to make.

5.7 Summary

As can be seen from the results, there has been a marked reduction in the use of the feature of the simplification of word final consonant clusters. Deletion of final consonant clusters featured highly in the SED on the IoM; but in my data, it did not span the generations. With levels at just 5% and used in the majority by just one participant in my data, it can be said that: over time, this is a feature that has been subject to levelling.

5.7.1 Research objectives

With regards to the question of which features of MxE may be lost over time, simplification of consonant clusters is certainly a prime candidate. The numbers from my data suggest that it is a feature in decline and perhaps will be lost from MxE vernacular. None of my participants in the Under 18s category deleted the final consonant in a cluster, and only 1 token was found within the Young Adults group. The feature is mostly used by just one speaker suggesting that it is not very widespread.

Other evidence of the loss of the feature is the fact that it is mostly evident in one or two phrases. Broadbent (2008: 141) found Yorkshire speakers fossilise the '*t*-to-*r*' feature which "remains in a small group of frequent words". Because of glottalisation (see Chapter 7), Yorkshire speakers are losing the feature of '*t*-to-*r*'; but in phrases like *shut up*, the feature is still used. Also, in Ocracoke (as discussed in section 2.2), the stock phrase highlighting 'Ocracoke' features still holds a unique vowel variant (Schilling-Estes 1998). As mentioned in the 'Results' section, simplification of word ending clusters also seems to have been fossilised within a small number of words or phrases also.

6 GOAT

6.1 Introduction

This chapter includes the analysis of the vowel variants in the GOAT lexical set. As described in detail in this chapter, the IoM was an interesting case for investigation as the levels of pull of different influences became apparent within this feature. Therefore, this investigation provided some opportunity to consider the influences on modern MxE.

6.1.1 The choice of the variable

The vowels in FACE and GOAT words have been discussed previously in section 2.2. As aforementioned, there may be some possibility that MxE may converge with linguistic norms of the north of England and therefore

may start using the northern variants for the GOAT lexical set. There is also some discussion on the LE GOAT vowel [ɛ̲ʉ̲] which has had some influence on MxE. The different variants within the GOAT vowel that may have had an effect on MxE create a very interesting point to research: with influences coming from different locations. It was worthwhile investigating any differences between older and younger speakers regarding this feature. The feature is also one which exhibits the different influences suggested in Barry's (1984) quote regarding the direction of MxE. This is examined in the analysis and discussion below.

From preliminary research, it was clear that the major influences on MxE were having different effects on the feature of the GOAT vowel. From personal correspondence with a contact involved in MxG teaching on the Island, I obtained some valuable insight. Robert Carswell (Manx language radio presenter and holder of the role of Yn Lhiahder[17]) revealed that within MxG, he has seen an increase in the use of the LE GOAT vowel. According to Robert Carswell (personal communication 2015), children are replacing the monophthong [o:] with a 'fairly Liverpudlian' [ɛ̲ʊ] sound (Carswell personal communication 2015). The examples he provided were of two songs in Manx whereby separate audio files showed youngsters singing the lines 'roish my vrishey trostey' and 'Ho Ro y Ree y Ro' and then adults singing the same two lines. The difference was clear, and after

[17] Yn Lhiahder (The Reader) is a role in the Manx parliament (Tynwald) whereby the appointed will proclaim the new laws each year in Manx and English (Fishman and Garcia 2010: 246)

transcribing the lines I found Robert Carswell's hypothesis to be confirmed. The target word in the first song was pronounced [roːʃ] by the adults and [rɛ̲ʉ̲ʃ] by the children. In the second song it was [hoː ɹoː ə ɹiː ə ɹoː] for the adults and [hɛ̲ʉ̲ ɹɛ̲ʉ̲ ə ɹiː ə ɹɛ̲ʉ̲] for the children. The difference in pronunciation is not limited to singing, it seems this change is also happening within the English being spoken.

The subsequent section describes the different variants that could be used for the GOAT lexical set on the IoM. After the anecdotal evidence above, I would hypothesise that there has been an increase in the use of the LE variant. This may mean that more traditional variants would give way for the newer ones to enter. This may include the variants of [oː] or [oʊ] found during the recording of the SED (see section 6.1.3). Therefore, both levelling and diffusion may be operating within the variation of this feature on the IoM.

6.1.2 Circumscribing the variable context

Traditionally called the "long O" (Wells 1982: 146), the GOAT vowel in RP is a closing diphthong, beginning in a central position. It occurs in words such as *croak, boat, joke, rope, gross, contr<u>ol</u>* etc., a typical spelling of words which have a GOAT vowel are as follows: "*o*, *o*C[consonant]*e* … *oa*, *ow* and *o* before *l*" (Wells 1982: 146). The GOAT lexical set is one that has been studied recently to link identities and speech in northern England. Burbano-Elizondo (2015) in Sunderland and Watt (2002) in Tyneside both found reduction in local features in favour of supra-local variants. Both

researchers saw the prevalence of a supra-local variation ([oː]) that may be more resistant to Southern features ([əʊ]) than the more stigmatised local ones ([ʊə]). The following sections describe previous studies with regards to the GOAT vowel with relation to the accents with the most influence on MxE.

The northern England pronunciation of GOAT words is often realised as a monophthong (Wells 1982), and in previous research the GOAT monophthong has been viewed as a pan-Northern marker, distinguishing Northern accents from Southern ones. Watt's (2002) data has already been mentioned in which the younger speakers are favouring a monophthong instead of traditional or Southern variety. Other research within Yorkshire has also noted the monophthongs [oː ~ ɔː] in Sheffield, Leeds and Hull (Stoddart et al. 1999; Williams and Kerswill 1999; Haigh 2015). In the locations and the studies mentioned above, the researchers do not signal a complete lack of diphthong. The diphthong variant is found mostly in words where *o* is followed by *l*. In this instance a diphthong is realised. However, the starting point of this diphthong has different qualities from an RP [əʊ] and is often recorded as [oʊ] (as it is further back in terms of vowel quality). This difference is characterised by researchers separating the GOAT words from GOAL words (A subset of the GOAT lexical set whereby *o* is followed by /l/). The GOAT and GOAL difference in regional variety can be seen in figures 22 and 23 below. Within GOAL words, there is more of a likelihood that a diphthong would be used than a monophthong. The results section investigates this difference. During the

analysis I combine these categories as the aims are to see what variants are produced overall within both these lexical sets.

Unlike the other varieties in the north of England, the monophthong realisation of the GOAT vowel is less present in Liverpool. In fact, Watson (2007: 358) states that the diphthongs in GOAT and FACE are perhaps the "biggest difference… between Liverpool English vowels and those of many other northern English varieties". Wells (1982: 372) states that the qualities of the LE GOAT vowel sounds "to the outsider…incongruously 'posh' when in a broad scouse frame". The initial start position of the LE GOAT vowel is more fronted than RP, giving a realisation of [ɛʉ, eʊ, əʉ, eʉ] (Newbrook 1999; Wells 1982). The diagram below shows the visualisation of the differences between the GOAT vowel realisations in different localities.

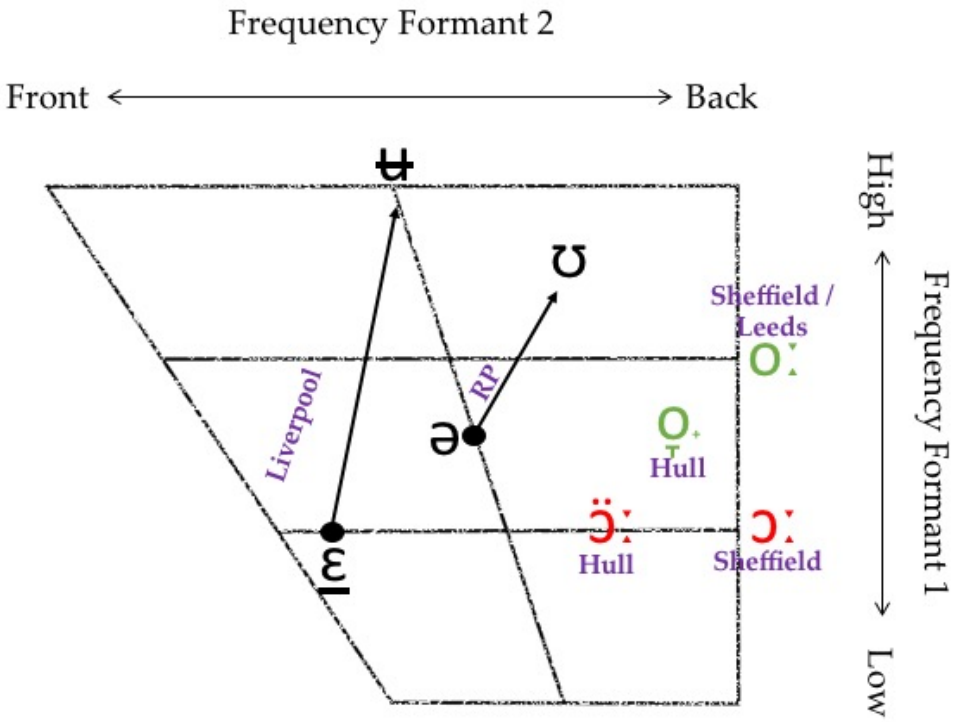


Figure 22: Potential realisations of the GOAT vowel in different locations

Figure 22 above shows the average realisation of formant values for the GOAT vowels from the research mentioned previously (Stoddart et al. 1999; Williams and Kerswill 1999; Haigh 2015; Newbrook 1999; Watson 2007)). Diphthongs are represented with two vowel sounds and an arrow in between, monophthongs are represented without an arrow. The two diphthongs are shown from RP and Liverpool English (LE estimation is taken from Watson (2007)). It must also be noted that in Watson's (2007) description of the vowel, realisations can be: "[ɛʉ, eʊ, əʉ, eʉ]". it is clear that the realisation in Liverpool is more fronted than that of RP. The LE pronunciation of GOAT is not usually fully fronted to [ɛ]; but, according to

Watson (personal communication), is getting more fronted and is approaching [ɛ]. According to Watson the more common LE pronunciation is slightly more retracted than [ɛu] and may therefore be recorded more accurately as [ɛ̟ʉ̟]. The likelihood is that the starting point of the MxE version of the LE diphthong would be realised somewhere between the fronted [ɛ] and the centralised [ə]. The LE version of the GOAT vowel realised by MxE speakers will be recorded with the centralised diacritic as [ɛ̟ʉ̟].

The monophthongs in figures 22 and 23 represent the research in Yorkshire. The vowels visualised in green are representations of the research conducted by Haigh (2015). The vowels in red are representations of the research featured in the book: *Urban Voices* (1999). These edited chapters describe the accents of Hull (Williams and Kerswill 1999) and Sheffield (Stoddart et al. 1999). Please note that Stoddart et al.'s research includes Sheffield, while the research carried out by Haigh encompasses Sheffield and Leeds. Although there are slight differences, the similarities of these findings are that the monophthong in Hull is realised more centrally than those of the more western Yorkshire dialects (Sheffield and Leeds). Therefore, when reading formant values for my own research I will be aware that a more centralised F2 value will denote a vowel sound more similar to that of Hull than Sheffield or Leeds.

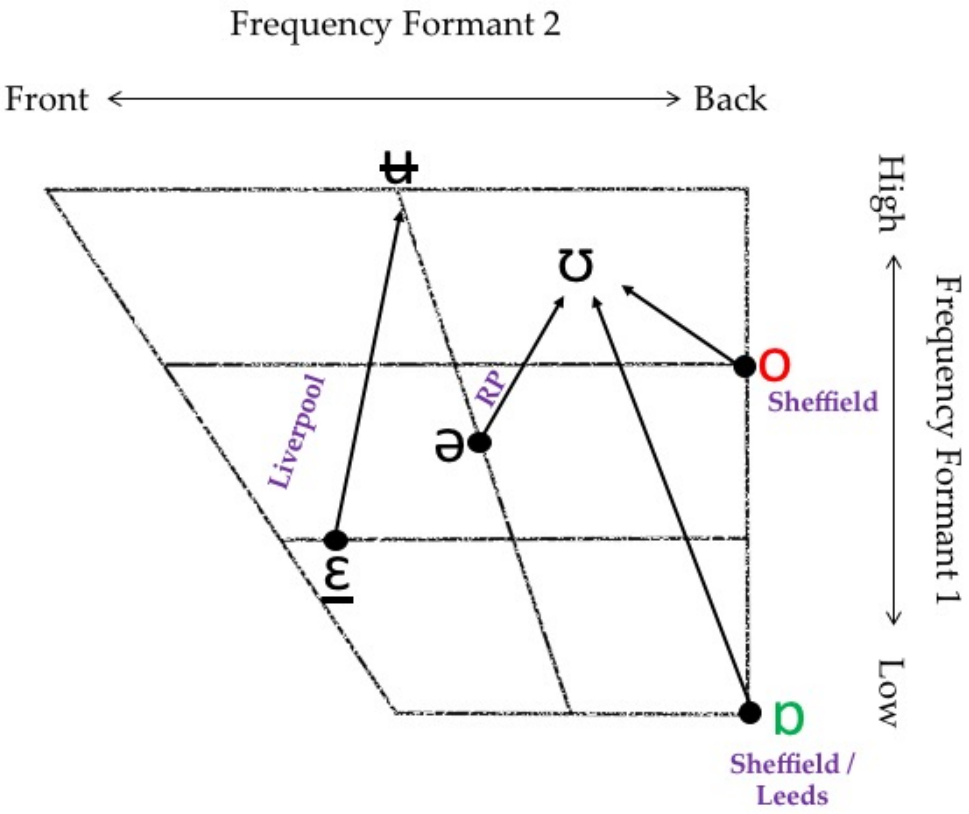


Figure 23: Potential realisations of the GOAL vowel in different locations

As mentioned previously there may be a difference of realisation between the vowels within GOAT and GOAL words. Again, the figure above shows the different locations from different researchers (red = Stoddart et al. 1999; green = Haigh 2015). The two studies in Sheffield noticed quite different vowel qualities in terms of the height of the F1 value; however, the backness of the vowel stayed the same. Notice that Hull is not included on the GOAL figure. This is because the majority of GOAL words are realised using a similar vowel to GOAT words in this location (Williams and Kerswill 1999; Haigh 2015).

In the three Northern locations in the above research, there is a possibility of the more RP sounding [əʊ] vowel. The realisation was noted in all localities as the participants moved up the perceived social scale. The GOAT vowel is said to be "particularly variable both regionally and socially" (Wells 1982: 146). Therefore, the realisation of a more RP sounding GOAT vowel may be an indicator of social status. Nevertheless, the middle-class participants in each of the studies realised a minority of GOAT vowels as [əʊ] (RP variant) while the majority of realisations tended towards the local variant.

In northern England English (other than LE), there are also many words within the GOAT lexical set that can be pronounced with a diphthong. Wells (1982: 365) ascribes the diphthong [ɔʊ] as well as the monophthong [o:] to localities such as Bradford, Wakefield, Huddersfield, Manchester, Barnsley, Sheffield, Nottingham and Leicester. In Stockport, Lodge (1978) noted that the younger speakers were moving towards a pronunciation of [ʌʊ] rather than the monophthong [o:] which was seen as 'old-fashioned'. Although Lodge's research is from 1978, Finnegan (2011) and Stoddart et al (1999) found the same changes (from the monophthong to diphthong). It must be noted that both the monophthong and the diphthong recorded in northern England English throughout the research has a starting point that is further back than the centralised RP variant ([ɔʊ ~ ʌʊ ~ ɒʊ ~ ɒʊ] compared to [əʊ]). Therefore, for this research it will be clear whether the pronunciation will be more RP or Northern if the F2 starting points is realised with a further back quality.

To summarise, after compiling the previous research on the GOAT vowel, I will be assessing particular vowel qualities and comparing them to these realisations:

Diphthong

Received Pronunciation – **əʊ**

Northern England English[18] – **ɒʊ/oʊ**

Liverpool English - **ɛ̲ʉ̟**

Monophthong

Sheffield / Leeds English - **o**ː

Hull English - **o̟ˑ**

The options are split into two categories, they can be realised as either a diphthong or a monophthong (the initial analysis will examine these differences (see 6.5)). If the realisation is a diphthong, then there are three options, the F2 value at the beginning will show whether the vowel was more centralised [əʊ], backed [ɒʊ/oʊ] or fronted [ɛ̲ʉ̟]. If the realisation is

[18] For this thesis the representation for the general northern England English diphthong will be [ɒʊ/oʊ], this encompasses the diphthongs described above by different researchers for northern England English ([ɔʊ ~ ʌʊ ~ oʊ ~ ɒʊ ~ ou]). [ɒʊ/oʊ] have been chosen as they are the most common representations

judged to be a monophthong then the distinction will be either if it is backed or more centralised.

6.1.3 Past research in Manx English

The previous section describes research based in the locations that have had the biggest influence on MxE pronunciation. This section describes the past research on the Island itself and what researchers discovered about the GOAT vowel on the IoM. Barry's (1984) analysis had some coverage of the GOAT lexical set. The main realisation of the GOAT category was [ou] in the south and [oʊ] in the north of the Island. In addition [o:] was recorded in the words *coal-rake, slope* and *toad* in the north of the IoM. Barry's phonetic transcriptions of the SED showed a tendency towards diphthongs, (63% = diphthong; 37% = monophthong). As can be seen from the table below the diphthong variants do not include the modern RP [əʊ] vowel. There is one instance of the north eastern England [ʊə], but the majority of recorded diphthongs are [ou]. There were approximately half as many monophthong variants recorded, with the majority being the long [o:] or the half long [o ˑ] or simply an [o] realisation (37 out of the 46 monophthongs).

Table 41: Realisation of GOAT words as recorded by Barry (Orton 1962-3)

Monophthong	Instances		Diphthong	Instances
æ:	1		æu	5
ɒ / ɒ:	4		æʊ	1
ə	1		aʊ	2

o	8		ɒʊ	4
o ˑ	12		ɒu	7
o:	17		o ˑ ə	4
ɔ:	2		oʊ	2
u:	1		o ˑ u	3
Total	46		o:ə	3
Overall Percentage	37		o:u	3
			oə	1
			oʊ	9
			ou	32
			ʊə	1
			Total	77
			Overall Percentage	63

By reviewing the SED data on the online records from the British Library, I conducted my own data analysis on this feature. The British Library displays a recording from a woman named Amanda Crellin, born 1878 from Ronague (south of IoM) and recorded in 1958 (British Library Board n.d.). The recording was taken by Michael Barry (the researcher for the SED on the IoM). It is unlikely that this data would have been included in the SED as the participant is a woman. However, the 3-minute recording was made by Barry when he was collecting data for the SED and is a useful insight into the dialect at this time. Although there were only 13 instances from the recording of the GOAT vowel, it is clear that the vowel realised by the participant was the monophthong [o:]. My own auditory analysis along with the auditory analysis from the 'linguistic description' from the

archivist of the British Library recordings (Archival Sound Recordings, n.d.) confirms this. I conducted a short acoustic analysis of the word items. The results in the table below show very little movement from the start and the end of the vowel. Therefore, I believe that monophthong [o:] was very prevalent within MxE realisation during that time.

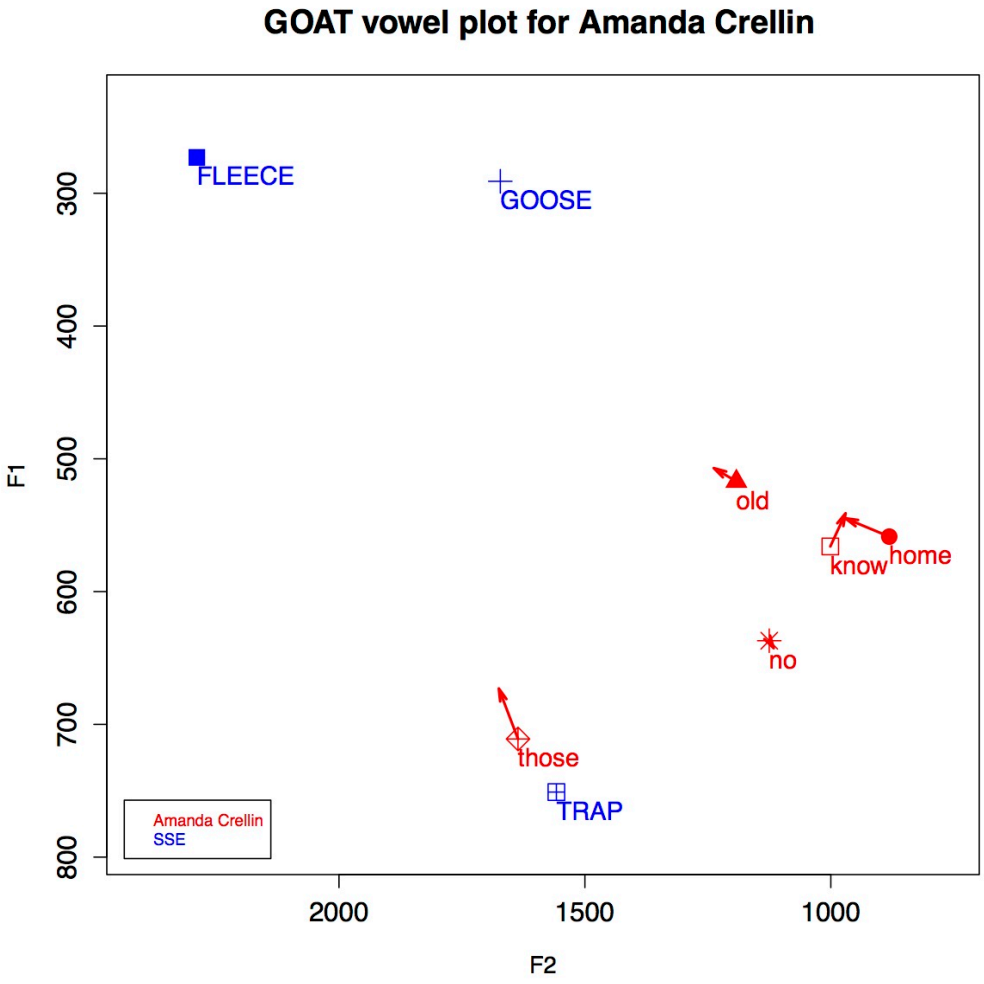


Figure 24: Vowel plot for GOAT words, Amanda Crellin

Table 42: F1 and F2 values for GOAT words, Amanda Crellin

Word	Start F1	Start F2		End F1	End F2
home	620	1002		650	993
home	538	773		546	826
know	566	1001		541	970
home	540	916		434	915
old	517	1192		507	1238
no	573	1036		657	1152
no	710	1136		701	1061
no	648	1246		633	1314
no	608	1028		569	942
home	483	870		464	1138
no	646	1180		653	1112
those	711	1636		673	1675
home	612	845		630	981
FLEECE	273	2289			
GOOSE	291	1672			
TRAP	751	1558			

This table shows an interesting finding that is in contrast to Barry's original phonetic recordings in the SED (Orton and Halliday 1962-3). There may be many reasons for the difference; for example, the words I ran through PRAAT were from a natural conversation rather than the question and answer session run by Barry. Another reason for the difference may be because the speakers recorded for the SED book were all male (the speaker in the British Library recording is female). There may have been gender differences in the pronunciation of the GOAT vowel at this time (circa 1958). The differences here only make this feature a more intriguing one for investigation within my own modern data.

Unfortunately, the vowel in GOAT words was not analysed in the more recent thesis by Pressley (2002). However, Hamer did mention the development of the GOAT vowel by saying:

> a Scouse-like variant of the diphthong /əʊ/, with the first element fronted, [ɛʊ], is found mainly in the speech of young children, and is probably best explained as an example, not of Liverpool influence, but of a tendency among young speakers to front the first elements of diphthongs (O'Connor 1973: 167). (2007: 175)

This quote recognises that the variant [ɛʊ] is present on the IoM but the reason it is present may not be because of the influence of LE, but because of young people's inclination towards fronting the initial part of a diphthong. To analyse this statement, it was useful to carry out a synchronic study, comparing young and old speakers. If older and younger speakers are displaying the [ɛʊ] variant (or something approaching a fronted starting point), then it will be clear to see if there is an influence from LE on this feature on the IoM. This was studied through the generational investigation and is presented in subsequent chapters.

To conclude, looking at all the evidence from past research there are a few different influences on the realisation of GOAT vowels on MxE. First, the traditional pronunciation using a monophthong or a diphthong starting in a backed position [o:] or [ou]. This influence is linked to the modern realisation of the western Yorkshire pronunciation of the GOAT vowel as

shown in figure 23. This would also link into the theories regarding the push towards a more pan-Northern dialect which affected the Tyneside pronunciation of the GOAT vowel in Watt's (2002) research. Another influence would be from RP, and also if MxE has adopted the [əʊ] variant which was non-existent in the data from the SED. As mentioned previously, Barry (1984) hypothesised that RP would be the biggest influence on MxE in the future. The final influence is the ever present LE, which has a growing presence on the IoM (see quote above; Hamer 2007). The presence of LE GOAT vowels [ɛ̲ʉ̶, eʊ, əʉ̶, eʉ̶] would suggest an increasing influence of LE on the Island.

6.2 Research objective

The investigation of the GOAT vowel has a potential to answer all three of the research aims. First, it will directly address objective 1 which was to:

> To assess the influence of accent features coming over from other parts of the British Isles

By comparing my data to the findings of other parts of the British Isles, I was able to distinguish the different influences on MxE today. Cues were also taken from the synchronic nature of the study, comparing younger speakers with older ones. This links in with the theories of geographical diffusion (see 2.2 for discussion).

It is possible that there are some variants that may have receded over time. This will address objective 2:

To investigate features of MxE that may be lost

If any features from the research conducted in 6.1.3 do not occur in the modern data then it would be clear if any features have been lost.

The next objective this investigation can help to address is:

> To investigate which social or linguistic factors may be influential in the acceptance or resistance of MxE features

By determining the influencing locations of MxE within GOAT words, I am able to begin to build a picture of the linguistic factors predominating the English language on the IoM.

To investigate geographical diffusion and the objectives above, the analysis of the data must:

- Examine the variable by age and sex to assess the realisation spread
- Directly compare vowel realisations on the IoM to those in neighbouring areas

6.3 Linguistic constraints

Wells describes the GOAT vowel as a:

> Diphthong with a mid central unrounded starting-point (similar to the quality of RP [ɜː]) moving towards a somewhat

> closer and backer lightly rounded second element [ʊ]… Occurs in both checked and free syllables (Wells 1982: 146)

The GOAT vowel can be found at word initial, medial or final. In previous research word position has not been overtly focused on for analysis. Due to the high number of variants, position has also been excluded from this study. The linguistic constraints were briefly mentioned in 6.1. The typical spellings of words for GOAT vowel words are "*o, o*C[consonant]*e* … *oa, ow* and *o* before *l*"; some examples of typical spellings are as follows (Wells 1982: 146):

> (a) soap, boat, oak, roach, loaf, oath, road, loathe, coal, roam, loan, boast, coax,…; note, rope, joke, both, gross, robe, code, rogue, grove, clothe, rose, hole, home, tone, so, no, toe, foe, don't, host, noble, ocean, explosion, holy,. . . brooch, beau, gauche, mauve

> (b) bowl, own, tow, know, grow, owe, Owen,…; soul, poultry, mould/mold, shoulder,…; colt, holster, old, bold, soldier,…; roll, scroll, control,…; sew, dough, though, although

As can be seen above, the typical spellings for the GOAT vowel are: (a) o, oC, oa; (b) ow, ol. Words spelled with *o* followed by /l/ were put into a

separate GOAL category to act as a comparison to investigate if there was any difference in realisations (as there is in some northern England English dialects). All words realised with the [əʊ] variant in RP were extracted and analysed.

6.4 Analysis and coding

After extracting the words using the audio software ELAN, the recordings were individually analysed in PRAAT in order to extract the formant values. Initially, I recorded all the F1 and F2 values at the beginning and the end of each vowel section (at 20% and 80% of the vowel duration). I attempted to read between 20 and 30 instances of the vowel for each participant, some vowel sounds were more difficult to analyse than others because of sound quality or the preceding segment. I was able to hit my target of between 20 and 30 for all but one of my participants. This speaker was removed from the analysis comparing individuals for this feature due to a lack of tokens (Oliver – Under 18s age group).

With the F1 and F2 values for each GOAT vowel I was able to see its trajectory (full word list along with formant values can be found in appendix 9). This allowed the researcher to examine if the vowel sound was a diphthong or a monophthong. If the vowel was a diphthong, the movement would be clear on the cardinal vowel. By reading the start and end point, the researcher could evaluate the numbers to see if it was fronted or backed.

To improve the reliability of the acoustic analysis described above, I also undertook an auditory analysis of each vowel. Two researchers separately listened to and analysed each vowel sound in the following manner. First, the researchers would listen and also read the acoustic cues to decipher whether the vowel sound was a diphthong or a monophthong. If the vowel was more monophthongal by its acoustic quality, the researchers looked at how front or back the F2 value was to decide if it was centralised or not. If there was movement from the start to the end of the vowel segment, then the vowel was determined to be a diphthong. The researchers could then look at the direction of the changes from F1 and F2 values from the start and end to decide what the vowel may sound similar to (in comparison with the accents in figure 22 and 23 in section 6.1.2 above). The researchers also used their auditory linguistic analysis experience and judgement to identify the correct variant. These were cross checked and standardised to improve reliability.

6.4.1 Word list formant values

The word list was used to cross reference the formant values for the vowels in the GOAT lexical set. From the word list, the word chosen with the GOAT vowel was 'hoed'. The tables below show the F1 and F2 values at 20% and 80% of the vowel duration. This will display the glide of the diphthong from start to finish.

Table 43: Average formant value by Age Group in word list and spontaneous conversation

Word List

	Start F1	Start F2	End F1	End F2
U18	564	1873	423	1832
YA	584	1642	422	1564
MA	541	1319	420	1082
RA	591	1154	482	1027

Spontaneous Conversation

	Start F1	Start F2	End F1	End F2
U18	567	1816	518	1767
YA	527	1642	483	1580
MA	531	1444	494	1326
RA	548	1305	508	1121

The formant values display very similar patterns in the word list and the spontaneous conversation. The younger age groups are realising the vowel in a more fronted manner than the older groups in both the situations. Also, the formant values show similar movement for each age group from the start to the finish values in both the word list and spontaneous conversation.

6.5 Results

A total of 602 tokens were extracted, 62 GOAL words and 540 GOAT words, across the four age groups. As previously mentioned, envelope of variation was split into two categories. First, whether they were realised as monophthongs or diphthongs; second, they were then assigned the

appropriate phonetic transcription thereafter. The variants eligible for comparison were:

Diphthong

Received Pronunciation – **əʊ**

Northern England English – **ɒʊ/oʊ**

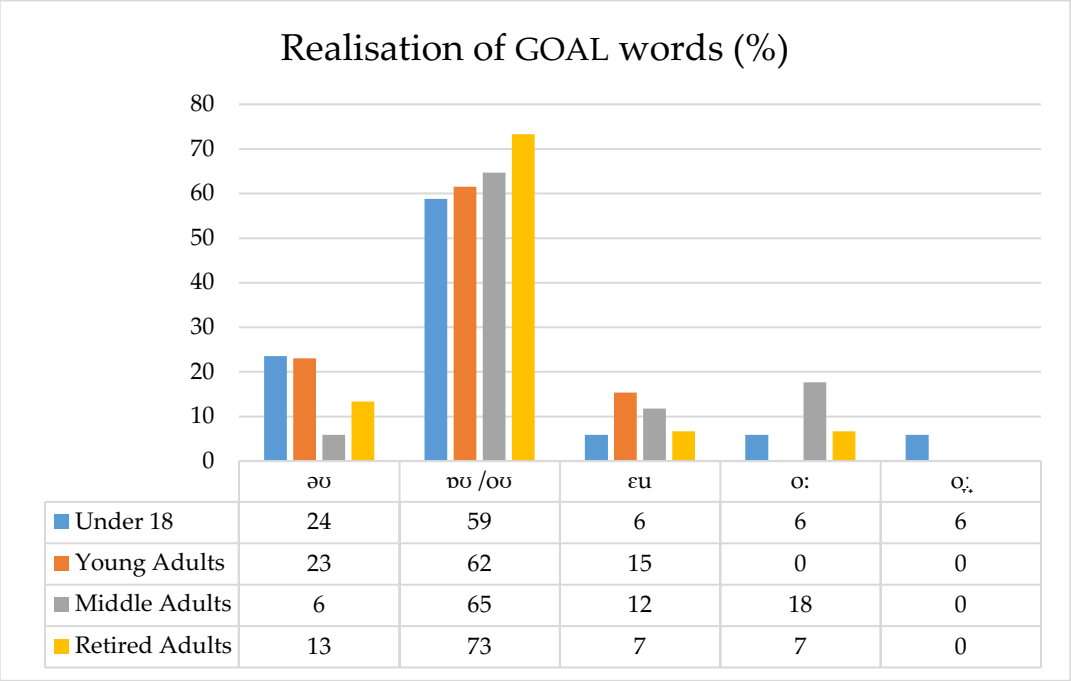
Liverpool English - **ɛ̲ʉ̶**

Monophthong

Sheffield / Leeds English - **oː**

Hull English - **o̞ˑ**

The spread of GOAL words for each age category were as follows (% in the graph and token numbers are presented directly underneath):



	əʊ	ɒʊ /oʊ	ɛu	o:	o:̞
Under 18	24	59	6	6	6
Young Adults	23	62	15	0	0
Middle Adults	6	65	12	18	0
Retired Adults	13	73	7	7	0

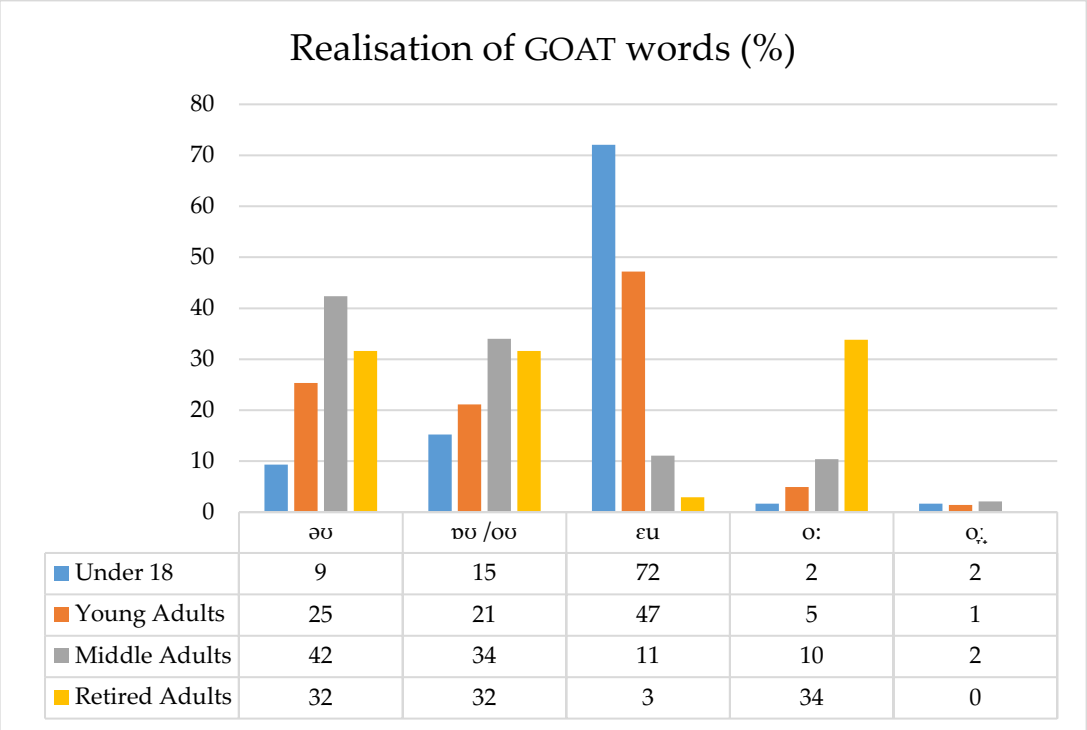
Number of TOKENS	əʊ	ɒʊ /oʊ	ɛ~~u~~	o:	o:̞
Under 18	4	10	1	1	1
Young Adults	3	8	2	0	0
Middle Adults	1	11	2	3	0
Retired Adults	2	11	1	1	0

Figure 25: Overall realisation of GOAL words (percentages in chart/ token numbers in table)

As can be seen above, the spread of realisations for GOAL words was fairly even over the different age groups. The majority of words were realised using a diphthong as would be expected: 6 out of 62 tokens were realised with the monophthong variant. The northern English variant ([ɒʊ /oʊ]) was the most common over the age groups. The RP variant was present throughout all the ages (there was only 1 instance (6%) of the [əʊ] diphthong for the Middle Adults age group). The diphthong variants were realised more than the monophthongs as was expected (see 6.1.2 for GOAT and GOAL difference). However, there was still realisation of the

monophthong within these words. Therefore, during the presentation of the social results below, I have combined both categories to assess the realisation of GOAT and GOAL.

The realisation of GOAT words was more revealing as to the preferences for the different age groups. The table and chart below show that realisations are different depending on which age group are focused on. The Liverpool variant [ɛ̲ʉ̶] is the most common realisation for the Under 18s age group (85 out of 115 tokens). This feature was also the most common among the Young Adults age group (to a much lower degree: less than 50% compared to 72%). For the Retired Adults, the most common realisation was the monophthong [oː] with 34% of tokens realised this way; however, [əʊ] and [ɒʊ /oʊ] had a similar realisation rate with 32% each. Therefore, this even spread for the Retired Adults needed to be investigated further.



	əʊ	ɒʊ /oʊ	ɛu	o:	o:̞
Under 18	9	15	72	2	2
Young Adults	25	21	47	5	1
Middle Adults	42	34	11	10	2
Retired Adults	32	32	3	34	0

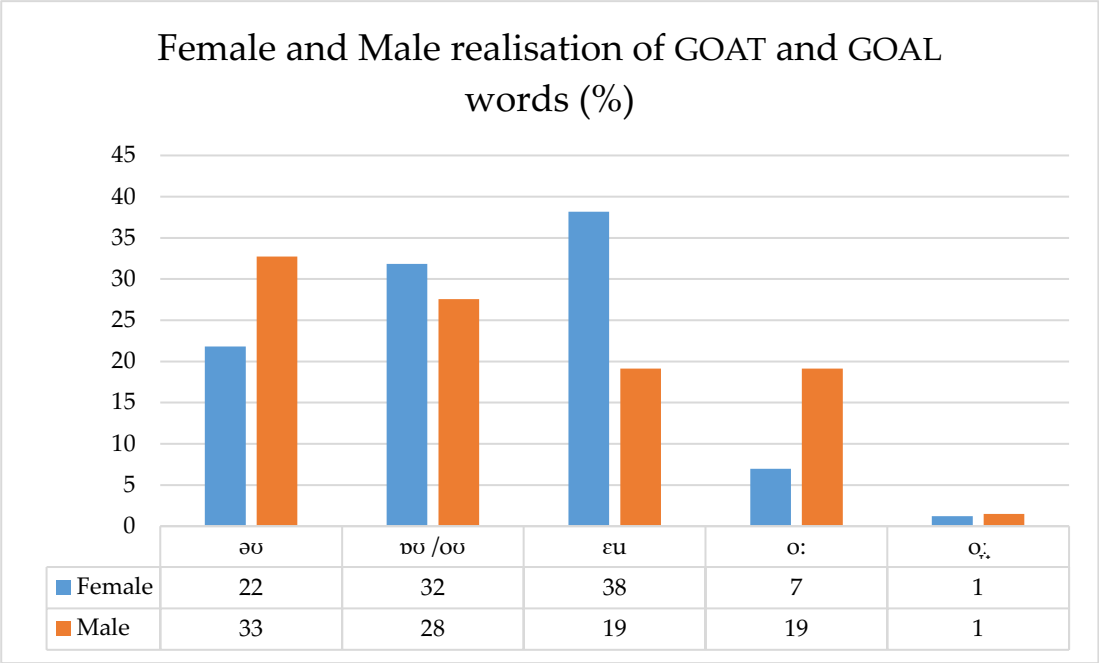
Number of TOKENS	əʊ	ɒʊ /oʊ	ɛ~~ʉ~~	o:	o:̞
Under 18	11	18	85	2	2
Young Adults	36	30	67	7	2
Middle Adults	61	49	16	15	3
Retired Adults	43	43	4	46	0

Figure 26: Overall realisation of GOAT words (percentages in chart/ token numbers in table)

All age groups realised the RP [əʊ] diphthong, the Under 18s with 15 instances, 39 for the Young Adults, 62 for the Middle Adults and 45 for the Retired Adults. The general Northern variant of [ɒʊ /oʊ] was also realised by all age groups to a similar degree with the Middle and Retired Adults using it the most.

I also looked at the realisations of the GOAT and GOAL vowels by sex. The results in the following table show females are leading the usage of the

Liverpool [ɛ̲ʉ̲] variant. The percentage of realisation for this vowel for males was the same as the percentage for the monophthong [o:]. The most common realisation for males was the RP [əʊ] diphthong. For females, [əʊ] ranked third behind [ɛ̲ʉ̲] and [ɒʊ/oʊ]. Females only realised the monophthong variant for a combined 8% of instances.



Number of TOKENS	əʊ	ɒʊ /oʊ	ɛʉ	o:	o:̤
Female	72	105	126	23	4
Male	89	75	52	52	4

Figure 27: Female and Male realisation of GOAT and GOAL words (as percentage in chart)

Z scores and significance values were calculated for each variant between males and females. The results were as follows:

əʊ	$z = 3.0077$ ($p = 0.00262$). The result is significant at $p < .05$.
ɒʊ /oʊ	$z = 1.1321$ ($p = 0.25848$). The result is *not* significant at $p < .05$.
ɛʉ	$z = 5.1011$ ($p = 0.00001$). The result is significant at $p < .05$.

oː	*z* = -4.4917 (*p* = 0.00001). The result is significant at *p* < .05.
o̝ː	*z* = -0.2756 (*p* = 0.77948). The result is *not* significant at *p* < .05.

There was a significant difference (between females and males) between rates of realisation for the variables [əʊ], [ɛʉ] and [oː], but no difference for [ɒʊ /oʊ] and [o̝ː]. This shows a clear MxE preference for [ɒʊ /oʊ] and rejection of [o̝ː].

The sex differences above show a slightly skewed result as the differences between the different age groups are vastly different. The figure below shows the choice of realisations over the different age groups and sex (U18 = Under 18s, YA = Young Adults, MA = Middle Adults, RA = Retired Adults). This chart clearly shows the preferences for each age group and the speaker's sex. For the female Young Adults and both the Under 18s groups there is a clear preference for the LE [ɛʉ] diphthong. This realisation ([ɛʉ]) was not found in the SED and is not found in many other accents of English outside Merseyside. The male Retired Adults realised the monophthong [oː] 46% of the time, showing a similarly high rate compared to the SED data (37%). The usage rates for the monophthong decrease as the participants get younger. Note that the rates of [ɒʊ /oʊ] remain the most consistent over the age groups.

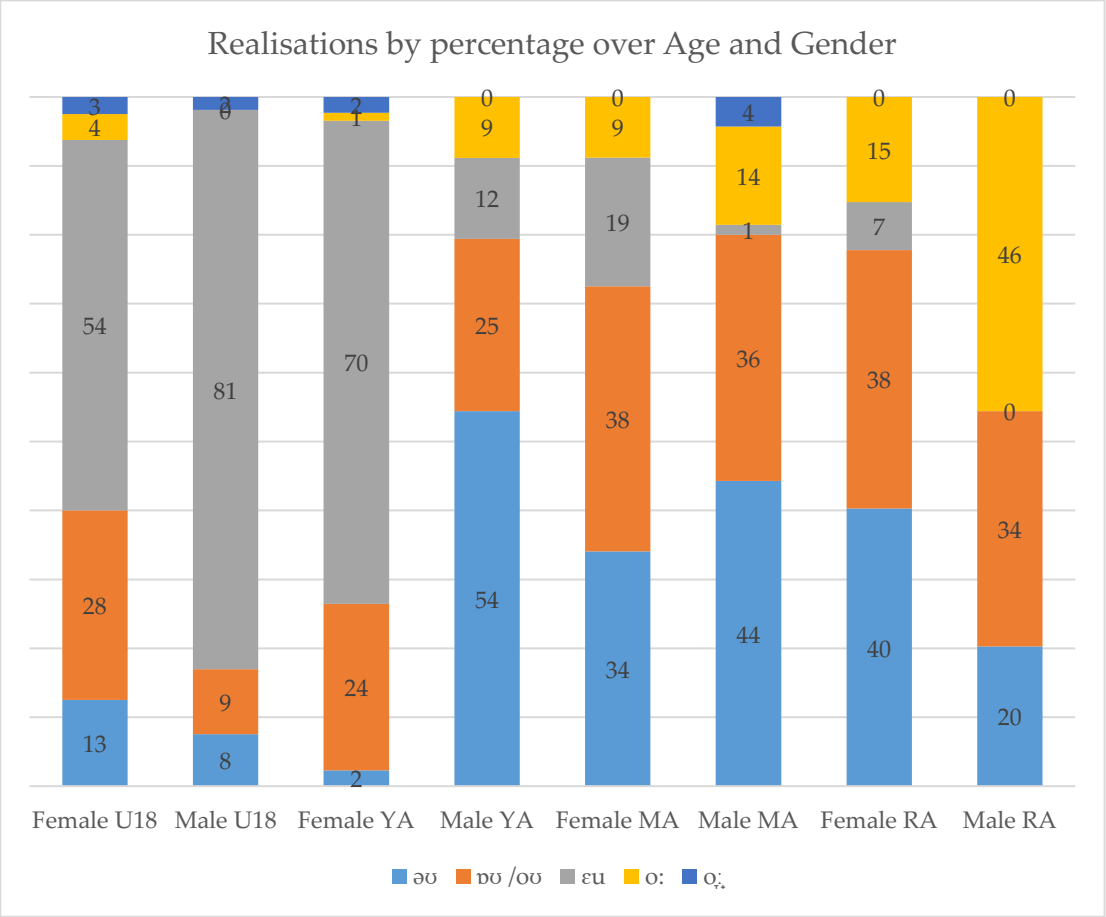
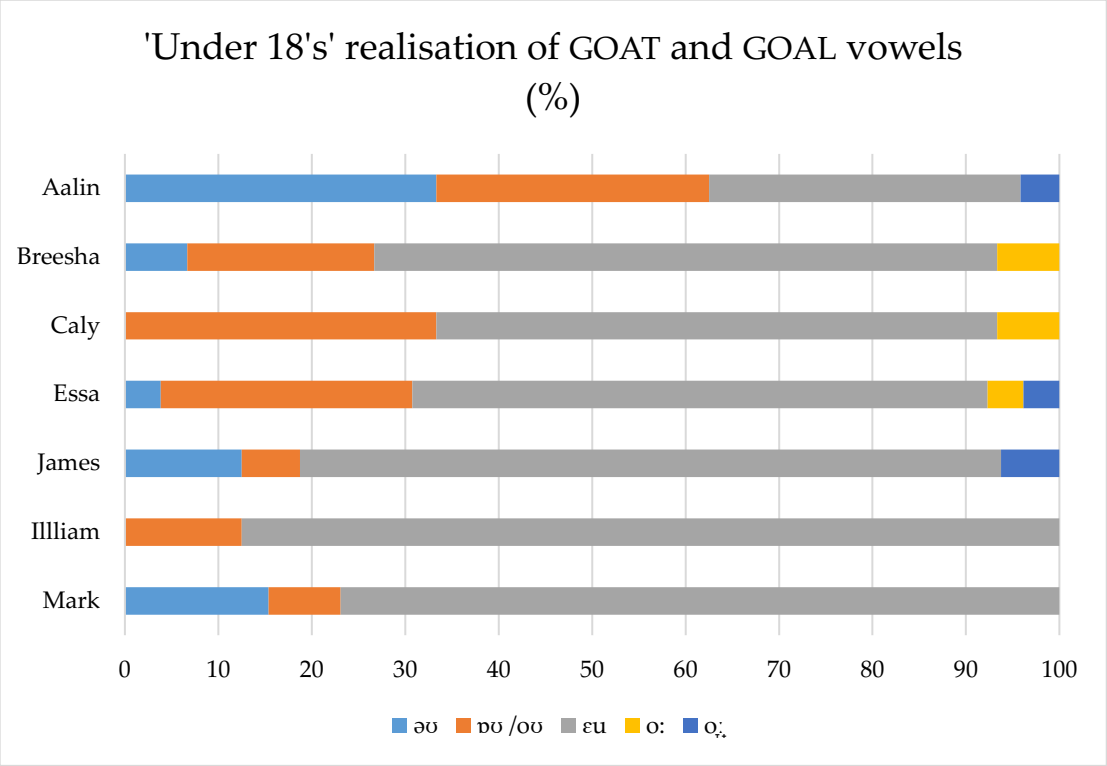


Figure 28: Realisations of GOAT and GOAL lexical set by Age and Sex (percentage)

To investigate the in-group patterns, I have also looked at each individual's realisation as can be seen below. The Under 18s show a relatively uniform pattern (the most common realisation is the LE variant [ɛ̲ʉ̲]). Aalin shows the most disparity by using [əʊ] as much as the LE diphthong. However, there are more similarities than differences in this group. Aalin's younger brother and sister (Illiam and Caly (interviewed together – speakers 3, 4 and 5 in sociogram: section 3.2.5, figure 9) do not use the RP variant at all. Other similarities are that there is some use of all diphthongs for 5 out of the 7 participants. In addition, while there were

very few tokens of the monophthongs, they were realised by 5 of the 7 speakers.

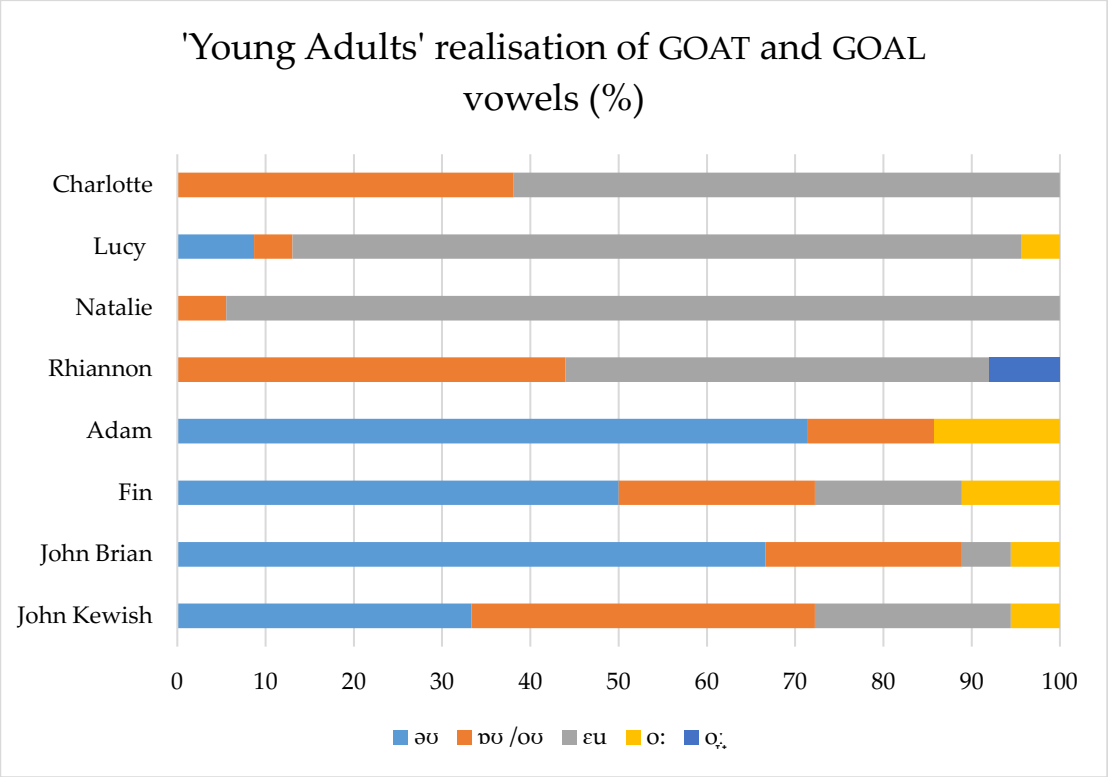


Number of TOKENS	əʊ	ɒʊ /oʊ	ɛʉ	o:	o:̞	Total
Aalin	8	7	8	0	1	24
Breesha	1	3	10	1	0	15
Caly	0	5	9	1	0	15
Essa	1	7	16	1	1	26
James	2	1	12	0	1	16
Illiam	0	3	21	0	0	24
Mark	2	1	10	0	0	13

Figure 29: Under 18s realisation of GOAT and GOAL vowels (as percentage in chart, N in table)

The Young Adults (figure 30) are a little more divided in terms of their realisations. There seems to be more of a male – female split, with females preferring the LE diphthong [ɛ̲ʉ̲] while the males mostly use the RP

diphthong [əʊ]. This group also displayed some usage of a monophthong variant: 6 out of 8 speakers realising either [o̝ː] or [oː] to a truncated degree.

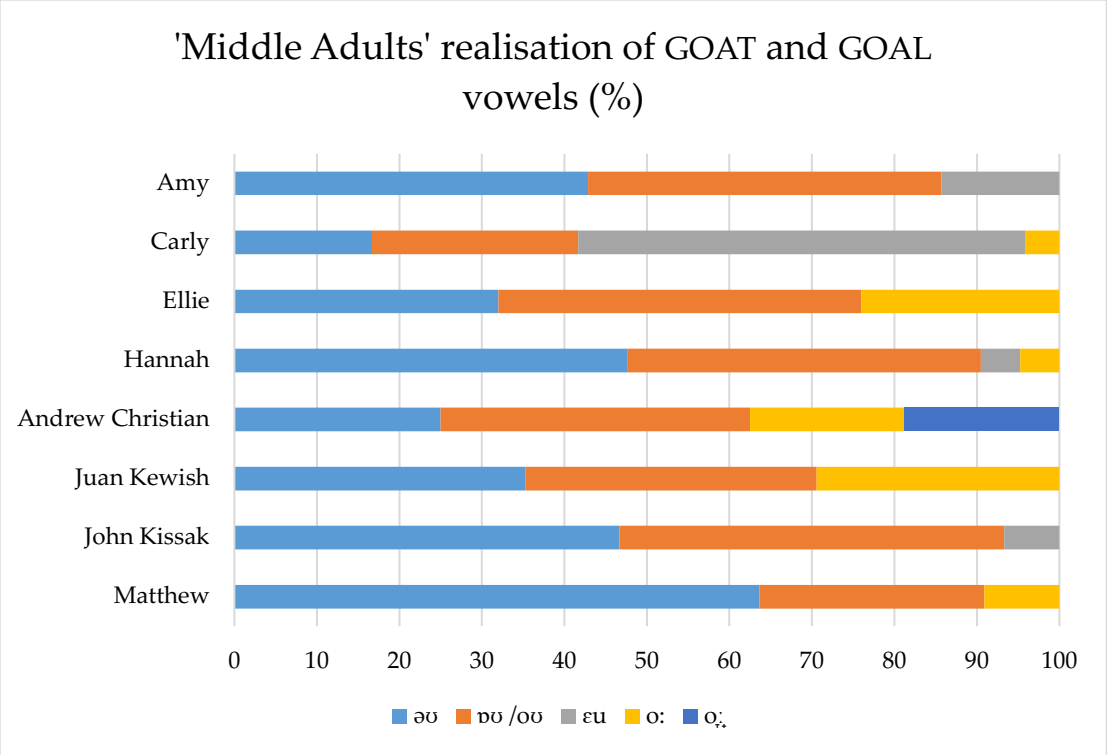


Number of TOKENS	əʊ	ɒʊ /oʊ	~~ɛʉ~~	oː	o̝ː	Total
Charlotte	0	8	13	0	0	21
Lucy	2	1	19	1	0	23
Natalie	0	1	17	0	0	18
Rhiannon	0	11	12	0	2	25
Adam	10	2	0	2	0	14
Fin	9	4	3	2	0	18
John Brian	12	4	1	1	0	18
John Kewish	6	7	4	1	0	18

Figure 30: Young Adults realisation of GOAT and GOAL vowels (as percentage in chart, N in table)

With the Middle Adults, there is a little more parity between males and females. Most of the speakers are realising GOAT vowels with the diphthongs [ɒʊ /oʊ] or [əʊ]. It is only Carly, the mother of James and Mark

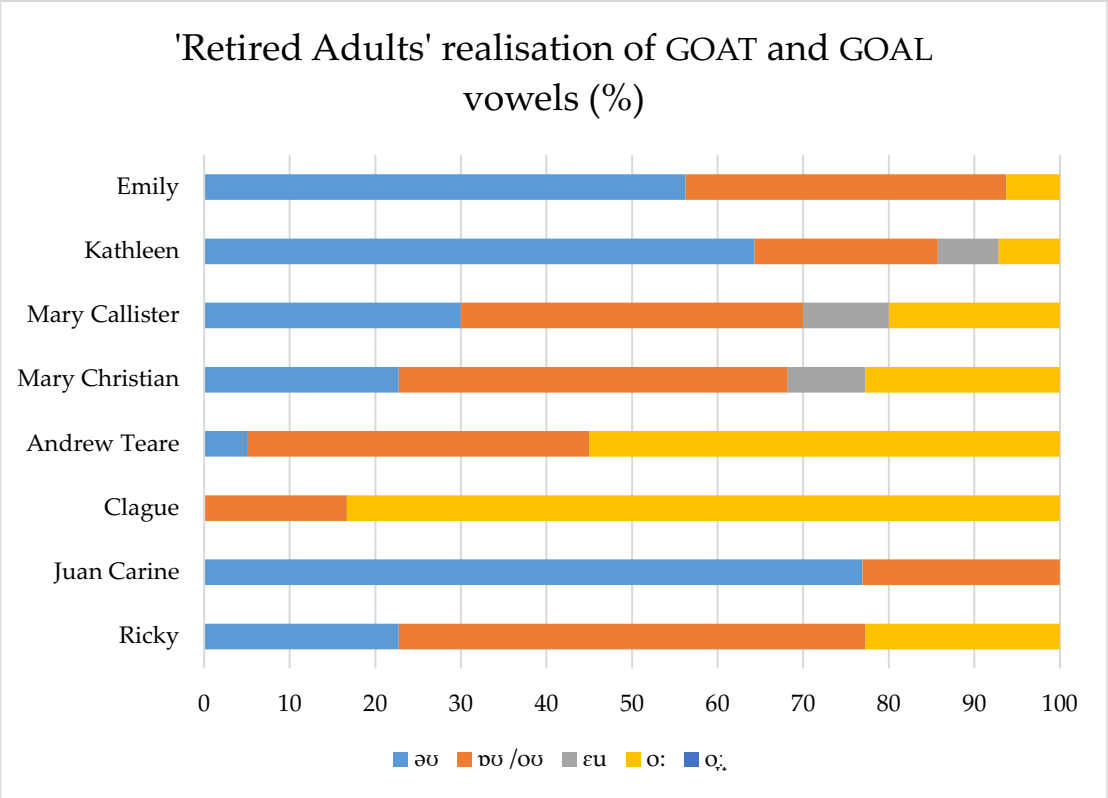
(Under 18s), who uses the LE variant in high numbers (speakers 18, 6 and 7 in sociogram). Half of the speakers in this group did not use this LE variant. Once again, the use of a monophthong is low but its range is broad: 6 out of 8 speakers realising either [o̝ː] or [oː].



Number of TOKENS	əʊ	ɒʊ /oʊ	ɛʉ	oː	o̝ː	Total
Amy	9	9	3	0	0	21
Carly	4	6	13	1	0	24
Ellie	8	11	0	6	0	25
Hannah	10	9	1	1	0	21
Andrew Christian	4	6	0	3	3	16
Juan Kewish	6	6	0	5	0	17
John Kissak	7	7	1	0	0	15
Matthew	14	6	0	2	0	22

Figure 31: Middle Adults realisation of GOAT and GOAL vowels (as percentage in chart, N in table)

The Retired Adults (figure 32 below) were the highest users of the monophthong [oː] but did not realise the more centralised [o̝ː] variable. Clague and Andrew Teare showed especially high rates of this monophthong variant (speakers 29 and 30 in sociogram – interviewed separately). 3 speakers in this group showed high usage of the RP diphthong while [ɒʊ /oʊ] had the largest number of instances.



Number of TOKENS	əʊ	ɒʊ /oʊ	ɛʉ	oː	o̝ː	Total
Emily	9	6	0	1	0	16
Kathleen	9	3	1	1	0	14
Mary Callister	6	8	2	4	0	20
Mary Christian	5	10	2	5	0	22
Andrew Teare	1	8	0	11	0	20
Clague	0	4	0	20	0	24
Juan Carine	10	3	0	0	0	13
Ricky	5	12	0	5	0	22

Figure 32: Retired Adults realisation of GOAT and GOAL vowels (as percentage in chart, N in table)

There was a significant difference in the use of all variants by the different age groups. The contingency table below displays the raw values, (expected cell values) and [chi square statistic] in each cell. The overall chi square statistic was 216.399 with a p value < 0.05. There was a significant difference between the age groups and their choice of variants in the GOAT lexical sets which will be discussed in more detail in the next section.

Table 44: Contingency table displaying each age group and the variants realised

	Under 18s	Young Adults	Middle Adults	Retired Adults
[əʊ]	11 (33.00) [14.66]	36 (39.71) [0.35]	61 (40.27) [10.68]	43 (38.03) [0.65]
[ɒʊ ~ oʊ]	18 (30.59) [5.18]	30 (36.81) [1.26]	49 (37.33) [3.65]	43 (35.26) [1.70]
[ɛ̲ʉ̶]	85 (37.59) [59.82]	67 (45.23) [10.48]	16 (45.87) [19.45]	4 (43.32) [35.69]
[o̤ː] or [oː]	4 (16.83) [9.78]	9 (20.25) [6.25]	18 (20.53) [0.31]	46 (19.39) [36.51]

6.6 Summary and research objectives

Using the information above, it is now possible to return to the research objectives which were:

1. To assess the influence of accent features coming over from other parts of the British Isles

2. To investigate features of MxE that may be lost

And to find possible answers to the following aim:

3. To investigate which social or linguistic factors may be influential in the acceptance or resistance of MxE features

6.6.1 The influence of accent features from other parts of the British Isles

I have shown that influences are being felt from LE, the increase in use of the [ɛ̲ʉ̶] diphthong has certainly made an impact in all generations. The southern English diphthong [əʊ] is also on the increase (a prediction of Barry's that has come to fruition (1984)). The influence of the pan-northern feature is not so clear. The low tokens of [oː] suggests that this is not a large influence on the IoM. It is possible that the realisation of [oː] comes more from traditional MxE as it was used mostly by the older speakers.

It is interesting to note that language variants from LE are being realised mostly by female speakers. The rise of LE [ɛ̲ʉ̶] in MxE dialect is not surprising, with LE being recognised to have significant effects on MxE in the last 20 years (Hamer 2007, Pressley 2002). Research from the Wirral (Newbrook 1999) had very similar findings to my own. The Wirral data showed 79% of [ɛ̲ʉ̶] realisation for females, while males preferred the [oʊ] diphthong. Change in the Wirral was coming in through younger speakers; in particular by females. These conclusions are mirrored on the

IoM. The finding regarding females leading this change is complementary to other research in the field (Newbrook 1999: 91, Schleef and Ramsammy 2013: 30, Denis 2011: 64). Also, the predictions of future British accents of Trudgill (1999a: 34, 65 and 83) are displayed within my results. Recalling the dialect boundary maps in section 1.3.4 (figures 2-4) and 2.1 (figure 5); the expansion of LE is clear. The GOAT vowel results support the expansion of LE on these maps.

It is interesting to note from the above results that female speakers prefer the LE variant rather than males who are leaning towards a more nationwide RP variant. According to Labov's (2001: 367) gender principles, male speakers would tend to deviate more from standard varieties than their female counterparts (see table 9 – section 3.2.1). Labov (2001: 367) states that with 'stable sociolinguistic variables' (in this case the /ɒʊ, oʊ/ or /əʊ/ variant), females are more likely to be conservative and conforming: "women show a lower rate of stigmatized variants and a higher rate of prestige variants" (Labov 2001: 266). However, this data shows that females are not using the prestige variant (RP's /əʊ/ diphthong) as much as the males. This is an interesting finding that would bring into the question of: what features MxE speakers may perceive as prestige/local or traditional. There may also be questions about what networks male and female speakers may be operating in; whether the RP has a greater influence in the different networks. However, this would be a question for further research.

6.6.2 The features from the SED that may be lost and the social or linguistic factors influencing MxE and the features being accepted or resisted

There was strong evidence that the use of [ɒʊ /oʊ] had potential to be lost in MxE through geographical diffusion (because of the spread of LE features and RP). In the SED data, the use of [ɒʊ /oʊ] was very high: over half of the tokens (55%) were close to this variable. The new data showed similar rates thus suggesting a resistance to change. The social prestige of this variable has not lost ground and is one which is ubiquitous within GOAL words and realised in abundance in GOAT words. As with the t-h variable in Watson's (2006: 61) study, the GOAT variables in MxE seem to be "diverging from supra-local norms" (as the use of [oː] is decreasing). There may be a change in the future (with the increase in LE [ɛ̲ʉ̶]), but the [ɒʊ /oʊ] variable still has a foothold in this dialect.

The feature that has reduced in number of realisations is the monophthong [oː]. The feature was widely recorded in the SED and I also found this realisation of GOAT words ubiquitous in a mini analysis of SED recordings (see 6.1.3). The traditional feature of the GOAT lexical set was also absent in the speech of younger speakers in Tyneside (Watt 2002). The vowel sound of [ʊə] was realised significantly less by the younger speakers in the study (Watt 2002: 54-55). To use this feature was seen by the speakers as "linguistically backward" (Watt 2002). Although this is the traditional form, there is a great sense of pride in being Manx and a desire to continue

cultural distinctiveness through language choice (see discussion in section 9.1.3). This is perhaps a reason for holding on to the other traditional realisation of [ɒʊ /oʊ]. Watt (2002) talks of a 'trade off' between new and old features: this [oː] vs [ɒʊ /oʊ] distinction could be the MxE version of the resolution. So even though the long monophthong is both a part of MxE past realisation as well as a modern northern England English development of this lexical set (see section 6.1.2), it still does not seem to be the realisation of modern MxE speakers.

In terms of age groups and analysis of the linguistic marketplace, the results showed clear preferences for Young and Middle Adults to use a national 'standard' form. These age groups would fall into the theory discussed by Sankoff and Laberge (1978) (see section 2.2.3) as they used the highest rates of the RP variant. The results in section 6.5 showed the Under 18s and Retired Adults category using variant that may be described as 'non-standard'. Thus, the theories surrounding age-grading are supported and clearly patterned within the results for this feature on the IoM.

Finally, investigating the mechanism of change and where the variation is coming from, can inform where MxE may be going in the future. First, looking at the monophthong [oː]. The rates are highest in the oldest age group and lowest in the youngest (percentages going from 34% to 10% to 5% to 2% as we go down the age scale). This suggests that this variant may not increase in the future. This is surprising as it is a traditional variant

from MxE as well as being a development of modern northern England English. The feature that seems to be coming in is the [ɛ̲ɹ̲] diphthong from LE. With higher rates from Under 18s and the trend coming from females, it is possible that this is a variable that is being adopted by islanders. However, overall, the [ɒʊ /oʊ] is the most realised variant within the GOAT and GOAL words. This shows a consistency with traditional MxE combined with an acceptance of the incoming features that Barry (1984) suggested (further discussion in Chapter 9).

7 Glottal Stop

7.1 Introduction

Glottal replacement is a feature widely discussed in geographical diffusion (see 2.2). It is present in many different accents of English around the British Isles. Glottal replacement occurs when /t/ is supplanted by [ʔ] in word final (e.g. *but* [bʊʔ]) and intervocalically (e.g. *better* [bɛʔə]) (Britain 2002a). Areas of the British Isles have shown sufficient data to indicate that glottalisation was apparent "from at least the mid-19th century onwards" (Collins and Mees 1996: 175). Trudgill (1974) claimed that after the 1950's the substitution of [ʔ] for /t/ became "commonplace even among BBC newsreaders" (Britain 2002a: 60). Even though there is controversy over the age of glottal replacement (Kallen 2005), it is certain that the feature figures in many accents of the British Isles.

The use of glottalisation varies in prestige from place to place. In the south of England, the use of [ʔ] for intervocalic /t/ is seen as a working-class male dominated feature (Britain, 2002a). In Newcastle however, Britain (citing Milroy et al 1994; Docherty and Foulkes 1999; Milroy, Milroy and Walshaw 1997) demonstrates that it is "young middle class women" (2002a: 60) who are the instigators of change; and therefore adopt this national form more readily than males (who use traditional varieties). The glottal replacement is now ubiquitous in Britain across locations, classes, register and within non-native English speakers. It is becoming a stereotype of British English (Smith and Holmes-Elliott 2017).

Examining the overview by Britain (2002a) (see table 4: section 2.2), it is clear again that glottalisation is a trend that is sweeping the nation. The only accent not to adopt the feature in the table is Liverpool. Watson (2007: 353) uses research by Knowles (1973) and his own studies (2005, 2006, 2007) to state that in LE the use of the glottal stop for /t/ is rare. Use of [ʔ] is limited to pre-consonantal position: particularly before /l/ or /n/ (Watson 2007: 353). LE displays other realisations in place pf /t/ including [h] which occurs at word ending mainly in a "small set of high frequency monosyllabic (pseudo)function words with short vowels" (e.g. *what, but, not*) (Watson 2007: 353). Watson (2007) also includes the realisation of [θ̲] as replacement for /t/. All these realisations are candidates to be diffused into MxE and were investigated.

English in Dublin also shows the use of [ʔ], Hickey notes that "[as] a manifestation of lenition, glottalisation occurs in vernacular Dublin English, e.g. butter [bʊʔɐ], right [rəɪʔ]" (2009: 122). Within the conversation of Irish English; there is also the issue of the lenition scale of: t > t̰ > h > ʔ > ∅ (Hickey 2007: 323). Therefore, the introduction of other possible variants within MxE. With [ʔ] playing a significant role in Dublin (Kallen 2005; Hickey 2009), it may have some effect of LE which may in turn affect the influence on the IoM.

7.1.1 The glottal stop and diffusion

Although the feature is often connected to London English, glottalisation seems to have had a few different historical hubs. Unexpectedly, Trudgill uses the SED to surmise that London English's use of the glottal stop comes from Norwich and not the other way around (1999: 136). The west of Scotland, and certainly Glasgow, has had an historical link with the feature (Smith and Holmes-Elliott 2017). Scots (in 1887) and Newcastle English (in 1947) is also cited to have had [ʔ] in historical contexts (Beal 2004: 166). There are also several different regional patterns and particularities (Schleef 2013); implying development in different localities. If the feature has derived individually from many different locations, there may be predisposed hierarchies of substitution (as outlined below).

In recent research the use of [ʔ] for /t/ has been a central point for the theories of geographical diffusion (see 2.2). Questions as to where and how far the feature has come can inform researchers as to the influence and

mechanisms of change. Smith and Holmes-Elliott describe the situation aptly by saying that "[b]oth the speed and spread of change across the UK have made glottal replacement something of a 'poster child' for studies of language variation" (2017: 2). Kerswill (2003: 230) describes it as one of the 'torchbearers' of diffusion. Its importance in modern language variation is evident, and by studying this feature on the IoM it will be valuable to include MxE into the conversation about geographical diffusion of [ʔ] on the British Isles.

7.1.2 Social and linguistic context

Researchers in the past have predicted the trajectory of *t*-glottaling by combining the social with the linguistic context and findings. As mentioned previously, the social context can vary from place to place. Whether the feature is realised from working or middle-class speakers, or, female or male speakers, can indicate where the change has come from. In some locations males or females lead the change (Britain 2002a; Mathisen 1999;, and in some locations it was neither (Foulkes and Docherty 1999; Stuart-Smith 1999a).

The phonetic environment that the phoneme /t/ sits in, has also had much emphasis in past research. The segment following *t* is an important element and one which is consistently focused on (Schleef 2013; Mathisen 1999; Drummond 2011; Foulkes and Docherty 1999; Milroy et al 1994; Straw and Patrick 2007; Smith and Holmes-Elliott 2017). The three main contexts are "(i) preconsonantal /t/ (henceforth, the PreC context); (ii)

prevocalic /t/ (the PreV context); and (iii) prepausal /t/ (the PreP context)" (Schleef 2013: 204). The different preferences and hierarchy of these three preceding environments can lead researchers to hypothesise as to where change comes from (examples set out below). The preferred hierarchy among more southern areas of the British Isles is: PreC > PreP > PreV (Smith and Holmes-Elliott 2017: 4; Straw and Patrick 2007: 396). Whereas, Tyneside may be more like: PreC > PreV > V_V (intervocalically) > PreP (Milroy et al 1994: 341). It will be interesting to look for patterns within MxE usage of glottal replacement and augment the research within this area.

Connections between linguistic patterns and diffusion theories have been made in past research. Mathisen's (1999: 115) research demonstrated that the preferences in Sandwell followed an "RP pattern" (highest frequency of [ʔ] for /t/ in preconsonantal position then prepausal then prevocalic). Therefore, the conclusion was that the use of the glottal stop was "modelled on a non-local standard which is appreciated as a prestige versus a vernacular or stigmatised form of speech" (Mathisen 1999: 116). A similar hierarchy regarding Cardiff English was also discussed by Mees (1987). The change came from higher social class women who favoured a similar pattern to Sandwell. The two researchers therefore predicted that the use of [ʔ] had diffused from an RP accent. However, Milroy et al (1994) critiqued Mees' assumption that the RP accent influenced Cardiff English. Milroy explained that RP had undergone 'radical change' and that the findings are more likely to be a "product of a more general ongoing supra-local change in British English" (Milroy et al 1994: 336-7). By investigating

the linguistic hierarchy of the glottal replacement along with sex preferences there could be a link made between MxE and other dialect changes in the British Isles.

7.1.3 Past research in Manx English

Hamer (2007: 172) states that:

> In traditional Manx English /t/ is realised as a glottal stop only when /n/ is closely proximate, although in this environment it is regular. Examples of [ʔ] following /n/ include: *twenty, apprentice, winter;* examples before /n/ (with or without intervening schwa) are: *getting* [gɛʔn], *cutting* [kʊʔən], *lightning* [leɪʔnən], *frighten* [freɪʔən], *straighten* [stræɪʔn]. Glottal stopping of /t/ is now spreading in Manx English, probably as part of a growing national trend (Foulkes and Docherty 1999:11), with a current rate of occurrence among children and teenagers of more than 80% of all tokens in some contexts, the lowest rate of occurrence being medially between vowels.

In relation to research of other localities, again children and teenagers are the first to pick up the development on the IoM (Hamer 2007). The linguistic pattern mentioned in the above quote suggests one similar to the southern areas of the British Isles (see above for linguistic patterns).

The previous statement about traditional MxE and the glottal stop (Hamer 2007) is vindicated by the SED numeric data shown below (full list of SED words and realisation can be found in appendix 10). The table below displays the use of [ʔ] within the SED data. Out of a total of 112 tokens, [ʔ] was realised in 13 instances, showing that the feature is not completely absent in traditional MxE.

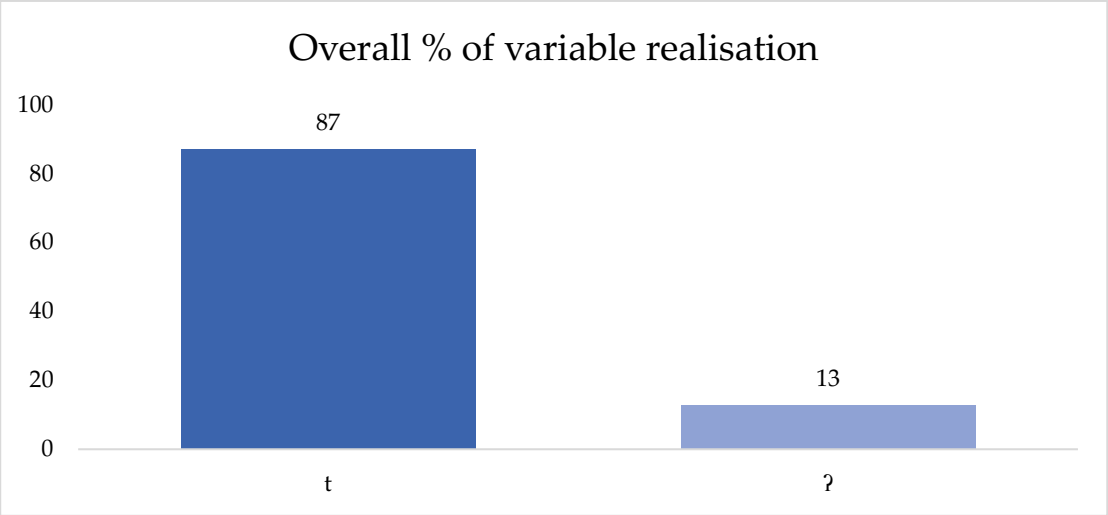


Figure 33: Overall % of variable realisation in SED data

The breakdown, in terms of the phonetic environment, on the surface looks to reveal a certain pattern. Glottal replacement in preconsonantal position is the highest with over half of instances being realised with a [ʔ]. The figure also shows 15% of instances of [ʔ] were intervocalic.

The above figures begin to paint a picture of usage of the glottal stop in traditional MxE. However, as Hamer (2007) astutely noted, it was only

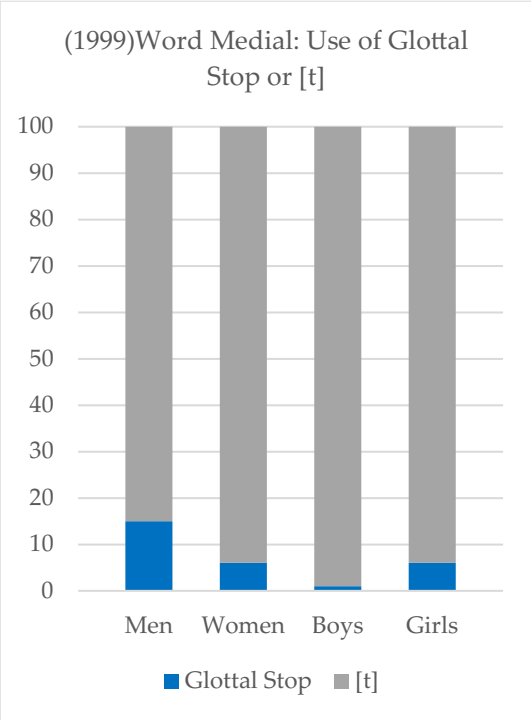
when in close proximity with /n/ that the glottal stop was realised. The words which included [ʔ] were all either [ʔn] or [ʔən] (words included *kitten*, *fighting*, *rooting*, *eating*, *cutting*, *carting*, *putting*). Words that were PreC (with /n/) were realised with [ʔ] 100% of the time (9 tokens in total), while words that were PreV with proximity to /n/ were realised with [ʔ] 57% of the time (7 tokens in total). All other words analysed for [t] vs [ʔ] without /n/ nearby were recorded as [t]. This included instances that were preconsonantal (e.g. before /l/ (*little*, *cattle*) and /h/ (*ant-hills*). Note that /t/ was not replaced by [ʔ] when preceded by /n/. Therefore, when discussing the glottal stop in relation to traditional MxE it must be noted whether the realisation is near an /n/ that is following *t*.

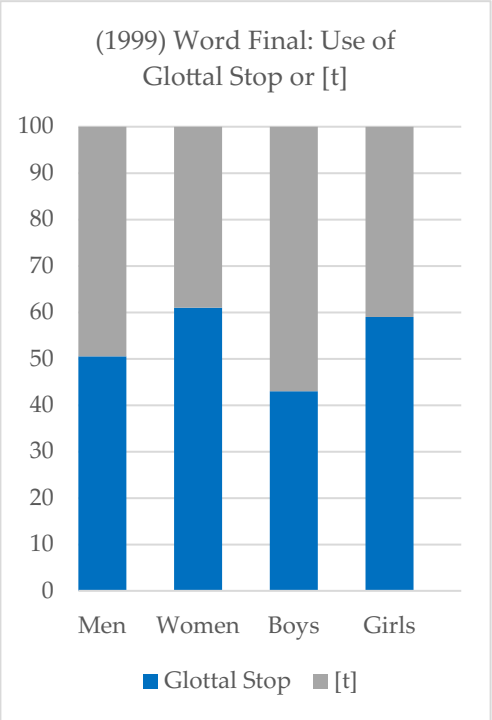
Pressley (2002: 180) first explains: "realisation of /t/ as [ʔ] is not a typical feature of either Scouse or traditional Manx English". However, the number of realisations recorded for glottal stops demonstrate that this is a feature that is becoming integrated into MxE. The table below presents the use of glottalisation from Pressley's Douglas data in 1999 (2002: 181).

Table 45: Percentage use of glottal stops by gender and age in 1999 (raw tokens are unknown) (Pressley 2002: 181)

	Medial		Final	
Group	Glottal Stop	[t]	Glottal Stop	[t]
Men	15	85	50.5	49.5

Women	6	94	61	39
Boys	1	99	43	57
Girls	6	94	59	41





It is not clear whether these phonetic environments (word medial / final) include words which are followed by another, or whether the proceeding segment is a consonant or vowel. Therefore, for the comparison I have included only word medial and final (see section 7.5.2). The age groups Pressley presented for this feature were men/boys and women/girls. The cut-off for Pressley's (2002) older and younger participants was: above or

below the age of 18. I also took this into account when comparing Pressley's data to my own (see section 7.5.2).

The table above shows extensive use of glottalisation in word final position. There were quite a low number of occurrences within word medial. Pressley did not focus on the linguistic constraints on the variable; nevertheless, this is an important insight into the realisations of MxE speakers in 1999. Glottalisation is certainly a feature that is on the rise on the IoM.

7.1.4 Rationale

To align MxE with the various studies taking place in the field of dialectology and geographical diffusion on the British Isles, glottal replacement of /t/ - [ʔ] was included in this study. There is a history of use of [ʔ] on the IoM (as discussed in 7.1.3); however, this realisation was only within one linguistic constraint. Modern use of [ʔ] has extended to many linguistic contexts. The prediction about the use of the glottal stop in MxE was that the realisations would be extended beyond the usage of the past (Barry 1984; Hamer 2007; Pressley 2002). The use has also increased across many areas of the British Isles; therefore, we might expect the numbers to have increased and the linguistic constraints to have been extended. However, LE has resisted this feature to some extent. This may have an influence on the IoM; therefore, it was revealing to explore how MxE compares with past MxE speakers as well as other localities.

7.2 Research objective

The diffusion features of glottal replacement and TH-fronting (see Chapter 8) were chosen to address the research aims one and three.

First:

> To assess the influence of accent features coming over from other parts of the British Isles

By looking at this feature and comparing its spread to past research and other locations, I was able to answer the above aim. This aim examines how much MxE may resist or align itself with other accents of the British Isles. The comparison to the past research allowed me to document the trajectory of this feature on the IoM. I also investigated the comparison to other accents. This finding allowed me to question the wider debate of island dialects and hypothesise as to the extent of influence this diffusion feature is having on the British Isles.

The second issue, which relates to research objective 3 is:

> To investigate which social or linguistic factors may be influential in the acceptance or resistance of MxE features

The comparison to other research within the field helped to address this objective. I investigated the linguistic constraints and the patterns of the phonetic environment of [ʔ] and how this compares to other research. This linguistic analysis helped me to investigate both the linguistic and social factors involved.

7.3 Linguistic constraints

The SED data showed that the use of [ʔ] for /t/ differed significantly when followed by a consonant or a vowel; therefore, this was the starting point for analysis. Pressley (2002) categorised the MxE data for glottal replacement as either word medial or final. Smith and Holmes-Elliott summarised that "[b]oth following phonetic context…and word position…play a part in governing the variation" (2017: 12). Previous studies, aiming to investigate glottal replacement only have included *t* with a preceding environment of a vowel (Drummond 2011: 290; Fabricius 2000: 81; Straw and Patrick 2007: 394). This is to limit the amount of assimilation and make the auditory analysis more reliable. Also, the SED found no instances of /t/ -> [ʔ] / n_. Therefore, only /t/ with preceding vowels will be focused on to investigate glottal replacement.

Following the lead from Smith and Holmes Elliott (2017: 8) and Stuart-Smith (1999b: 188), the consonants post /t/ were limited to non-sonorants only (/mnŋrljw/) as [t] can assimilate with other consonants. The classification of the linguistic constraints was as follows ('#' denotes that /t/ is at word ending boundary):

Coding Environment	Description	Example
/t/#P	at end of word, and before a pause	"yes, I've heard it "(Andrew Teare, Retired Adults)
/t/#C	at end of word, and before a following word that begins with a consonant	"half past eight at night" (Emily, Retired Adults)
/t/#V	at end of word, and before a following word that begins with a vowel	"we had to sit on the bank" (Breesha, Under 18s)
/t/C	before a consonant, word medial	"a little bit of Irish" (Mary Christian, Retired Adults)
/t/V	before a vowel, word medial	"with some garlic butter in it" (John Kissak, Middle Adult)

(adapted from Smith and Holmes-Elliott 2017; Drummond 2011; Stuart-Smith 1999b)

The environment of word-internal foot-initial onset was also tested but was later omitted. This includes words such as *particular*, *sometimes*, *nineteen* or *hotel*. Tollfree (1999: 172) declared this environment blocks /t/ glottaling; however, Tollfree did lay out some exceptions (the word *sometimes*). Smith and Holmes-Elliott (2017: 23) included this in their study in Buckie and found some examples of glottal replacement. Realisation in this context is higher in some north eastern England (Docherty et al 1997: 290) and eastern Scottish accents of English (Fife and Buckie) (Smith and Holmes-Elliott 2017: 23). After finding 92 tokens in this environment, with 100% without t-glottaling, I decided to exclude this from the analysis. The realisation of [ʔ] in word-internal foot-initial onset may be more of a

regional peculiarity (Schleef 2013) than an environment where [ʔ] is diffused on a national scale.

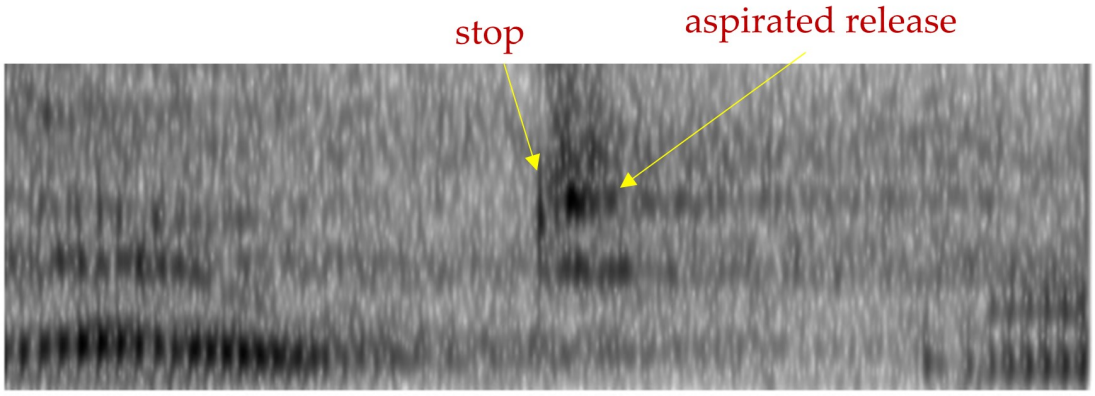
7.4 Analysis and coding

Each word with the environments listed above was extracted and analysed using PRAAT. In total, 2009 tokens were analysed: averaging around 63 per speaker. Many research studies have used auditory analysis to discern the realisations within this framework (Docherty and Foulkes 1999; Drummond 2011; Smith and Holmes-Elliott 2017). These studies follow the suggestion that researching glottalisation can be analysed using auditory analysis. On the other hand, acoustic analysis is more suited to analysing acoustic profiles of linguistic elements (Drummond 2011: 290). For ambiguous tokens, I combined auditory and acoustic analysis. As per Clark and Watson's (2016: 38) examples of "acoustic signature pattern[s]" within a spectrograph, it was possible to view any problematic realisations to improve the reliability of the auditory analysis. Tokens were analysed auditorily by two researchers. When problem tokens arose, both researchers verified the auditory analysis visually (by examining the spectrograph within PRAAT).

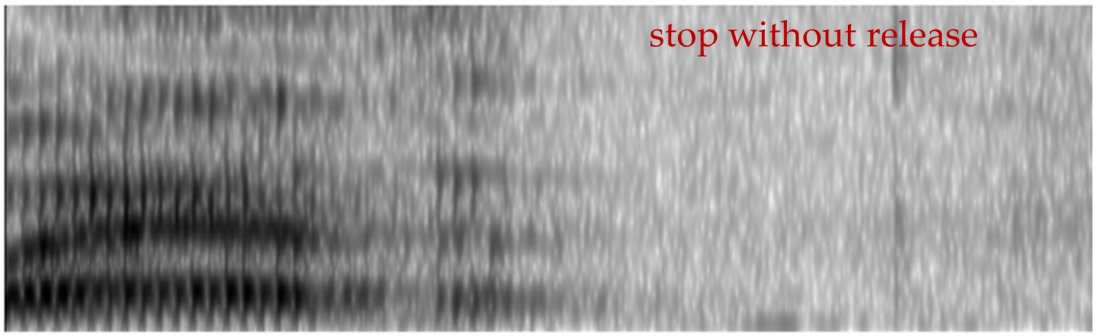
Clark and Watson (2016: 37) explain that for [ʔ], "there is a wide range of realizational variation…and no single acoustic pattern". Glottal stop was therefore mainly identified auditorily, the other variables may be more visible in the spectrograph. The other variables noted were:

- t – voiceless alveolar stop
- $t̚$ - "lacking an audible release" (Trask 2004: 369)
- $ɾ$ - alveolar tap – occasionally regarded as a single touch of the tongue on the alveolar ridge; 'a limited trill' (Trask 2004: 351).
- h – voiceless glottal fricative – no visible stop on spectrograph (Ladefoged and Maddieson 1996: 325)

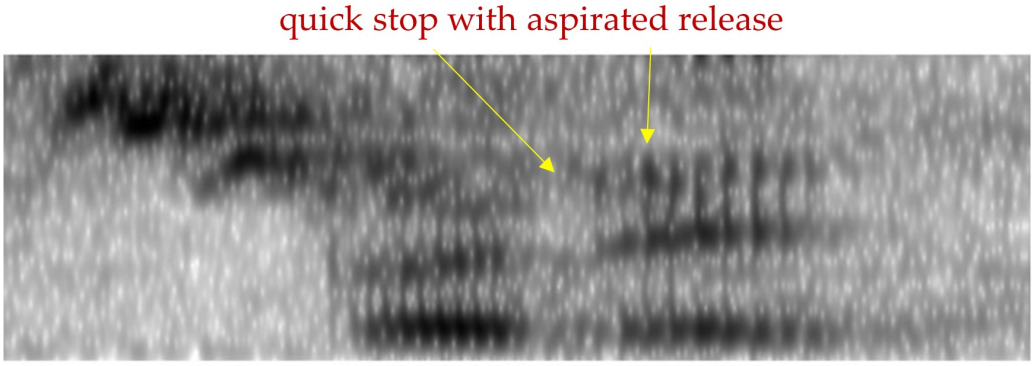
The following spectrograms display the four realisations described above. The first realisation is [t], there is a clear stop and release. The second shows no release after the stop [t̚]. The thirds spectrogram shows an [ɾ] realisation, there is a quick tap without a clear stop between the vowel sounds. In the final spectrogram there is no clear stop, followed by a breathy release. Thus, using visual cues for problematic realisations can help the researchers decipher the correct allophonic variant.



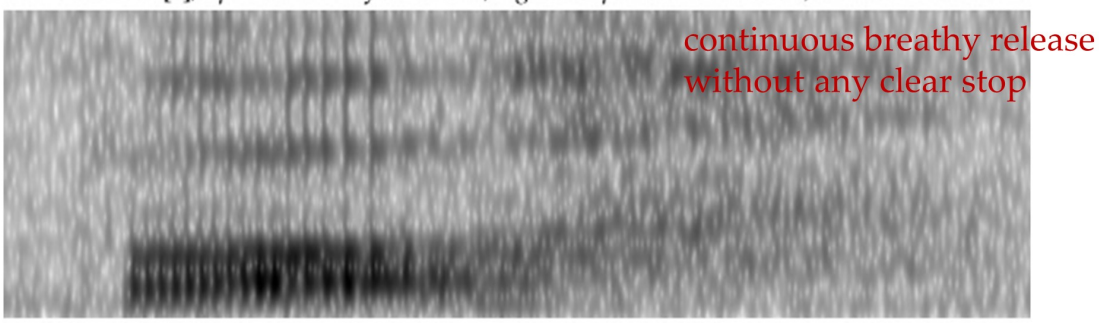
Realisation = [t]; *Speaker* = Juan Carine; *Age Group* = Retired Adult; *Token* = out



Realisation = [t̚]; *Speaker* = Andrew Christian; *Age Group* = Middle Adult; *Token* = that



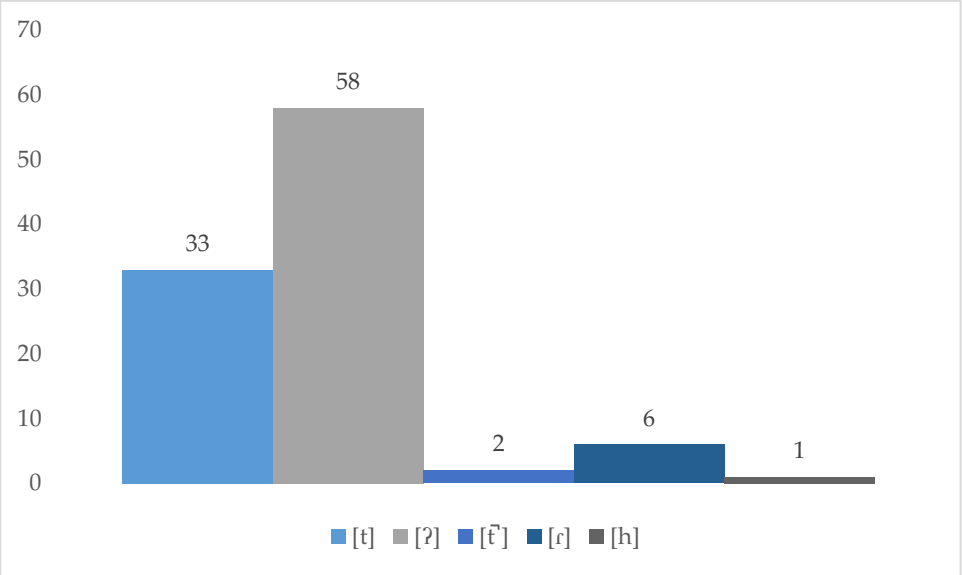
Realisation = [ɾ]; *Speaker* = Mary Callister; *Age Group* = Retired Adult; *Token* = but



Realisation = [*h*]; *Speaker* = Essa James; *Age Group* = Under 18; *Token* = but

7.5 Results

The overall distribution of realisation displayed below shows a high use of the glottal stop and some surprising use of tapped [ɾ] and [h] (discussed in detail in 7.6.1). The realisation of [θ] replacement for /t/ was not found. As discussed previously, this may have been found word medially as was found in the SED (approximants also found in Irish English (Kallen 2005) and also LE (Clark and Watson 2016).



	[t]	[ʔ]	[t̰]	[ɾ]	[h]	Total
Number of Tokens	668	1167	35	129	10	2009
Percentage	33	58	2	6	1	

Figure 34: Overall distribution of realised variants (graph in %)

As can be seen the highest number of tokens realised was the glottal stop. However, a more detailed analysis of the social and linguistic constraints (outlined above) is needed to evaluate the data. This section is divided into the following parts: Linguistic constraints, real-time results, apparent-time

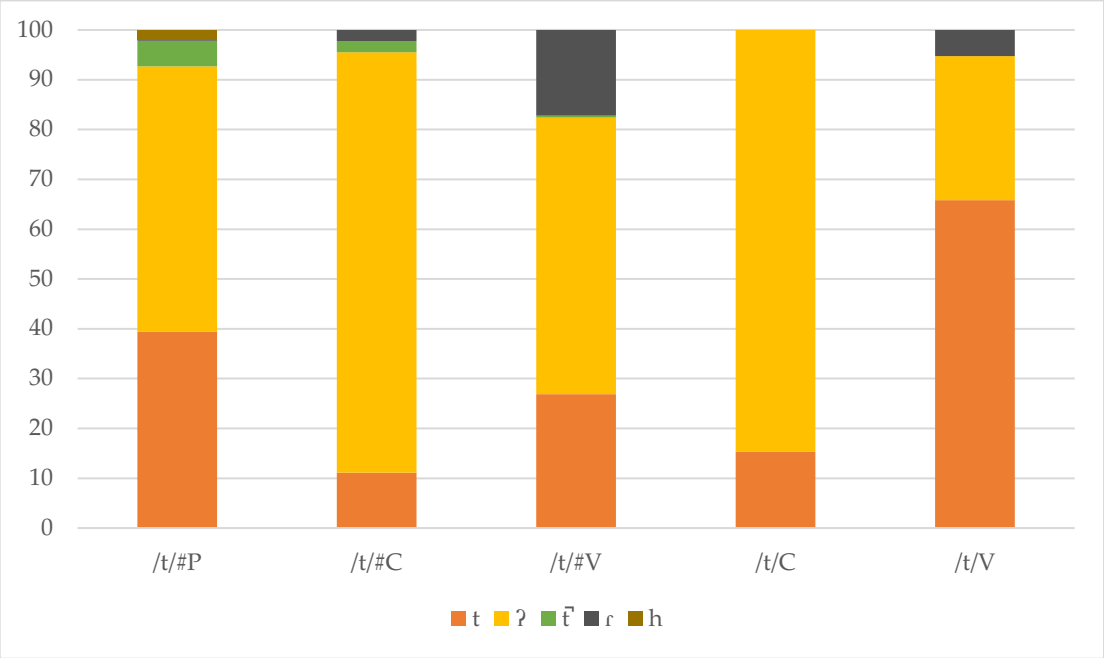
results and results displaying sociolinguistic differences. Within the real-time results, the data from this study will be compared directly with the data from the SED and from the Recording Mann project.

7.5.1 Linguistic constraints

Section 7.1.2 sets out the linguistic constraints put in place to test this feature. As was previously mentioned, it is useful to investigate the proceeding phonological segment as well as the word position as they both "play a part in governing the variation" (Smith and Holmes-Elliott 2017: 12). Therefore, the following environments were set out:

Coding Environment	Description
/t/#P	at end of word, and before a pause
/t/#C	at end of word, and before a following word that begins with a consonant
/t/#V	at end of word, and before a following word that begins with a vowel
/t/C	before a consonant, word medial
/t/V	before a vowel, word medial

Overall distribution of variants is shown in the chart below. As expected, the constraints where the glottal is a majority is preconsonantal (the SED data shows a preference for [ʔ] before or near a consonant (/n/)). In addition, other studies (highlighted in 7.1.2) demonstrated that glottalisation before a consonant nearly always came out at the top of the hierarchy. The overall distribution of the glottal stop for this data is: PreC > PreV > PreP > V_V. This pattern is different from the orders of the locations mentioned in 7.1.2 (south east England (PreC > PreP > PreV) and Tyneside (PreC > PreV > V_V > PreP). It is interesting to find that there was a large difference between the PreV environment and the V_V. Although there can be very similar constraints on the target phoneme in these environments (e.g. *invi<u>te</u>d* and *shu<u>t i</u>t* have /ɪ/ proceeding /t/. *bet<u>ter</u>* and *go<u>t a</u>* both have an /ə/ following the /t/), it was much more likely that glottal replacement would be evident in the /t/#V environment (*shu<u>t i</u>t*, *go<u>t a</u>*). 56% of all utterances with a /t/#V context were realised with [ʔ], while it was just 29% in the /t/V context.



Number of TOKENS	t	ʔ	t͡ʃ	ɾ	h	Total
/t/#P	199	269	26	1	10	505
/t/#C	35	265	7	7	0	314
/t/#V	159	329	2	102	0	592
/t/C	36	199	0	0	0	235
/t/V	239	105	0	19	0	363

Figure 35: Overall distribution of variants in different linguistic constraints (as percentage in chart, N in table)

The /t/V context had the lowest realisation within all the age groups. The four figures below show each of the age groups and their realisation of variables in different linguistic contexts.

To find out where change is coming from it is essential to analyse the constraint hierarchy through the age groups. The following table displays these patterns with regards to the glottal stop and in which phonetic

environment it is most likely to be used. The table begins with the most likely on the left and least on the right.

Table 46: Lexical constraint patterning of [ʔ] in different age groups

Under 18s	/t/#C >	/t/#V >	/t/#P >	/t/C >	/t/V
Young Adults	/t/#C >	/t/C >	/t/#P >	/t/#V >	/t/V
Middle Adults	/t/#C >	/t/C >	/t/#P >	/t/#V >	/t/V
Retired Adults	/t/C >	/t/#C >	/t/#V >	/t/#P >	/t/V

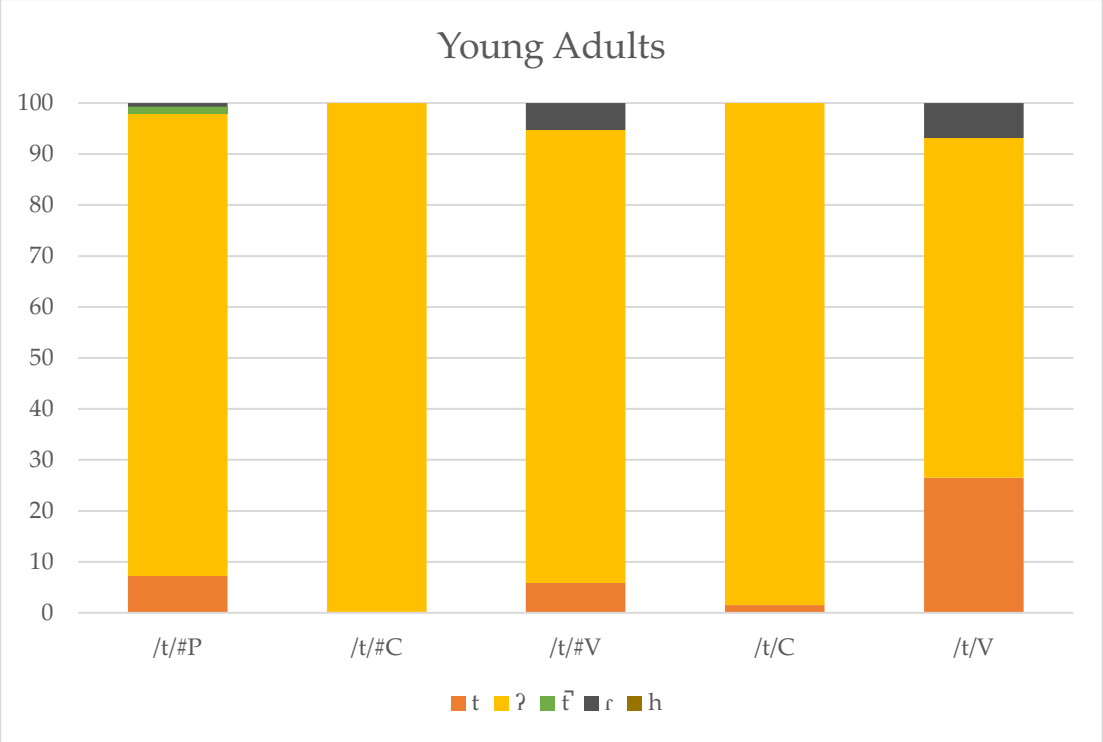
There are a few differences in the patterning of [ʔ] highlighted above. As mentioned previously, it was unforeseen that there would be much difference between the /t/#V and the /t/V category. This is again the case with the /t/#C and the /t/C categories, especially with regards to the Under 18s. Higher use of [ʔ] was found in words like *got like* than in *little* despite the following segments being similar. This therefore justifies separating word medial and word ending instances where glottal replacement may occur. The charts below analyse the differences further and demonstrate each feature and the relationship of [ʔ] with the lexical constraints.

Number of TOKENS	t	ʔ	t͡	ɾ	h	Total
/t/#P	7	61	2	0	10	80
/t/#C	0	49	0	0	0	49
/t/#V	9	83	0	0	0	92
/t/C	9	14	0	0	0	23
/t/V	37	13	0	0	0	50

Figure 36: Under 18s distribution of variants in different linguistic constraints (as percentage in chart, N in table)

The results from the Under 18s age group were a bit more convergent than those of the other age groups. First, the [h] variant, which was surprising to find in MxE, is always found in word final position before a pause. The linguistic constriction of this variant suggests that it is learned and borrowed directly from other accents of English. Second, the use of [ʔ] vs [t] in the t/C/ category is also a little surprising. A split of 39% ([t]) and 61% ([ʔ]) is lower than the other age groups. To analyse this constraint further, I looked at whether there was a pattern to use of [ʔ] vs [t] in the t/C/ category. When in proximity of /n/ or /ŋ/, use of glottal was less than that

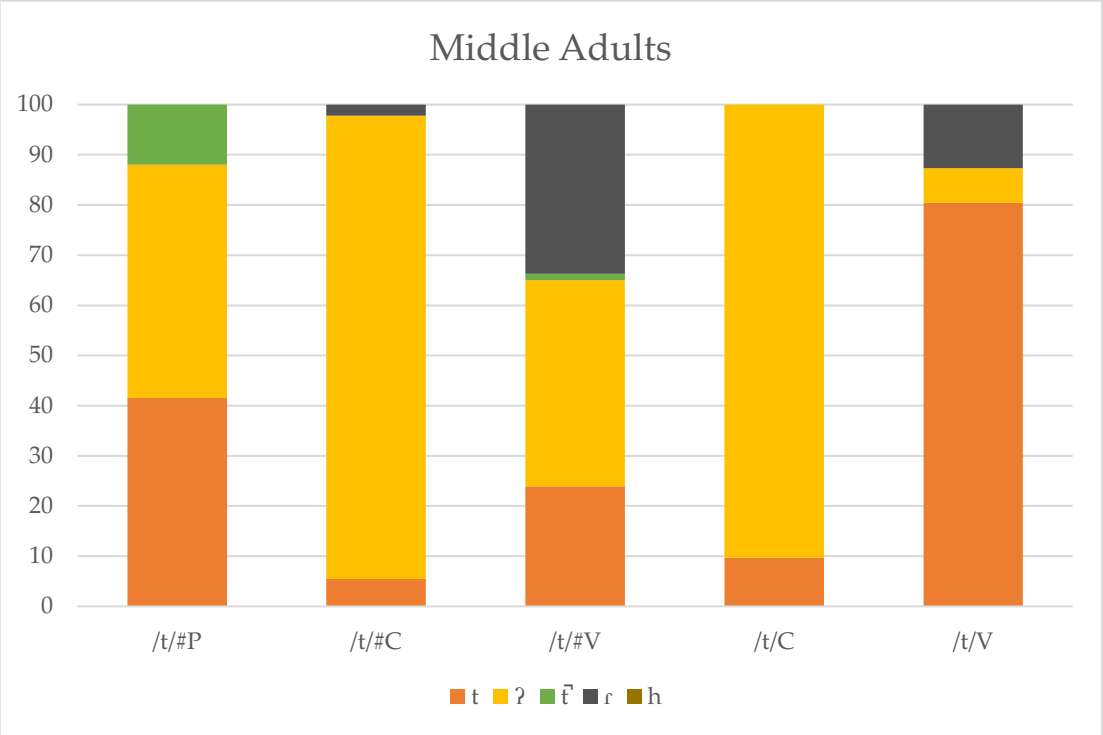
of [t] (42% to 58% respectively), meaning that there were instances where [t] was followed by /n/ or /ŋ/. This pattern is unusual in comparison with both the SED data and the other age groups who show a combined 2% usage of [t] when followed by /n/ or /ŋ/ in this lexical category. Further discussion on this constraint can be found in the section 7.6.2.



Number of TOKENS	t	ʔ	t͡ʃ	ɾ	h	Total
/t/#P	10	125	2	1	0	138
/t/#C	0	67	0	0	0	67
/t/#V	10	152	0	9	0	171
/t/C	1	64	0	0	0	65
/t/V	31	78	0	8	0	117

Figure 37: Young Adults distribution of variants in different linguistic constraints (as percentage in chart, N in table)

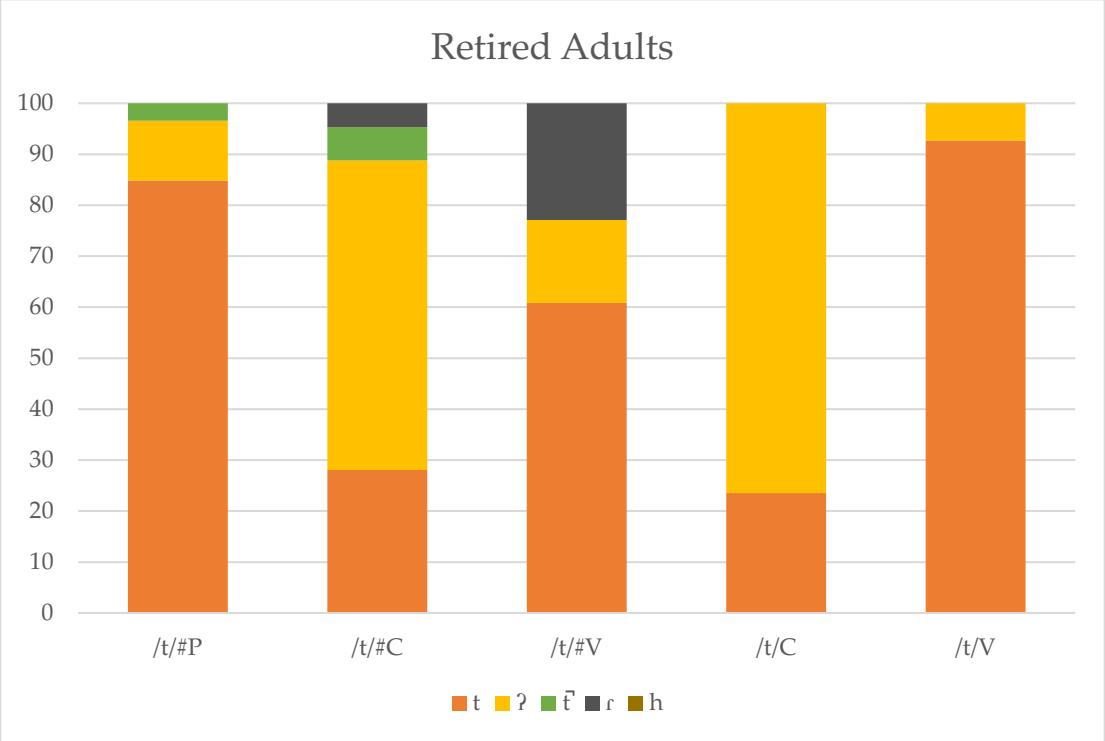
The Young Adults data shows, by far, the highest usage of glottal stop along all linguistic constraints. The almost unanimous use of [ʔ] when followed by a consonant substantiates the claim that the glottal stop has integrated itself into MxE speech. Although the percentage use of glottal stop is very different between the Young Adults and Middle Adults, the patterns of lexical constraints are identical. This suggests that the influences affecting the Young and Middle Adults are similar. The Under 18s may have different reasons for their production of the glottal stop.



Number of TOKENS	t	ʔ	t͡ʔ	ɾ	h	Total
/t/#P	59	66	17	0	0	142
/t/#C	5	84	0	2	0	91
/t/#V	39	67	2	55	0	163
/t/C	6	56	0	0	0	62
/t/V	70	6	0	11	0	87

Figure 38: Middle Adults distribution of variants in different linguistic constraints (as percentage in chart, N in table)

The Middle Adults had the highest rates of tapped [ɾ], this feature was realised mostly before vowels in the /t/#V and /t/V category. Rates of glottal stop in the word medial prevocalic position were very low; this was similar to the Retired Adults category.



Number of TOKENS	t	ʔ	t͡ʃ	ɾ	h	Total
/t/#P	123	17	5	0	0	145
/t/#C	30	65	7	5	0	107
/t/#V	101	27	0	38	0	166
/t/C	20	65	0	0	0	85
/t/V	101	8	0	0	0	109

Figure 39: Retired Adults distribution of variants in different linguistic constraints (as percentage in chart, N in table)

The lexical constraints from the Retired Adults is perhaps the least surprising. The majority constraint for [ʔ] is where /t/ is followed by a

consonant and for the other constraints the usage reduces. This pattern is linked historically with the SED data and therefore shows no divergence in pattern but only an increase in use over the years.

7.5.2 Real-time results

I begin by comparing my own findings to those of past results of MxE speakers. To recap there were different results from the two different eras. The results within this section are descriptive only as not enough data or information is available for a statistical comparison. The 'Apparent-Time Results', 'Linguistic Constraints' and 'Social Constraints' sections include statistical analysis alongside the descriptive reasoning.

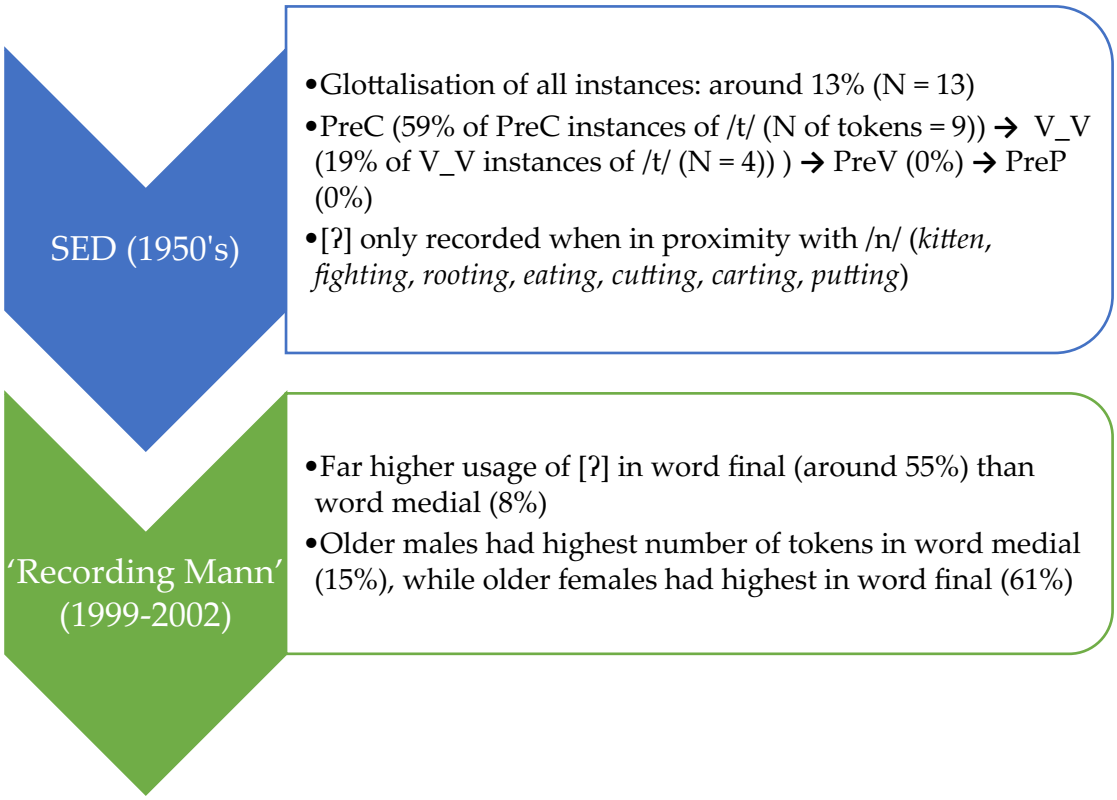


Figure 40: Overview of past research of MxE with regards to glottal stop and its key findings

First, comparing overall instances, my data showed 58% use of [ʔ] in all phonetic environments while the SED showed around 13%. Pressley did not reveal overall rates, but with 55% in word final and just 8% in word medial in 1999, it is clear that the overall percentage has grown over the years.

Second, regarding the environment where glottal replacement occurs: when near a nasal consonant, rates of [ʔ] were very high in the SED. The table below displays situations in which the glottal could have been realised. The order of preference for the SED was PreC > V_V > PreP > PreV. Where the PreP and PreV environments were not glottalised during

the SED, we can see that my 2016/2017 data showed over 50% use of [ʔ] within these environments. This difference signifies a large increase in use over a wide range of word positions. As will be seen later, these phonetic environments proved more popular for glottal replacement for younger age groups.

Table 47: Use of [ʔ] in different phonetic environment (percentage) (total N of items in category in brackets)

	PreC	PreP	PreV	V_V
SED data	59% (17)	0% (65)	0% (3)	19% (16)
2016/2017 data	85% (549)	53% (505)	56% (592)	29% (363)

The data from the SED was especially explicit as to the neighbouring features prohibited near the glottal stop. I separated my results into two different categories, those with /n/ or /ŋ/ in close proximity and those without. Looking back to the SED results, recall that [ʔ] was not realised in a phonetic environment where /n/ or /ŋ/ was not nearby. When /n/ or /ŋ/ was proceeding a location of potential glottal replacement, [ʔ] was realised in 81% of instances. As previously discussed, I recorded more than one variant of /t/ which was not the glottal stop (see section 7.3). The SED recorded only [ʔ], [θ] or [t] for /t/. As the aim of this section is to investigate the glottal stop, I have been focusing mainly on that feature (for full phonetic analysis; see 7.5.1). For the purpose of this comparison, I have divided the realisations into '[ʔ]' and 'not [ʔ]'.

Table 48: proximity of /n, ŋ/ and the use of [ʔ] (percentage) (N brackets)

SED	Not [ʔ]	[ʔ]
proximity with /n, ŋ/ (16 tokens)	19%	81%
not in proximity with /n, ŋ/ (85 tokens)	100%	0%

2016/2017 data	Not [ʔ]	[ʔ]
proximity with /n, ŋ/ (182 tokens)	12%	88%
not in proximity with /n, ŋ/ (1827 tokens)	45%	55%

The table above, reveals much about the nature of change within the use of the [ʔ] within MxE. The use of [ʔ] is still higher in situations where /n, ŋ/ was closer. It has increased and [ʔ] is now preferred over [t] in this phonetic environment.

The comparison to the Recording Mann project displays the changes over the last 20 years. First, as aforementioned, the overall rates have increased. Second, Pressley (2002: 181) broke the findings down into two groups; word medial and word final. Because we are unsure of the constraints that Pressley (2002) put on the words for potential glottal replacement, I had to include all /t/ in word medial and word final position (see 7.1.3 for explanation). The cut-off for older or younger was 18 years. Finally, I only included instances of [t] and [ʔ] for comparison. I was unable to compare findings statistically, only descriptively as the number of tokens were not given in Pressley's results. The results below, are therefore, an interpretation of the phonetic environment of the percentage use of the glottal stop.

Table 49: Percentage of use of glottal stop (vs non-glottal stop) in word final and medial position by age and gender (a comparison of Pressley (2002) and my own 2016/17 data) Number of tokens in brackets (unknown for Pressley's data)

	Medial (1999)	Final (1999)	Medial (2016/17)	Final (2016/17)
Men	15	50.5	53 (134)	42 (195)
Women	6	61	56 (143)	60 (260)
Boys	1	43	50 (17)	91 (67)
Girls	6	59	27 (9)	83 (16)

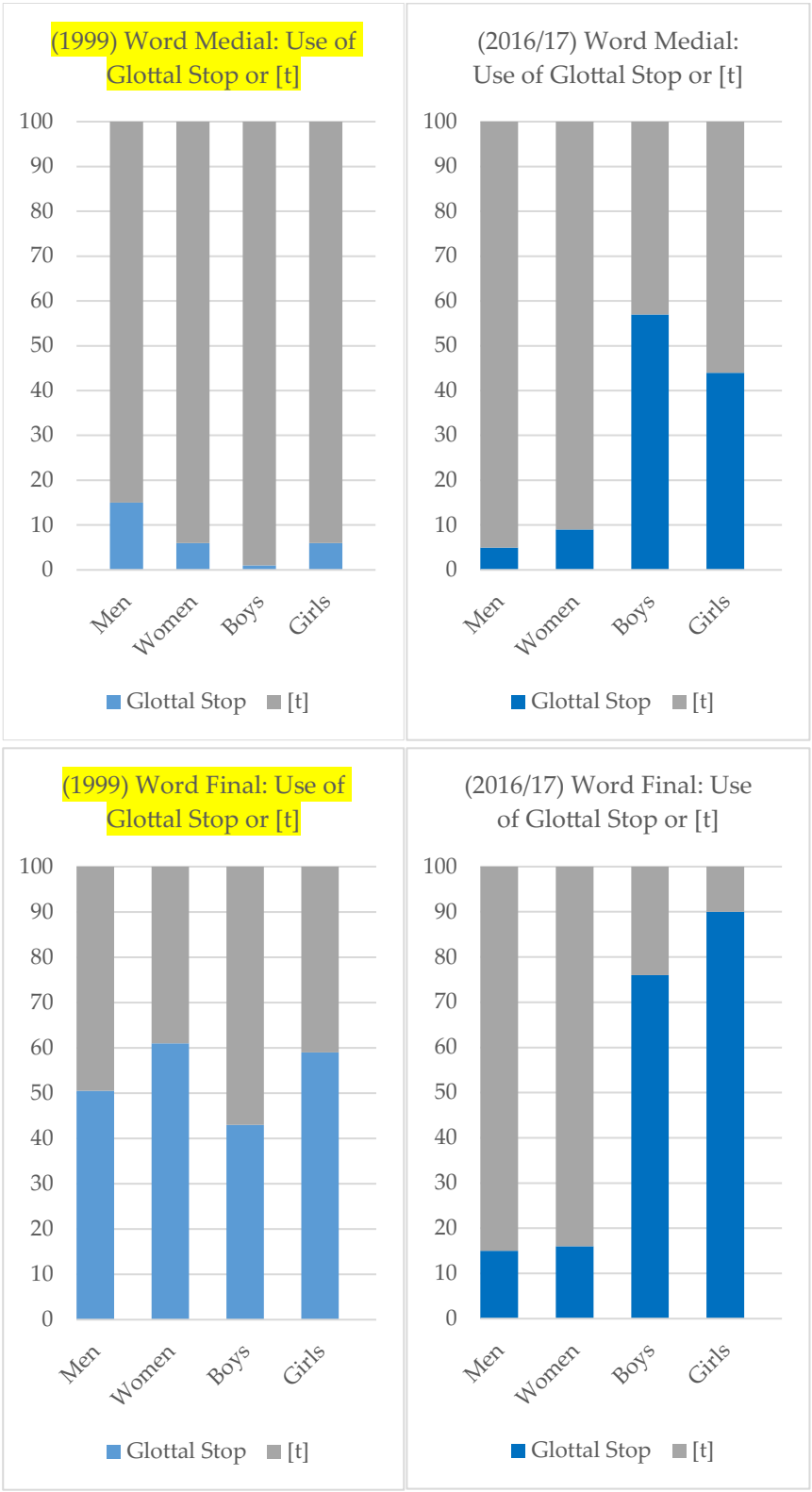


Figure 41: Percentage of instances of [ʔ] vs [t] in different word positions in Recording Mann and modern data

The similarities between the data in 1999 and now are evident in that the same pattern arises regarding the percentage of usage of [ʔ] at word medial and final. The differences are also clear in this table: [ʔ] is in far higher use amongst my younger participants in both word medial and word final. This is a significant finding that indicates that MxE use of glottal replacement has increased over the last 20 years. It also is noteworthy that the percentage of use is far higher word medially now than in the past. This again suggests the use of this feature has been extended into different phonetic environments. Surprisingly, in the older age category the use of glottal stop has dropped slightly in the word final position. There may be methodological reasons for this or the misunderstanding of Pressley's (2002) ambiguous table. This finding however is shrouded in uncertainty as we are not sure that these figures are directly comparable. Therefore, more analysis is needed with regards to where MxE sits within other accents of the British Isles; which is presented in the next section.

7.5.3 Apparent-time results

Other research regarding glottal replacement and apparent-time analysis showed a dramatic increase in use across generations (Smith and Holmes-Elliott 2017: 3). Therefore, it is no surprise that this is the case in my own data. However, the figure below shows glottal use not to be increasing as we move down the age scale. Under 18s = 75%, Young Adults = 87%, Middle Adults = 51%, Retired Adults = 30%. At 75% and 87% for the younger participants, the use of the glottal stop is still very high. The

increase from 30% in the Retired Adults shows a rapid increase in usage over a short period of time. There was a statistical difference in the use or non-use of the glottal stop between the Age groups (chi-square = 439.3946; *p*-value is < 0.00001; result is significant at $p < .05$). Individual Chi-Squared tests were also run, and the results showed a significant difference between Under 18s and Young Adults (chi-square = 20.4046; $p < .05$) and between Middle and Retired Adults (chi-square = 55.3594; $p < .05$). Further investigation is needed between individuals and social and linguistic constraints.

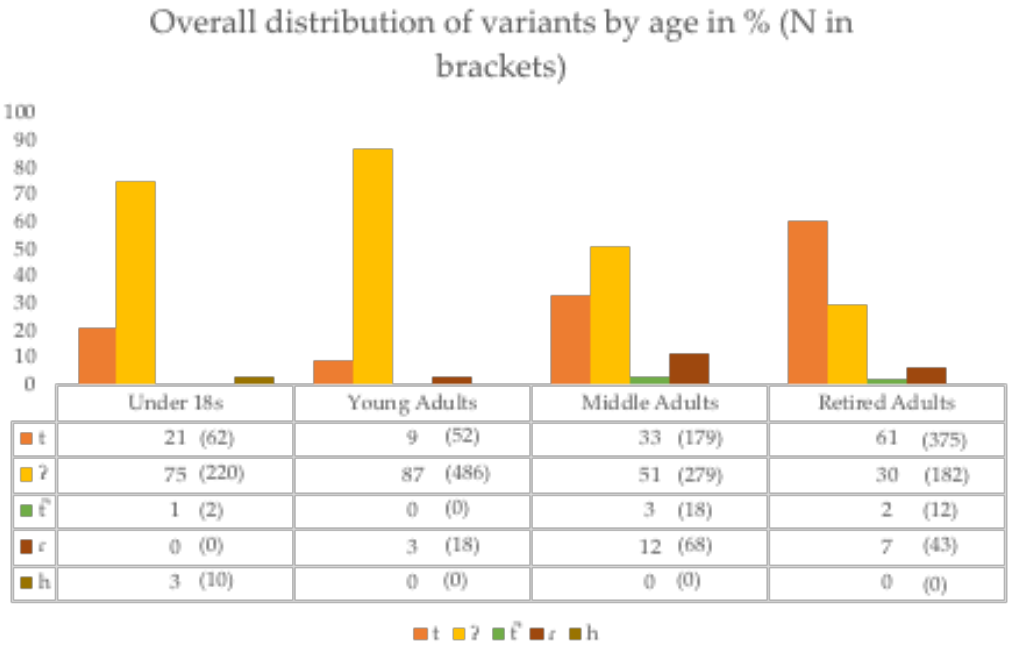
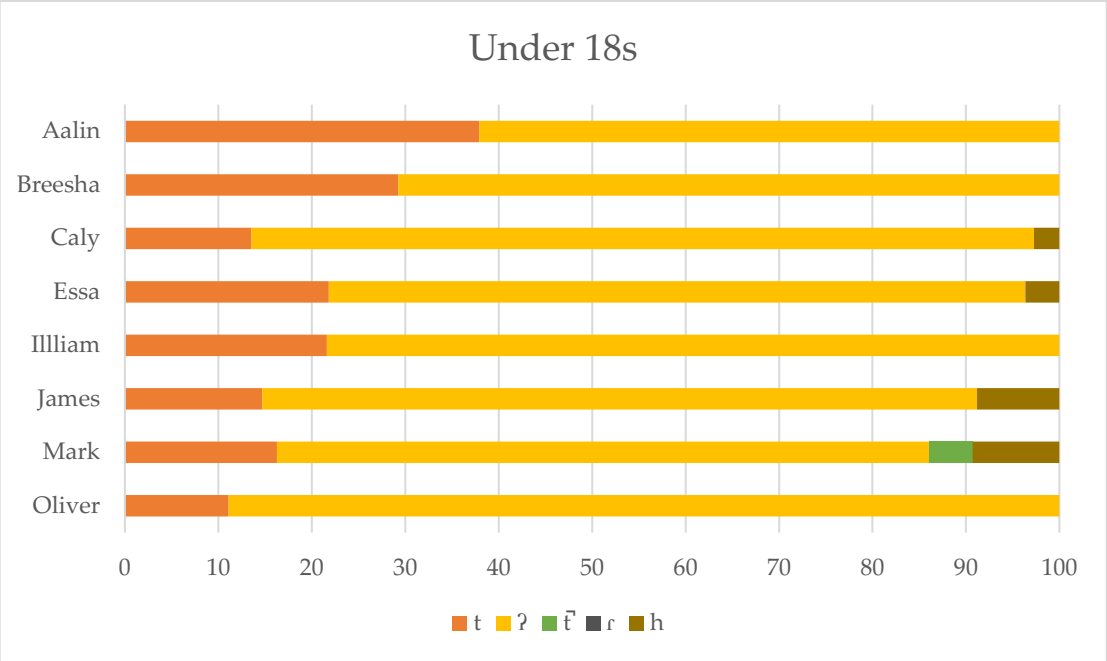


Figure 42: Overall realisation of /t/ in word medial and final by age (%, N in brackets)

The individual breakdown of the distribution of all variants is also revealing. As can be seen by the following charts, all individuals realised the glottal stop at some point over the interviews. The lowest percentage

was 13% (Andrew Teare, Retired Adults), while the highest was 97% (Adam, Young Adults). The percentage range of use of the glottal stop showed a higher conformity between the Under 18s and Young Adults (difference of 27 and 26 respectively) than the Middle and Retired Adults (45 and 41 respectively). This decrease in interspeaker variability may suggest that the feature is becoming more stabilised[19] into MxE as time passes.

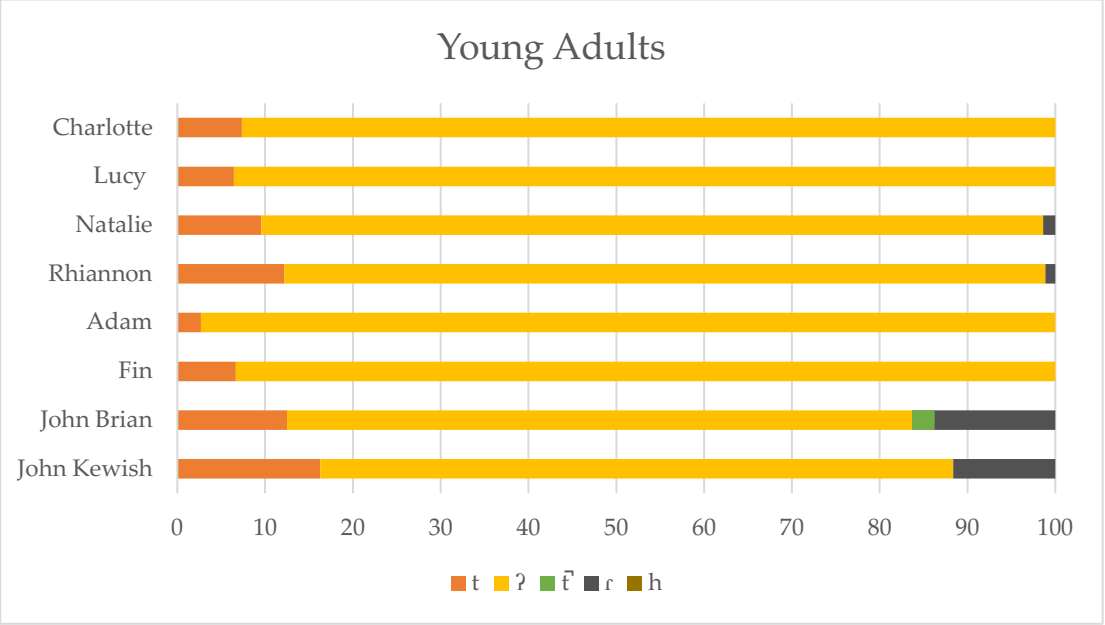


Number of TOKENS	t	ʔ	t͡ʃ	ɾ	h	Total
Aalin	11	18	0	0	0	29
Breesha	12	29	0	0	0	41
Caly	5	31	0	0	1	37
Essa	12	41	0	0	2	55
Illiam	8	29	0	0	0	37
James	5	26	0	0	3	34
Mark	7	30	2	0	4	43
Oliver	2	16	0	0	0	18

[19] Linguistic stabilisation can be described as a previously diffused form which has experienced a time of focusing before being fixed into a dialect (Trudgill 2002b: 117)

Figure 43: Individuals 18s distribution of all variants in the Under 18s age category (as percentage in chart, N in table)

As discussed previously, the range in the Under 18s is relatively low, with all children using [ʔ] most of the time. What is surprising in this age group is the use of [h] for /t/. This feature is not found in any of the other age groups but can be found in 10 tokens of the potential 294. The two girls who use this feature, Caly and Essa are sisters (their younger brother Illiam does not realise [h] – speakers 3/4/5 in sociogram). The boys who realise [h] for /t/ are James and Mark (speakers 6/7 in sociogram), are also siblings (see more on [h] discussion in section 7.6.1). There is no use of the tapped [ɾ] within the Under 18s age group.

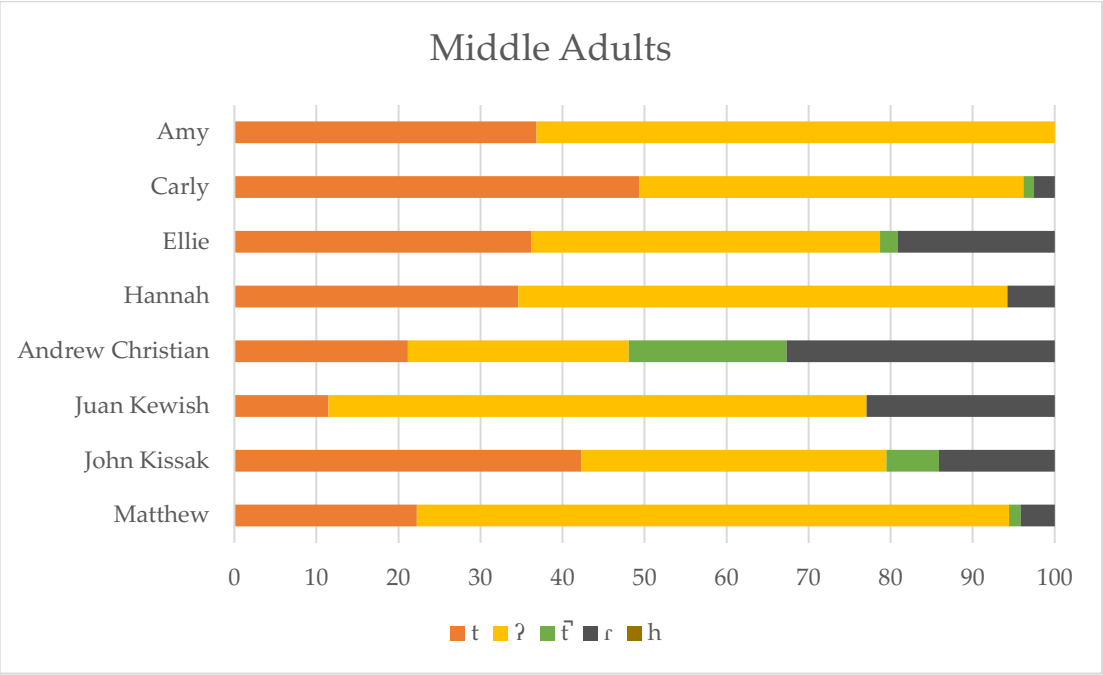


Number of TOKENS	t	ʔ	t͡ʃ	ɾ	h	Total
Charlotte	5	63	0	0	0	68
Lucy	4	58	0	0	0	62
Natalie	7	65	0	1	0	73
Rhiannon	11	78	0	1	0	90

Adam	1	36	0	0	0	37
Fin	7	98	0	0	0	105
John Brian	10	57	2	11	0	80
John Kewish	7	31	0	5	0	43

Figure 44: Individuals 18s distribution of all variants in the Young Adults age category (as percentage in chart, N in table)

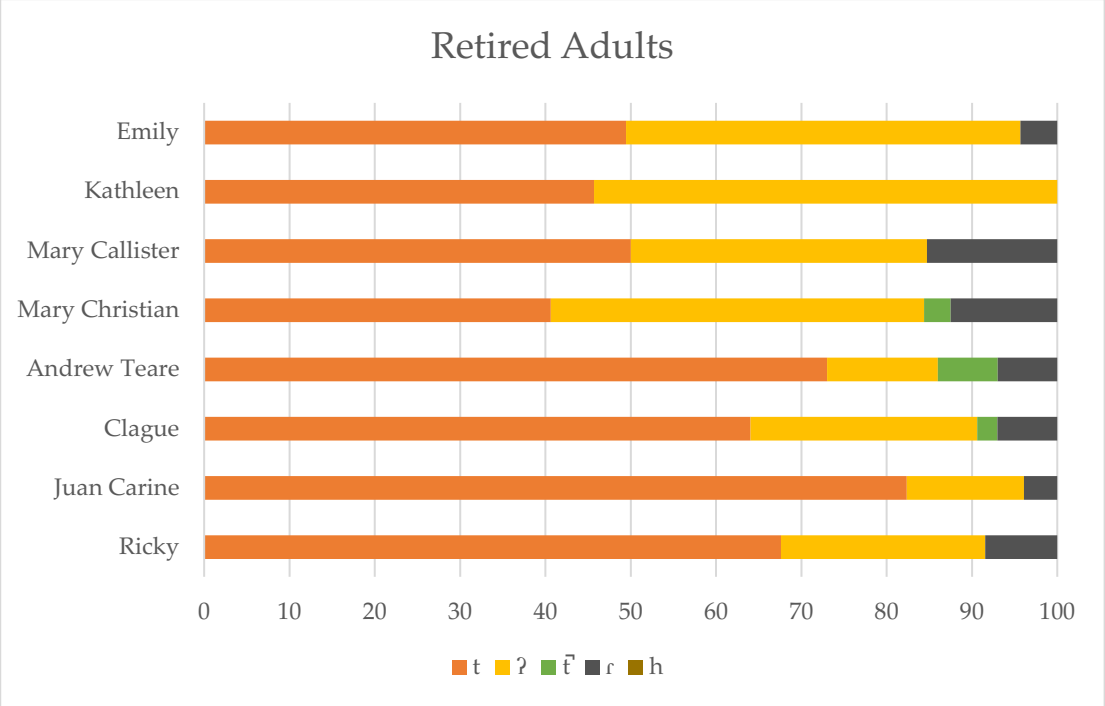
The Young Adults were the highest users of the glottal stop. With very little variability in this group as only two speakers had rates of [ʔ] below 87%.



Number of TOKENS	t	ʔ	t͡ʃ	ɾ	h	Total
Amy	21	36	0	0	0	57
Carly	39	37	1	2	0	79
Ellie	34	40	2	18	0	94
Hannah	18	31	0	3	0	52
Andrew Christian	11	14	10	17	0	52
Juan Kewish	7	40	0	14	0	61
John Kissak	33	29	5	11	0	78
Matthew	16	52	1	3	0	72

Figure 45: Individuals 18s distribution of all variants in the Middle Adults age category (as percentage in chart, N in table))

The Middle Adults age group had the highest range of glottal use at a difference of 45 between its highest and lowest users of [ʔ]. Use of the tapped [ɾ] was the highest within this group: 7 out of 8 speakers realising the tapped [ɾ]. Andrew Christian was the highest user of [ɾ], realising it in 19% of all instances (more discussion on [ɾ] in section 7.6.1).



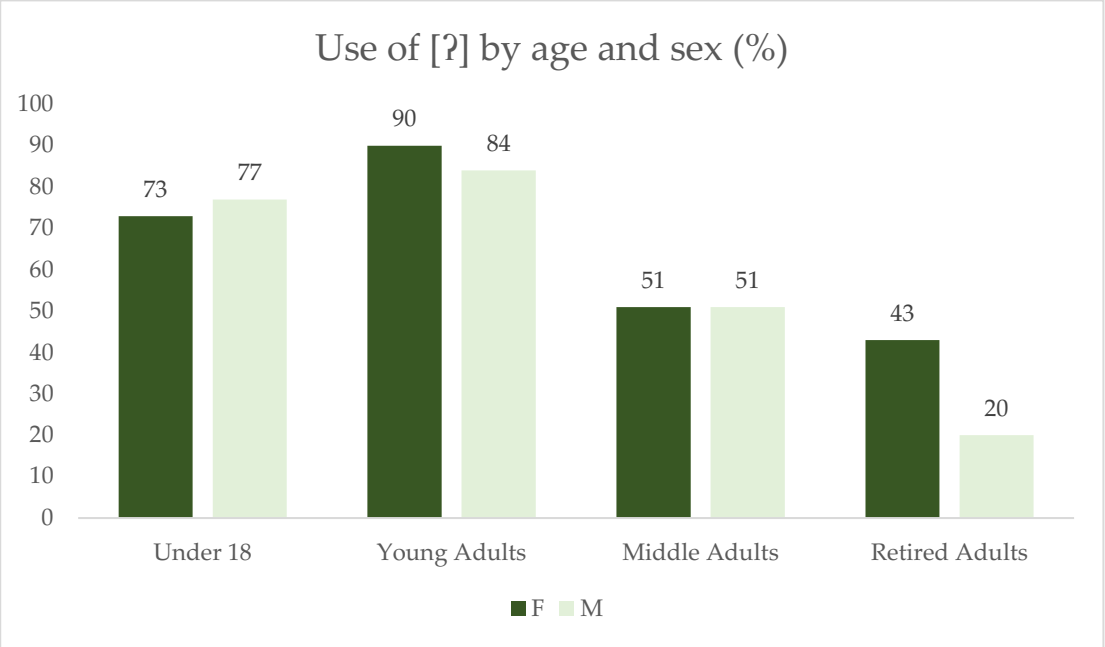
Number of TOKENS	t	ʔ	t͡ʃ	ɾ	h	Total
Emily	46	43	0	4	0	93
Kathleen	16	19	0	0	0	35
Mary Callister	36	25	0	11	0	72
Mary Christian	26	28	2	8	0	64
Andrew Teare	73	13	7	7	0	100
Clague	82	34	3	9	0	128
Juan Carine	42	7	0	2	0	51
Ricky	48	17	0	6	0	71

Figure 46: Individuals 18s distribution of all variants in the Retired Adults age category (as percentage in chart, N in table))

Even though the Retired Adults realise [ʔ] in the least number of instances, every speaker did use it at some point. This suggests that glottal replacement has been a feature in use for quite a few generations and is gradually on the increase in terms of its usage. As was previously mentioned, the linguistic constraints of the use of glottal stop is very important. As was discovered in 7.5.1, the Retired Adults were found to be using the feature mainly when in proximity with /n/ or /ŋ/.

7.5.4 Social constraints

As was highlighted in section 7.1.2, in past research, gender has had a significant effect on glottal use in different locations. Some found that it was females who led the change over time, while others found it to be males. The results for this study were categorised into female and male usage of glottal stop in the differing age categories. The results below show the usage:



	Female	Male
Under 18	132	162
Young Adults	265	293
Middle Adults	263	282
Retired Adults	359	253

Figure 47: Use of [ʔ] by age and sex (as percentage in chart, total numbers of tokens in table)

The difference between male and female speakers is nominal in the three youngest age categories. However, the female speakers' percentage of glottal stop usage is double that of the males' in the Retired Adults category. There was no statistical difference between females and males in the three younger age groups, however, there was a significant difference in the use of [ʔ] between females and males in the Retired Adults group (as can be seen in table 50 below).

Table 50: Chi Square and P-values showing difference between Male and Female use of [ʔ] in different age groups

	Chi Square	p-value

Under 18s	0.631	0.548
Young Adults	2.959	0.086
Middle Adults	0.95	0.33
Retired Adults	38.967	0.00001

It can be clearly seen that for the three younger age categories, sex is a neutral factor for the use of glottal replacement of /t/.

7.5.5 Statistical analysis

A statistical analysis was undertaken to determine the social and linguistic factors which accounted for the use of glottal stop in MxE. The multiple logistic regression analysis compares the use or non-use of [ʔ]. Results are displayed in the table below:

Table 51: Multiple logistic regression analysis for use vs non-use of glottal stop and different factor groups

Factor Group	Factor	Log odds	Tokens	Factor Weight
*Position Description	/t/C	2.132	235	0.894
	/t/#C	1.519	314	0.82
	/t/#V	-0.708	592	0.33
	/t/#P	-0.865	505	0.296
	/t/V	-0.2078	363	0.111
*Age Group	Young Adults	1.943	558	0.875
	Under 18s	0.736	294	0.676
	Middle Adults	-0.672	545	0.338
	Retired	-2.007	612	0.118
*Sex	Female	0.339	990	0.584
	Male	-0.339	1019	0.416
*Location	Mid	0.314	604	0.578

	North	-0.123	956	0.469
	South	-0.192	449	0.452
*Word Type	Function	0.409	1100	0.601
	Content	-0.409	909	0.399

(*Factor groups significant at $p<0.05$. 'Age Group', 'Position Description', 'Sex', 'Word Type', and 'Location' were all seen as significant in this model. Input probability = 0.736, Intercept = 1.023, Deviance = 1693.35, $R^2 = 0.592$).

As can be seen from the statistical analysis above there was a significant difference in each factor group. In terms of the intersection between age group and sex the results showed that only males and females were significantly different in the Retired Adults category (see table 50 above). The position in which the target phoneme occurs also was broken down in the descriptive statistics by age group in section 7.6.4 above. Word type was also found to be significant in terms of function vs content words. Interestingly, the use of [ʔ] was also the first to be significantly different in the locations on the Island. This may have occurred because over half of the participants were from the Middle and Retired Adults age categories.

7.6 Discussion and research objectives

Before readdressing the research aims, it is interesting to discuss two unexpected and interesting findings. Although the main question regards the [ʔ] variant, I will start by discussing two of the variants realised by the speakers that were not [ʔ] or [t]. These interesting variants were the minority realisations of [h] and [ɾ]. Following this examination, the research objectives will then be discussed.

7.6.1 [h] and [ɾ]

First, the realisation of /t/ as [h] by the participants in the Under 18s category merits some attention. The fact that their glottal use was significantly less than that of the Young Adults (there was a statistical difference in rates of use of glottal stop between the Under 18s and the Young Adults (chi-square - 20.4046, $p < .05$)) did raise questions about what they were realising. The percentage of realisation of [h] was 13% of total instances in the pre-pausal context. Words realised were mostly monosyllabic function words (*but* [bʊh], *what* [wɒh], *that* [ðɒh], *bit* [bɪh], *it* [ɪh]) and the content word *cat* [kɒh]. This is quite a rare occurrence in English on the British Isles but is found in Irish English as well as LE.

In Irish English, the use of [h] for /t/ is described by Kallen (2005) as widespread and can be found word finally and medially (although medially, lenition may be lexicalised) (Hickey 2009: 114-115). Its usage is perhaps attributed to occurrence of syllable final [h] in Irish (Kallen 2005). In MxG also, lenition from /t/ to [h] is common in syllable initial position (Draskau 2008). In syllable final position [h] is also possible in MxG. Although not discussed by Barry (1984) as a feature of MxE in word final position, he does link the use of [h] in initial position to MxG. In further support of the connection between Gaelic and the use of final [h], we can look at the users of this feature from this data. Investigating the individuals who are using substituting /t/ for [h], we see that out of the 8 under 18's, four are using this feature. These four are bilingual MxG and English

speakers (Caly - 4% of instances (1 token); Essa – 4% of instances (2 tokens); James – 11% of instance (3 tokens); Mark – 10% of instances (4 tokens); Illiam is the only MxG speaker not to use [h]. Even though the tokens are low, the links to Gaelic may be there. Also, the use in Irish and Irish English of [h] in word final position may have influenced the use in LE also.

This [h] in word final position is akin to the realisations in LE (Watson 2007) and does not occur in other northern England English dialects. The realisation of [h] in my data matches the phonetic environment (pre-pausal / monosyllabic function words) of most LE speakers (Watson 2007; Honeybone 2001). Watson (2007: 353) states that in Liverpool both older and younger speakers use this feature with younger speakers extending its use into different contexts. The realisation of [h] as word final /t/ has been described as a "divergence from supralocal norms" (Watson 2007: 353). This is described in detail by Watson (2006) as a feature that is an example of LE which is resistant to levelling and is realised more than other variants which may be diffused ([ʔ] for /t/). In a more recent overview of LE, Watson (2014: 5) also notes that /t/ -> [h] is a feature which has diffused to Skelmersdale and St Helens. It is possible that the MxE Under 18s have drawn influence from LE for this feature. Therefore, it could be a sign that there is some resistance to the nationally diffused feature of glottal replacement. However, the rates for glottal stop are still very high especially within the Under 18s age group. Overall the rates for [h] are low but not inconsequential in the final totals. The use in MxG may be reinforcing the receptivity for [h] which is also pushed by its use in LE.

As previously mentioned, the lenition chain may have added some potential variants of /t/ from examples in Irish English. As the lenition chain is an internal process, there would be expected stages of different realisations speakers would go through (see section 7.1). The locations which do not follow this lenition chain reduce /t/ directly to the glottal stop and display a different method of /t/ to [ʔ]. Glottal replacement in locations such as London or Scotland may be a separate phenomenon than the lenition displayed in Irish English (Docherty et al 1997). [h] realisation was only found within the Under 18s; therefore, the other speakers have not definitively interacted with any of the different stages of lenition. Whether MxE is following a supposed Irish English lenition pattern or is picking up the separate realisations from other locations is a question that could be asked further.

The question for future research would be whether there is now a divergence from national norms and reallocation of MxE accent identity to LE. The [h] feature in Liverpool has been especially resilient and the lenited realisations for /t/ are even increasing (Clark and Watson 2016). Therefore, there may be an argument for [h] being an incipient change on the IoM, and it is only the starting point for this feature.

The second feature in question is the tapped [ɾ], realised mainly by the Middle and Retired Adults. Prevocalically [ɾ] was realised 121 times: making it the third most released variant overall. Whereas [h] for /t/ was

pre-pausal, [ɾ] for /t/ was prevocalic (at word boundary before a vowel or intervocalically). The tapped [ɾ] is present in most accents but it is not necessarily a replacement for /t/ (see Watt and Milroy 1999; Docherty and Foulkes 1999; Newbrook 1999 and Mees and Collins 1999). In LE, [ɾ] can occasionally be found prevocalically or at word ending position. Whereas in the Midlands, realisation is prevalent (but not in the majority for /t/) in males and females of most age groups (Mathisen 1999: 110). The feature is also found in small numbers in London English (Tollfree 1999: 171; Schleef 2013: 208). [ɹ] is also substituted for /t/ in the Midlands for the T to R rule (Asprey 2008). The T to R rule is present in the north of England and in the Midlands. In this rule, /t/ would be substituted for [ɹ] at word boundary, before a short vowel in phrases like shut up. However, not only was [ɹ] not found as a substitute for /t/ but also, the tokens found with [ɾ] in my data were also where there was a preceding long vowel and were often found word medially (such as *motorbikes*, *part of*). These environments would not be conducive to the T to R rule comparable to the north or midlands of England.

The tapped [ɾ] rather than [ɹ] for /t/ is common in New Zealand, Australia and particularly in North America (where intervocalically /t/ is almost always [ɾ]) (Holmes and Hazen 2014: 138). In Glasgow it was found to have limited instances amongst younger speakers who were imitating American speech (Stuart-Smith 1999b: 189). In Irish English, Hickey found the feature to be "fashionable" with younger speakers (2007: 323). A common use of [ɾ] for /t/ in the British Isles seems to be in Northern Ireland where it "is the norm intervocalically and across word boundaries e.g.

butter, latter, get off" (McCafferty 1999: 249). [ɾ] substitution of /t/ in Ulster English is not limited to preceding short vowels (Hickey 2007: 115). The low rates amongst the Under 18s and Young Adults suggests that this may not be a feature for the future and one that may be lost as the younger generation become the older. The feature was not present in the SED recordings as replacement for /t/. This poses further questions about [ɾ] for /t/ on the IoM.

7.6.2 Research objective 1

> To assess the influence of accent features coming over from other parts of the British Isles

The first research aim concerned outside influences and whether MxE is affected. Therefore, I begin by discussing the descriptive results about the comparison with past MxE research followed by comparisons with other accents of English in the British Isles.

First of all, glottal replacement has become a feature of MxE. As aforementioned, the use has increased dramatically since the SED and Recording Mann projects (see 'Real-Time Results' in section 7.5.2). In looking at my own data, this increase is evidenced in three ways. First, the rapid increase in use over the age groups. The Young Adults had a higher use of [ʔ] than the Under 18's; possible reasons could have been because of exposure to the outside world or from the Under18's groups being subject

to normative pressures. Even though there was a slight downturn in use from the Young Adults to the Under 18s, the amount of realisation of glottal replacement is at 75% compared with the Retired Adults whose usage is around 30%. Second, the statistics regarding gender and use of [ʔ] shows that the glottal replacement is intrinsic. There is no significant difference between males and females in the three younger age groups (see 'Social Constraints' in section 7.5.4). As incorporation of [ʔ] develops, then the speaker's sex becomes less important (Smith and Holmes-Elliott 2017: 5). Therefore, it could be said that glottalisation has now become a staple part of the MxE dialect. And finally, focusing on the interspeaker variability: as discussed in the results, it was evident that all speakers realised the glottal replacement in each of the different phonetic constraints; therefore, extending the use of [ʔ]. In addition, the interspeaker variability is decreasing, as the range of usage is lower in the two youngest age groups, showing that the feature is becoming more fossilised in MxE speech.

In conclusion, as was evident from the research on geographical diffusion (table 4, section 2.2), glottalisation has become part of many dialects of the British Isles; this is the same for MxE. The feature looks to be definite and becoming established. However, as the use of [h] is becoming more prevalent in LE it may also become part of MxE's resistance to this feature.

7.6.3 Research objective 3

> To investigate which social or linguistic factors may be influential in the acceptance or resistance of MxE features

The linguistic factors in relation to the glottal replacement may be able to inform us as to where the feature has come from. Straw and Patrick (2007: 390) described a "diffusion pattern" where glottalisation moved from place to place as a package: the pattern was as follows: PreC > PreP > PreV. As was discussed in the results section 7.5.1; overall MxE distribution was PreC > PreV > PreP > V_V. The table below displays the findings for the linguistic hierarchy in different locations:

Table 52: Linguistic hierarchy for glottalisation across differing locations

Location	**Researcher**	**Linguistic hierarchy for glottalisation**
Edinburgh	Schleef (2013)	PreC > PreP > PreV
London	Schleef (2013)	PreC > PreP > PreV
Tyneside	Milroy et al (1994)	PreC > PreV > V_V > PreP
Glasgow	Stuart-Smith (1999b)	PreP > PreV > V_V

Buckie	Smith and Holmes-Elliott (2017)	PreC	>	PreP	>	PreV	>	V_V
Isle of Man	2016/2017	PreC	>	PreV	>	PreP	>	V_V

The overall MxE data does not match the 'diffusion pattern' in any of the localities presented in past research. However, looking back to table 46 in section 7.5.1 (the linguistic patterning across the age groups), we see that the Young Adults and Middle Adults follow the diffusion pattern and match the hierarchies displayed by Schleef (2013) (in Edinburgh and London). For the Young Adults and Middle Adults, the diffusion pattern may have happened in the past. This suggests that glottalisation may have entered into MxE during these generations as a 'diffusing package'. Glottalisation was not absent from MxE speech during the time of the SED, but it followed a rigid pattern. The Retired Adults followed this hierarchy, explaining their use of glottal replacement in their speech (following the patterns of MxE speakers of the past – see 7.6.3.1 below).

As for the Under 18s, their diffusion was slightly different, the use of [h] (see above) by the MxG speakers could be a newer innovation in MxE. The hierarchy was also different to the older speakers. It must be noted that the rates of [h] are quite low and narrow (4 participants out of 8 in the Under 18s group), therefore the declaration of change may be premature. The high rates of glottal replacement in this group and the Young Adults is

indicative of wider changes in much of the research outlined in section 7.1. More research is certainly needed in this area over the coming years.

In terms of the social factors, the differences between female and male use of [ʔ] indicate certain traits about glottal replacement in MxE. Smith and Holmes-Elliott (2017: 15) asked whether gender effect was "neutralised as glottal replacement rises through the generations". Their data seemed to suggest so, and the MxE data here also finds that gender effects seem minimal in the younger age categories. The little difference between the lower age groups suggests that glottal replacement use is stabilising on the IoM, supporting the argument of stabilisation (due to a lack of interspeaker variability).

7.6.3.1 Routes into the dialect: diffusion and transmission

The finding of the 'diffusion package' was also highlighted with the explanation of [ʔ] in proximity with /n/ (see 7.5.2). The Retired Adults glottalised mostly when /t/ was near /n/ or /ŋ/, and this was the same as the SED speakers. Under 18s and Young Adults however, showed much lower rates of [ʔ] in proximity with /n/ or /ŋ/. Therefore, the younger speakers may not have learned the patterning from the older speakers but from outside the speech community. The feature is in use by the Middle and Retired Adults, suggesting some interplay.

This feature is subject to transmission (as it is found in each generation and is therefore passed on within the community) and it could also be subject to diffusion (as it is a feature which is one of the torchbearers of geographical diffusion (see 7.1.1)). This interplay was also found in Glasgow which suggested "that in certain sociolinguistic contexts, diffusion by dialect contact can act to reinforce a change already undergoing intergenerational transmission" (Stuart-Smith et al. 2013: 528). The finding that younger speakers are using similar linguistic constraints to other parts of the British Isles suggested that it had been diffused as a package. The interaction between transmission and diffusion has helped to consolidate glottal replacement in MxE.

To conclude, glottal replacement has a strong hold on the IoM given the reciprocity of transmission and diffusion. However, the linguistic factors of hierarchy suggest that there may be a change in the stable use of glottal replacement on the IoM (though it is too early to tell whether the youngest speakers are resisting the diffusion feature). All other evidence indicates that [ʔ] is an integral part of MxE speech and that it has followed patterns displayed over the British Isles.

8 TH-fronting

The second feature subject to diffusion on a national scale is TH-fronting. Once again, this feature has been described as another important British feature which is diffusing on a national scale. The following analysis

consists of an introduction to this feature's connection to the IoM: from previous research to the analysis of data in 2016/2017.

8.1 Introduction

TH-fronting involves the replacement of /θ/ with [f] (causing homophones of *fin* and *thin*), and the fronting of /ð/ to [v] (to cause *Mother* to be realised as /mʌvə/) (Britain 2002a). Along with glottal replacement of /t/ (see Chapter 7), Kerswill (2003: 232) describes TH-fronting as one of the "Torchbearers of geographical diffusion" due to the wide and rapid spread of the feature. As can be seen from table 4 (section 2.2), all the displayed accents show some signs of TH-fronting (apart from Liverpool). The feature was originally limited to London and Bristol before the 1900s (Trudgill 1999b: 138). This feature has been present in English since the sixteenth century and was described by Milroy as "of some antiquity" (2003: 216). It was during the middle of the 20th century that TH-fronting began to spread. In Trudgill's Norwich research; rates of TH-fronting rose dramatically after the 1960's (0% realisation for people born before 1958, 70% realisations for people born between 1958 and 1973). Figure 48 below displays the extent of the use of TH-fronting across Great Britain (As discussed in section 2.2.1, this figure below effectively displays the gravity model with regards to TH-fronting in the localities in the map).

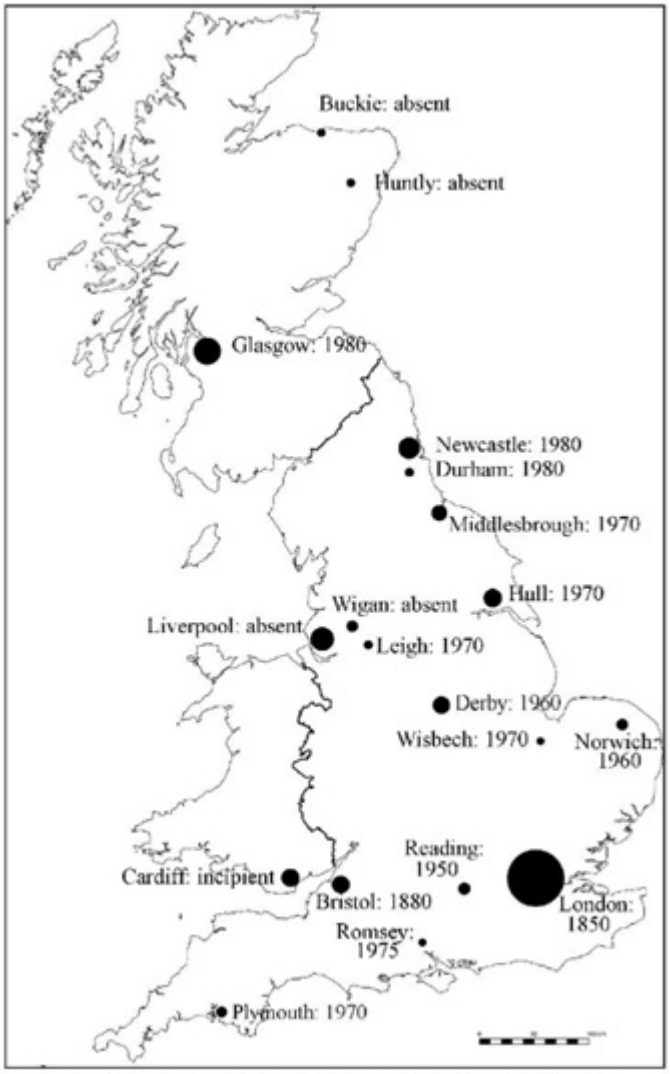


Figure 48: Use of TH-fronting in accents of Great Britain (Kerswill 2003: 236)

The rise and spread of the feature can be seen in the above figure. There are around 14 locations presented above with the feature. Moreover, Holmes-Elliott's (2015: 122-123) research quoted 15 locations that displayed TH-fronting including London, Reading, Ashford, Hastings, Norwich, The Fens, The Midlands, Middlesbrough, Derby, Carlisle, Nottingham, Newcastle, Glasgow, Edinburgh, and Fife (I will add to this

list when I focus on northern English in the subsequent section). Using figure 48, Kerswill (2003: 235) stated that this feature went from South to North and spread quicker to the East than to the West (except for Bristol).

The remainder of this section will describe the social and linguistic factors of TH-fronting followed by specific research from the north of England and then from the IoM.

8.1.1 Social and linguistic context

In terms of the linguistic context, where TH-fronting has entered more recently, the change is often said to have come from outside the community (Holmes-Elliott 2015; Trudgill 1999b). This has meant that the realisation for *th* as [f] or [v] has often come into competition with localised variants. For example, in some Scottish dialects, *th* can be pronounced as [h] in words like *think* ([hɪŋk]) (found mostly in conversation analysis, realisation as [h] is blocked by orthography in elicitation tasks). Therefore, there is competition between a local pronunciation, standard pronunciation ([θɪŋk]) and the new diffused variant ([fɪŋk]) (Schleef and Ramsammy 2013; Lawson 2014). In Liverpool also, there would be a three-way competition between the standard [θ, ð], the diffused [f, v] and the local [t̪ d̪] variants (Knowles 1973: 324; Pressley 2002: 118).

The substitution of /θ/ or /ð/ for [f] or [v] can occur in all word positions, however voiced /ð/ is often not substituted in word initial position (Milroy

2003: 211; Holmes-Elliott 2015: 122; Wells 1982). Baranowski and Turton (2015: 302) did not find [v] for /ð/ in word initial position. They believed that this substitution was mainly found in function words (such as *this, that*) which were omitted from analysis in their study (Tollfree did find some instances of word initial [v] but it was not common (1999: 172)). In other studies, function words have been used for this feature and therefore have yielded results of word initial [v] for /ð/ (Pressley 2002: 195). The following table gives some examples of words found in my data.

Table 53: Word position distribution for TH-fronting

	Initial	Medial	Final
Voiced	-	another /*ənʊvə*/	with /*wɪv*/
	-	Illiam (Under 18s)	James (Under 18s)
Voiceless	think /*fɪŋk*/	something /*sʊmfɪŋ*/	south /*saʊf*/
	Mark (Under 18s)	Essa (Under 18s)	James (Under 18s)

In their data from Manchester, Baranowski and Turton (2015: 305) stated that:

> With regard to position in the word, we are more likely to find fronting in word-medial position, e.g. *brother*, *catholic*, than in initial or final position (also found by Stuart-Smith

> and Timmins 2006)…fronting is more likely in voiced segments such as *smooth*, over voiceless segments such as *tooth*, again, a result which corroborates findings in previous studies (Williams and Kerswill 1999; Llamas 1998; Britain 2003)…following consonant favours fronting, whereas a following vowel disfavours it (see also Clark and Trousdale 2009; Schleef and Ramsammy 2013)

Analysing the phonetic environment where TH-fronting is more likely to happen is a good indicator of how integrated it is into the phonological system. If a feature such as this has undergone grammatical diffusion, i.e. it can be realised in most word positions, then it is likely that this feature has integrated into the speech community (Schleef and Ramsammy 2013: 28). For example, Schleef and Ramsammy (2013) found TH-fronting in both Edinburgh and London. In London it can be found in all word positions (apart from word initial /ð/ for [v]), while in Edinburgh it is more constrained. The researchers appropriately surmised that the feature is more integrated and therefore more long-serving in London speech than in Edinburgh speech. The above quote regarding Manchester English would be more similar to Schleef and Ramsammy's Edinburgh speakers (as they show linguistic constraints with regards to word position). Therefore, it will be useful to investigate the linguistic context in which TH-fronting sits in MxE.

The social factors of TH-fronting have also played an important role in the acceptance of this feature in speech throughout the British Isles. The feature is sometimes stigmatised as it is occasionally 'corrected' by parents because they believe it is not formal or appropriate English (Tollfree 1999: 172). The perception of this feature is very important as it will determine what part of society is using it. If it is seen as stigmatised and childish (Tollfree 1999: 172), then it may be less likely to occur in adulthood or in socially sensitive situations. A more recent study observed differences in perceptions of TH-fronting between southern England English speakers and northern (Levon and Fox 2014). There was no correlation between use of TH-fronting and 'professionalism' for speakers in the south of England. However, in the North, the researchers found a "correlation between increased fronting and decreased perceptions of the speaker's professionalism" (Levon and Fox 2014: 209). This finding was not attributed to class issues but, to the perception of TH-fronting as a southern feature. Attitudes towards TH-fronting were therefore influenced by attitudes towards southern England English speakers. These two studies display differences in perceptions of this feature over time and over localities.

TH-fronting has been described as a change from below because it began its inception in working class, 'socially stigmatized', male speech (Altendorf and Watt 2008: 209). Speakers in Bennett's (2012: 5) study described TH-fronting as "chavspeak"; demonstrating the pejorative connotations and social stigma attached to it. Youth rebellion is sometimes attributed to be a part of the make-up of this feature (especially in early

stages of adoption). When analysing the results of this feature, I must also be aware of the route into the dialect to investigate whether it has any similarities to the researchers' findings above.

Studies regarding TH-fronting have mixed findings in terms of sex. The use of [f] and [v] substitution for /θ/ or /ð/ seems to be a predominantly male-led change (Levon and Fox 2014: 202). Baranowski and Turton (2015: 303) explain that in their research:

> TH-fronting has been found to be male-led in many previous studies of the variant (Williams and Kerswill 1999; Llamas 2001; Przedlacka 2001; Schleef and Ramsammy 2013). This is possibly due to the covert prestige and urban connotations of this variant (Trudgill 1988)

It is interesting to note that Baranowski and Turton link 'prestige' and 'urban connotations' with TH-fronting: underlining this as a youth feature which is outwardly looking. Schleef and Ramsammy (2013: 28) found that in London, males use more TH-fronting, while in Edinburgh there was little gender difference. The researchers stated that this gender difference in use of TH-fronting between the two places was predictable. They explained that: because TH-fronting is more established in London, it was more likely that speakers in this location would have established a 'gendering practice' (Schleef and Ramsammy 2013: 28). This implies that sex and use of the diffusion features are linked to what point they are at (with regards to the adoption into a new dialect.) Other researchers

propose that the less effect gender has on the use of TH-fronting, the more embedded the feature is in that location (Smith and Holmes-Elliott 2017 – discussing glottal replacement see section 7.5.3). Regardless, it seems that sex will be an important factor when detailing the nationally diffused features of the glottal replacement and TH-fronting.

Another social factor to point out is the social classes which use this feature. Studies have shown that working class speakers seem to use this feature more (Levon and Fox 2014: 202). Altendorf and Watt (2008: 209) found that in London the feature was "exclusively working class". However, where the change is more recent, social class has not been a prediction factor. Baranowski and Turton showed that in Manchester (2015: 302) "[c]lass and gender are not significant predictors of TH-fronting, nor is an interaction between the two". I will not be focusing on social class within my discussion of this feature in MxE (as previously discussed, the issue of class is less definable on the Island).

To align oneself to a certain social group or gender by using certain linguistic factors is sometimes referred to as 'dialect enregisterment' (for example; Agha 2003). Agha (2003: 231) defines enregisterment as "processes through which a linguistic repertoire becomes differentiable within a language as a socially recognized register of forms". TH-fronting may be connected with being a linguistic marker for youth, prestige, sex or with a certain social group. The speaker must be aware of the linguistic forms in order to perform the speech of one of these groups.

8.1.2 TH-fronting and northern England English accents

As previously mentioned, the feature of TH-fronting is said to have diffused from the south of England to the north (Kerswill 2003). It is safe to assume that in some parts of the north of England the feature is in a less advanced stage than in the South. The northern locations mentioned in table 4 (section 2.2) that have adopted TH-fronting include: Derby, Hull, Sheffield, Middlesbrough and Newcastle - while Liverpool was said to have not accepted the feature (this would later be updated in studies in LE and TH-fronting as discussed below).

The northern city of Hull was directly compared with the Southern locations of Milton Keynes and Reading in Williams and Kerswill's (1999) paper. Researchers found little to no difference between the use of TH-fronting between the young people in these localities. They attributed the similarities to the 'youth norms' that have spread around the country (Williams and Kerswill 1999: 159). Staying in the East, Newcastle youngsters also showed high rates of TH-fronting, with all participants displaying some realisation of the feature (Docherty and Foulkes 1999: 51). Moving to the North West and closer to the IoM, the feature in Manchester was a topic for Baranowski and Turton (2015). In Manchester, the overall use of [f] or [v] in replacement of /θ/ or /ð/ was 32% for young speakers, 9% for the middle age group and 3% for the older age group (Baranowski and Turton 2015: 303). Baranowski and Turton (2015: 302) concluded that:

> Unsurprisingly, younger speakers are leading this change in Manchester, showing generally higher rates of TH-fronting than other age groups. Several of our younger speakers in the dataset TH-front 100% of the time in interview style, a figure which is averaged out by their more conservative peers

As can be seen in the quote above, there was a steep rise in TH-fronting in Manchester. This is supported by more recent research in Manchester showing the same results (Drummond 2018b: 234-235).

LE researchers initially thought that TH-fronting was absent or infrequent from the local vernacular (Watson 2007, Kerswill 2003). However, recent research has shown that LE is affected by TH-fronting (Watson 2014). Watson in 2014 explained that:

> TH-fronting (pronouncing 'three' as 'free') has, like elsewhere in the UK, spread to all our localities. In Liverpool, TH-fronting has all but completely replaced the local feature, TH-stopping (pronouncing 'three' as 'tree'). This is contrary to existing studies which claim that TH-fronting is absent in Liverpool (2014: 4-5)

Watson has revisited this feature in LE which he did not observe in 2007. The quote above shows usage in LE but does not say to what degree. In addition, this research notices that the local feature (TH-stopping (similar to MxE; see below)) is being lost within LE. Therefore, this south eastern English feature (TH-fronting) has influenced Liverpool speech. Liverpool,

clearly a large influence on MxE, may be helping to shape the English spoken on the IoM with regards to this feature.

8.1.3 Past research in Manx English

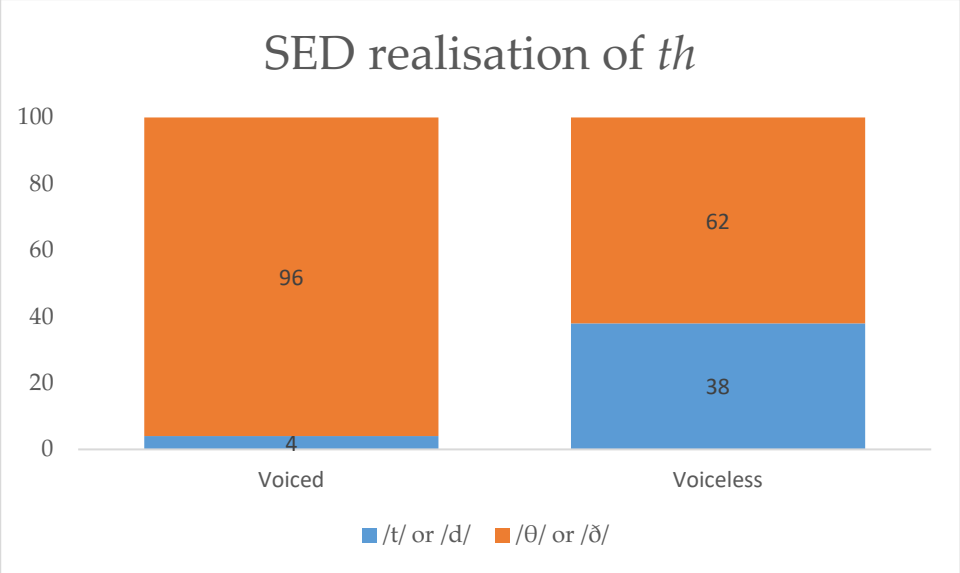
The previous section recognised that TH-fronting is an exogenous change[20] and therefore when it comes into a dialect it could come into conflict with traditional features. Realisations of (th) and (dh)[21] on the IoM will be described in this section with relation to past research on the linguistic situation.

Beginning with the data in the SED (Orton and Halliday 1962), for *-th* words (all words with the spelling of *th* in word initial, medial or final position), there were no [f] or [v] replacements for /θ/ or /ð/. I found 189 tokens with *th* spelling; the standard /θ/ or /ð/ was realised 75% of the time while the other 25% were realised using TH-stops (see below for description). Words such as *this, those*, *themselves*, *further*, *father* and *clothes,* were found for word initial, medial for (dh) (no word final utterances were found for the voiced alternative). Words such as *thicken, thatch, thimble, hearthstone, nothing, toothache, path, mouth* and *tooth* were found for word final (th) (See appendix 11 for full list of SED words for *th*). As with the LE,

[20] Trudgill defines and exogenous change as one that is the "result of influence from other external varieties" (Trudgill 1999: 134)

[21] Following Labovian variable notation, (th) and (dh) represent words with *th* spelling. They represent the voiceless and voiced alternatives.

the local or traditional feature on the IoM was TH-stopping. Knowles (1973: 324) called it the "Anglo-Irish stop" and it was very common among older working-class men in his studies of LE. On the IoM this feature also seemed prevalent. I separated the SED realisations into the voiced and voiceless variants, the results were as follows:



	/t/ or /d/	/θ/ or /ð/
Voiced % (N)	4 (3)	96 (71)
Voiceless % (N)	38 (44)	62 (71)

Figure 49: Chart and Table for SED realisation of -th (Orton and Halliday 1962)

Variants in the voiceless category classed as TH-stops (/t/) included [t ~ t'~ t̪ ~ t̪' ~ t̪ʰ]: these accounted for 38% of (th) words. While 4% of voiced TH-stops (/d/) were realised with [d ~ d̪]. Within the voiceless category, it was more likely that in word initial position the realisation would be a TH-stop. As can be seen by figure 50 below:

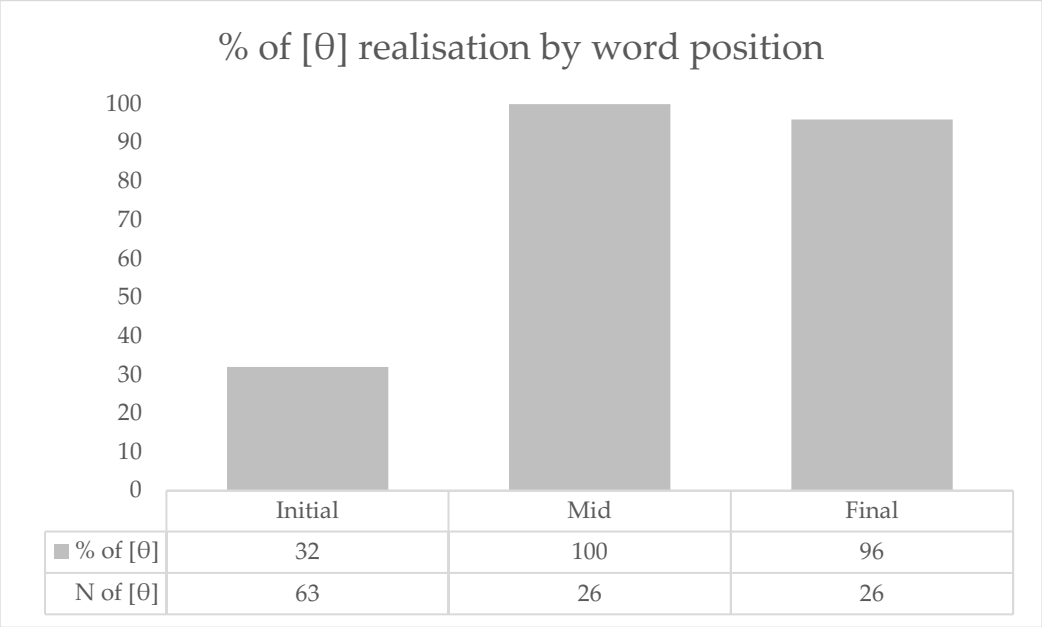


Figure 50: % of /θ/ realisation by word position in the SED data

Therefore, when TH-fronting was diffused into MxE, the competition would have been with both the standard /θ/ or /ð/ realisation along with the TH-stop variants ([t ~ tʼ~ t̪ ~ t̪ʼ ~ t̪ʰ] or [d ~ d̪]). It will be interesting to compare the modern realisation with the SED as the constraints for TH-stopping are clearly set: 1. Mainly in voiceless *th* words, 2. In word initial position. Another interesting peculiarity was the number of realisations of voiceless [θ] in (dh) words. These realisations can be found word medially in *other [ɒθə], mother [mɒθə], either [æɪθə]* and *farthings [fɑ̪ːθns]*. This feature was not unanimous as the same words were found with the voiced /ð/ realisation also. This devoicing was not included in the Recording Mann project and is not focused on in the analysis of this thesis. The next era to

investigate would be Pressley's 1999 data from the recording Mann project (Pressley 2002).

The variants investigated by Pressley (2002: 191) were categorised for the voiceless *th* words as: [θ] ('standard'), [f] ('London influenced') or [t̪] ('Scouse/Manx English'). For the voiced category, it was [ð] ('standard'), [v] ('London influenced') or [d̪] ('Scouse/Manx English) (Pressley 2002: 192). The figure below shows the low use of all 'non-standard' variants.

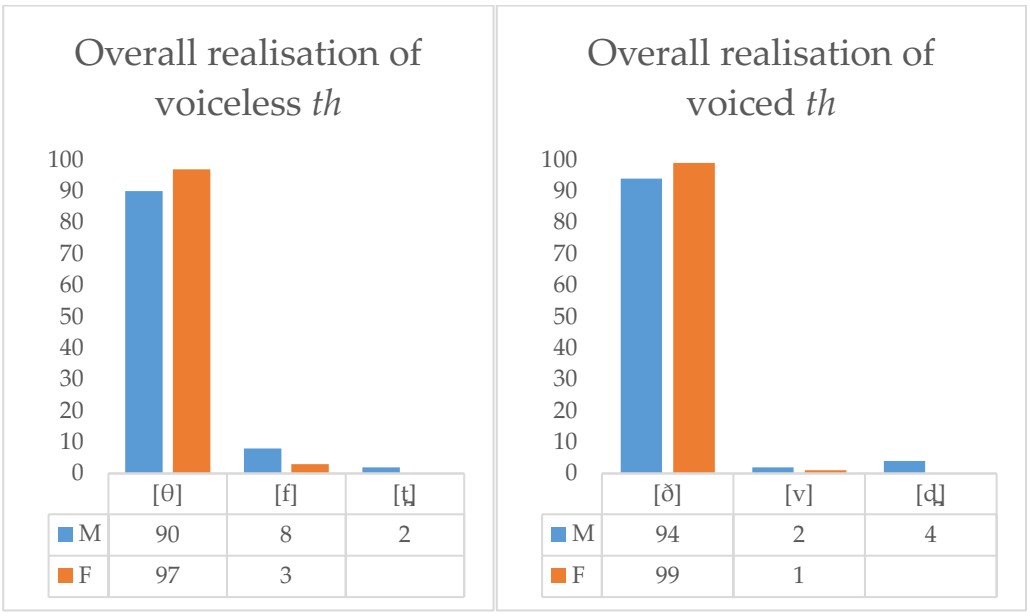


Figure 51: Realisation of th in Recording Mann project (Pressley 2002: 192-193)

The data from the 'Recording Mann' project in 1999 again noticed little usage of TH-fronting. Pressley (2002) found that /θ/ was replaced by [f] only 8% of the time for males and 3% of the time for females. Realisation of [f] for /θ/ was only apparent in the younger age group (35% for 'boys'

and 11% for 'girls') and not in adult speakers. The same was true for the use of [v] for /ð/. The variant was used slightly more by males than females (2% and 1% respectively) and used only by young informants (8% for 'boys' and 1% for girls'). [f] occurred in all words positions where /θ/ could be used: in total 8 children used this variant (Pressley 2002). [v] was used by only 4 informants: all were younger speakers. [v] was found in word initial (for the word *the*) and in word medial position. The change was certainly coming from the younger males and can be found in most word positions.

The third variant Pressley refers to as a "Scouse / Manx English" (2002: 191) one; recognising that this was the traditional dental [t̪] recorded in the SED. In terms of the (th) words (where TH-stopping was mostly found in the SED (see above)), Pressley found just 3% of realisation in the older male category (2% overall). This is a dramatic fall from the 34% found in the SED. Thus, showing that this traditional feature was perhaps being lost (as was found by Watson in LE (2014: 4-5)). It will be interesting to investigate this feature within the modern data.

Hamer (2007) explains that TH-fronting may not be affecting MxE as much as other accents of English, he describes that fronting is:

> Not found in the speech of adults over the age of thirty, this is a significant minority variant in the speech of children and teenagers, especially males. Among children and teenagers, fronting of /θ/ occurs with a frequency of about 20% of all

> tokens, while fronting of medial /ð/ is much less common (about 5%). (2007: 175)

Although 20% is quite high, the overall totals do not suggest a change that has run to completion. Hamer's neutral comments seemed unsure about the status of TH-fronting at the time and whether this was a feature on the rise. I can now use data from almost 20 years on; to see whether the teenagers have carried the feature into adulthood.

Hamer also identifies the prevalence of what Pressley calls the 'Scouse / Manx English' variant. Hamer (2007: 171-172) states that dental [t̪] can be "frequently" realised for /θ/ in words like *thaw*, *thousand* and *third*, and can also be found for /ð/ "in the demonstratives *this*, *that*, *these*". In the SED I did not find dental [t̪] substitution for /ð/. Therefore, it will be interesting to see how many tokens of [t̪] are found in my data (as Pressley found very few) and where they can be found.

Fortunately, the research for this feature is evident in the SED and Recording Mann. There may be competition between different variants in the realisation of *th*, and by examining this feature, the preferences of MxE will become clearer.

8.1.4 Rationale

As mentioned in previous sections, TH-fronting is seen as a 'torchbearer' for features which have been diffused to other parts of the country. The

overview above has exhibited many other accents of the British Isles which have taken on this feature. I also described the narrative of this feature over time on the IoM and its possible trajectory in MxE. There was little evidence to suggest that MxE would be resistant to this feature: especially as LE has adopted it after some resistance (see 8.1.2 above). The gravity model would presume that if the feature is in use in LE; then there is a chance that MxE has also adopted this feature (if enough time has passed). However, it was found in my data that there is an ostensibly lower rate of TH-fronting than was initially thought. As the finding of TH-fronting was found very recently in LE; it may be presumed that there has not been time for the feature to have been diffused. The results and reasoning are discussed below with reference to the research aims.

8.2 Research objectives

Similar to the glottal replacement, TH-fronting was chosen to address the research aims 1 and 3:

> 1. To assess the influence of accent features coming over from other parts of the British Isles
>
> 3. To investigate which social or linguistic factors may be influential in the acceptance or resistance of MxE features.

As mentioned in section 8.1, TH-fronting has spread to many accents of the British Isles (including the accents with the largest influence on MxE). In LE and other north-western England accents of English, this diffusion feature has begun to take hold. As the previous research attested, the

adoption of TH-fronting in Liverpool may have been a more recent phenomenon (Watson 2014). Therefore, by investigating the frequency of this feature, it was possible to hypothesise about the influence of other accents on MxE. For research aim 3, the social and linguistic factors affecting realisation of TH-fronting were clear during the Recording Mann data and analysis. Pressley (2002) found that it was mostly young males who used the feature. It was found in nearly all word positions (not [v] for /ð/ in word final position). My data will be comparable to the data of the past in finding the social and linguistic drivers for this feature on the IoM.

8.3 Linguistic constraints

The only linguistic constraint that was focused on in the previous research on the IoM was where (th) or (dh) occurred in the word. The only restriction mentioned was that /ð/ could not be substituted for [v] in word final position; all other word positions were found (the word *the* was realised *[və]* on eight occasions by one informant (Pressley 2002: 195)).

Other researchers who have used a comparison of phonological environments found some variation. In Edinburgh the replacement of /θ/ for [f] was far more prevalent prevocalically (word initially or medially) than before a pause (boundary/word ending) (Schleef and Ramsammy 2013). In London there were fewer differences between the word positions (Schleef and Ramsammy 2013). Schleef and Ramsammy (2013: 46) argued that the lack of constraints placed upon the labiodental realisation of *th*,

indicates that TH-fronting is a "more established process in London". In Edinburgh, the realisation has not been apparent as long and therefore has not spread to all phonetic environments. Holmes-Elliott tested TH-fronting in Hastings and found that "the constraint hierarchy for word position (final > medial > initial) was replicated at every age cohort" (2015: 245). The conclusion was that the substitutions were either diffused "alongside the constraints", or that because they have constraints, they are more 'prominent' in that accent (Homes-Elliott 2015: 245). Therefore, word position may be able to reveal something about the prominence of that feature and how long speakers of the accent have been using the feature.

8.4 Analysis and coding

Although TH-fronting of the voiced and voiceless fricative shows unique patterning and distribution (Stuart-Smith et al. 2007), the analysis of both is often merged to describe diffused changes (Foulkes and Docherty 1999; Baranowski and Turton 2015). I decided to analyse both variants separately (e.g. [θ] or [f] and [ð] or [v]) but to combine the description as it answers the same research objective: the diffusion of an outside feature into MxE.

Most words with *th* were chosen and extracted. There are a few exceptions of *th* spelling which cannot be realised with [θ] or [ð] e.g. *Thomas*, *thyme*. No such words were found in the data set. Also, words which were in a position of possible assimilation were removed from the analysis (where *th* may have been in proximity with *f* (for (th) words) or *v* (for (dh) words).

These may have been in word medial or final position e.g. *fifth*, *both foes* (these accounted for 2 instances). To ensure a fair lexical spread, tokens of the same word were capped at 10 per speaker (the only word to achieve more than 10 tokens for most speakers was *the*). The other 921 instances were extracted for analysis and coding.

Auditory analysis was chosen to phonetically differentiate between the variants. Holmes-Elliott (2015: 141) points out that there is not a distinguishable acoustic contrast between [f] and [θ], therefore auditory analysis is the most appropriate analysis method. In addition, many other researchers examining the same feature have used auditory analysis (Stuart-Smith et al. 2007; Drummond 2018a; Holmes-Elliott 2015; Schleef and Ramsammy 2013). Two researchers were employed to listen to each of the tokens to decipher which variable was being realised. This method was described further in 3.4.1.

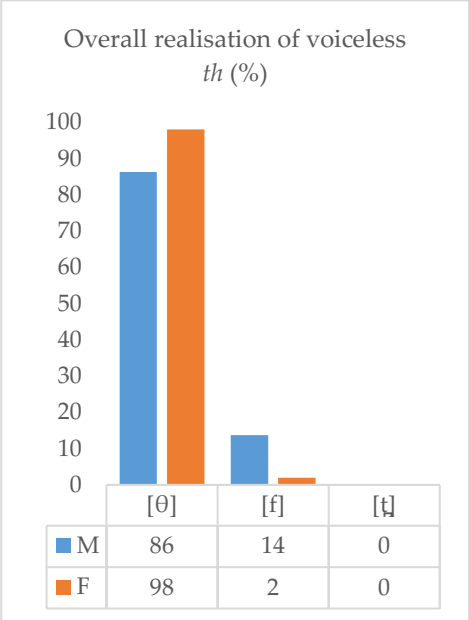
As was mentioned previously, the potential variants for (th) and (dh) were not only limited to [θ], [f], [ð] or [v]. I also found the dentalised variant of [d̪] for voiced *th* (however the voiceless variant [t̪] was not recorded). The variants found were: [θ], [f], [s] for voiceless *th* and [ð], [v], [d̪], [z] for voiced. The anomalies were the realisation of [s] and [z] in three instances in the words *north, south* and *with* (all realised by one speaker in the Retired Adults age group). Although this finding is unique and interesting, the low number of instances does not show any significant findings.

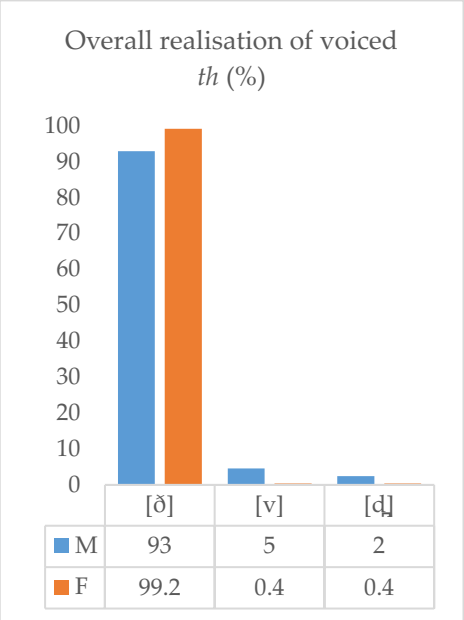
8.5 Results

This section will begin with overall results for the data, comparing the new data with the data from Pressley (2002). I will then present the apparent-time data, comparing the age categories and their use of TH-fronting, followed by the data for social factors. Word position will be examined within each of the above categories. A full word list and realisations can be found in appendix 12.

8.5.1 Real-time results

The graphs in figure 51 in section 8.1.3 show the realisations of MxE male and female speakers for (th) and (dh) in 1999. To aid comparison I have organised the following graph to match that of Pressley's (2002) data.





N of Tokens	θ	f	t̪	Total
M	189	30	0	219
F	198	4	0	202

N of Tokens	ð	v	d̪	Total
M	225	11	6	242
F	256	1	1	258

Figure 52: Overall realisation of voiced and voiceless th for males and females (as percentage in charts, total N of tokens in table)

The data from figure 52 display the percentage of realisations for all words with (th) and (dh). Comparing this figure with the data from Pressley (2002), there is not a large amount of change over time. The percentage of realisations for voiceless *th* has stayed relatively stable with males realising the standard [θ] 86% of the time and females 98% of the time compared to 90% and 97% in 2002. [f] was realised 14% for males and 2% for females compared with 8% and 3% in 1999 (Pressley 2002: 193). The dentalised [t̪] was not found in the modern data, having been realised in just 2% of instances in Pressley's data (2002) and 38% of the time in the SED data (Orton and Halliday 1962).

There were even stronger similarities in the voiced *th* words. The non-standard [v] was realised in 2% of instances in 2002 for males. In 2016/2017 this figure had risen slightly to 5%, a difference of only 3%. For females the same [v] variant had decreased in usage from 1% to 0.4%: a negligible difference. There was a decrease in usage of the traditional dentalised variant (Pressley 2002: 192) [d̪], from 4% for males in 1999 to 2% in my data. No females in 1999 used the dentalised form, whereas it was found in 1 token for females in my data: again, a negligible difference. The corresponding 'TH stop' was realised in the SED 4% of the time (Orton and Halliday 1962). It was necessary to investigate these realisations further (social and linguistic issues) in order to discover more about TH-fronting on the IoM.

Pressley (2002) examined the TH-fronting data in the categories of 'boys', 'girls', 'men' and 'women'. I replicated these categories by combining my age categories of Young Adults, Middle Adults and Retired Adults and having these as 'men' and 'women'. The remaining Under 18s category form the 'boys' and 'girls'. Table 54 below shows little difference between data in previous research and now - apart from the preference for the 'boys' in my data who use [f] more than [θ]. As will be shown in the next section this preference is only shown by two of the 'boys' in the data.

Table 54: Realisations of (th) and (dh) by 'women', 'men', 'boys' and 'girls in 1990 and 2016/2017 (%)

		[θ]	[f]	[t̪]		[ð]	[v]	[d̪]	[d]
Pressley (2002)	men	97	0	3	men	95	0	5	0
	women	100	0	0	women	100	0	0	0
	boys	65	35	0	boys	90	8	1	2
	girls	89	11	0	girls	99	1	0	0
		[θ]	[f]	[t̪]		[ð]	[v]	[d̪]	[d]
My data (2016/17)	men	100	0	0	men	96	1	3	0
	women	99	1	0	women	99.0	0.5	0.5	0
	boys	40	60	0	boys	84	16	0	0
	girls	95	5	0	girls	100	0	0	0

The low numbers of realisation of the variants that Pressley (2002) described as 'Scouse/Manx English' suggests that this feature may have been levelled and is being lost. Dentalised [t̪] and [d̪] are restricted to only 7 instances by just 3 speakers. The feature is only found in word initial position. It does not seem that there is a conflict between the traditional [t̪], [d̪] or [d] and the incoming TH-fronting variants - as was the case in other localities (Glasgow [h] vs [f], Schleef and Ramsammy 2013; Lawson 2014, see 8.1.1).

8.5.2 Apparent-time results

There was a clear difference between the use of TH-fronting between the Under 18s and the other age groups (A Fisher's Exact Test on TH-fronting against non-TH-fronting between the Under 18's and the other age groups confirms the significant difference at $p<0.05$). Table 55 below displays the instances over the age categories. As can be seen in the table, the three

older age groups realised the fronted [f] or [v] on just 4 occasions; the Under 18s used [f] in 36% (32 tokens) of voiceless *th* instances and [v] in 8% (10 tokens) of voiced.

Table 55: Instances of the realisations of th *words over different age cohorts*

Voiceless			Voiced			
	Number of [f]	Number of [θ]		Number of [v]	Number of [ð]	Number of [d̪]
Under 18s	32	58	Under 18s	10	114	0
Young Adults	0	99	Young Adults	1	123	0
Middle Adults	2	116	Middle Adults	1	127	4
Retired Adults	0	114	Retired Adults	0	118	3

Individual realisations of the non-standard TH-fronting are also very revealing. The following table (table 56) is a breakdown of the Under 18s category and shows who used the labiodental variants ([f] and [v]). The majority of the instances of TH-fronting in the whole data set came from the speech of just two males in this category. Mark and James (who are brothers – speakers 6 and 7 on sociogram) used the non-standard forms a total of 39 times out of the total of 46 for the whole data set (85% of total instances). Mark's and James' mother and grandmother (speakers 18 and 26 – all interviewed together, see interview pairings in appendix 2) were both included in the analysis and did not realise [f] or [v] for *th* words. The high percentages for both of the TH-fronting values show a clear

preference for the non-standard features for these young male speakers (especially in the voiceless category).

The other speakers who used the features were Illiam, Essa and Caly (siblings – speakers 3,4 and 5 in sociogram in figure 9), each with only one instance. TH-fronting for (th) was realised by more speakers and at a higher percentage than TH-fronting for (dh). It is also interesting to note the absence of use of [f] or [v] for 3 of the speakers in the Under 18s age group (as was mentioned by Hamer 2007 - see section 8.1.3), while [v] substitution was non-existent for the remainder of the Under 18s (with the exception of Mark and James).

Table 56: Number (and percentage) of instances of TH-fronting in the speech of the Under 18s cohort

	[f]	[v]
Oliver	0 (0%)	0 (0%)
Mark	13 (93%)	5 (33%)
James	16 (100%)	5 (33%)
Illiam	1 (10%)	0 (0%)
Essa	1 (7%)	0 (0%)
Caly	1 (20%)	0 (0%)
Breesha	0 (0%)	0 (0%)
Aalin	0 (0%)	0 (0%)

The subsequent table displays the other users of TH-fronting. I have combined all 3 speakers into one table, even though they are in different age cohorts. The remaining speakers in the data did not realise [f] or [v] for /θ/ or /ð/. As can be seen, apart from the Under 18s cohort, 4 instances of

the TH-fronted variables were realised by 3 speakers, Lucy, Matthew (Lucy and Matthew are daughter and father – speaker number 10 and 24) and Ellie (speaker 19). The instances are very low for substitution; Ellie realising the third largest number of tokens of TH-fronting with just 2 out of a possible 15 in the voiceless category.

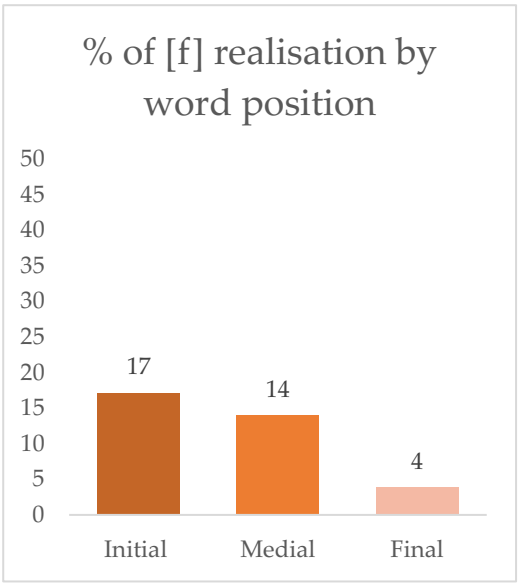
Table 57: Number (and percentage) of instances of TH-fronting in the speech of the Young, Middle and Retired Adults age groups

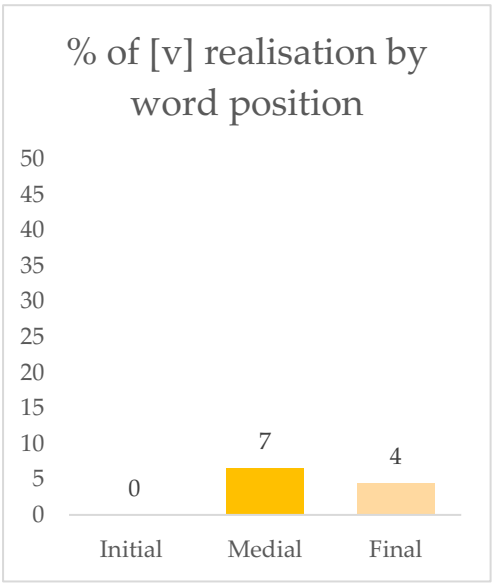
Name	Age Group	[f]	[v]
Lucy	Young Adults	0 (0%)	1 (7%)
Matthew	Middle Adults	0 (0%)	1(6%)
Ellie	Middle Adults	2 (13%)	0 (0%)

Overall 4 females and 4 males (of a possible 36) realised (th) and (dh) as [f] or [v]. An equal balance of males and females were observed using the non-standard feature. However, it was only the two young males (Mark and James) that realised the feature with any regularity.

8.5.3 TH-fronted variants and word position

In the previous data, Pressley (2002) states that [f] for /θ/ is most commonly found word medially, then word final and then at word initial. This hierarchy of medial > final > initial is similar to the constraints in Manchester (Baranowski and Turton 2015: 304) and Glasgow (Stuart-Smith and Timmins 2006). Holmes-Elliott (2015: 151) found the following positional constraints in Hastings for the voiceless *th*: final > medial > initial. The word positions for my own data set are below.





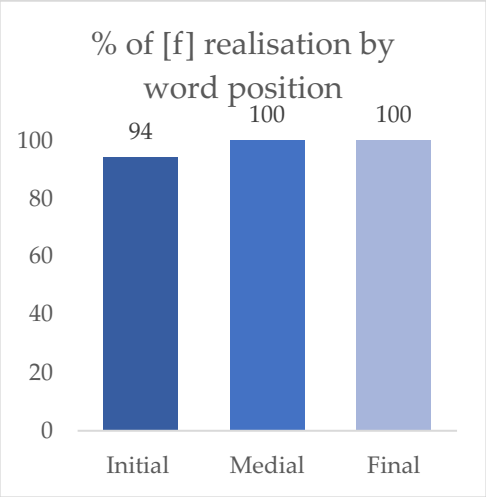
	Initial	Medial	Final
Number of Tokens realised as [f]	18	12	4
Total number of tokens	105	86	105

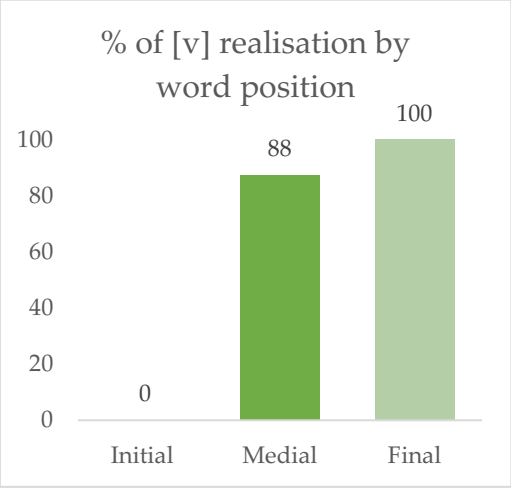
	Initial	Medial	Final
Number of Tokens realised as [v]	0	8	4
Total number of tokens	84	122	90

Figure 53: Overall realisation of voiced and voiceless TH-fronting by word position (as percentage in chart and numbers in table)

Figure 53 above displays the preferred position in the word that [f] or [v] is realised by my participants for (th) or (dh). As was previously mentioned, it is very unlikely that /ð/ becomes [v] in word initial position (Baranowski and Turton 2015; Pressley 2002; Wells 1984). Other similarities with past research are that word medial has a high rate of TH-fronting in both cases. The biggest difference is that word initial for voiceless *th* words is the most preferred position. These percentages do not show the whole picture as the users of TH-fronting are very limited.

Examining Mark's and James' utterances for words with (th) or (dh) it is clear that the feature of TH-fronting in both voiced and voiceless pronunciation has been assimilated into their speech. The figure below shows the percentage of instances for each word position for the TH-fronted variants. Discounting word initial position for /ð/, there were only 2 tokens not realised using TH-fronting. The figure below displays the almost ubiquitous nature of this feature for both the brothers.





	Initial	Medial	Final
Number of Tokens realised as [f]	16	9	4
Total number of tokens	17	9	4

	Initial	Medial	Final
Number of Tokens realised as [v]	0	7	3
Total number of tokens	19	8	3

Figure 54: Realisation of voiced and voiceless TH-fronting by word position by Mark and James

To conclude, replacing voiced /ð/ or voiceless /θ/ for [v] or [f] has become near uniform in the speech of Mark and James. Similar to the London

speakers in Schleef and Ramsammy's (2013) study (see section 8.1.2), the brothers have integrated TH-fronting into their speech system as it can be used in nearly all situations. For the other speakers in my data, their realisation of TH-fronting is too low to be analysed in depth. The speaker with the next highest realisations of either [f] or [v] was Ellie, who realised [f] for /θ/ in 2 out of 15 potential instances but 0% of voiced *th* instances. The number of participants not realising TH-fronting means that it is impossible to generalise the linguistic hierarchy of my MxE data for the feature of TH-fronting.

Overall, the influence of other British accents on the IoM within this feature is very low. The feature seems to be subject to age-grading on the IoM, being lost or lowered when children become older (see section below). This is in direct contrast to the feature of the glottal stop which is a feature on the rise in all age groups. The speakers are not turning to the traditional variant of this feature. The rates for dentalised [d̪] were very low (overall 1%) while [t̪] was non-existent. The speakers are therefore using the standard interdental fricatives more than any other variant. They are seemingly resisting TH-fronting. This feature is discussed in more detail in the following section.

The statistical analysis run for TH-fronting was overly skewed by the lack of speakers realising [f] or [v]. The only certainty is that if Mark or James are speaking and /ð/ is not at word initial position, then it is likely that [f] or [v] will be realised. In all other situations otherwise [ð] or [θ] is likely.

8.6 Discussion and research objectives

The discussion section for TH-fronting examines the results and develops the themes that have emerged. The subjects highlighted in the results section were:

- Relation to models of diffusion
- The potential for age-grading
- The lack of increase of the [f] and [v] variables
- The reduction in use of the traditional variants (TH-stop)
- The linguistic patterns and diffusion

First, I discuss some of the talking points listed above as they were highlighted but not examined in the results section. I delve into the theories surrounding diffusion and investigate how they apply to my own MxE data. The research objectives are then readdressed with relation to the thematic issues discussed formerly.

8.6.1 Gravity model of diffusion and TH-fronting

Referring back to figure 48 in section 8.1 we see the gravity model of diffusion in action with TH-fronting. This model notes the feature being 'absent' in LE during this time (Kerswill 2003). This was supported by research by Watson in 2007 (but then refuted by the same researcher in 2014 (see section 8.1.2)). Therefore, the feature is a newer adoption in LE. The gravity model would predict the IoM would start to use a diffused

feature after a nearby, larger community (like Liverpool) adopts this feature. Therefore, this research is supporting this model of diffusion when it comes to TH-fronting.

The generational similarities over time (see real-time results) with the data from 2016 and 1999 are significant. While TH-fronting is being used by young speakers, the feature is not being used by older speakers (similar to the results from Pressley (2002)). Therefore, we cannot say that TH-fronting has become part of MxE. The gravity model would suggest that it would not be until the feature is stable in LE that it may become more used in MxE. From Watson's (2014: 4) quote about LE and TH-fronting we learn that: TH-fronting has "all but completely replaced the local feature, TH-stopping". The quote does not say whether TH-fronting is used more than the dental fricatives, so we do not know whether TH-fronting is the norm in LE. However, the fact that it is coming into LE vernacular may imply further use in MxE in future. At this moment in time the low use of TH-fronting amongst older speakers may lead to an explanation of age-grading of this feature in MxE.

8.6.2 Age-grading

Mark and James seem to be adopting this feature at its incipient stage on the IoM. The youth element of TH-fronting is also one which is very important. However, if the adoption of this feature is to be complete on the IoM, it would seem that the feature must be used by speakers with a wide social network (Labov 2001: 360). Schleef and Ramsammy conclude that

"if Holmes (1997) and Milroy et al. (1994) are correct, an adoption and endorsement by (middle class) female speakers is essential for the success of an innovation" (2013: 50). The absence of these speakers using TH-fronting on the IoM may be the reason that the use of the feature has not increased since 1999. Therefore, I return to the idea of age-grading in an attempt to understand the linguistic stabilisation for this feature.

The age-grading phenomenon was described in detail in section 2.2.3. If, over successive generations, a language feature is used only by younger speakers and not used when they get older, it can be described as age-graded. As can be seen in table 55, this is the case for TH-fronting. The most effective method to test for age-grading is to compare apparent-time results with real-time results (Chambers 2002: 358). By re-examining the results from the Recording Mann project, it is clear that age-grading may be having a significant effect on the use of TH-fronting in MxE speakers. The speakers in Pressley's (2002) study showed very similar rates to my own speakers over the age groups. It could be that the process of TH-fronting levels off as the speakers get older. It was found that the feature had not increased in any category (other than males Under 18s) over time, and that the patterning was similar to the results nearly 20 years ago. This suggests that the TH-fronting feature is age-graded in MxE.

Another argument for this feature being subject to age-grading is that, as aforementioned, there is much evidence that points to TH-fronting being stigmatised as not 'correct' (see section 8.1.1). It may be the case that the

feature is abandoned by children when speaking to a parent. A limitation of the interview technique was that, for children, the conversations may have erred on the formal side. Interviews were conducted with children and their parents; therefore, the younger people's speech may have been more controlled than it would be if they were speaking with peers. This may have affected their use of TH-fronting. However, most of the Young Adults (who rarely realised (th) or (dh) as [f] or [v]) interviews were conducted with peers in informal settings (pub, café, home). For a recording of two males in this age group (Fin and John Brian), I met them in the informal setting of their local pub. It would be useful to compare formal interview settings with informal settings as this may be a variable which could affect the use of TH-fronting. It could be argued that there may have been more instances in the Under 18s age group, but no more in any other age groups. Therefore, the argument of age-grading would be valid.

These results show that TH-fronting has taken a diffusion route into the dialect of MxE (see 2.2.4). If a diffused feature is resisted in a community, then it may not be expected to be found again in the same age group 20 years later. In their study of AAVE, Cukor-Avila and Bailey (2011) found that the grammatical feature of *be like* entered the dialect more than once. There were patterns over time that suggested that this grammatical feature had diffused separately to different generations. This opposes Labov's (2007) assumption "that diffusion is a 'one-time' event" (Cukor-Avila and Bailey 2011: 41). Researching a speech community over successive generations showed Cukor-Avila and Bailey that there can be more than

one point of diffusion over time. This could be what has happened in my data. TH-fronting could have entered into MxE over 20 years ago, and then again within the lifetime of my younger speakers. Rather than TH-fronting merely being a process that children go through in order to reach the final realisation of [θ] or [ð], the research suggests that the feature is one that has successively influenced different generations of young speakers. This theory certainly sits within the previous notions of TH-fronting fitting into 'youth norms'. It would take a study with successive generations to be able to substantiate this.

In order to gain real insight into this feature and age-grading, it would have been useful to have recorded the same speakers over time. Unfortunately, due to the nature of this thesis and its time constraints, it was not possible.

8.6.3 Research objective 1

Similar to the feature of glottal replacement, TH-fronting was chosen to answer the research objective 1:

> To assess the influence of accent features coming over from other parts of the British Isles

The results of the data on the IoM during this period suggest that TH-fronting has not been fully transmitted onto the Island. Unlike the diffusion feature of glottal replacement, there was not an increase in use of TH-fronting in every age group. Even though overall the male group

showed a slight increase in both the use of [f] and [v] (from 8% to 14% and 2% to 5% respectively), the realisations were comprised mostly from two individuals (half of the children used some form of [f] or [v] substitution in 1999 (Pressley 2002: 195)). Discounting those individuals from the male category would leave just two tokens of TH-fronting for males. In addition, the realisations of TH-fronting by female speakers have decreased over the years. This discovery is in direct contrast with the findings in other locations of the British Isles - where even LE has adopted this substitution which has been resisted for a long time (as discussed in 8.1.2).

The urban hierarchy model proposes that features move from city to city before trickling down to more rural settings (Britain 2012: 455). This model has been used to describe TH-fronting in different locations in England (Kerswill 2003). With this model we might expect that MxE may follow LE. As the feature has only recently been adopted into LE speech, it may take more time to reach the Island. More discussion on associations with Liverpool and the gravity model is discussed in Chapter 9.

A limitation of this research may be said to have come from the lack of separation of class. I discussed why class was not categorised within this thesis in Chapter 3. Class was an important variable within the study of TH-fronting in past research. Not differentiating it in this thesis may have been why so few realisations of [f] or [v] were discovered. However, people from many different professions and places on the Island were sampled, therefore I believe I spoke to people of all backgrounds. While

class categories could have been ascribed and described, I believe that on balance, this would not have changed the results.

In conclusion, within the parameters of TH-fronting, the influence of other accents of the British Isles is not as strong as that of the glottal replacement. It can be seen that this feature has not fully diffused into MxE speech. More will be discussed about diffusion and this feature in Chapter 9.

8.6.4 Research objective 3

> To investigate which social or linguistic factors may be influential in the acceptance or resistance of MxE features

In terms of the social factors involved within this feature, it was necessary to observe the individuals who are using it. Much of the previous research found that younger males were the highest users of TH-fronting in many of the locations. To some extent, this also seems to be true of the IoM also. For two younger speakers; the replacement of voiced /ð/ or voiceless /θ/ for [v] or [f] was near uniform and they could be the early adopters of this feature (Labov 2001).

One of the reasons that TH-fronting is being resisted on the IoM is perhaps because LE has only recently incorporated the feature into its dialect (see 8.1.2 for more discussion). The theory of diffusion is particularly concerned with urban centres being the epicentres and satellites for spread of features (Kerswill 2003). The spread of TH-fronting is said to follow an

urban hierarchy pattern as it moves into a larger city first and then spreads to local rural areas from that city. As mentioned earlier, the use of TH-fronting in Liverpool is a recent phenomenon (Watson 2014); therefore, it may take some time until the feature is diffused over the water.

9 Discussion and Conclusion

The aim of this research was to report on the phonological situation of MxE in 2016/2017. The analysis has given some insight into language change in the British Isles; demonstrating how language features can travel across the water to more isolated communities. Using models from language variation and change (gravity, urban hierarchy, transmission and diffusion models) has allowed this research to be contextualised within modern linguistic studies and locates the IoM within these.

After speaking with other researchers on the IoM it was clear that there was a need to diachronically and synchronically situate MxE speech in a modern setting. In the British Isles, there was also a research gap of diffusion and levelling with regards to the IoM. Many locations on the British Isles have been chronologically updated (while the Island has not). Central to this thesis was the invaluable research that had been conducted formerly. From the outset, the quote by Barry (1984) was analysed and utilised; it stated that:

> It seems likely that north-west Midland, (especially Liverpool) phonology and RP phonology will vie with one

> another for dominance in the pronunciation of English in Man during the next fifty years (Barry 1984: 177)

The data from Barry's SED recordings in the 1950s and 1960s were coupled with the evidence from the Recording Mann project in 1999. These two projects displayed the stages in the history of MxE hitherto. In response to Barry's quote above, Pressley's (2002) closing remarks reported that:

> There is evidence, as shown above, of certain Scouse features being used, though the accent is certainly not 'dominant'. However, there is no evidence of RP being dominant either…the local prestige standard is not RP, but as anticipated, is a northern regional standard accent (Pressley 2002: 195)

I was able to capitalise on these significant findings to make detailed comparisons of past MxE speakers with those recorded for this thesis. During this concluding chapter I develop my own phonological overview to add to the previous two. I begin by qualitatively assessing the interview data. I will focus on the attitudes of the speakers toward the IoM and MxE (for interview pairings, see appendix 2 - for sociogram of participants and their relationships see figure 9 section 3.2.5 (speaker numbers refer to this sociogram) – for interview prompts see appendix 1). I will summarise the linguistic findings; then discuss the themes that have run through this thesis (transmission, diffusion, levelling and resistance) whilst revisiting the original research objectives. Subsequently I present the implications of

this thesis and briefly consider its limitations and thoughts for further research.

9.1 Local and linguistic identity

This next section discusses MxE and Manx identity from the viewpoint of my participants. I have included the responses here, from my own sociolinguistic interviews about the IoM, alongside identity work from the paper *Roots of / Routes to: Practice and Performance of Identity in the Isle of Man* (Lewis 2004). The examples are taken directly from the interviews. Some of the issues arose naturally while other topics emanated from the prompts and questions. As previously mentioned, the prompts were used when participants needed extra ideas of what to discuss, the prompts were not enforced or used when conversation flowed naturally. I have split the topics into five headings; 'The IoM and Geographical space', 'Demographics and Attitudes on the IoM', 'Self-Identity and Manxness', 'Accent and Stigma' and 'Accent and Influences'.

9.1.1 The IoM and geographical space

Location has been shown to interact with the models of geographical diffusion and levelling in many studies (see section 2.1 and 2.2 above). My MxE speakers are well aware of their location within the British Isles; often reciting the well-known saying of: 'seeing the seven kingdoms from the top of Snaefell' (IoM, Wales, Scotland, Ireland, England, Heaven and Neptune) (said in four separate interviews). However, the feeling of being

separated and forgotten still remains. With the increased contact on the Island (see next section) there are also issues of the perspective of the IoM off island. As previously mentioned, the IoM can be an unknown to outsiders (see 2.4). Lewis (2004: 9) describes the IoM's "anomalous situation, being at the same time at the geographic heart of the British Isles whilst 'outside' the political and economic body, is perhaps the major contributory factor to the Island's social and cultural predicament". There is often a feeling of being forgotten and to having to explain your position within the British Isles. This can be seen in the following conversation between Adam (18 years old) and Hannah (Adam's mother, 47 years old) (speaker numbers 13 and 20):

Extract 5

> Adam (talking about other people's questions about the IoM when abroad)
>
> And then they say – *so are you part of England then?* - and you say no, crown dependency. You have to explain what that is – *you part of the UK?* – no
>
> Hannah (Adam's mother)
>
> No we're not part of the UK
>
> Adam
>
> -*you part of Great Britain?* – well I don't really know

Adam talks about the situation of the IoM and not being 'part' of the geographical terms often mentioned. The participants in this extract are

discussing the IoM in terms of otherness and not being directly connected with England, the UK or Great Britain.

With the question regarding disadvantages of living on the Island (see prompts), there were 8 responses about getting on and off the IoM. Issues of living on an island can often be the matters of connectivity. It was not only the cost, but also feeling of isolation and not being connected to other places:

Extract 6

> Fin
>
> some people like the isolation side of it but me
>
> John Brian
>
> In the winter especially if the boat doesn't go for three or four days… genuinely people are kind of like
>
> Fin
>
> lose it
>
> John Brian
>
> there's a lot of panic buying going on…Tesco…because Tesco only bring things over like with the first day the boat doesn't go the fresh veg has gone

The speakers above noting the possible drawback of island life being a sense of 'cabin fever', and not being able to get what they need in the event

of stormy weather. Lewis (2004) discusses division of the IoM from other locations.

There was a question in the sociolinguistic interview about the drawbacks of living on the IoM. There were very few negatives that my participants mentioned about the IoM, however location did come up more than once. Two participants mentioned that getting on and off the Island was, at times, difficult and expensive. One couple mentioned never going away on holidays when they were younger and stated the Island's location as a factor for this. However, it must be noted that this question was rebutted with answers of 'there are no drawbacks' and 'it is the best place ever'. The positive answers far outweighed the negative ones.

9.1.2 Demographics and attitudes on the IoM

When discussing their local community and community ties, my participant gave two quite opposing answers. First, when looking back, older participants talked about the loss of closer-knit communities. As can be seen in the next extracts, speakers discuss not knowing their neighbours as they used to.

Extract 7

> Matthew
>
> Well in this area alone you we'd have there would be this family, cousins and about five or six other families you know friends young people but now

Liz

like NAME doesn't know anyone up this road, at all no

Matthew

no its all changed that way, yeah we don't we do we do know them but we're not friends

Extract 8

Jemma

I think the whole island has changed like that, in that time (1950's) we were like a little microcosm

Ned

now we don't know anyone on that road

However, the opposing views about the closeness of community came up for both older and younger speakers with the question of 'advantages of growing up on the IoM'. Younger speakers mentioned: knowing places, small size (of island), being close to friends, and knowing people in the street as positives to the Island. Adults also discussed issues of safety, close communities, people knowing each other and having friends close by as advantages. The word 'safe' occurred 18 times with relation to the community on the Island. A close-knit community has often been linked with relation to levelling and diffusion studies and will be discussed in more detail below.

Contact has been a key motivator for change and the number of incomers has been large on the IoM. Especially within the finance sector, the IoM has become more and more connected and has attracted people from all over. Lewis explains that "the arrival of international banks, insurance houses and ship management companies - has changed the demographic so that now the Island-born are in the minority" (2004: 3). The question posed to participants regarding changes over time yielded some results about demographics on the IoM. Discussions from the older population especially turned to ideas of: not so many Manx people and Manx accents as there used to be (3 separate interviews), and more and more non-Manx people living on the IoM (discussed on 3 occasions). This was mainly discussed by my participants neutrally; as neither a good nor bad thing when it comes to the number of incomers as seen in the following two extracts

Extract 9

Ramsey

so that's how the economy grew and then came the finance sector

Ricky

big influx wasn't it

Ramsey

oh yes

Extract 10

Matthew

> you know a lot of them coming over…but I don't know as they they're coming for tax a lot of them…good tax rate here

The term 'swamping' may be one that can be applied here; an incoming of many dialects that could lead to "rapid loss of features" (Schilling-Estes and Wolfram 1997: 104). However, there is a strong sense of identity (as discussed below), researchers have previously discovered that a demographic 'swamping' can cement the need and determination to preserve linguistic identity (Schilling-Estes and Wolfram 1997; Sallabank 2006). Because of the amount of non-Manx born residents, Lewis (2004: 134) found that a sense of 'otherness' from Manx born can "reassert, through performance, a sense of sameness". The links between pride in community and the performance of identity is discussed with relation to other island communities and linguistic identity (see 2.4 - Schilling-Estes and Wolfram 1997). The number of incomers is highlighted in some of the terms used by Manx people, noted by Lewis (2004); these were the separations between *comeovers*, *stayover*s and *Manx-born*. This separation links to how people on the IoM seem to self-identify as Manx or not (see next section).

9.1.3 Self-identity and Manxness

Identity issues that came up during conversations were usually prompted by the question: do you feel Manx? This question is one that was adapted from the SED and also used in the Recording Mann project. Unfortunately,

the responses from the previous research were not available, but I did gain some insight into what it means to live on the IoM today.

The interviews took place just before the European Union (henceforth EU) referendum, with much of the news at the time (including on Manx radio) centred on whether Britain should be in the EU or not. Manx people could not vote. Many of my participants discussed the issues of Britain's exit from the EU, however their Manx status was reinforced as they were all excluded from voting on 'British' matters. Another talking point pertaining to this question was one regarding a recent census form. The Manx census form asked people to record their nationality but did not include an option for Manx (options included British, Welsh, Scottish, Irish, English etc). Two of my participants (in separate interviews) brought up this fact after I asked this question and told me that they had had to tick the box 'other' and write in 'Manx' themselves. Again, the speakers evoke a feeling of otherness or being outcast in a country that they may not feel completely connected to.

Lewis (2004) describes that for some; being Manx sometimes has a 'performative' element to it. The different Manx gatherings (for example: Laa Columb Killey, the Manx Music speech and dance festival amongst others) are a way of expressing Manxness (Lewis 2004: 133). Lewis (2004) cites Dawson, and the work in ex-mining towns, saying that: where referents of those communities are disappearing, community must be learned in shared traditions such as dance or music or language.

Therefore, traditional gatherings on the IoM form an important part of what it is to be Manx. Other traditions and events are also seen as an assertion of Manx identity and emphasis again is on the Manx difference. Tynwald day is a national holiday whereby legislation is read out during a ceremony celebrating the parliament. Lewis (2004: 12) described the event which "acts symbolically as an assertion of independence". The announcer at the event began proceedings by asking "to ponder on why this day is so important to Manx people: 'what we see here today is what separates the Isle of Man from the United Kingdom'" (Lewis 2004: 12). The next extract is from a mother and daughter and encapsulates the sense of both as well as the other with the addition of unique traditions; When asked 'do you feel Manx?' Rhian (age 10) and Eleri (Rhian's Mum aged 43):

Extract 11

Rhian

I can count 1 to 10 in Manx…yeah a bit because we keep to the traditions like turnip carving and stuff

Interviewer

What about you Eleri? Do you feel Manx?

Eleri

Uhm yeah actually and more as I get older and uhm yeah definitely I would definitely say I was Manx not British

In this example we have performance of traditional activities by speaking Manx and carving turnips (an activity for children during Hop-tu-naa around the time of Halloween). Manx Gaelic and Manx singing and dancing was seen as one of the 'routes to' Manx identity that Lewis (2004) identified. Rhian's mother: Eleri, explains that her Manxness derives from not feeling another nationality.

Whilst there is a strong sense of a Manx identity, some feel that there are few who would qualify as 'true Manx'. Lewis also found this in the description from her participants; she explains that: "some would self-identify themselves as Manx - having, perhaps, a familial connection with the place. And some have no such connection but maintain that their 'Manxness' arises through length of residence combined with a love of the Island, its values and traditions" (2004: 102). Many of my participants talked about their Manx heritage in terms of how many generations they had of Manx lineage.

On the subject of whether they felt Manx, Kathleen (66 years old) had a quick exchange with her daughter-in-law (Carly: 43 years old) about identity (speakers 18 and 26):

(Kathleen explaining why she feels Manx):

Extract 12

Kathleen

I've always lived here I was born here, it's only that you have to have so many

generations. I don't think you'll be classed as Manx (directed at grandson)

Carly

Probably Manxer than you are though (directed at Kathleen)

Kathleen

(laugh) yeah bet he'll be a bit but my Father was English

In this exchange, how Manx someone is, is determined by how many generations of Manx parentage one has – there seems to be a system where someone is 'classed as Manx'. Kathleen is being contradictory as she tells her grandson that he may not be classed as Manx because Kathleen's father was English. However, she begins by saying that she herself is Manx because she was born there. After this exchange they explain to me that they wrote Manx not British on the census form.

In answering the same question, the sisters Mary (65) and Margaret (58) had this to say:

Extract 13

Mary

No we're we're Manx

Margaret

There's not an awful lot, I would think who you know, parents or grandparents are all Manx

Mary

Have all been Manx, true Manxmen. Like even my husband his mother was from London, he's not a true Manxman. But we are, thoroughbreds you know, natives

Margaret

Haha, I don't know if that's good or bad, ha

Mary

But no, and on forms (talking about the recent census form) I'm filling in the form in nationality, I'm Manx, I never put English or British or…

Once again, the 'true Manx' identity has introduced the idea of lineage in extract 13. Even though someone they talk about has one Manx parent, the other is English, and this does not seem to constitute them being 'true' Manx. However, it is still not possible to associate with being British. There are a bit of a contradictory identity issue where people without the correct lineage are not true Manx but still put themselves on the census as Manx (because they still feel different to the other nations on the British Isles). The Manx government's failure to include 'Manx' as a category on the census has clearly irritated the residents I spoke to.

9.1.4 Accent and stigma

Many of the participants talked about the views of MxE by Manx people. They also talked about their own experiences of speaking with a MxE

accent and what people thought of it. A few speakers talked about their time at school and how teachers would try and prevent the unique MxE features. For example, Charlotte (33 years old) talking about the Manx 'shibboleth' (Pressley 2002: 126) with long [u ː] or off glide [uˑə] for words with *oo* spelling like *book, look, cook, took, soot, good* and *could* (Hamer 2007). I have added the pronunciation of the key words in square brackets:

Extract 14

Charlotte

…well when I was at primary school, well I mean admittedly the teacher I had at the time was mmm a bit horrible, if I said, she was awful, if I said *look* [lʉːk], and I do say *look* [lʉːk], *book* [bʉːk], *cook* [kʉːk] *who'd* [hʉːd] and all that, if I said that she would reprimand me and I used to have to stop and say like *look* [lʊk] three times or like *book* [bʊk] three times, but do you know I I…

Charlotte was chastised by teachers (on the IoM) for using this feature and 'corrected' by having to repeat another version. The story around this feature was repeated 3 times by different participants, with teachers telling students not to use the MxE [uː] variant.

In the next extract Emily (62 years old) and Ellie (54) discuss their teachers' attitude towards MxE at school:

Extract 15

Emily

…but also schools, schools breed it out of them (***Ellie***: yeah), when I went to school I used to be even more Manx maybe than I am now but the teachers they would be so strict on you

Ellie

Yeah you had to say pounds, and we never been brought up to say pounds. Its ten poun', twelve poun', fifteen poun', but it's not fifteen pounds. Uh I can remember being pulled up at school on that

Emily

Oh, all the time, all the time, I mean uh all the time, when I first started school.

Interviewer

Were they Manx your teachers?

Emily

She was, she only lived over the road from me

Ellie

I think they thought though, if we had the queens English rather than the Manx

dialect, you were going to thrive in life. You know you get a better you know, you're not going to get a job working in the bank sounding like that are you. Well why not, you know, why not

In this example the feature of consonant cluster ending is discussed with regards to the MxE feature which is stigmatised (see Chapter 5 for simplified consonant clusters). According to Emily, the schools tried to 'breed it (MxE accent) out' of students: presumably by 'correcting' the pupil's unique vocabulary or phonology. Ellie goes on to talk about what teachers thought you cannot do with a MxE accent (work in a bank), but she does not appear to agree with this assessment. There is some argument of what they believe others think about the MxE accent, but it is not something they agree with.

Both these examples display stigma towards the MxE accent, one that is said to be looked down upon by authority figures (teachers). There were also more recent examples of school teachers and their negativity towards MxE accents. The grandparents of some current schoolchildren explaining that: (Catherine Carine (68 years old) John Carine (68 years old) (husband and wife))

Extract 16

Catherine

Oh the oo [ʉː] sound is definitely here, but the schools are trying to get rid of it don't they

John

Oh yes

Catherine

Because ours, our seven grandchildren all say oo [ʉː] (laugh)

John

Yeah

Catherine

And uh, invariably they come home and say miss so and so says; I've got to say, as you've just been saying [northern ʊ]

Interviewer

Oh right. Even the teachers?

Catherine

Teachers yes. Who aren't Manx

The extracts above are examples of linguistic prescriptivism[22]. These attitudes towards MxE may feed into the theories of a conscious effort to

[22] "the ideology and practices in which the correct and incorrect uses of a language or specific linguistic items are laid down by explicit rules that are externally imposed on the users of that language" (Straaijer 2016: 233)

speak one way or another (see section 2.4). However, not all discussion about MxE accent was negative and most participants gave positive views about their own accents. Juan (61 years old) discusses an accent he likes in Douglas:

Extract 17

> **Juan**
>
> …Douglas is very
>
> **John**
>
> Scouse
>
> **Juan**
>
> Liverpoolised, Li, very Scouse, like. There's a girl, wonderful Manx accent at her, and, grew up in Douglas and she says *are you goin'* [gɛuˈwɪn] *down* [daun] *town* [taun] *now* [nau]

Juan is describing a 'wonderful Manx accent', displaying an affection for MxE. He also explains that it is a 'Liverpoolised' accent, this is said as a compliment to the speaker. A participant from the original pilot study, who worked with many people on the Island, also described on email that:

> As for prejudice: a strong Manx accent might be subject to derision elsewhere but I've never seen anything like that in the IOM. In fact, given that I meet people from different walks of life every day, I'd say the opposite is true - everyone is tolerant of each other's accent to the point where it isn't

considered to be an issue (John Caine personal communication)

This speaker describes a tolerance rather than intolerance of the MxE accent.

Lewis (2004: 120) noted a Manx museum exhibit which displayed MxE dialect poetry with the introduction: "'The dedication in T. E. Brown's collected poems sums up the state of - or should I say - the loss of our heritage and Manxness. Will this change in 2000 and the next Millennium?". This changing 'Manxness' was a topic that came up a few times. There were 3 occasions where participants discussed the loss of the MxE accent in society. This may have been because of a change of demographics or conscious efforts on the part of teachers (mentioned above). There were many more occasions (around 12) where participants discussed the loss of MxG. This loss of identity is mentioned within Schilling-Estes (1997) work (discussed in section 2.4). The link between realising loss of tradition and extra effort made to reassert linguistic differences were exemplified by most researchers in 2.4 (further discussion in the section 9.3.

9.1.5 Accent and influences

Participants occasionally discussed the influences of other accents on their own and also talked about what others (not Manx) thought about their accent. Mary Christian (68 years old) described how she used to talk to

people on transistor radio systems (CB radio), when discussing her accent with others she explains:

Extract 18

Mary Christian

…they all said, there's a little bit of Liverpool there, there's a little bit of Irish, and there was a little bit of all the different countries round us that they could pick up in my speech…

These influences are again echoed by Ricky (66 years old) who adds:

Extract 19

Ricky

Well if you go across lot of people think you're a cross between Irish and Scouse

Liverpool was mentioned by several other participants. The only other similarity was a 'Northern accent'. When talking of her friend who comments on her accent, Hannah (47 years old) explains that:

Extract 20

Hannah

She comes from, I don't know, south England somewhere and she yeah, she can't really distinguish between us and, she just says it's just a northern accent…yeah well yer Yorkshire Lancashire yeah, Bolton there's all different accents like Liverpudlian or

whatever. She can't hear that we're any different or whatever

In all, 'Liverpool' was cited as the accent which others mistook them for around 12 times. Other places in the north of England were mentioned 5 times, Northern Irish twice, Southern Irish and Welsh once. My participants explained that the misplacement of accent when not on the Island was mainly because others had not heard a MxE accent (perhaps because they are not common in the mainstream media). The influences mentioned are in line with the linguistic descriptions in section 1.3 and Chapter 2, especially in the discussion of supralocalisation.

The speakers also discussed the MxE accent being different as Hannah and her son Adam explain:

Extract 21

Adam

But it's (the MxE accent) totally different from places like Manchester

Hannah

Yeah well yeah Yorkshire, Lancashire yeah Bolton, there's all different accents like Liverpudlian or whatever. She can't hear that we're also different

Schilling-Estes (2002) discusses the idea of 'linguistic differentiation' as a way of maintaining cultural distinctiveness. The extracts above, which highlight the more MxE particular features, shows that the speakers are aware of unique MxE variants (also seen in extracts 1,2 and 3).

9.2 Summary of findings and discussion

Chapters 4-8 have discussed certain research objectives related to each variable in question. This chapter is a final opportunity to combine the conclusions and discuss the correlation between results.

9.2.1 Summary of the findings

The inter-generational findings that were highlighted within the first two features (vowel lengthening of /a/ and simplification of consonant clusters) revealed contrasting phonological developments. There was no significant difference in the use of vowel lengthening between older and younger speakers in the 2016/2017 data. Also, there were very few differences in the other statistical factor groups linguistically and socially (see section 4.6.4). There was also no change in the percentage of use of BATH/TRAP vowels being lengthened between 1999 and now. However, there was a difference between use in the 1950s/1960s and now. The decline in use of the feature was steep between the earlier and middle data collection. However presently, it seems that the levelling process has levelled off. For simplification of consonant clusters, correlation tests for difference in use between the 1950s/1960s and 2016/2017 demonstrated that there was an

obvious and significant decline. There may also have been a finding of levelling of a traditional feature in Chapter 8. The dentalised [t̪] for /θ/ was found in around 38% of all voiceless *th* words in the SED; then 0% in my data. Thus, there are features which have not been found in this research (simplification of word ending consonant clusters, 'TH Stopping'), and one which has resisted levelling to a certain extent (vowel lengthening to /æː/).

The third feature to be investigated had several hypotheses surrounding it. The realisations of the vowel in the GOAT lexical set in MxE was hotly contested. Barry (1984) reported two realisations for this lexical set: [oː] and [oʊ]. My own examination of a MxE speaker in the 1950s also found a substantial use of the [oː] monophthong. The preliminary research also added a LE ([ɛ̪ʉ̪]) and RP ([əʊ]) variant into the mix for contention. As Barry (1984) had predicted, there was a rise in the use of the two former options since their non-existence in 1950s/1960s recordings. My results also showed that the [oː] realisations were very low while [oʊ] was not. This could be attributed to a process whereby a geographically isolated accent feature was being offset with a more widely accepted supra-local alternative (see discussion below). Owing to the increase of the LE and RP variant, it is difficult to predict the future realisations of the GOAT lexical set in MxE. Realisations of the vowel in the GOAT lexical set display the influence that Liverpool has on the Island and highlights LE's spread to locations outside Merseyside.

The remaining two chapters within this thesis focused on variables which are becoming more common in different locations. Glottal replacement and TH-fronting have been the 'torchbearers' (Kerswill 2003) of diffusion; exemplifying phonological features which have spread throughout the British Isles. The use of [ʔ] for /t/ has increased throughout the years. The SED recorded around 13% of instances of *t* as [ʔ] (Orton and Halliday 1962-3). Pressley did not record overall totals but concluded that the average percentage for glottal replacement was at 7% in word medial and 53% at word final (Pressley 2002). This thesis found that the overall percentage of glottal replacement had increased to 58%. The social and linguistic breakdown of the results suggests the route this feature has taken to get into the dialect as well as its possible future in MxE.

While the acceptance of glottal replacement seemed widespread (every speaker used [ʔ] for *t* at some point): TH-fronting users only totalled 8 out of 36 (only 2 of those 8 people used the feature more than twice). TH-fronting was absent in the SED (Orton and Halliday 1962-3), but the percentage of use was similar in 1999 and 2016/2017. The latter finding suggests that this feature is not being used on the IoM. The lack of uptake may have been because of the lack of use in LE in 1999 (as referenced by Watson 2007 (although there was more use in LE in 2014)). Following the gravity or urban hierarchy model, the IoM would certainly take up changes after Liverpool had - this seems to be the case with this feature. Therefore, these chapters revealed that the diffused features are coming through Liverpool. If the urban centre of Liverpool adopts the feature

readily, then the younger speakers on the IoM may also adopt this feature (discussed in more detail later in this chapter).

9.3 Levelling and resistance

9.3.1 Focusing and concentration: strategies for dialect death

Vowel lengthening was chosen as it had strong potential to be in decline or even to become obsolete on the IoM (Chapter 4). The real-time conclusions revealed that: although usage numbers have dropped since the 1960s, they have not dropped since the 1990s and are being adopted by different members of Manx society. According to the research from the 1990s (Recording Mann), this feature was at a critical stage. If only older males continued to use [æː] then it would surely disappear from MxE within a few generations. This point in a dialect may be referred to as the 'tipping point' (Smith and Durham 2011) whereby certain strategies are employed by speakers of the dialect to hold on to endangered features. The approaches toward slowing the levelling process are discussed in the following paragraphs.

First, features of attitude about the changes in a community are considered as to why vowel lengthening of /a/ to [æː] has not disappeared. Smith and Durham (2011) refer to the 'socio-symbolic' meaning of some forms which are deemed too close to the social community to be lost. Schilling-Estes and Wolfram point to "dialect distinctiveness as a sort of linguistic 'self-defence'" (1999: 510). These features must first be recognisable and

accessible to the speakers. Vowel lengthening seemed to be very noticeable for speakers (see anecdotes in section 4.2 – extracts 1,2 and 3). Also, the feature must differentiate the accent from others in order to employ this 'self-defence strategy' (Schilling-Estes and Wolfram 1999: 509). Extract 1 in section 4.2 shows how the speaker recognises vowel lengthening as a feature different from those of her non-Manx peers. Therefore, vowel lengthening carries the correct attitudinal factors to enable the preservation of this feature.

In discussing dialects on the point of disappearance, Schilling-Estes and Wolfram (1999: 511) talk of the difference between linguistic focusing and concentration. With the feature of vowel lengthening in MxE, these speakers show some features of focusing and concentration. In linguistic focusing, the speakers may "increase the distinctiveness of one or two features, usually highly noticeable ones that serve as strong symbols of community or cultural identity" (Schilling-Estes and Wolfram 1999: 511-512). This feature has been noticed by outside parties as being a MxE marker (extract 1); therefore, this may be linguistic focusing. However, the focusing process discusses that 'crucially' (Schilling-Estes and Wolfram 1999: 512) the features here are subject to what Trudgill calls 'hyperdialectalism'[23] (Trudgill 1986a: 66-78). This was not the case in my recordings. The linguistic context where the feature was realised was in agreement with the context in which it has been previously used. The focus

[23] Hyperdialectalism: the overuse of the linguistic form or using it in situations where it would not normally be used (Britain 2009: 13)

on this feature does not seem to be intensified, this may be because of the lack of limiting linguistic restrictions (see section 4.6).

The 'characteristics of concentration' are described by Schilling-Estes and Wolfram (1999: 513) as having more "normal and synchronic patterning" rather than having "erratic variability". The patterning of the findings in my research in terms of linguistic and social properties align with this model's assumptions (there is no separation from previous linguistic patterning and its use ranges through all age groups). Smith and Durham (2011) agree with Schilling-Estes and Wolfram (1999) in saying that hyperdialectalism can also feature within the concentration model. Therefore, this may be an uncommon way of using the feature as a form of 'self-defence'. As previously mentioned, hypercorrection does not seem to be the case in the data for this feature. I believe that the resistance is due to a mix of focusing and concentration.

I have discounted the concept that the resistance to vowel lengthening being levelled was directly due to the resurgence of MxG. Even though /æː/ is a feature of MxG phonology (Jackson 1955; Thomson 1984; Broderick 1993) and the status of the difference between /æ/ and /æː/ is dubious in MxG (Broderick 1993), there is no evidence to suggest that the upturn is influenced directly by Gaelic. For example, most of my speakers who realise vowel lengthening of /æː/ are not MxG speakers. The MxG speakers in the Under 18s category are Caly, Essa, Illiam, Mark and James. Displayed in table 31, their percentage of long /æː/ was 5%, 19%, 13%, 6%

and 0%. Therefore, the MxG speakers are showing no more preference for this feature than non-MxG speakers (lower realisations in some cases (e.g. Mark)). In section 1.3, I discussed how Kewley-Draskau (1996) suggested that much of the lost MxG may have been supplanted onto MxE. This may be the case. Perhaps the speakers (who cannot speak MxG) are using features that are Manx identifiable. The non-MxG speakers are using some features to further identify themselves as Manx; therefore, connecting the attitudinal factors with socio symbolic meaning with language (as mentioned above (Schilling-Estes and Wolfram 1999)). Connections of Manx language and Manx identity were very much intertwined as was described by Lewis (2004) in section 9.1 above.

This feature and the findings link to the variation and identity models outlined in section 2.4. This section discussed participants wishes to maintain their distinctiveness. Schilling-Estes (2002: 80) wrote that in order to preserve a "unique cultural identity against that of neighboring mainlanders, their best option is to harden their linguistic boundaries in other words, to continue to increase their dialectal distinctiveness". The feature of vowel lengthening could be an effort to increase their distinctiveness. With this in mind, it could be said that this is a conscious effort on the part of the speakers. Thus, this connects with the purposeful acts to display their identity that was widely used in the identity models outlined in Chapter 2 above (Watt 2002; Smith and Durham 2011; Dyer 2002).

Considering some of the comments made by my participants, it is clear that there is a desire to maintain the cultural identity and distance themselves from neighbouring dialects (see 9.1 above). Discussion in 9.1.3 mentioned participants distancing by describing themselves as 'not British'. They also mention several linguistic factors they are aware of and that they class as perceptively MxE (such as /uː/ and /æː/ (see 9.1.4)). The pride in Manx culture and distinctiveness was also a persistent topic (see 9.1.3). Therefore, I believe that the guidelines which Schilling-Estes (1999) outlines with regards to identity and language choice, can be directly linked to the situation in MxE and the strategies for focusing and concentration.

9.3.2 '[D]ialect variants disappear at different speeds'

Accent levelling considers features that may be lost over time. The overview of final consonant cluster reduction on the IoM displayed a significant reduction in use of this feature. While the use of the feature of vowel lengthening was found not to be in decline (compared to 1999), simplification of consonant clusters was. The heading for this section is part of a quote from Trudgill (2002a: 41); the full quote is:

> [d]uring the process of dedialectalisation, including total dedialectalisation i.e. dialect death, dialect variants disappear at different speeds

Looking at this feature as a process of levelling, it is clear that the speed of decline is significant. There seems to be a similarly low number of

instances of simplified consonant clusters in MxE now and in the Recording Mann study.

According to the results in this research, it is possible to assume that this feature is being lost in MxE. Only one of my older participants mentioned this as a feature of MxE. It did not appear to be part of the perception of what makes a MxE accent. There may be an argument that this feature has lost some symbolism in MxE as it was not mentioned by participants or used by many of the speakers. Smith and Durham (2011: 219) describe these kinds of features as ones that "may not have such symbolism and simply quietly slip away through time". The prominence of this feature in the SED was not matched by the perception of this feature by my participants. The one speaker who did mention the loss of /d/ in the word *pound* (Ellie – see comments in 5.1) was the only speaker to reduce the final consonant more than twice in natural speech. An investigation into careful speech as well as spontaneous conversation would give a better overview of the feature of reduction of final consonant clusters. What is clear though is a lack of tokens of this feature when compared to the SED or to other accents of British English.

9.4 Geographical diffusion and influences

9.4.1 RP and Liverpool English will vie for dominance?

In terms of influences on MxE; let us re-examine the quote by Barry (1984) stating that RP and LE will be the great dominators of the MxE dialect in

the future. Findings for the GOAT lexical set were that: the RP diphthong for GOAT words ([əʊ]) was non-existent in the data from the SED in the 1960s (see 6.1.3). In my analysis, I found that just over a quarter of all GOAT words were realised using this diphthong. This is a large increase from the past and one that shows the influence of RP on the IoM. Barry's (1984) prediction with regards to the increase in use of an RP variant seems vindicated.

The second part of the quote relates to the LE variant of [ɛ̲ʉ̶]. There were a few instances of a fronted diphthong for GOAL words (around 10% (6 tokens)). For GOAT vowels, 32% (172 tokens) of tokens were realised using the [ɛ̲ʉ̶] diphthong. There was also a definite pattern of usage throughout the different age groups for this variable. The use of [ɛ̲ʉ̶] increased down the age scale. Therefore, this may imply that [ɛ̲ʉ̶] could be a feature of diffusion, coming in from Liverpool. Hamer (2007) claimed that this feature may well be just a tendency of younger people fronting the first element of a diphthong. In section 6.1.3 I refuted this argument; moreover, my data also shows contrary conclusions. With 6 of the 8 women in the Middle and Retired Adults age groups showing some signs of the [ɛ̲ʉ̶] diphthong, there is an argument that this is a feature entering MxE vernacular. The very high rates of usage from the Under 18s (72%) may suggest that the younger age group are advancing the rates of LE features, expanding on the use of earlier generations (see discussion on 'Transmission' and 'Incrementation' below). Also, regarding the comments previously by Rob Carswell about the use of [oː] in MxG songs (see 6.1.1), it would seem that the LE [ɛ̲ʉ̶] is also entering the MxG being

spoken on the Island and reinforcing its migration onto the IoM. The feature may become part of MxG speech and therefore part of Manx distinctiveness (and not just an adolescent tendency to front the first element).

Focusing on the linguistic realisation of the LE feature, there are also clues as to the language change in action. Chambers and Trudgill (1998: 110) describe the phenomena of 'fudged lects[24]' within dialects which are in transition. The features which are moving from one place to the next may not be faithfully replicated by the newer speakers but may be converged with older features. Returning to the phonological comments about the MxE version of LE's [ɛ̲ʉ̶] diphthong, it was described as 'approaching' LE realisation. I argue that the imperfect imitation of the LE feature displays the 'fudged' characteristics described by Chambers and Trudgill (1998). Perhaps the speakers want to create a new MxE version of [ɛ̲ʉ̶] which is not an exact replica of the LE [ɛu]. Thus, the phonological attempt at the diphthong may display a transition period, leading to more nuanced versions of the GOAT lexical set.

[24] This term describes the attempts to replicate a new sound from a neighbouring dialect with varying degrees of success (Chambers and Trudgill 1998). For example, areas in the north of England may realise [ʊ] for words like *much, such* and in the south may realise [ʌ]. However, in an intervening area on the border, Chambers and Trudgill (1998) found speakers to be realising [ɣ] – "This sound is a 'fudge' (that is, a kind of compromise) since it is phonetically unrounded like [ʌ], but closer to [ʊ] in terms of vowel height, and intermediate between them in terms of backness" (Mesthrie 2009: 61).

Pressley also assessed Barry's quote mentioned above in the MxE research in 2002. The conclusion about the prediction was that it did not consider the growing influence of a general Northern pattern. This was something I was keen to investigate further and especially within GOAT words. The most realised and widespread variant overall was the general northern English variant of [ɒʊ /oʊ] which was realised by everyone and by all age groups to a certain degree. With regards to this variant, the SED data for the IoM also showed very high rates of usage for similar diphthongs (however my own analysis of recording from that time showed a 100% realisation of monophthongs not diphthongs). As Watt (2002) found in Tyneside, the identity statement of the speakers was to reject a Southern feature and a seemingly outdated local feature. They would replace these for a supra-local one that was accepted across the north of England. This may be what is happening in the GOAT lexical set on the IoM to a certain extent. The rates of the monophthong, which could be seen as an old-fashioned form of MxE, have decreased. With the increase in the usage of the RP feature, the more supralocally accepted diphthong may have been favoured as a reaction to the increase of the Southern [əʊ] variable. The rates of the RP diphthong decreased substantially for the younger age groups in the GOAT lexical set (32% Retired Adults – 42% Middle Adults – 25% Young Adults – 9% Under 18s). The increase use of LE [ɛ̲ʉ̲] also shows that there is another contender within the GOAT lexical set, and this was predicted by Barry (1984).

Therefore, Barry (1984) was correct in saying that there will be an increase in the RP and Liverpool influences. The use of the traditional (and northern English) [oː] seems to be decreasing. This was surprising as the monophthong was described in previous research as being a pan-Northern feature. With external features however, the 'urban hierarchical diffusion' (Britain 2005b: 1016) process proposes that the features from a nearby urban centre will be the ones that are being acquired. LE is unique in not using the [oː] monophthong in the north west of England. Therefore, this shows that the IoM is looking to the dialect of LE more than those around the other parts of the north of England. This in turn supports the gravity model of diffusion.

With regards to the other features and the influences in question; there may be an argument for [h] replacement of /t/ at word ending in monosyllabic function words to be diffused from LE. As previously mentioned there may be an influence from Irish English or MxG when it comes to this feature.

9.4.2 Transmission and diffusion

Recalling Labov's (2007) theoretical framework for routes into a dialect (see 2.2.4), it is probable that the increase of the use of the LE feature within the GOAT lexical set is due to incrementation of transmission from one generation to the next. As can be seen, there was an increase in use of LE [ɛ̲ʉ̲] throughout the age groups. As previously mentioned, females in the older category used the feature sparingly, while the younger females are

beginning to extend the use of this variant. This variant may have been diffused into the language in earlier generations or may have been a product of an internal change. Hamer (2007) considered that the fronted nature of the GOAT vowel was due to an age-grading process that described how younger speakers fronted the starting point of most diphthongs. Other researchers have disagreed that fronting by children could be the reason. Cheshire et al (1999: 4) stated that "[o]ur conclusion was that the fronting of GOAT was complete by the age of 12", therefore age-grading may not be the change in this case. In addition, with the older speakers also fronting the first part of the diphthong, this may no longer be an age-grading process within MxE. If this is the case, then the advancement of the LE feature in MxE would be seen as incrementation in Labov's (2007) theory.

The majority feature in the GOAT lexical set of [ɒʊ /oʊ] can also be described through the transmission process. The subsequent generation have shown to "faithfully replicate this system…to preserve the integrity of the system as a whole" (Mooney 2016: 4). The SED suggested that this was the majority variant during the 1950s (see section 6.1.3) and it continues today.

The mechanisms of change are also apparent within the features of TH-fronting and glottal replacement of /t/. While TH-fronting can be seen as a diffused change (coming from outside the speech community), glottal replacement is both a diffused and a transmitted one (passed down from older speakers within the speech community). The evidence for this is

within the real-time element of this study. The SED users of MxE realised [ʔ] for /t/ but did not realise (th) or (dh) as [f] or [v] (see section 7.1.3 and 8.1.3). Glottal replacement was more readily available as it was passed down through generations (through transmission (Labov 2007)). Michael Barry's recordings in the SED did not find any realisations of [f] or [v] for /θ/ or /ð/, therefore TH-fronting has likely entered through diffusion. The differences between the routes into a dialect suggest that glottal replacement has diffused more successfully than TH-fronting.

The different routes the features are taking can also imply what stage of completion they are at. TH-fronting has not been found to be used by the majority of speakers. The sudden and overwhelming use of the feature in just two participants is indicative of the stage it is at in the MxE community: it has not been adopted into the accent. Whereas, for the glottal replacement, the characteristics of the speakers of this feature were more widespread (all speakers realised this form). This implies that the change is at a more progressive point in time and becoming more entrenched within MxE speech. It is possible that this feature is in a 'Middle-range change' (Labov 2001: 239) whereby a majority of the community is using the form but not necessarily in a majority of their instances.

The next point for comparison is to what kind of changes these can be. 'Off the shelf' (Milroy 2007) features were discussed in section 2.2.2 to describe features which were diffused. In particular, the link between this concept

('off the shelf' (Milroy 2007)) and the feature of TH-fronting was discussed. The results and analysis of this feature on the IoM coincide with the theories proposed by Milroy (2007). The feature was used by younger speakers to position themselves as part of a non-geographical 'youth' group (Kerswill 2003: 15). Glottal replacement on the other hand has passed the point of diffusion and is now part of transmission. Therefore, the feature is now an 'under the counter' (Milroy 2007) one. Holmes-Elliott graphically illustrates these terms as follows:

> Under the counter changes tend to be linguistically complex and require repeat exposure in order to be acquired; they are often not the subject of overt social commentary. These types of changes tend to be endogenous changes, learned by children and passed from one generation to the next

Indeed, glottal replacement is passed down from one generation to the next and is more a part of MxE than TH-fronting. Therefore, it is clear that these two features have a different amount of influence on speakers of MxE.

9.5 Returning to the research objectives

This section briefly returns to the research objectives and summarises the findings under these headings. I also summarise some of the predictions about the future that were mentioned in the previous sections.

9.5.1 Assessing the influence of accent features coming from other parts of the British Isles

This research objective returns to the quotes from the two researchers (Barry 1984 and Pressley 2002), who have assessed other accent features and their influences. Overall, from the data I have presented, I can certainly determine that there is a form of resistance when it comes to the loss of (what are seen as) traditional MxE features. Some speakers on the Island may have perceived a threat to the traditional MxE accent (as discussed in 9.1) and are taking measures to resist forms of levelling on certain salient features. This may continue in the future due to the strong sense of solidarity and identity on the Island.

For features that are perhaps unremarkable, in the sense that they are less noticeable, their disappearance may already be advancing. The influence from Liverpool is being keenly felt, the growing Merseyside realisations are reaching the Island. Features diffused on a British national scale seem to be passing through Liverpool to get to the IoM. For the features I have looked at, there is less evidence of a sharp turn to RP. The older generation certainly use the RP forms to some extent, whereas, the younger speakers may have different choices available to them. In the future it seems that the LE features may continue. With the LE continuing to expand in other locations it may be presumed that it will also continue to influence the IoM.

9.5.2 What features of MxE are being lost?

The number of realisations of the simplification of word final consonant clusters has declined rapidly over years. In addition, the younger generation are not simplifying the word ending consonant clusters. This feature is a prime candidate for loss in the coming years. A feature which I believe is on the edge of obsolescence is the monophthong [oː] in the GOAT lexical set: the rates of use were low in the youngest age categories. However, this feature is also used in some nearby locations in contact with the IoM (the north of England) and therefore may not disappear completely.

9.5.3 The social and linguistic factors influencing the new features of MxE

The social factors picked up from anecdotal evidence tell a story of a strong Manx identity but also one of an acceptance of accents from outside the IoM. Innovation of language regularly comes from urban epicentres, and as previously mentioned, LE is the variety that the IoM is looking to. However, the strong sense of Manx identity has caused speakers to focus on some MxE features in order for them to be upheld. The linguistic factors for each feature have indicated the route it has taken to get into the MxE dialect. The linguistic dynamics have helpfully suggested the possible trajectory and the future of the accent of English on the IoM.

In terms of male and female speech on the IoM, Pressley was clear in saying that in 1999:

> The informants analysed do not view gender in the sense that women are respectable and men are not. Rather, it seems likely that sex differentiated behaviour is the result of one sex having more of a sense of local loyalty than another (Pressley 2002: 219)

In my own study it was found that age was more of a defining factor than gender. For example, within the GOAT lexical set we saw that the Young Adults and Middle Adults had higher rates of a standard variant. This links with theories of an apparent-time peak within a linguistic marketplace (Sankoff and Laberge 1978 – see section 6.6).

9.6 Limitations and future research

There are drawbacks to all methods of investigation and analysis. I hope that throughout this thesis I have chosen the appropriate techniques in order to better understand MxE today. With more time, it would have been advantageous to analyse more participants. Extra speakers analysed from additional locations (on the IoM) and backgrounds could have improved the generalisability of the study. It would also have been advantageous to add an element of perception to the investigation. Finding out views about MxE from the participants in a structured way would be something to consider in future research.

The limitations of sampling using a snowball method were discussed in section 3.1.1. The speakers knew that my research was to display MxE today and they may have only suggested other participants who they felt had an accent worthy of display of MxE. I tried to avoid this by channelling different networks. However, I was still dependent on introductions from the people I met. This may have led me to recording only those with stronger identity ties to the Island and those who wished to "assert their own identity" (Schilling-Estes and Wolfram 1999: 511). This sampling method coupled with the fact that the interviews were undertaken by an outsider (myself) may have pushed the participants to speak in a manner that would 'distinguish' them from the outside world. For this point, I return to my defence about 'performance speech' (Monahan and Fisher 2010: 363; Schilling-Estes 1998: 77) whereby the performed speech for an outsider is rich data and displays the resistance strategies more keenly than in regular speech.

With the participants in mind, future research could also focus on the different 'styles' or registers the variants are used in. 'Third wave' studies display how social meaning can interact with speaker styles to influence the different variants used in phonology (Kerswill 2010). This research study could be advanced by comparing the register of the participants in different communities of practice (this was impractical with the time constraints). It would be useful to set up linguistic research in different communities of practice (e.g. in sports teams, games clubs, Manx language meeting places) on the IoM to compare speech in different interactions. This would add another layer to the research and allow for greater

generalisability with regards to language variation (Eckert 2005: 16). Therefore, a credible extension to this paper would be to record some participants in various situations.

There were also many other variants which were recorded and could have been analysed. In particular, the other vowels subject to lengthening and the /uː/ in words spelt with *oo*. It would be useful to analyse these in terms of levelling along with any other features that may be diffused onto the Island.

9.7 Implications of the findings

9.7.1 Implications of the findings for the community on the IoM

The goal of situating the MxE accent in a landscape of British accents will be a continuing activity. The promotion of the IoM and its manner of speaking English can benefit the Islands visibility. The project has provided a snapshot of the accent being spoken on the Island. It has added a stepping-stone of linguistic analysis compared to the two other studies (SED and Recording Mann) in the history of English being spoken on the IoM. The thesis was one of the first to analyse children who had grown up speaking MxG at school. Again, this could provide a solid foundation for any research that may be conducted in the future.

9.7.2 Contribution to Language Variation and Change research

There are a few ways in which this thesis has contributed to the field, both in terms of the analytical/findings and the methodological process.

Methodologically, by using sociolinguistic methods during the fieldwork, I have added extra accounts of practical techniques. In Chapter 3, I argued that using an outsider to conduct interviews can reveal language points that are reserved to showcase to people outside of the immediate community. Perhaps this can be seen as a limitation to the notion of 'natural speech', but it can also reveal other aspects of identity issues and what a community wants the outside to see. In addition, I was able to gain entry into a community that I am not a part of, displaying techniques on how to enter such situations can only increase options for future researchers. I did this through multiple routes and networks, quickly following connections from one association to another before moving on.

Second, this research has added the IoM to the levelling and diffusion landscape. To see how the IoM has reacted in the face of incoming dialects can attest to the reach of features such as TH-fronting and glottal replacement. Specifically, it has been shown that glottalisation has spread more than TH-fronting, the former being in a more advanced stage on the IoM. This research has also highlighted the continuing influence of LE and its extension from the isogloss maps shown in figures 4 and 5. Also, some of the resistance strategies demonstrated in this thesis add to island dialect

research. The synchronic data has shown a connection to LE and the influence being exerted on the Island. Therefore, this thesis has also lent support to the gravity model, displaying and suggesting some reasons for change on the IoM.

Overall, it is hoped that this thesis has provided a significant insight into the English being spoken on the IoM today and placed MxE within the field of sociolinguistics in a way that has not been done before.

Appendices

Appendix 1 – Prompt Questions

Prompt questions for older participants (adapted from original SED questionnaire (see Pressley, 2002))

Local Area

Where were you born?

Did you live there as a child? Where did you grow up?

What was it like in _____ as a child?

What are some good memories of your time in _____

School

Where did you go to school?

What was _____(school) like?

How did you get there?

What are some good memories of _____(school)?

Isle of Man

What are some advantages of growing up on the Island?

What are some disadvantages of growing up on the Island?

Where would you advise visitors to go on the Island?

What are your favourite things to do on the Island?

Have you spent much time off island?

Do you speak Manx? Do you know anyone that does?

Identity

Do you feel Manx?

What is different about being Manx?

In your opinion, what are the main aspects of Manx culture?

Which traditions or superstitions are you aware of? Do you participate in these?

Is enough being done to support the Manx culture?

Prompt questions for younger participants (adapted from original SED questionnaire (see Pressley, 2002))

Family

What is your name?

Where were you born?

Where do you live?

Can you tell me about your family?

School

Where do you go to school?

What do you like about school?

If you could change anything about school what would it be?

What games do you play at school?

What is your favourite subject? Why?

Free Time

What do you like to do when not at school?

What is your favourite sport?

What would you like to do in the future?

Isle of Man

What do you like about the Isle of Man?

Have you been off island much? What's the difference?

Do you feel Manx?

Do you speak to the fairies on Fairy Bridge? Why/why not?

What other stories do you know about on the Island?

Do you learn Manx at school? Do you like it?

Appendix 2 – Interview Pairings

Table showing the pairings of interviewees and their relationship to each other. The participants highlighted in red were not used for analysis (all names are pseudonyms.

Interview Number	Participants	Relationship
1	Jemma Clague Ned Kelly	Family
2	Carla Corlett Andrew Teare	Friendship
3	Matthew Reese	
4	Andrew Christian Ian Christian Mary Christian	Family
5	Clague Stevenson	
6	Rhiannon Moore John Kissak	Relationship
7	Juan Carine Catherine Carine	Relationship
8	John Brian Fin Kissak	Friendship
9	Ashley Jones	
10	Ramsey Smith Ricky Watterson	Friendship

11	Juan Kewish Harry Kewish John Kewish	Family
12	Morris Costain Aalin Costain	Family
13	Ian James Amy James Essa James Caly James Illiam James	Family
14	Christopher Rossi Francesca Rossi	Family
15	Alex Corkill Lewis Corkill	Family
16	Eleri Kennaugh Rhian Kennaugh Breesha Kennaugh	Family
17	Rory Thomas Hannah Thomas Finn Thomas Adam Thomas Oliver Thomas Emma Thomas	Family
18	Kathleen Williams Matthew Williams Carly Faragher James Faragher Mark Faragher	Family
19	Mary Callister	Family

	Margaret Quayle Grace Coole	
20	Charlotte Miller Emily Quirk Ellie Cain	Friendship
21	Leah Shimmin Natalie Kelly	Friendship
22	Matthew Taylor Elizabeth Taylor Lucy Taylor	Family

Appendix 3 – Word List

hVd word list adapted from Ferragne and Pellegrino (2010)

	Test Word	Rhymes With
1	heed	
2	hid	
3	head	
4	had	
5	hard	
6	hod	
7	hoard	
8	hood	
9	who'd	
10	hudd	<bud>

11	heard	
12	hade	<fade>
13	hide	
14	hoid	<void>
15	hoed	<showed>
16	howd	<loud>
17	hared	<squared>
18	heered	<beard>
19	hured	<cured>

Appendix 4 – Formant values

Ferragne and Pellegrino (2010) formant values for different locations in British Isles.

Accent	Formant	heed	hid	head	had	hard	hod	hoard	hood	who'd	Hudd	heard
brm	F1	289	350	502	679	639	576	454	414	318	482	491
	F2	2219	2058	1811	1479	1103	1293	882	1194	1620	1246	1573
crn	F1	285	402	500	641	629	556	461	400	332	569	508
	F2	2346	2022	1818	1560	1203	1062	905	1400	1297	1365	1568
ean	F1	335	407	499	692	702	580	428	416	325	569	562
	F2	2277	2142	2047	1717	1241	1143	835	1509	1666	1577	1570
eyk	F1	281	394	560	700	725	578	551	399	278	426	588
	F2	2266	2058	1873	1463	1316	1114	988	1210	1035	1216	1717
gla	F1	301	446	473	636	693	530	463	327	345	480	543
	F2	2164	1780	2046	1490	1178	1215	973	1723	1751	1545	1561
lan	F1	310	423	576	697	689	615	571	483	354	485	542
	F2	2276	2024	1811	1454	1112	1138	1037	1144	1746	1130	1575
lvp	F1	299	465	607	730	638	599	536	491	328	496	488
	F2	2211	1854	1631	1393	1200	1182	1033	1126	1690	1130	1796
ncl	F1	279	430	514	694	633	591	489	382	309	423	478
	F2	2263	1793	1668	1333	1020	1096	837	1079	1084	1129	1492
nwa	F1	276	444	596	762	767	612	541	493	283	545	471
	F2	2280	1925	1733	1415	1300	1056	954	1172	999	1540	1567
roi	F1	276	420	561	709	639	674	495	484	317	509	529
	F2	2247	1912	1831	1510	1491	1214	1100	1212	1555	1209	1552
shl	F1	248	364	410	558	618	439	434	258	258	427	532
	F2	2217	1849	1949	1335	1183	1207	1073	1587	1441	1514	1646
sse	F1	273	386	527	751	655	552	452	397	291	623	527
	F2	2289	2038	1801	1558	1044	986	793	1550	1672	1370	1528
uls	F1	279	413	573	681	642	614	480	334	376	466	537
	F2	2200	1813	1825	1495	1347	1183	1097	1747	1754	1329	1553

- brm = Birmingham
- crn = Cornwall
- ean = East Anglia
- eyk = East Yorkshire
- gla = Glasgow
- lan = Lancashire
- lvp = Liverpool
- ncl = Newcastle
- nwa = North Wales
- roi = Republic of Ireland
- shl = Scottish Highlands
- sse = Southern Standard English
- uls = Ulster

Appendix 5 – BATH/TRAP words in the SED

BATH/TRAP words in the SED and their surface representations from 2 locations (Orton and Halliday 1962-1963)

Word	Survey Question Number	Location 1	Location 2
adder	4.9.4	æ	æ˛
aftermath	2.9.17	æ˙	æˀ
afternoon	7.3.11; 7.3.14	æ˛˙ / æː	æˀ
ahses	5.4.5	æ˛˙	æˀ
ankle	6.10.7	æ˛˙	æˀ
ant -hills	4.8.13	æ˛	æ
ants	4.8.12	æ˛	æ
anvil	8.4.10	æ˛	æˀ
apples	4.11.8	æ˙	æ
ash	5.4.4	æ˛˙	æːˀ
ash-hole	5.3.3	æː	æˀ
ash-midden	5.1.14	æː	-
ask him	9.2.4	æ / æ˙	ɛ˙ˀ
aunt	8.1.12	æ˛˙	æˀ
axle	1.9.11	æ˛	æ˛ˀ
bad	5.7.11	æ˛˙	
badger	4.5.9	æ˛˙	æ
bag	5.8.5	æ˛˙	æ˙ˀ
basket	3.5.4	æ˛˙	æ˛ˀ
bat	4.7.7	æ˛	æ

bracken	4.10.12	æ˙	æ
branch	4.12.3	æ˙	æ
branding	3.7.9	æ	
brand-new	6.14.24	æ˙	æᵊ
calf/calves/in calf/not in calf	3.1.2/3.1.10	ä / +a̋z	æ:
cat	3.13.8	æ˙	æ
cat	3.13.9	æ˙	æ
catch	9.3.8	æ / ɛ / æ˙	æ
cattle	3.1.3	æ	-
clamp	2.4.6	æ	-
ewe-lamb	3.6.3	æ˙	
fallow-land	2.1.1	æ:	ɛᵊ
fasting-chamber	3.11.3	ä:	-
fat	3.12.7	-	æ
flap	6.14.16	æ	æ
gander	4.6.16	æ	æ
grass	2.9.1	æ˙ / æ:	æᵊ / ɛᵊ
half	7.5.4	æ	æ
hammer	1.7.13	æ	æ
hand	6.7.1	æ˙	ɛᵊ / æ˙ / æᵊ
handful	7.8.10	æ	æᵊ / æ
handle	1.3.16	æ˙	-
handle	1.7.12	-	æ
handle	1.7.7	æ˙	æ
handle	2.9.7	æ	æ˙ᵊ
handles	1.8.2	æ˙	æ
handles	2.9.8	æ˙	æ˙ᵊ
hire pasture	3.3.8	-	æ
jacket	6.14.5	æ	ɛ

ladder	1.7.14	æˌ	æ
lamb	3.6.2	æˌˑ	æˑᵊ
last	7.2.2	-	æᵊ
last but one	7.2.6	-	æˌᵊ
last-night	7.3.9	æ	æᵊ / æː
latch	5.1.9	æ	æˑ
laughing	8.8.7	æˌˑ / æˑᵊ	æˑ / ɛᵊ
laughing	9.2.14	æː	æˑ
maggots	4.8.6	æˑ	æ
pant	6.8.1	æˑ	æ
pasture	2.1.3	-	æˑ
path	4.3.11	æᵊ	æᵊ
rabbit	3.13.13	æ	æ
ram	3.6.7	æˌː	æˌᵊ
rat	4.5.3	æˌ	æˑᵊ
sack	1.7.2	æˌˑ	æˑ
sad	5.6.12	æˌˑ	
saddle	1.5.6	æˌˑ	æ
scraps	3.12.10	æˌˑ	æ
shaft	1.9.4	æˌˑ / æ	æˌ / æ / æː / æˌᵊ
slash	4.2.4	-	æˌ
snack	7.5.11	ɛ	æˌ
stacks	2.7.1	æ	æˌ / æˌᵊ
thatch	2.7.5	æˌˑ / æ	æˌˑ
thatch	2.7.6	æˌˑ / æ	æ
wagon	1.9.2	æˌ / æ	æˌ
wasps	4.8.7	a	æ

Appendix 6 – extracted BATH, TRAP, START and PALM words

Word	Lexical Set	Number
after	BATH	15
afternoon	BATH	2
ask(ed)	BATH	8
aunty	BATH	1
basketball	BATH	3
bath	BATH	2
blast	BATH	4
castle	BATH	11
castletown	BATH	2
chance(s)	BATH	3
class(es)	BATH	9
classed	BATH	2
classroom	BATH	1
craft(s)	BATH	3
daft	BATH	1
dance(r)(ing)	BATH	12
fast(er)	BATH	3
father	BATH	2
flask	BATH	3
flat	BATH	3
france	BATH	4
glasses	BATH	1
grand	BATH	3
last	BATH	26
laugh(ing)	BATH	7
mask	BATH	1
outcasts	BATH	1
overcast	BATH	1
pass	BATH	2
passport	BATH	1
past	BATH	7
pathway	BATH	1
plasterers	BATH	1
plastic	BATH	3

Word	Lexical Set	Number
banana(s)	PALM	4
calf	PALM	3
calved	PALM	1
can't	PALM	21
drama	PALM	9
half	PALM	28
obama	PALM	1

Word	Lexical Set	Number
apart	START	3
arbory	START	2
arches	START	1
archibald	START	1
aren't	START	2
army	START	1
art	START	3
artificial	START	1
arts	START	2
bar	START	1
barbeque	START	3
bargain	START	1
barmy	START	1
barnstaple	START	1
bizarre	START	1
car	START	6
card(s)	START	2
carnival	START	1
carving	START	1
charge(ing)	START	4
charming	START	1
dark	START	2
far	START	13

Word	Lexical Set	Number
accent(s)	TRAP	26
action	TRAP	3
actual(ly)	TRAP	9
adapted	TRAP	3
adults	TRAP	3
advert(s)	TRAP	5
advised	TRAP	1
africa	TRAP	1
albert	TRAP	1
alley	TRAP	1
andreas	TRAP	5
angles	TRAP	1
animals	TRAP	2
athletes	TRAP	1
back	TRAP	56
backdropped	TRAP	1
backside	TRAP	1
backward(s)	TRAP	2
bad	TRAP	12
badminton	TRAP	2
bag(s)	TRAP	6
baggara	TRAP	1
balla	TRAP	1
balladome	TRAP	2
ballakermeen	TRAP	6
ballasalla	TRAP	1
ballet	TRAP	1
ban	TRAP	1
band(s)	TRAP	6
banging	TRAP	1
bank	TRAP	2
barrel	TRAP	2
battery	TRAP	1
black	TRAP	7
blackboards	TRAP	1
blacks	TRAP	2
brad	TRAP	3
braddan	TRAP	2
branches	TRAP	2
brand	TRAP	1
brands	TRAP	1
café	TRAP	2
camp	TRAP	1
campus	TRAP	2
can	TRAP	1
canteen	TRAP	2
cap	TRAP	1
carriage	TRAP	1
carry	TRAP	2
cat	TRAP	4
catch	TRAP	5
cattle	TRAP	2
chap	TRAP	3
characters	TRAP	3
chasms	TRAP	1
chass	TRAP	2
chatting	TRAP	2
clashing	TRAP	1
classic	TRAP	2
crab	TRAP	1
crabbing	TRAP	1
crack	TRAP	1
dad(s)(dy)	TRAP	20
damn	TRAP	1
damned	TRAP	1
damp	TRAP	1
dangling	TRAP	1
demographic	TRAP	1

lagging	TRAP	1
lamb(s)(ing)	TRAP	9
lancashire	TRAP	1
land	TRAP	2
landed	TRAP	1
language	TRAP	20
lapse	TRAP	1
lasagne	TRAP	1
latin	TRAP	4
latter	TRAP	1
laxey	TRAP	8
mac	TRAP	1
mackrel	TRAP	3
macvannin	TRAP	1
magic	TRAP	1
magical	TRAP	1
man	TRAP	40
man's	TRAP	1
manage(d)	TRAP	2
mananan	TRAP	1
manchester	TRAP	4
manhandle	TRAP	1
manx	TRAP	183
manxer	TRAP	4
manxie	TRAP	2
manxified	TRAP	1
manxman	TRAP	4
map	TRAP	1
marry(ied)(ing)	TRAP	8
masculine	TRAP	1
massive	TRAP	4
match	TRAP	2
maths	TRAP	3
matter	TRAP	1
nan	TRAP	1
nanna	TRAP	3
national	TRAP	1
nationalities	TRAP	1
naturally	TRAP	1
nav	TRAP	1
organic	TRAP	1
organicaly	TRAP	1
pan	TRAP	1
pants	TRAP	1
parish	TRAP	1
passages	TRAP	1
passionate	TRAP	1
pasta	TRAP	1
pastol	TRAP	1
pasty	TRAP	1
patricks	TRAP	1
planets	TRAP	1
planning	TRAP	1
plastic	TRAP	1
practically	TRAP	3
practice(d)(ing)	TRAP	8
raf	TRAP	1
rammed	TRAP	1
ramsey	TRAP	25
ran	TRAP	1
random	TRAP	1
rattle	TRAP	1
relax(ed)	TRAP	2
reprimand	TRAP	1
sack	TRAP	1
salary	TRAP	2
sam	TRAP	1
sandwhiches	TRAP	1
sank	TRAP	1

farm(ed)(er)(ing)(s)	START	49		dismantled	TRAP	1		sat	TRAP	5
garden(s)	START	7		drag	TRAP	2		Saturday	TRAP	1
garlic	START	4		dragged	TRAP	1		scrambled	TRAP	1
guards	START	1		exam(s)	TRAP	1		scratchings	TRAP	1
harbour	START	4		fact	TRAP	5		shamming	TRAP	1
hard(er)(ly)	START	8		family(ies)	TRAP	16		shank	TRAP	1
harlequins	START	1		fans	TRAP	3		slang	TRAP	1
harm	START	3		fantastic	TRAP	4		smack	TRAP	1
harsh	START	2		fascinating	TRAP	2		snapped	TRAP	2
hearts	START	1		fashioned	TRAP	2		snapshot	TRAP	1
jar	START	1		flappers	TRAP	1		spanish	TRAP	3
karts	START	1		flatten	TRAP	1		spanner	TRAP	1
landmarks	START	1		gap	TRAP	1		splash	TRAP	1
large	START	1		gas	TRAP	1		spratt	TRAP	4
marched	START	1		gather	TRAP	1		stamp	TRAP	1
marked	START	1		glad	TRAP	1		stand(ing)	TRAP	5
market	START	2		glamping	TRAP	1		strand	TRAP	2
marks	START	3		graduated	TRAP	1		strapped	TRAP	1
marshall(ed)(ing)	START	4		grammar	TRAP	4		tackled	TRAP	1
mart	START	2		grandfather	TRAP	1		tag	TRAP	1
martin	START	1		grandparents	TRAP	2		talent	TRAP	1
niarbyl	START	3		granted	TRAP	1		tangled	TRAP	1
parcels	START	1		habit	TRAP	1		tatoo	TRAP	1
park(s)(ed)	START	11		had	TRAP	2		tatood	TRAP	1
parsons	START	3		hand	TRAP	2		tax	TRAP	2
part(s)	START	20		handed	TRAP	1		taxes	TRAP	1
party	START	3		handicraft	TRAP	1		taxi	TRAP	2
regarding	START	1		handwriting	TRAP	1		thank(s)	TRAP	2
sarnies	START	1		hang(ing)	TRAP	1		that	TRAP	4
sharp	START	1		happen(ed)	TRAP	3		track(s)	TRAP	2
smarty	START	1		happy	TRAP	4		tractor	TRAP	1
star(s)	START	6		has	TRAP	1		traffic	TRAP	3
starbucks	START	4		have	TRAP	1		tram	TRAP	1
start(ed)(ing)(	START	47		haven't	TRAP	2		trapped	TRAP	1
				jam	TRAP	2		travel(ed)(ing)	TRAP	4
				jazz	TRAP	1		understand	TRAP	3
				lad(s)	TRAP	4		van	TRAP	1

Appendix 7 – Acoustic data for vowel lengthening

All BATH / TRAP words quantitatively identified as being long /æ:/

Speaker	Gender	Word	Pre word	Following Word	Position	Following Segment	Normalised Duration	Lexical Set	Age Group
Aalin	F	ballet	do	-	Medial	l	0.9212	TRAP	Under 18
Aalin	F	cat	the	and	Medial	t	0.9251	TRAP	Under 18
Aalin	F	jazz	modern	which	Medial	z	0.9201	TRAP	Under 18
Aalin	F	man	isle of	-	Medial		1.1590	TRAP	Under 18
Aalin	F	man	the	ran	Medial	n	0.8678	TRAP	Under 18
Aalin	F	mananan	-	-	Medial	n	0.9077	TRAP	Under 18
Breesha	F	france	in	-	Medial	n	1.2174	BATH	Under 18
Breesha	F	trapped	like	in	Medial	p	0.7256	TRAP	Under 18
Caly	F	bad	that	-	Medial	d	0.9850	TRAP	Under 18
Essa James	F	alley	bowilng	-	Initial	l	0.8177	TRAP	Under 18
Essa James	F	back	results	-	Medial	k	0.8136	TRAP	Under 18
Essa James	F	bad	be	if	Medial	d	0.9030	TRAP	Under 18
Essa James	F	blast	lazer	is	Medial	s	0.9084	BATH	Under 18
Essa James	F	travelling	think	would	Medial	v	0.7475	TRAP	Under 18
Illiam	M	asked	we	the	Initial	s	0.7345	BATH	Under 18
Illiam	M	back	to	-	Medial	k	0.8389	TRAP	Under 18
Illiam	M	that	about	big	Medial	t	0.9314	TRAP	Under 18
James	M	blacks	the	-	Medial	k	0.9358	TRAP	Under 18
Oliver	M	after	one	it	Initial	f	0.7388	BATH	Under 18
Adam	M	exam	level	marks	Medial	m	0.9434	TRAP	Young Adults
Adam	M	last	they'll	-	Medial	s	0.7303	BATH	Young Adults
Charlotte	F	back	came	-	Medial	k	1.1060	TRAP	Young Adults
Charlotte	F	dad	my	said	Medial	d	1.0412	TRAP	Young Adults
Charlotte	F	dad	my	play	Medial	d	0.9338	TRAP	Young Adults
Charlotte	F	dad	your	would	Medial	d	0.9303	TRAP	Young Adults
Charlotte	F	dad	my	did	Medial	d	0.8026	TRAP	Young Adults
Charlotte	F	fantastic	she	-	Medial	s	1.1908	TRAP	Young Adults
Charlotte	F	latin	mum	-	Medial	glottal	0.9266	TRAP	Young Adults
Charlotte	F	laugh	me	actually	Medial	f	1.0327	BATH	Young Adults
Charlotte	F	man	the	was	Medial	n	1.2771	TRAP	Young Adults
Charlotte	F	manx	in	-	Medial		0.8243	TRAP	Young Adults
Charlotte	F	ramsey	to	after	Medial	m	1.0933	TRAP	Young Adults
Charlotte	F	ramsey	to	-	Medial	m	1.0220	TRAP	Young Adults
Charlotte	F	reprimand	would	me	Medial	n	0.8930	TRAP	Young Adults
Fin Kissak	M	sack	I'll	the	Medial	k	0.7936	TRAP	Young Adults
John Brian	M	back	look	and	Medial	k	0.7408	TRAP	Young Adults
John Brian	M	crab	manx	syndrome	Medial	b	0.8885	TRAP	Young Adults
John Brian	M	dad's	my	seventy	Medial	d	0.7211	TRAP	Young Adults
John Brian	M	dance	little	you	Medial	n	0.8689	TRAP	Young Adults
John Kewish	M	bag	mixed	isn't	Medial	glottal	1.0412	TRAP	Young Adults
Natalie	F	bad	wasn't	-	Medial	d	1.2590	TRAP	Young Adults
Natalie	F	bad	too	no	Medial	d	1.2416	TRAP	Young Adults
Natalie	F	dad	me	was	Medial	d	0.7966	TRAP	Young Adults
Natalie	F	flask	your	and	Medial	s	0.8390	BATH	Young Adults
Natalie	F	grammar	ramsey	yeah	Medial	m	0.7464	TRAP	Young Adults
Rhiannon	F	chass	glen	-	Medial	s	1.1801	TRAP	Young Adults
Rhiannon	F	damned	be	-	Medial	m	1.2961	TRAP	Young Adults
Rhiannon	F	man	isle of	-	Medial	n	1.0654	TRAP	Young Adults
Rhiannon	F	manx	in	-	Medial		0.8027	TRAP	Young Adults
Rhiannon	F	manx	in	-	Medial		0.7811	TRAP	Young Adults
Rhiannon	F	stand	still	but	Medial	n	0.7173	TRAP	Young Adults
Rhiannon	F	understand	to	-	Medial	n	0.7588	TRAP	Young Adults
Rhiannon	F	understand	to	-	Medial	n	0.7289	TRAP	Young Adults

Andrew Christian	M	classed	be	as	Medial	s	0.7579	BATH	Middle Adults
Andrew Christian	M	ramsey	at	-	Medial	m	0.9720	TRAP	Middle Adults
Andrew Christian	M	random	plucked	-	Medial	n	0.7299	TRAP	Middle Adults
Ellie	F	bad	wasn't	-	Medial	d	1.5827	TRAP	Middle Adults
Ellie	F	bad	too	-	Medial	d	1.5305	TRAP	Middle Adults
Ellie	F	bad	a	dialect	Medial	d	0.7583	TRAP	Middle Adults
Ellie	F	class	first	-	Medial	s	1.3456	BATH	Middle Adults
Ellie	F	class	top	-	Medial	s	1.2351	BATH	Middle Adults
Ellie	F	dangling	probably	from	Medial	ŋ	0.8801	TRAP	Middle Adults
Ellie	F	flask	a	well	Medial	s	1.2400	BATH	Middle Adults
Ellie	F	flask	a	-	Medial	s	1.1539	BATH	Middle Adults
Ellie	F	jam	and	at	Medial	m	0.8988	TRAP	Middle Adults
Ellie	F	last	at	-	Medial	s	1.3095	BATH	Middle Adults
Ellie	F	latin	do	-	Medial	ʔ	0.8483	TRAP	Middle Adults
Ellie	F	man	isle of	-	Medial	n	1.3722	TRAP	Middle Adults
Ellie	F	man	isle of	to	Medial	n	1.1150	TRAP	Middle Adults
Ellie	F	man	ideal	is	Medial	n	1.0899	TRAP	Middle Adults
Ellie	F	manx	the	sounds	Medial	ŋ	0.9067	TRAP	Middle Adults
Ellie	F	pasty	like	-	Medial	s	1.3565	TRAP	Middle Adults
Ellie	F	splash	one	-	Medial	ʃ	0.9592	TRAP	Middle Adults
John Kissak	M	brand	own	-	Medial	n	0.8539	TRAP	Middle Adults
John Kissak	M	chass	glen	-	Medial	s	0.8183	TRAP	Middle Adults
Juan Kewish	M	bad	a	one	Medial	d	0.8783	TRAP	Middle Adults
Matthew Taylor	M	ask	don't	me	Initial	s	0.7435	BATH	Middle Adults
Matthew Taylor	M	back	looking	-	Medial	k	1.0478	TRAP	Middle Adults
Matthew Taylor	M	back	coming	-	Medial	k	1.0415	TRAP	Middle Adults
Matthew Taylor	M	back	coming	and	Medial	k	0.8432	TRAP	Middle Adults
Matthew Taylor	M	back	come	-	Medial	k	0.8153	TRAP	Middle Adults
Matthew Taylor	M	back	come	-	Medial	k	0.7814	TRAP	Middle Adults
Matthew Taylor	M	bad	too	-	Medial	d	1.1053	TRAP	Middle Adults
Matthew Taylor	M	bad	too	apart	Medial	d	1.0186	TRAP	Middle Adults
Matthew Taylor	M	braddan	in	-	Medial	glottal	0.9193	TRAP	Middle Adults
Matthew Taylor	M	braddan	to	-	Medial	glottal	0.7972	TRAP	Middle Adults
Matthew Taylor	M	cat	manx	-	Medial	t	0.8319	TRAP	Middle Adults
Matthew Taylor	M	exams	no	-	Medial	m	0.7404	TRAP	Middle Adults
Matthew Taylor	M	families	the	-	Medial	m	0.7168	TRAP	Middle Adults
Matthew Taylor	M	lambing	late	this	Medial	m	0.9251	TRAP	Middle Adults
Matthew Taylor	M	lambing	just	now	Medial	m	0.7181	TRAP	Middle Adults
Matthew Taylor	M	lambs	new	so	Medial	m	0.9027	TRAP	Middle Adults
Matthew Taylor	M	man	young	now	Medial	n	0.9173	TRAP	Middle Adults
Matthew Taylor	M	marry	to	-	Medial	r	0.7194	TRAP	Middle Adults
Matthew Taylor	M	overcast	it	-	Medial	s	0.9395	BATH	Middle Adults
Andrew Teare	M	after	-	the	Initial	f	0.8260	BATH	Retired Adults
Andrew Teare	M	bad	from	to	Medial	d	0.7956	TRAP	Retired Adults
Andrew Teare	M	lamb	a	-	Medial	m	0.8530	TRAP	Retired Adults
Andrew Teare	M	lamb	this	-	Medial	m	0.8125	TRAP	Retired Adults
Andrew Teare	M	lamb	a	-	Medial	m	0.8031	TRAP	Retired Adults
Andrew Teare	M	man	old	-	Medial	n	0.7514	TRAP	Retired Adults
Andrew Teare	M	man	old	he	Medial	n	0.7189	TRAP	Retired Adults
Clague Stevenson	M	asked	doctor	me	Initial	s	0.8730	BATH	Retired Adults
Clague Stevenson	M	bath	the	-	Medial		0.7226	BATH	Retired Adults
Clague Stevenson	M	gas	get	and	Medial	s	1.0677	TRAP	Retired Adults
Clague Stevenson	M	man	full	then	Medial	ŋ	0.9175	TRAP	Retired Adults
Clague Stevenson	M	standing	was	along	Medial	n	0.7268	TRAP	Retired Adults
Emily Quirk	F	back	them	-	Medial	k	0.9583	TRAP	Retired Adults
Emily Quirk	F	faster	-	-	Medial	s	0.8001	BATH	Retired Adults
Emily Quirk	F	lambs	the	-	Medial	m	0.8175	TRAP	Retired Adults
Emily Quirk	F	lambs	those	tails	Medial	m	0.7682	TRAP	Retired Adults
Emily Quirk	F	laugh	sons	because	Medial	f	0.9940	BATH	Retired Adults
Emily Quirk	F	man	first	that	Medial	n	0.8657	TRAP	Retired Adults
Emily Quirk	F	man	ideal	about	Medial	n	0.7447	TRAP	Retired Adults
Kathleen Williams	F	back	heard	-	Medial	k	0.8472	TRAP	Retired Adults
Mary Callister	F	back	came	-	Medial	k	1.7449	TRAP	Retired Adults
Mary Callister	F	bath	a	-	Medial		1.0847	BATH	Retired Adults
Mary Callister	F	laughing	was	-	Medial	f	1.0182	BATH	Retired Adults
Mary Christian	F	man	some	came	Medial	n	0.9530	TRAP	Retired Adults
Mary Christian	F	manx	northern	-	Medial	ŋ	0.8293	TRAP	Retired Adults
Mary Christian	F	manx	was	-	Medial	ŋ	0.7329	TRAP	Retired Adults
Ricky Watterson	M	back	you	I'm	Medial	k	0.7216	TRAP	Retired Adults
Ricky Watterson	M	lad	grocer's	-	Medial	d	0.7773	TRAP	Retired Adults

Appendix 8 – Tokens of simplified consonant clusters

Speaker	Word	Following	Final Cons	Age
Aalin	past	-	retained	U18
Aalin	best	-	retained	U18
Aalin	best	-	retained	U18
Aalin	just	-	retained	U18
Aalin	just	in	retained	U18
Aalin	told	-	retained	U18
Aalin	old	-	retained	U18
Aalin	field	-	retained	U18
Aalin	called	-	retained	U18
Aalin	land	-	retained	U18
Aalin	finland	-	retained	U18
Aalin	ireland	-	retained	U18
Aalin	ireland	-	retained	U18
Aalin	ireland	-	retained	U18
Aalin	ireland	-	retained	U18
Aalin	scotland	-	retained	U18
Aalin	thousand	-	retained	U18
Aalin	told	off	retained	U18
Aalin	told	off	retained	U18
Aalin	behind	a	retained	U18
Aalin	round	and	retained	U18
Aalin	round	us	retained	U18
Aalin	scotland	england	retained	U18
Adam	twelve	-	retained	YA
Adam	england	-	retained	YA
Adam	england	-	retained	YA
Adam	ireland	-	retained	YA
Adam	last	-	retained	YA
Adam	interest	-	retained	YA
Adam	twelve	nil	retained	YA
Adam	thousand	and	retained	YA
Adam	last	a	retained	YA
Adam	august	and	retained	YA
Amy	called	-	retained	MA
Amy	land	-	retained	MA
Amy	land	-	retained	MA
Amy	mind	-	retained	MA
Amy	smallest	-	retained	MA
Amy	built	it	retained	MA
Amy	found	a	retained	MA
Amy	send	him	retained	MA
Amy	weekend	at	retained	MA
Amy	past	eight	retained	MA
Andrew C	built	-	retained	MA
Andrew C	pond	-	retained	MA
Andrew C	ireland	-	retained	MA
Andrew C	island	-	retained	MA
Andrew C	last	-	retained	MA
Andrew C	twelve	years	retained	MA
Andrew C	found	it	retained	MA
Andrew C	friend	i	retained	MA
Andrew C	most	of	retained	MA
Andrew C	classed	as	retained	MA
Andrew C	just	-	deleted	MA
Andrew T	cold	-	retained	RA
Andrew T	cold	-	retained	RA
Andrew T	hand	-	retained	RA
Andrew T	land	-	retained	RA
Andrew T	understand	-	retained	RA
Andrew T	behind	-	retained	RA
Andrew T	background	-	retained	RA
Andrew T	sound	-	retained	RA
Andrew T	ireland	-	retained	RA
Andrew T	ireland	-	retained	RA
Andrew T	island	-	retained	RA
Andrew T	lost	-	retained	RA
Andrew T	lost	-	retained	RA
Andrew T	lost	-	retained	RA
Andrew T	least	-	retained	RA
Andrew T	sold	up	retained	RA
Andrew T	old	old	retained	RA
Andrew T	called	after	retained	RA
Andrew T	called	in	retained	RA
Andrew T	killed	over	retained	RA
Andrew T	land	above	retained	RA
Andrew T	behind	it	retained	RA
Andrew T	behind	it	retained	RA
Andrew T	find	out	retained	RA
Andrew T	round	and	retained	RA
Andrew T	lost	it	retained	RA
Andrew T	best	of	retained	RA
Andrew T	coast	of	retained	RA
Andrew T	most	of	retained	RA
Andrew T	list	either	retained	RA
Breesha	almost	impossible	retained	U18
Breesha	most	of	retained	U18
Breesha	playground	-	retained	U18
Breesha	island	-	retained	U18
Breesha	second	-	retained	U18
Breesha	round	and	retained	U18
Breesha	round	and	retained	U18
Breesha	round	and	retained	U18
Breesha	round	and	retained	U18
Caly	land	-	retained	U18
Caly	around	-	retained	U18
Caly	underground	-	retained	U18
Caly	island	-	retained	U18
Caly	island	-	retained	U18
Caly	island	-	retained	U18
Caly	lost	-	retained	U18
Caly	found	out	retained	U18
Caly	just	as	retained	U18
Carly	tynwald	-	retained	MA
Carly	field	-	retained	MA
Carly	built	-	retained	MA
Carly	lost	-	retained	MA
Carly	last	-	retained	MA
Carly	just	-	retained	MA
Carly	just	-	retained	MA
Carly	band	it	retained	MA
Carly	understand	i	retained	MA
Carly	just	every	retained	MA
Carly	missed	a	retained	MA
Carly	missed	it	retained	MA
Charlotte	mind	-	retained	YA
Charlotte	round	-	retained	YA
Charlotte	friend	-	retained	YA
Charlotte	child	and	retained	YA
Charlotte	pound	on	retained	YA
Clague	told	-	retained	RA
Clague	old	-	retained	RA
Clague	old	-	retained	RA
Clague	damned	-	retained	RA
Clague	behind	-	retained	RA
Clague	colourblind	-	retained	RA
Clague	cost	-	retained	RA
Clague	chemist	-	retained	RA
Clague	chest	-	retained	RA
Clague	almost	-	retained	RA
Clague	must	-	retained	RA
Clague	field	or	retained	RA
Clague	understand	it	retained	RA
Clague	ground	and	retained	RA
Clague	round	all	retained	RA
Clague	panned	out	retained	RA
Clague	best	of	retained	RA
Clague	chemist	as	retained	RA
Clague	chest	and	retained	RA
Clague	chest	infection	retained	RA
Clague	rest	of	retained	RA
Clague	list	of	retained	RA
Clague	just	over	retained	RA
Clague	just	a	retained	RA
Clague	missed	out	retained	RA
Clague	just	imagine	deleted	RA
Ellie	cold	-	retained	MA
Ellie	hold	-	retained	MA
Ellie	seatbelt	-	retained	MA
Ellie	hand	-	retained	MA
Ellie	around	-	retained	MA
Ellie	round	-	retained	MA
Ellie	sound	-	retained	MA
Ellie	last	-	retained	MA
Ellie	list	-	retained	MA
Ellie	just	-	retained	MA
Ellie	twelve	pound	retained	MA
Ellie	killed	it	retained	MA
Ellie	pulled	up	retained	MA
Ellie	himself	up	retained	MA
Ellie	twelve	hours	retained	MA
Ellie	twelve	or	retained	MA
Ellie	find	a	retained	MA
Ellie	around	in	retained	MA
Ellie	sound	at	retained	MA
Ellie	sound	or	retained	MA
Ellie	spend	all	retained	MA
Ellie	past	eight	retained	MA
Ellie	most	isn't	retained	MA
Ellie	just	off	retained	MA
Ellie	must	admit	retained	MA
Ellie	pound	-	deleted	MA
Ellie	pound	-	deleted	MA
Ellie	pound	-	deleted	MA
Ellie	pound	-	deleted	MA
Ellie	old	man	deleted	MA
Ellie	old	man	deleted	MA
Ellie	old	man	deleted	MA
Ellie	old	man	deleted	MA
Ellie	old	man	deleted	MA
Ellie	old	stairs	deleted	MA
Emily	hold	-	retained	RA
Emily	old	-	retained	RA
Emily	sartfield	-	retained	RA
Emily	sartfield	-	retained	RA
Emily	ground	-	retained	RA
Emily	lost	-	retained	RA
Emily	best	-	retained	RA
Emily	just	-	retained	RA
Emily	just	-	retained	RA
Emily	pulled	it	retained	RA
Emily	twelve	i	retained	RA
Emily	past	eleven	retained	RA
Emily	past	eleven	retained	RA
Emily	past	eight	retained	RA
Emily	youngest	in	retained	RA
Emily	youngest	in	retained	RA
Emily	twist	and	retained	RA
Emily	twist	and	retained	RA
Emily	must	add	retained	RA
Essa	behind	-	retained	U18
Essa	round	-	retained	U18
Essa	blast	-	retained	U18
Essa	last	-	retained	U18
Essa	send	him	retained	U18
Essa	lost	in	retained	U18
Essa	lost	in	retained	U18
Essa	blast	is	retained	U18
Essa	most	of	retained	U18
Fin	old	-	retained	YA
Fin	sellafield	-	retained	YA
Fin	killed	-	retained	YA
Fin	island	-	retained	YA
Fin	past	-	retained	YA
Fin	just	-	retained	YA
Fin	just	-	retained	YA
Fin	himself	there	retained	YA
Fin	shelve	that	retained	YA
Fin	mind	it	retained	YA
Fin	around	it	retained	YA
Fin	england	ireland	retained	YA
Fin	fast	aren't	retained	YA
Fin	past	it	retained	YA

Fin	just	in	retained	YA
Hannah	pretend	-	retained	MA
Hannah	belt	haven't	retained	MA
Hannah	west	end	retained	MA
Hannah	just	a	retained	MA
Illiam	called	-	retained	U18
Illiam	called	-	retained	U18
Illiam	island	-	retained	U18
Illiam	just	-	retained	U18
Illiam	playground	at	retained	U18
Illiam	blast	of	retained	U18
Illiam	blast	it's	retained	U18
Illiam	last	easter	retained	U18
James	band	-	retained	U18
James	england	-	retained	U18
James	england	-	retained	U18
James	ireland	-	retained	U18
James	ireland	-	retained	U18
James	thousand	-	retained	U18
James	thousand	-	retained	U18
James	lost	-	retained	U18
James	best	-	retained	U18
James	told	us	retained	U18
James	told	us	retained	U18
John B	travelled	-	retained	YA
John B	pound	-	retained	YA
John B	round	-	retained	YA
John B	england	-	retained	YA
John B	island	-	retained	YA
John B	scotland	-	retained	YA
John B	best	-	retained	YA
John B	just	-	retained	YA
John B	just	-	retained	YA
John B	just	-	retained	YA
John B	just	-	retained	YA
John B	killed	it	retained	YA
John B	found	it	retained	YA
John B	mind	about	retained	YA
John B	just	always	retained	YA
John B	just	a	retained	YA
John Ke	called	-	retained	YA
John Ke	hold	old	retained	YA
John Ke	understand	her	retained	YA
John Ke	most	of	deleted	YA
John Ki	default	ended	retained	MA
John Ki	around	in	retained	MA
John Ki	round	a	retained	MA
John Ki	england	anyway	retained	MA
John Ki	most	of	retained	MA
John Ki	must	have	retained	MA
Juan C	told	on	retained	RA
Juan C	pulled	it	retained	RA
Juan C	around	-	retained	RA
Juan C	england	-	retained	RA
Juan C	island	-	retained	RA
Juan C	east	-	retained	RA
Juan C	east	anyway	retained	RA
Juan C	just	a	retained	RA
Juan K	find	-	retained	MA
Juan K	island	-	retained	MA
Juan K	felt	it	retained	MA
Juan K	found	out	retained	MA
Juan K	most	of	deleted	MA
Juan K	understand	a	retained	RA
Kathleen	classed	as	retained	RA
Kathleen	told	-	retained	RA
Kathleen	field	-	retained	RA
Kathleen	called	-	retained	RA
Kathleen	round	-	retained	RA
Kathleen	ireland	-	retained	RA
Kathleen	understand	it	retained	RA
Kathleen	ireland	and	retained	RA
Kathleen	sunderland	and	retained	RA
Lucy	island	-	retained	YA
Lucy	oldest	-	retained	YA
Lucy	just	-	retained	YA
Lucy	focussed	-	retained	YA
Lucy	find	everywhere	retained	YA
Lucy	boyfriend	away	retained	YA
Lucy	depend	on	retained	YA
Lucy	depend	on	retained	YA
Lucy	depend	on	retained	YA
Lucy	last	and	retained	YA
Lucy	most	of	retained	YA
Mark	field	-	retained	U18
Mark	england	-	retained	U18
Mark	lost	-	retained	U18
Mark	last	-	retained	U18
Mark	last	-	retained	U18
Mark	most	-	retained	U18
Mark	old	anyway	retained	U18
Mark	round	it	retained	U18
Mark	lost	about	retained	U18
Mary Ca	tynwald	-	retained	RA
Mary Ca	around	-	retained	RA
Mary Ca	holland	-	retained	RA
Mary Ca	toast	-	retained	RA
Mary Ca	find	out	retained	RA
Mary Ca	around	us	retained	RA
Mary Ca	lost	a	retained	RA
Mary Ca	rest	of	retained	RA
Mary Ch	england	-	retained	RA
Mary Ch	ireland	-	retained	RA
Mary Ch	scotland	-	retained	RA
Mary Ch	scotland	-	retained	RA
Mary Ch	difficult	to	retained	RA
Mary Ch	told	him	retained	RA
Mary Ch	called	it	retained	RA
Mary Ch	called	it	retained	RA
Mary Ch	round	us	retained	RA
Mary Ch	lost	it	retained	RA
Mary Ch	almost	artificial	retained	RA
Mary Ch	just	outside	retained	RA
Matthew	told	-	retained	MA
Matthew	island	-	retained	MA
Matthew	lost	-	retained	MA
Matthew	west	it	retained	MA
Matthew	most	of	retained	MA
Matthew	just	-	deleted	MA
Matthew	just	-	deleted	MA
Matthew	overcast	-	retained	RA
Natalie	fast	-	retained	YA
Natalie	strongest	-	retained	YA
Natalie	exist	anymore	retained	YA
Natalie	just	uhm	retained	YA
Natalie	just	about	retained	YA
Natalie	bound	-	retained	YA
Natalie	england	-	retained	YA
Natalie	called	an	retained	YA
Natalie	mind	it	retained	YA
Oliver	called	-	retained	U18
Oliver	closest	it's	retained	U18
Rhiannon	coast	-	retained	YA
Rhiannon	most	of	retained	YA
Rhiannon	most	of	retained	YA
Rhiannon	furthest	away	retained	YA
Rhiannon	himself	-	retained	YA
Rhiannon	understand	-	retained	YA
Rhiannon	island	-	retained	YA
Rhiannon	island	-	retained	YA
Rhiannon	himself	a	retained	YA
Rhiannon	understand	an	retained	YA
Rhiannon	find	out	retained	YA
Rhiannon	around	us	retained	YA
Rhiannon	sound	or	retained	YA
Rhiannon	england	and	retained	YA
Ricky	pulled	out	retained	RA
Ricky	rest	is	retained	RA
Ricky	just	in	retained	RA
Ricky	just	in	retained	RA
Ricky	just	eleven	deleted	RA
Ricky	around	-	retained	RA
Ricky	iceland	-	retained	RA
Ricky	land	on	retained	RA
Ricky	girlfriend	in	retained	RA

Appendix 9 – GOAT word realisations and Formant Value

Speaker	Word	Realisaiton	Start F	Start F	End F1	End F2	Positi	Age	Sex
Aalin	know	əʊ	751	1743	850	1480	End	U18	F
Aalin	know	əʊ	895	2066	844	1478	End	U18	F
Aalin	no	əʊ	614	1685	760	1539	End	U18	F
Aalin	no	əʊ	510	1955	858	1761	End	U18	F
Aalin	so	əʊ	765	1909	848	1817	End	U18	F
Aalin	told	əʊ	797	1382	653	1224	Mid	U18	F
Aalin	told	əʊ	696	1200	636	1229	Mid	U18	F
Aalin	told	əʊ	745	1332	612	1174	Mid	U18	F
Aalin	know	ɒʊ	652	1451	469	1495	End	U18	F
Aalin	know	ɒʊ	705	1802	749	1964	End	U18	F
Aalin	know	ɒʊ	755	1490	631	1607	End	U18	F
Aalin	hole	ɒʊ	648	959	459	869	Mid	U18	F
Aalin	rome	ɒʊ	728	1726	568	1809	Mid	U18	F
Aalin	whole	ɒʊ	624	1042	577	922	Mid	U18	F
Aalin	whole	ɒʊ	619	995	620	972	Mid	U18	F
Aalin	go	ɛʊ	723	1585	659	1571	End	U18	F
Aalin	go	ɛʊ	569	2032	606	2066	End	U18	F
Aalin	hello	ɛʊ	801	2241	586	2094	End	U18	F
Aalin	no	ɛʊ	688	2259	758	1696	End	U18	F
Aalin	cloak	ɛʊ	678	1679	576	1890	Mid	U18	F
Aalin	note	ɛʊ	553	2281	469	2330	Mid	U18	F
Aalin	old	ɛʊ	781	1721	702	1446	Start	U18	F
Aalin	own	ɛʊ	676	2160	647	2085	Start	U18	F
Aalin	know	ˌoː	797	2035	766	1994	End	U18	F
Breesha	so	əʊ	638	1861	505	1663	End	U18	F
Breesha	so	ɒʊ	591	1794	496	1481	End	U18	F
Breesha	vertigo	ɒʊ	655	1888	570	1525	End	U18	F
Breesha	loads	ɒʊ	533	1380	483	1850	Mid	U18	F
Breesha	go	ɛʊ	488	2163	476	1585	End	U18	F
Breesha	go	ɛʊ	577	2081	509	1980	End	U18	F
Breesha	know	ɛʊ	510	2218	481	1701	End	U18	F
Breesha	no	ɛʊ	495	2130	485	1649	End	U18	F
Breesha	pillow	ɛʊ	681	1752	582	1544	End	U18	F
Breesha	alone	ɛʊ	545	1640	469	1908	Mid	U18	F
Breesha	don't	ɛʊ	726	2189	620	2004	Mid	U18	F
Breesha	emoji	ɛʊ	739	1800	478	1945	Mid	U18	F
Breesha	most	ɛʊ	489	1855	372	2201	Mid	U18	F
Breesha	motorbike	ɛʊ	561	2073	471	2253	Mid	U18	F
Breesha	older	oː	642	1099	592	1039	Start	U18	F
Caly	go	ɒʊ	530	1967	515	1504	End	U18	F
Caly	so	ɒʊ	673	1793	656	1575	End	U18	F
Caly	stole	ɒʊ	556	1243	509	1105	Mid	U18	F
Caly	over	ɒʊ	509	1919	473	1996	Start	U18	F
Caly	over	ɒʊ	526	1922	498	1892	Start	U18	F
Caly	ago	ɛʊ	530	1783	449	1855	End	U18	F
Caly	go	ɛʊ	594	1795	598	1694	End	U18	F
Caly	go	ɛʊ	497	2020	428	2006	End	U18	F
Caly	go	ɛʊ	462	2016	456	1977	End	U18	F
Caly	know	ɛʊ	743	1899	807	1755	End	U18	F
Caly	boat	ɛʊ	507	1781	466	1549	Mid	U18	F
Caly	close	ɛʊ	521	1847	431	1952	Mid	U18	F
Caly	close	ɛʊ	523	1794	443	1894	Mid	U18	F
Caly	phoned	ɛʊ	540	1910	476	1787	Mid	U18	F
Caly	goes	oː	490	1952	435	1979	Mid	U18	F
Essa	know	əʊ	725	1753	665	1613	End	U18	F
Essa	no	ɒʊ	500	1850	493	1779	End	U18	F
Essa	though	ɒʊ	510	1529	522	1399	End	U18	F
Essa	bowling	ɒʊ	649	1076	567	1009	Mid	U18	F
Essa	close	ɒʊ	583	1195	463	1833	Mid	U18	F
Essa	close	ɒʊ	573	1188	523	1704	Mid	U18	F
Essa	grown	ɒʊ	550	1530	557	1608	Mid	U18	F
Essa	loads	ɒʊ	538	1377	507	1737	Mid	U18	F
Essa	go	ɛʊ	613	1934	406	1797	End	U18	F
Essa	go	ɛʊ	554	1891	691	1552	End	U18	F
Essa	go	ɛʊ	492	2038	481	2006	End	U18	F
Essa	knows	ɛʊ	592	1895	440	1988	End	U18	F
Essa	no	ɛʊ	621	1747	442	2138	End	U18	F
Essa	so	ɛʊ	559	1739	482	1613	End	U18	F
Essa	though	ɛʊ	578	1632	509	1530	End	U18	F
Essa	though	ɛʊ	616	1638	489	1702	End	U18	F
Essa	floats	ɛʊ	520	1334	454	1854	Mid	U18	F
Essa	goes	ɛʊ	433	1843	425	1774	Mid	U18	F
Essa	grown	ɛʊ	538	1651	590	1519	Mid	U18	F
Essa	home	ɛʊ	582	1939	526	1941	Mid	U18	F
Essa	loads	ɛʊ	444	1521	413	1813	Mid	U18	F
Essa	phone	ɛʊ	572	1688	412	1967	Mid	U18	F
Essa	phone	ɛʊ	687	1587	523	1788	Mid	U18	F
Essa	over	ɛʊ	531	1825	441	2014	Start	U18	F
Essa	no	oː	551	1936	587	1885	End	U18	F
Essa	rollerink	ˌoː	526	1492	512	1340	Mid	U18	F
Illiam	stole	ɒʊ	589	1384	535	1217	Mid	U18	M
Illiam	whole	ɒʊ	575	889	491	931	Mid	U18	M
Illiam	old	ɒʊ	604	1073	457	921	Start	U18	M
Illiam	also	ɛʊ	589	2176	524	2219	End	U18	M
Illiam	go	ɛʊ	558	1858	546	1737	End	U18	M
Illiam	go	ɛʊ	443	2326	552	1810	End	U18	M
Illiam	go	ɛʊ	472	1847	476	1871	End	U18	M
Illiam	go	ɛʊ	542	2486	432	2409	End	U18	M
Illiam	know	ɛʊ	541	2199	556	2173	End	U18	M
Illiam	know	ɛʊ	484	2249	596	2216	End	U18	M
Illiam	no	ɛʊ	507	2460	474	2381	End	U18	M
Illiam	close	ɛʊ	528	2423	441	2462	Mid	U18	M
Illiam	explodes	ɛʊ	395	2000	480	1923	Mid	U18	M
Illiam	goes	ɛʊ	476	2418	461	2423	Mid	U18	M
Illiam	goes	ɛʊ	443	2084	470	2467	Mid	U18	M
Illiam	home	ɛʊ	543	2440	441	1666	Mid	U18	M
Illiam	noble's	ɛʊ	508	2302	482	2200	Mid	U18	M
Illiam	showed	ɛʊ	583	2467	586	2396	Mid	U18	M
Illiam	zone	ɛʊ	509	2342	486	2513	Mid	U18	M
Illiam	zone	ɛʊ	528	2521	481	2278	Mid	U18	M
Illiam	zone	ɛʊ	581	2397	448	1879	Mid	U18	M
Illiam	smoke	ɛʊ	442	2383	415	2589	Mid	U18	M
Illiam	only	ɛʊ	712	2015	592	2233	Start	U18	M
Illiam	open	ɛʊ	447	2502	473	1986	Start	U18	M
James	no	əʊ	553	1749	616	1458	End	U18	M
James	radio	əʊ	393	2095	301	1935	End	U18	M
James	bowls	ɒʊ	539	1081	394	1103	Mid	U18	M
James	below	ɛʊ	489	1770	405	1725	End	U18	M
James	know	ɛʊ	417	1952	368	1658	End	U18	M
James	know	ɛʊ	520	1867	497	1858	End	U18	M
James	no	ɛʊ	504	1932	468	1791	End	U18	M
James	no	ɛʊ	451	1925	428	1823	End	U18	M
James	no	ɛʊ	476	1993	413	1891	End	U18	M
James	so	ɛʊ	463	1928	412	1890	End	U18	M
James	so	ɛʊ	478	1636	471	1584	End	U18	M
James	bone	ɛʊ	570	1673	382	1855	Mid	U18	M
James	vote	ɛʊ	536	1717	455	1452	Mid	U18	M
James	own	ɛʊ	537	1933	391	1892	Start	U18	M
James	own	ɛʊ	479	1828	429	1783	Start	U18	M
James	know	ˌoː	541	1833	455	1866	End	U18	M
Mark	no	əʊ	495	1794	492	1708	End	U18	M
Mark	most	əʊ	296	1469	337	1552	Mid	U18	M
Mark	goal	ɒʊ	521	974	474	1023	Mid	U18	M
Mark	go	ɛʊ	434	2019	404	1839	End	U18	M
Mark	go	ɛʊ	444	1994	428	1992	End	U18	M
Mark	know	ɛʊ	526	2168	426	2376	End	U18	M
Mark	no	ɛʊ	636	1906	710	1884	End	U18	M
Mark	both	ɛʊ	432	1592	393	1651	Mid	U18	M
Mark	close	ɛʊ	499	1359	362	1406	Mid	U18	M
Mark	dome	ɛʊ	452	2124	454	2139	Mid	U18	M
Mark	dome	ɛʊ	495	1982	524	1885	Mid	U18	M
Mark	don't	ɛʊ	469	1970	580	1506	Mid	U18	M
Mark	most	ɛʊ	545	1680	362	1876	Mid	U18	M
Oliver	know	əʊ	553	1740	531	1575	End	U18	M
Oliver	closest	ɒʊ	665	1246	520	1402	Mid	U18	M
Adam	go	əʊ	493	1920	463	1519	End	YA	M
Adam	go	əʊ	491	1795	467	1304	End	YA	M
Adam	know	əʊ	540	1694	530	1570	End	YA	M
Adam	monaco	əʊ	506	1518	515	1103	End	YA	M
Adam	so	əʊ	527	1527	417	1273	End	YA	M
Adam	so	əʊ	504	1829	463	1275	End	YA	M
Adam	hotel	əʊ	599	1920	466	1826	Mid	YA	M
Adam	knows	əʊ	354	1612	308	1471	Mid	YA	M
Adam	totally	əʊ	534	1380	487	1251	Mid	YA	M
Adam	vote	əʊ	511	1461	463	1240	Mid	YA	M
Adam	taekwando	ɒʊ	540	1491	755	1781	End	YA	M
Adam	suppose	ɒʊ	484	1553	465	1502	Mid	YA	M
Adam	also	oː	475	1330	444	1338	End	YA	M
Adam	association	oː	457	1660	441	1602	Mid	YA	M

Amy	go	əʊ	467	1690	361	1387	End	YA	F
Amy	also	əʊ	489	1579	448	1509	End	YA	F
Amy	know	əʊ	485	1863	494	1420	End	YA	F
Amy	know	əʊ	622	1675	552	1470	End	YA	F
Amy	know	əʊ	539	1703	505	1269	End	YA	F
Amy	don't	əʊ	466	1751	506	1356	Mid	YA	F
Amy	so	əʊ	553	1633	458	1348	Mid	YA	F
Amy	go	əʊ	489	1863	526	1268	Mid	YA	F
Amy	know	əʊ	523	1823	454	1317	Mid	YA	F
Amy	go	ɒʊ	476	1652	439	1438	End	YA	F
Amy	whole	ɒʊ	626	1132	471	1009	End	YA	F
Amy	no	ɒʊ	491	1515	499	1151	Mid	YA	F
Amy	rollerskatin	ɒʊ	508	1498	454	1158	Mid	YA	F
Amy	close	ɒʊ	599	1558	530	1688	Mid	YA	F
Amy	don't	ɒʊ	469	1608	464	1343	Mid	YA	F
Amy	goes	ɒʊ	508	1679	489	1370	Mid	YA	F
Amy	hello	ɒʊ	609	1540	524	1370	Mid	YA	F
Amy	moment	ɒʊ	585	1366	422	903	Mid	YA	F
Amy	discos	ɛʊ	537	1712	421	1230	End	YA	F
Amy	those	ɛʊ	536	1750	418	1332	End	YA	F
Amy	disco	ɛʊ	504	1851	482	1426	Mid	YA	F
Charlotte	slow	ɒʊ	630	1396	400	1785	End	YA	F
Charlotte	rigmarole	ɒʊ	651	1287	528	909	Mid	YA	F
Charlotte	whole	ɒʊ	622	1168	565	975	Mid	YA	F
Charlotte	only	ɒʊ	752	1843	650	1870	Start	YA	F
Charlotte	go	ɛʊ	471	2150	406	1888	End	YA	F
Charlotte	go	ɛʊ	431	2121	410	1969	End	YA	F
Charlotte	go	ɛʊ	515	2186	452	2179	End	YA	F
Charlotte	know	ɛʊ	495	2028	474	1851	End	YA	F
Charlotte	no	ɛʊ	745	1953	749	1786	End	YA	F
Charlotte	no	ɛʊ	625	1869	617	1791	End	YA	F
Charlotte	so	ɛʊ	599	1920	466	1926	End	YA	F
Charlotte	ballamoda	ɛʊ	615	1690	511	1814	Mid	YA	F
Charlotte	goes	ɛʊ	522	2192	422	1857	Mid	YA	F
Charlotte	home	ɛʊ	607	1793	491	1935	Mid	YA	F
Charlotte	road	ɛʊ	603	1736	508	1877	Mid	YA	F
Charlotte	told	ɛʊ	662	1350	594	1051	Mid	YA	F
Charlotte	wrote	ɛʊ	626	1889	535	2080	Mid	YA	F
Fin	know	əʊ	464	1845	456	1572	End	YA	M
Fin	know	əʊ	492	1691	467	1331	End	YA	M
Fin	know	əʊ	465	1730	486	1459	End	YA	M
Fin	know	əʊ	457	1722	508	1268	End	YA	M
Fin	know	əʊ	454	1886	435	1758	End	YA	M
Fin	so	əʊ	519	1501	515	1363	End	YA	M
Fin	so	əʊ	500	1594	545	1286	End	YA	M
Fin	though	əʊ	470	1656	477	1505	End	YA	M
Fin	don't	əʊ	505	1718	530	1432	Mid	YA	M
Fin	home	ɒʊ	535	1305	448	1493	Mid	YA	M
Fin	hotel	ɒʊ	518	1432	476	1345	Mid	YA	M
Fin	over	ɒʊ	507	1557	485	1635	Start	YA	M
Fin	over	ɒʊ	522	1313	379	1396	Start	YA	M
Fin	know	ɛʊ	653	1577	663	1458	End	YA	M
Fin	goes	ɛʊ	473	1639	488	1364	Mid	YA	M
Fin	roads	ɛʊ	532	1651	398	1441	Mid	YA	M
Fin	go	o:	427	1179	396	978	End	YA	M
Fin	so	o:	533	1676	579	1547	Mid	YA	M
John B	go	əʊ	493	1755	475	1601	End	YA	M
John B	go	əʊ	511	1400	538	1207	End	YA	M
John B	go	əʊ	520	1549	433	1150	End	YA	M
John B	go	əʊ	530	1684	583	1392	End	YA	M
John B	know	əʊ	588	1686	614	1329	End	YA	M
John B	gold	əʊ	524	1710	675	1174	Mid	YA	M
John B	suppose	əʊ	420	1522	384	1354	Mid	YA	M
John B	suppose	əʊ	515	1206	407	1207	Mid	YA	M
John B	vote	əʊ	511	1250	520	1114	Mid	YA	M
John B	open	əʊ	449	1206	470	912	Start	YA	M
John B	over	əʊ	512	1251	331	966	Start	YA	M
John B	most	ɒʊ	524	1109	567	1211	Mid	YA	M
John B	suppose	ɒʊ	458	1188	623	1150	Mid	YA	M
John B	whole	ɒʊ	583	980	480	784	Mid	YA	M
John B	only	ɒʊ	550	1735	724	2096	Start	YA	M
John B	tesco	ɛʊ	426	1731	399	1195	End	YA	M
John B	know	o:	528	1110	456	1000	Mid	YA	M
John Ke	go	əʊ	448	1732	463	1641	End	YA	M
John Ke	know	əʊ	446	1499	422	1231	End	YA	M
John Ke	so	əʊ	426	1527	387	1709	End	YA	M
John Ke	hold	əʊ	635	1663	601	901	Mid	YA	M
John Ke	home	əʊ	539	1214	426	1027	Mid	YA	M
John Ke	wrote	əʊ	264	1315	417	965	Mid	YA	M
John Ke	go	ɒʊ	398	1890	387	1934	End	YA	M
John Ke	know	ɒʊ	480	1488	604	1588	End	YA	M
John Ke	almost	ɒʊ	284	1150	404	1824	Mid	YA	M
John Ke	almost	ɒʊ	393	1343	353	1576	Mid	YA	M
John Ke	over	ɒʊ	514	1605	405	1895	Start	YA	M
John Ke	over	ɒʊ	499	1871	450	1773	Start	YA	M
John Ke	over	ɒʊ	462	1712	496	1723	Start	YA	M
John Ke	go	ɛʊ	374	1905	434	1620	End	YA	M
John Ke	go	ɛʊ	383	1900	362	1262	End	YA	M
John Ke	roles	ɛʊ	607	1900	445	928	Mid	YA	M
John Ke	over	ɛʊ	518	2331	460	1898	Start	YA	M
John Ke	show	o:	437	1093	486	944	End	YA	M
Lucy	know	əʊ	675	1883	605	1668	End	YA	F
Lucy	oldest	əʊ	633	1219	562	1001	Start	YA	F
Lucy	so	ɒʊ	629	1614	625	1662	End	YA	F
Lucy	go	ɛʊ	560	1880	517	1678	End	YA	F
Lucy	know	ɛʊ	684	1815	587	1675	End	YA	F
Lucy	know	ɛʊ	759	1843	535	2035	End	YA	F
Lucy	know	ɛʊ	633	1993	649	1924	End	YA	F
Lucy	so	ɛʊ	691	1791	597	1296	End	YA	F
Lucy	so	ɛʊ	633	1776	533	1744	End	YA	F
Lucy	so	ɛʊ	672	1658	602	1421	End	YA	F
Lucy	so	ɛʊ	674	1611	615	1503	End	YA	F
Lucy	so	ɛʊ	645	1632	665	1647	End	YA	F
Lucy	so	ɛʊ	645	1666	562	1782	End	YA	F
Lucy	so	ɛʊ	647	2062	689	2035	End	YA	F
Lucy	closer	ɛʊ	626	1454	507	1624	Mid	YA	F
Lucy	closer	ɛʊ	630	1472	469	1916	Mid	YA	F
Lucy	goes	ɛʊ	504	1865	452	1934	Mid	YA	F
Lucy	home	ɛʊ	604	1913	577	1784	Mid	YA	F
Lucy	lower	ɛʊ	688	1432	668	1717	Mid	YA	F
Lucy	most	ɛʊ	589	1551	586	1789	Mid	YA	F
Lucy	suppose	ɛʊ	595	1646	494	2010	Mid	YA	F
Lucy	suppose	ɛʊ	571	1728	545	2110	Mid	YA	F
Lucy	don't	o:	655	1775	659	1768	Mid	YA	F
Natalie	whole	ɒʊ	679	1206	633	1018	Mid	YA	F
Natalie	bungalow	ɛʊ	566	1226	518	1936	End	YA	F
Natalie	go	ɛʊ	521	1836	516	1502	End	YA	F
Natalie	go	ɛʊ	517	1910	419	1959	End	YA	F
Natalie	go	ɛʊ	653	1903	538	1890	End	YA	F
Natalie	go	ɛʊ	569	1799	507	1777	End	YA	F
Natalie	know	ɛʊ	589	1901	443	1870	End	YA	F
Natalie	know	ɛʊ	633	1788	531	1797	End	YA	F
Natalie	no	ɛʊ	585	1905	515	1860	End	YA	F
Natalie	no	ɛʊ	676	1824	573	1925	End	YA	F
Natalie	so	ɛʊ	579	1853	498	1935	End	YA	F
Natalie	home	ɛʊ	564	1551	524	1574	Mid	YA	F
Natalie	loads	ɛʊ	575	1743	441	1896	Mid	YA	F
Natalie	road	ɛʊ	573	1678	469	1708	Mid	YA	F
Natalie	roads	ɛʊ	543	1869	416	2059	Mid	YA	F
Natalie	ropes	ɛʊ	602	1739	419	1937	Mid	YA	F
Natalie	suppose	ɛʊ	662	1713	632	1781	Mid	YA	F
Natalie	over	ɛʊ	568	1675	519	1904	Start	YA	F
Rhianno	go	ɒʊ	431	1644	315	1592	End	YA	F
Rhianno	know	ɒʊ	456	1751	369	1768	End	YA	F
Rhianno	loads	ɒʊ	403	1613	364	1857	Mid	YA	F
Rhianno	loads	ɒʊ	459	1691	359	1875	Mid	YA	F
Rhianno	most	ɒʊ	330	1465	330	1539	Mid	YA	F
Rhianno	programm	ɒʊ	484	1495	359	1614	Mid	YA	F
Rhianno	road	ɒʊ	424	1482	336	1898	Mid	YA	F
Rhianno	spoke	ɒʊ	429	1597	342	1856	Mid	YA	F
Rhianno	spoke	ɒʊ	442	1557	385	1637	Mid	YA	F
Rhianno	spoken	ɒʊ	440	1438	352	1616	Mid	YA	F
Rhianno	spoken	ɒʊ	454	1614	363	1784	Mid	YA	F
Rhianno	know	ɛʊ	397	1827	401	1658	End	YA	F
Rhianno	no	ɛʊ	507	1749	453	1184	End	YA	F
Rhianno	no	ɛʊ	347	1696	313	1591	End	YA	F
Rhianno	so	ɛʊ	467	1749	343	1675	End	YA	F
Rhianno	so	ɛʊ	486	1704	402	1856	End	YA	F
Rhianno	almost	ɛʊ	363	1676	320	1871	Mid	YA	F
Rhianno	boat	ɛʊ	481	1728	438	1833	Mid	YA	F

Rhianno	bonus	ɛʊ	506	1605	372	1912	Mid	YA	F
Rhianno	home	ɛʊ	480	1695	387	1618	Mid	YA	F
Rhianno	most	ɛʊ	364	1667	412	1888	Mid	YA	F
Rhianno	noticeable	ɛʊ	502	1850	406	1850	Mid	YA	F
Rhianno	spoke	ɛʊ	392	1692	331	1949	Mid	YA	F
Rhianno	go	oː	457	1459	440	1480	End	YA	F
Rhianno	noticed	oː	465	1830	475	1838	Mid	YA	F
Andrew	know	əʊ	478	1393	532	1336	End	MA	M
Andrew	know	əʊ	493	1540	529	1267	End	MA	M
Andrew	know	əʊ	464	1753	425	1625	End	MA	M
Andrew	know	əʊ	564	1786	537	1533	Mid	MA	M
Andrew	those	ɒʊ	466	1122	462	955	End	MA	M
Andrew	know	ɒʊ	454	1661	423	1347	End	MA	M
Andrew	close	ɒʊ	519	1052	487	1077	End	MA	M
Andrew	local	ɒʊ	517	1059	480	882	Mid	MA	M
Andrew	most	ɒʊ	483	977	513	1241	Mid	MA	M
Andrew	so	ɒʊ	501	1264	536	1276	Mid	MA	M
Andrew	go	oː	400	1088	427	1138	End	MA	M
Andrew	suppose	oː	525	1525	486	1497	Mid	MA	M
Andrew	suppose	oː	546	1855	574	1892	Mid	MA	M
Andrew	radio	oː	431	1369	431	1245	End	MA	M
Andrew	so	oː	440	1319	444	1337	End	MA	M
Andrew	so	oː	473	1399	524	1406	End	MA	M
Carly	know	əʊ	474	1926	504	1796	End	MA	F
Carly	nobody	əʊ	529	1791	457	1632	Mid	MA	F
Carly	though	əʊ	601	1737	525	1706	Mid	MA	F
Carly	don't	əʊ	482	1745	519	1594	Mid	MA	F
Carly	show	ɒʊ	562	1840	395	1835	End	MA	F
Carly	though	ɒʊ	629	1384	628	1701	End	MA	F
Carly	so	ɒʊ	535	1655	542	1327	End	MA	F
Carly	goes	ɒʊ	447	1963	424	1008	End	MA	F
Carly	goals	ɒʊ	558	1264	476	1160	Mid	MA	F
Carly	polo (2nd	ɒʊ	584	1564	458	1857	Mid	MA	F
Carly	spoke	ɛʊ	510	1711	417	1860	End	MA	F
Carly	vote	ɛʊ	590	1623	494	1979	End	MA	F
Carly	phone	ɛʊ	547	1580	408	1787	End	MA	F
Carly	voted	ɛʊ	514	1760	357	1846	End	MA	F
Carly	vote	ɛʊ	630	1678	448	1847	End	MA	F
Carly	moment	ɛʊ	512	1657	438	1830	End	MA	F
Carly	vote	ɛʊ	623	1584	414	1808	End	MA	F
Carly	polo (1st c	ɛʊ	589	1465	471	1489	Mid	MA	F
Carly	tomorrow	ɛʊ	546	1883	452	1774	Mid	MA	F
Carly	though	ɛʊ	506	1691	508	1618	Mid	MA	F
Carly	phone	ɛʊ	540	1697	463	1892	Mid	MA	F
Carly	goalie	ɛʊ	577	1750	384	1665	Mid	MA	F
Carly	go	ɛʊ	517	1841	477	1423	Mid	MA	F
Carly	old	oː	560	931	526	1041	Mid	MA	F
Ellie	no	əʊ	696	1515	658	1105	End	MA	F
Ellie	no	əʊ	716	1532	721	1100	Mid	MA	F
Ellie	ago	əʊ	520	1226	478	910	Mid	MA	F
Ellie	ago	əʊ	487	1223	451	953	Mid	MA	F
Ellie	know	əʊ	656	1486	434	1058	Mid	MA	F
Ellie	nobody	əʊ	572	1162	522	1076	Mid	MA	F
Ellie	know	əʊ	685	1457	658	1337	Mid	MA	F
Ellie	no	əʊ	602	1329	472	1085	Mid	MA	F
Ellie	demo	ɒʊ	705	1071	533	802	End	MA	F
Ellie	owned	ɒʊ	534	940	732	946	End	MA	F
Ellie	whole	ɒʊ	493	948	529	928	End	MA	F
Ellie	own	ɒʊ	578	1109	463	756	Mid	MA	F
Ellie	home	ɒʊ	561	880	501	930	Mid	MA	F
Ellie	though	ɒʊ	744	1142	535	1020	Mid	MA	F
Ellie	home	ɒʊ	432	836	447	1379	Mid	MA	F
Ellie	cold	ɒʊ	724	1106	448	1040	Mid	MA	F
Ellie	told	ɒʊ	583	1055	562	976	Mid	MA	F
Ellie	whole	ɒʊ	477	1006	418	925	Mid	MA	F
Ellie	whole	ɒʊ	588	902	619	928	Mid	MA	F
Ellie	so	oː	583	1468	595	1470	End	MA	F
Ellie	load	oː	517	1144	458	1091	End	MA	F
Ellie	go	oː	672	1193	736	1197	Mid	MA	F
Ellie	home	oː	572	1064	568	994	Mid	MA	F
Ellie	load	oː	463	989	428	1192	Mid	MA	F
Ellie	know	oː	518	1018	505	813	Mid	MA	F
Hannah	goes	əʊ	537	1715	508	1620	End	MA	F
Hannah	go	əʊ	539	1728	595	1537	End	MA	F
Hannah	so	əʊ	546	1747	581	1493	End	MA	F
Hannah	though	əʊ	543	1651	520	1725	End	MA	F
Hannah	no	əʊ	699	1741	605	1482	End	MA	F
Hannah	show	əʊ	559	1709	554	1568	End	MA	F
Hannah	know	əʊ	700	1815	643	1713	End	MA	F
Hannah	no	əʊ	592	1742	368	1473	End	MA	F
Hannah	moan	əʊ	677	1456	698	1274	End	MA	F
Hannah	go	əʊ	518	1557	616	1273	Mid	MA	F
Hannah	over	ɒʊ	540	1554	559	1513	End	MA	F
Hannah	totally	ɒʊ	555	1685	525	1629	End	MA	F
Hannah	role	ɒʊ	626	1316	645	1278	End	MA	F
Hannah	go	ɒʊ	610	1204	718	1258	End	MA	F
Hannah	home	ɒʊ	685	1396	595	1146	End	MA	F
Hannah	road	ɒʊ	532	1502	442	1339	End	MA	F
Hannah	road	ɒʊ	418	1445	430	1325	End	MA	F
Hannah	home	ɒʊ	662	1250	553	1050	Mid	MA	F
Hannah	over	ɒʊ	661	1335	475	1092	Mid	MA	F
Hannah	close	ɛʊ	703	1341	578	1401	End	MA	F
Hannah	bolton	oː	573	1090	577	993	Mid	MA	F
John K	no	əʊ	554	1546	644	1359	End	MA	M
John K	suppose	əʊ	482	1527	499	1348	End	MA	M
John K	know	əʊ	547	1444	483	1261	Mid	MA	M
John K	know	əʊ	548	1492	516	1391	Mid	MA	M
John K	socialise	əʊ	441	1718	463	1837	Start	MA	M
John K	so	əʊ	477	1576	405	1418	Start	MA	M
John K	though	əʊ	442	1463	382	1412	Start	MA	M
John K	whole	ɒʊ	509	1120	494	1038	End	MA	M
John K	suppose	ɒʊ	465	1338	434	1408	End	MA	M
John K	so	ɒʊ	444	1598	416	1713	End	MA	M
John K	so	ɒʊ	486	1700	492	1621	Mid	MA	M
John K	so	ɒʊ	489	1431	471	1507	Mid	MA	M
John K	older	ɒʊ	482	1117	471	902	Mid	MA	M
John K	know	ɒʊ	421	1428	441	1458	Start	MA	M
John K	ago	ɛʊ	394	1929	434	1499	Mid	MA	M
Juan K	so	əʊ	498	1350	485	1201	End	MA	M
Juan K	so	əʊ	510	1556	465	1232	Mid	MA	M
Juan K	go	əʊ	453	1489	416	1047	Mid	MA	M
Juan K	don't	əʊ	537	1690	453	1364	Start	MA	M
Juan K	know	əʊ	529	1823	582	1513	Start	MA	M
Juan K	over	əʊ	542	1304	454	1113	Start	MA	M
Juan K	know	ɒʊ	332	1325	441	1080	End	MA	M
Juan K	most	ɒʊ	359	1021	305	947	Mid	MA	M
Juan K	although	ɒʊ	437	1027	336	1054	Start	MA	M
Juan K	moment	ɒʊ	512	1033	522	2200	Start	MA	M
Juan K	know	ɒʊ	537	1196	583	1444	Start	MA	M
Juan K	wrote	ɒʊ	607	1349	446	1222	Start	MA	M
Juan K	old	oː	421	778	439	630	Start	MA	M
Juan K	know	oː	454	1199	395	1089	Start	MA	M
Juan K	wrote	oː	413	1284	412	1271	Start	MA	M
Juan K	wrote	oː	430	1496	458	1355	Start	MA	M
Juan K	showed	oː	437	1353	429	1322	Start	MA	M
Matthew	overcast	əʊ	480	1519	483	1343	End	MA	M
Matthew	know	əʊ	563	1542	433	1605	End	MA	M
Matthew	know	əʊ	526	1565	537	1337	End	MA	M
Matthew	alone	əʊ	545	1271	539	1120	End	MA	M
Matthew	know	əʊ	529	1304	498	1259	End	MA	M
Matthew	no	əʊ	515	1577	546	1377	End	MA	M
Matthew	no	əʊ	390	1366	398	1275	End	MA	M
Matthew	go	əʊ	626	1583	465	1242	End	MA	M
Matthew	know	əʊ	531	1474	521	1211	End	MA	M
Matthew	only	əʊ	582	1339	507	1298	End	MA	M
Matthew	goal	əʊ	568	1049	438	827	End	MA	M
Matthew	know	əʊ	457	1391	489	1075	End	MA	M
Matthew	no	əʊ	479	1354	595	955	End	MA	M
Matthew	know	əʊ	525	1556	551	1255	Mid	MA	M
Matthew	so	ɒʊ	463	1506	488	1318	End	MA	M
Matthew	road	ɒʊ	361	1280	361	1519	End	MA	M
Matthew	road	ɒʊ	508	1352	427	1347	End	MA	M
Matthew	go	ɒʊ	563	1177	453	1111	End	MA	M
Matthew	ago	ɒʊ	479	1443	458	1384	Mid	MA	M
Matthew	ago	ɒʊ	492	1716	652	1740	Mid	MA	M
Matthew	home	oː	480	1068	413	1086	End	MA	M
Matthew	road	oː	495	1332	513	1183	End	MA	M
Andrew	don't	əʊ	499	1536	527	1018	Mid	RA	M
Andrew	know	ɒʊ	547	1522	524	1135	End	RA	M
Andrew	boats	ɒʊ	575	1971	456	1313	Mid	RA	M

Andrew	don't	ɒʊ	433	1046	425	687	Mid	RA	M
Andrew	growing	ɒʊ	429	1183	508	892	Mid	RA	M
Andrew	most	ɒʊ	521	814	531	1524	Mid	RA	M
Andrew	told	ɒʊ	450	1584	444	982	Mid	RA	M
Andrew	whole	ɒʊ	625	1526	551	1855	Mid	RA	M
Andrew	open	ɒʊ	539	1251	589	1693	Start	RA	M
Andrew	ago	o:	478	897	491	830	End	RA	M
Andrew	ago	o:	460	862	509	757	End	RA	M
Andrew	follow	o:	517	1056	535	929	End	RA	M
Andrew	slow	o:	540	1100	536	1028	End	RA	M
Andrew	so	o:	634	1609	615	1673	End	RA	M
Andrew	both	o:	512	864	572	719	Mid	RA	M
Andrew	bulldozer	o:	436	1231	462	1392	Mid	RA	M
Andrew	spoke	o:	463	1339	511	1179	Mid	RA	M
Andrew	spoke	o:	501	1068	498	785	Mid	RA	M
Andrew	spoke	o:	550	968	494	725	Mid	RA	M
Andrew	spoken	o:	460	894	446	711	Mid	RA	M
Clague	know	ɒʊ	434	774	446	788	End	RA	M
Clague	know	ɒʊ	601	1082	547	921	End	RA	M
Clague	goalkeepe	ɒʊ	505	1000	501	826	Mid	RA	M
Clague	noble's	ɒʊ	509	792	464	905	Mid	RA	M
Clague	ago	o:	492	1029	531	732	End	RA	M
Clague	go	o:	460	1008	475	1189	End	RA	M
Clague	go	o:	458	845	445	747	End	RA	M
Clague	bone	o:	482	994	476	1275	Mid	RA	M
Clague	close	o:	474	1036	502	985	Mid	RA	M
Clague	don't	o:	431	1242	441	881	Mid	RA	M
Clague	going	o:	412	652	501	608	Mid	RA	M
Clague	home	o:	552	810	533	701	Mid	RA	M
Clague	home	o:	518	784	549	923	Mid	RA	M
Clague	home	o:	446	773	447	784	Mid	RA	M
Clague	noble's	o:	471	781	511	786	Mid	RA	M
Clague	nobody	o:	481	842	535	888	Mid	RA	M
Clague	phone	o:	456	853	450	914	Mid	RA	M
Clague	shows	o:	530	1126	490	1029	Mid	RA	M
Clague	telephone	o:	497	835	516	998	Mid	RA	M
Clague	told	o:	478	844	473	945	Mid	RA	M
Clague	over	o:	592	1601	483	1154	Start	RA	M
Clague	over	o:	460	1025	469	891	Start	RA	M
Clague	over	o:	498	897	450	1057	Start	RA	M
Clague	over	o:	460	763	457	975	Start	RA	M
Emily	go	əʊ	569	1357	534	1152	End	RA	F
Emily	know	əʊ	675	1703	589	1138	End	RA	F
Emily	know	əʊ	656	1973	548	1561	End	RA	F
Emily	know	əʊ	713	1682	661	1473	End	RA	F
Emily	show	əʊ	576	1763	496	1782	End	RA	F
Emily	show	əʊ	614	1421	444	940	End	RA	F
Emily	though	əʊ	588	1543	659	1101	End	RA	F
Emily	those	əʊ	596	1680	503	1189	Mid	RA	F
Emily	whole	əʊ	720	1118	454	857	Mid	RA	F
Emily	below	ɒʊ	525	1101	524	1114	End	RA	F
Emily	go	ɒʊ	566	1201	417	1018	End	RA	F
Emily	know	ɒʊ	577	1147	570	1071	End	RA	F
Emily	stiletto	ɒʊ	559	1483	572	1236	End	RA	F
Emily	boats	ɒʊ	649	1147	457	1087	Mid	RA	F
Emily	coaches	ɒʊ	646	1146	457	1107	Mid	RA	F
Emily	only	o:	623	1189	572	1044	Start	RA	F
Juan C	know	əʊ	548	1633	479	1404	End	RA	M
Juan C	know	əʊ	561	1704	589	1437	End	RA	M
Juan C	know	əʊ	515	1830	546	1582	End	RA	M
Juan C	know	əʊ	571	1628	512	1374	End	RA	M
Juan C	know	əʊ	569	1609	506	1317	End	RA	M
Juan C	know	əʊ	592	1751	546	1598	End	RA	M
Juan C	no	əʊ	591	1794	604	1251	End	RA	M
Juan C	nobody	əʊ	479	1764	542	1254	Mid	RA	M
Juan C	supposed	əʊ	545	1576	481	1702	Mid	RA	M
Juan C	over	əʊ	564	1592	456	1232	Start	RA	M
Juan C	road	ɒʊ	561	1497	478	1365	Mid	RA	M
Juan C	spoke	ɒʊ	559	1277	482	1340	Mid	RA	M
Juan C	told	ɒʊ	566	1416	534	1191	Mid	RA	M
Kathleer	ago	əʊ	550	1668	555	1271	End	RA	F
Kathleer	ago	əʊ	527	1748	346	1260	End	RA	F
Kathleer	go	əʊ	572	1541	496	1286	End	RA	F
Kathleer	go	əʊ	549	1627	549	1202	End	RA	F
Kathleer	know	əʊ	405	1736	569	1550	End	RA	F
Kathleer	know	əʊ	556	1799	556	1201	End	RA	F
Kathleer	though	əʊ	562	1692	513	1239	End	RA	F
Kathleer	tomorrow	əʊ	614	1428	218	1122	End	RA	F
Kathleer	don't	əʊ	473	1948	564	1196	Mid	RA	F
Kathleer	home	əʊ	616	1497	546	1173	Mid	RA	F
Kathleer	knows	əʊ	549	1786	528	1404	Mid	RA	F
Kathleer	old	əʊ	750	1621	567	926	Start	RA	F
Kathleer	only	əʊ	548	1726	534	1392	Start	RA	F
Kathleer	hopefully	ɒʊ	601	1253	500	1021	Mid	RA	F
Kathleer	told	ɒʊ	657	1395	495	1069	Mid	RA	F
Kathleer	vote	ɒʊ	569	1479	420	1116	Mid	RA	F
Kathleer	goalie	ɛʊ	569	1509	527	1129	Mid	RA	F
Kathleer	open	o:	525	1517	533	1262	Start	RA	F
Mary Ca	know	əʊ	706	1699	518	1086	End	RA	F
Mary Ca	know	əʊ	688	1993	595	1438	End	RA	F
Mary Ca	know	əʊ	670	1880	705	1485	End	RA	F
Mary Ca	know	əʊ	706	1781	640	1748	End	RA	F
Mary Ca	don't	əʊ	624	1663	630	1203	Mid	RA	F
Mary Ca	nose	əʊ	703	1729	521	1395	Mid	RA	F
Mary Ca	know	ɒʊ	642	1641	510	1372	End	RA	F
Mary Ca	so	ɒʊ	684	1576	580	1377	End	RA	F
Mary Ca	phone	ɒʊ	599	1250	510	1582	Mid	RA	F
Mary Ca	road	ɒʊ	685	1413	502	1041	Mid	RA	F
Mary Ca	old	ɒʊ	562	871	498	732	Start	RA	F
Mary Ca	over	ɒʊ	655	1204	590	1165	Start	RA	F
Mary Ca	over	ɒʊ	533	1479	532	1248	Start	RA	F
Mary Ca	over	ɒʊ	626	1407	472	1106	Start	RA	F
Mary Ca	go	ɛʊ	466	1711	480	1449	End	RA	F
Mary Ca	toast	ɛʊ	619	1785	542	1502	Mid	RA	F
Mary Ca	know	o:	678	1563	629	1358	End	RA	F
Mary Ca	don't	o:	580	1584	598	1508	Mid	RA	F
Mary Ca	don't	o:	590	1587	624	1474	Mid	RA	F
Mary Ca	hope	o:	598	1136	515	1004	Mid	RA	F
Mary Ch	also	əʊ	579	1305	451	1258	End	RA	F
Mary Ch	know	əʊ	647	1517	672	1447	End	RA	F
Mary Ch	so	əʊ	602	1605	642	1226	End	RA	F
Mary Ch	though	əʊ	643	1609	654	1366	End	RA	F
Mary Ch	don't	əʊ	475	1753	517	1385	Mid	RA	F
Mary Ch	go	ɒʊ	451	1244	434	1028	End	RA	F
Mary Ch	no	ɒʊ	716	1651	730	1381	End	RA	F
Mary Ch	so	ɒʊ	470	1387	426	1205	End	RA	F
Mary Ch	phone	ɒʊ	643	1259	609	1042	Mid	RA	F
Mary Ch	polish	ɒʊ	674	1032	567	925	Mid	RA	F
Mary Ch	polish	ɒʊ	563	1065	409	987	Mid	RA	F
Mary Ch	road	ɒʊ	583	1250	571	1012	Mid	RA	F
Mary Ch	told	ɒʊ	661	1256	448	898	Mid	RA	F
Mary Ch	told	ɒʊ	717	1158	438	807	Mid	RA	F
Mary Ch	whole	ɒʊ	555	1282	462	1081	Mid	RA	F
Mary Ch	know	ɛʊ	704	1606	627	1239	End	RA	F
Mary Ch	no	ɛʊ	658	1778	683	1608	End	RA	F
Mary Ch	go	o:	436	998	551	718	End	RA	F
Mary Ch	go	o:	485	1278	444	949	End	RA	F
Mary Ch	radio	o:	344	1270	339	1220	End	RA	F
Mary Ch	home	o:	493	979	412	774	Mid	RA	F
Mary Ch	home	o:	491	1318	363	1209	Mid	RA	F
Ricky	know	əʊ	380	1742	444	1025	End	RA	M
Ricky	know	əʊ	499	1210	507	972	End	RA	M
Ricky	so	əʊ	545	1121	472	848	End	RA	M
Ricky	greengroc	əʊ	475	1220	475	993	Mid	RA	M
Ricky	noticed	əʊ	437	1474	483	1111	Mid	RA	M
Ricky	know	ɒʊ	527	1107	416	1136	End	RA	M
Ricky	so	ɒʊ	529	848	488	799	End	RA	M
Ricky	boatloads	ɒʊ	505	806	378	865	Mid	RA	M
Ricky	boatloads	ɒʊ	421	845	517	815	Mid	RA	M
Ricky	boatmen	ɒʊ	511	865	466	786	Mid	RA	M
Ricky	boats	ɒʊ	526	781	426	824	Mid	RA	M
Ricky	floated	ɒʊ	540	870	433	816	Mid	RA	M
Ricky	hotels	ɒʊ	470	797	417	869	Mid	RA	M
Ricky	hotels	ɒʊ	497	786	525	723	Mid	RA	M
Ricky	those	ɒʊ	447	931	423	1119	Mid	RA	M
Ricky	old	ɒʊ	519	908	384	759	Start	RA	M
Ricky	over	ɒʊ	452	853	391	839	Start	RA	M
Ricky	local	o:	546	853	489	823	Mid	RA	M
Ricky	local	o:	382	828	427	846	Mid	RA	M
Ricky	motor	o:	444	853	370	907	Mid	RA	M
Ricky	those	o:	470	1270	456	1147	Mid	RA	M
Ricky	overheads	o:	532	1373	573	1250	Start	RA	M

Appendix 10 – SED realisations of /t/

Word	Realisation		Word	Realisation		Word	Realisation		Word	Realisati
about	t		cutting	ʔ		heat	t		Saturday	t
about	t		cutting	ʔ		heat	t		Saturday	t
ant hills	t		dirty	t		height	t		shirt	t
ant hills	t		dirty	t		height	t		shirt	t
armpit	t		easter	t		hot	t		shut	t
armpit	t		easter	t		hot	t		shut	t
basket	t		eat	t		hurt	t		soot	t
basket	t		eat	t		kitten	ʔ		soot	t
bat	t		eating	ʔ		kitten	ʔ		that	t
bat	t		eating	ʔ		kitten	ʔ		that	t
bit of	t		eight	t		kitten	ʔ		thirty	t
butt	t		eight	t		litter	t		thirty	t
butt	t		fat	t		litter	t		throat	t
carting	t		fat	t		little	t		throat	t
carting	ʔ		feet	t		little	t		twenty	t
cartrails	t		feet	t		lot of	t		twenty	t
cat	t		fight	t		lot of	t		twenty	t
cat	t		fight	t		not	t		twenty	t
cat	t		fighting	ʔ		not	t		water	t
cat	t		foot	t		peat	t		water	t
cattle	t		foot	t		put	t		wet	t
cattle	t		forty	t		put	t		wet	t
colt	t		forty	t		putting	t			
colt	t		gate	t		putting	t			
coulter	t		gate	t		putting	ʔ			
coulter	t		get a	t		quart	t			
cut	t		great	t		quart	t			
cut	t		great	t		root	t			
cut	t		halter	t		rooting	ʔ			
cut	t		halter	t		rooting	ʔ			

Appendix 11 – SED realisations of *th* words

Position	Word	Realisation of *th*		Position	Word	Realisation of *th*
initial	this	d̪		initial	thirsty	t
initial	than	ð		initial	thumb	t
initial	than	ð		initial	thistle	t
initial	that	ð		initial	thresh	t
initial	that	ð		initial	thaw	t̪
initial	that	ð		initial	these	t̪
initial	that	ð		initial	third	t̪
initial	their	ð		initial	this	t̪
initial	theirs	ð		initial	this	t̪
initial	them	ð		initial	this	t̪
initial	them	ð		initial	this	t̪
initial	them	ð		initial	thistle	t̪
initial	them	ð		initial	three	t̪
initial	them	ð		initial	three	t̪
initial	them	ð		initial	threepence	t̪
initial	them	ð		initial	threepenny-bit	t̪
initial	themselves	ð		initial	thresh	t̪
initial	there	ð		initial	throwing	t̪
initial	there	ð		initial	thunder	t̪
initial	these	ð		initial	Thursday	t̪
initial	they	ð		initial	that	t̪
initial	they	ð		initial	thatch	t̪
initial	they	ð		initial	thatcher	t̪
initial	they	ð		initial	thatching	t̪
initial	this	ð		initial	thaw	t̪
initial	this	ð		initial	thicken	t̪
initial	this	ð		initial	thin out	t̪
initial	this	ð		initial	third	t̪
initial	those	ð		initial	thirsty	t̪
initial	than	ð		initial	thirteen	t̪
initial	that	ð		initial	thirty	t̪
initial	that	ð		initial	this	t̪
initial	that	ð		initial	thousand	t̪
initial	that	ð		initial	three	t̪
initial	that	ð		initial	three	t̪
initial	their	ð		initial	threepence	t̪
initial	theirs	ð		initial	threepenny-bit	t̪
initial	them	ð		initial	thresh	t̪
initial	them	ð		initial	throat	t̪
initial	them	ð		initial	throwing	t̪
initial	them	ð		initial	thumb	t̪
initial	them	ð		initial	thunder	t̪
initial	them	ð		initial	Thursday	t̪
initial	themselves	ð		initial	thatch	θ
initial	there	ð		initial	thatch	θ
initial	there	ð		initial	thatcher	θ
initial	these	ð		initial	thatching	θ

initial	they	ð		initial	thicken	θ
initial	they	ð		initial	thie veg (MxG)	θ
initial	they	ð		initial	thigh	θ
initial	this	ð		initial	thimble	θ
initial	this	ð		initial	thirteen	θ
initial	this	ð		initial	thirty	θ
initial	this	ð		initial	thousand	θ
initial	this	ð		initial	thread	θ
initial	this	ð		initial	throat	θ
initial	those	ð		initial	throwing	θ
initial	thie veg (MxG)	θ				
initial	thigh	θ				
initial	thimble	θ				
initial	thirsty	θ				
initial	throat	θ				
initial	throwing	θ				
mid	further	d		final	girth	t
mid	further	d		final	aftermath	θ
mid	clothes-basket	ð		final	both	θ
mid	farthings	ð		final	broth	θ
mid	father	ð		final	broth	θ
mid	mother	ð		final	earth	θ
mid	other	ð		final	eighth	θ
mid	other	ð		final	fifth	θ
mid	clothes-basket	ð		final	mouth	θ
mid	either	ð		final	mouth	θ
mid	father	ð		final	path	θ
mid	mother	ð		final	teeth	θ
mid	other	ð		final	tooth	θ
mid	other	ð		final	aftermath	θ
mid	other	ð		final	aftermath	θ
mid	other	ð		final	both	θ
mid	other	ð		final	broth	θ
mid	anything	θ		final	eighth	θ
mid	anything	θ		final	girth	θ
mid	anything	θ		final	mouth	θ
mid	anything	θ		final	mouth	θ
mid	anything	θ		final	mouth	θ
mid	either	θ		final	path	θ
mid	further	θ		final	sheath	θ
mid	further	θ		final	teeth	θ
mid	hearthstone	θ		final	tooth	θ
mid	mother	θ				
mid	nothing	θ				
mid	nothing	θ				
mid	other	θ				
mid	other	θ				
mid	toothache	θ				

mid	anything	θ				
mid	anything	θ				
mid	anything	θ				
mid	anything	θ				
mid	anything	θ				
mid	either	θ				
mid	farthings	θ				
mid	mother	θ				
mid	nothing	θ				
mid	nothing	θ				
mid	further	d		final	girth	t
mid	further	d		final	aftermath	θ
mid	clothes-basket	ð		final	both	θ
mid	farthings	ð		final	broth	θ
mid	father	ð		final	broth	θ
mid	mother	ð		final	earth	θ
mid	other	ð		final	eighth	θ
mid	other	ð		final	fifth	θ
mid	clothes-basket	ð		final	mouth	θ
mid	either	ð		final	mouth	θ
mid	father	ð		final	path	θ
mid	mother	ð		final	teeth	θ
mid	other	ð		final	tooth	θ
mid	other	ð		final	aftermath	θ
mid	other	ð		final	aftermath	θ

Appendix 12 -Full word list of (th) and (dh) words and realisations

Speaker	Word	Realised Cons	Age Group	Sex	Essa	than	ð	U18	F	James	south	f	U18	M
Aalin	another	ð	U18	F	Essa	than	ð	U18	F	James	think	f	U18	M
Aalin	either	ð	U18	F	Essa	that	ð	U18	F	James	thirty	f	U18	M
Aalin	that	ð	U18	F	Essa	the	ð	U18	F	James	thought	f	U18	M
Aalin	that	ð	U18	F	Essa	the	ð	U18	F	James	thought	f	U18	M
Aalin	that's	ð	U18	F	Essa	the	ð	U18	F	James	thousand	f	U18	M
Aalin	the	ð	U18	F	Essa	their	ð	U18	F	James	thousand	f	U18	M
Aalin	the	ð	U18	F	Essa	then	ð	U18	F	James	underneath	f	U18	M
Aalin	the	ð	U18	F	Essa	then	ð	U18	F	James	whether	v	U18	M
Aalin	the	ð	U18	F	Essa	they	ð	U18	F	James	with	v	U18	M
Aalin	the	ð	U18	F	Essa	they	ð	U18	F	Mark	another	v	U18	M
Aalin	then	ð	U18	F	Essa	something	f	U18	F	Mark	neither	v	U18	M
Aalin	there's	ð	U18	F	Essa	both	θ	U18	F	Mark	others	v	U18	M
Aalin	birthday	θ	U18	F	Essa	nothing	θ	U18	F	Mark	that	ð	U18	M
Aalin	birthday	θ	U18	F	Essa	nothing	θ	U18	F	Mark	the	ð	U18	M
Aalin	earth	θ	U18	F	Essa	something	θ	U18	F	Mark	the	ð	U18	M
Aalin	earth	θ	U18	F	Essa	south	θ	U18	F	Mark	then	ð	U18	M
Aalin	everything	θ	U18	F	Essa	things	θ	U18	F	Mark	then	ð	U18	M
Aalin	something	θ	U18	F	Essa	think	θ	U18	F	Mark	there'd	ð	U18	M
Aalin	things	θ	U18	F	Essa	think	θ	U18	F	Mark	they	ð	U18	M
Aalin	thought	θ	U18	F	Essa	think	θ	U18	F	Mark	they're	ð	U18	M
Aalin	thought	θ	U18	F	Essa	think	θ	U18	F	Mark	they've	ð	U18	M
Aalin	thousand	θ	U18	F	Essa	three	θ	U18	F	Mark	they've	ð	U18	M
Aalin	this	ð	U18	F	Essa	three	θ	U18	F	Mark	both	f	U18	M
Aalin	weather	ð	U18	F	Essa	with	θ	U18	F	Mark	everything	f	U18	M
Aalin	with	ð	U18	F	Essa	though	ð	U18	F	Mark	something	f	U18	M
Aalin	with	ð	U18	F	Essa	with	ð	U18	F	Mark	theatre	f	U18	M
Breesha	further	ð	U18	F	Essa	without	ð	U18	F	Mark	thing	f	U18	M
Breesha	other	ð	U18	F	Illiam	another	ð	U18	M	Mark	things	f	U18	M
Breesha	rather	ð	U18	F	Illiam	other	ð	U18	M	Mark	think	f	U18	M
Breesha	than	ð	U18	F	Illiam	other	ð	U18	M	Mark	think	f	U18	M
Breesha	that	ð	U18	F	Illiam	than	ð	U18	M	Mark	think	f	U18	M
Breesha	the	ð	U18	F	Illiam	that	ð	U18	M	Mark	think	f	U18	M
Breesha	the	ð	U18	F	Illiam	that	ð	U18	M	Mark	think	f	U18	M
Breesha	the	ð	U18	F	Illiam	the	ð	U18	M	Mark	thousand	f	U18	M
Breesha	then	ð	U18	F	Illiam	the	ð	U18	M	Mark	through	f	U18	M
Breesha	there's	ð	U18	F	Illiam	then	ð	U18	M	Mark	third	θ	U18	M
Breesha	they're	ð	U18	F	Illiam	then	ð	U18	M	Mark	with	v	U18	M
Breesha	anything	θ	U18	F	Illiam	there	ð	U18	M	Mark	with	v	U18	M
Breesha	everything	θ	U18	F	Illiam	they	ð	U18	M	Oliver	another	ð	U18	M
Breesha	month	θ	U18	F	Illiam	they're	ð	U18	M	Oliver	another	ð	U18	M
Breesha	something	θ	U18	F	Illiam	three	f	U18	M	Oliver	that	ð	U18	M
Breesha	theme	θ	U18	F	Illiam	beneath	θ	U18	M	Oliver	that's	ð	U18	M
Breesha	thing	θ	U18	F	Illiam	pathway	θ	U18	M	Oliver	the	ð	U18	M
Breesha	think	θ	U18	F	Illiam	something	θ	U18	M	Oliver	the	ð	U18	M
Breesha	think	θ	U18	F	Illiam	thing	θ	U18	M	Oliver	the	ð	U18	M
Breesha	third	θ	U18	F	Illiam	thing	θ	U18	M	Oliver	the	ð	U18	M
Breesha	with	θ	U18	F	Illiam	thing	θ	U18	M	Oliver	them	ð	U18	M
Breesha	with	θ	U18	F	Illiam	think	θ	U18	M	Oliver	then	ð	U18	M
Breesha	this	ð	U18	F	Illiam	think	θ	U18	M	Oliver	there	ð	U18	M
Breesha	with	ð	U18	F	Illiam	through	θ	U18	M	Oliver	there	ð	U18	M
Breesha	with	ð	U18	F	Illiam	with	ð	U18	M	Oliver	these	ð	U18	M
Caly	other	ð	U18	F	Illiam	with	ð	U18	M	Oliver	they	ð	U18	M
Caly	other	ð	U18	F	Illiam	without	ð	U18	M	Oliver	eighth	θ	U18	M
Caly	others	ð	U18	F	James	another	v	U18	M	Oliver	south	θ	U18	M
Caly	than	ð	U18	F	James	northern	ð	U18	M	Oliver	theatre	θ	U18	M
Caly	that	ð	U18	F	James	other	v	U18	M	Oliver	thing	θ	U18	M
Caly	that's	ð	U18	F	James	other	v	U18	M	Oliver	thing	θ	U18	M
Caly	the	ð	U18	F	James	the	ð	U18	M	Oliver	thirtieth	θ	U18	M
Caly	the	ð	U18	F	James	the	ð	U18	M	Oliver	thirtieth	θ	U18	M
Caly	the	ð	U18	F	James	them	ð	U18	M	Oliver	thoroughly	θ	U18	M
Caly	then	ð	U18	F	James	then	ð	U18	M	Oliver	thoroughly	θ	U18	M
Caly	there	ð	U18	F	James	then	ð	U18	M	Oliver	thousands	θ	U18	M
Caly	there's	ð	U18	F	James	there	ð	U18	M	Oliver	this	ð	U18	M
Caly	everything	f	U18	F	James	there's	ð	U18	M	Oliver	with	ð	U18	M
Caly	everything	θ	U18	F	James	they	ð	U18	M	Adam	northern	ð	YA	M
Caly	think	θ	U18	F	James	they	ð	U18	M	Adam	other	ð	YA	M
Caly	thinking	θ	U18	F	James	anything	f	U18	M	Adam	other	ð	YA	M
Caly	thought	θ	U18	F	James	anything	f	U18	M	Adam	other	ð	YA	M
Caly	this	ð	U18	F	James	athletics	f	U18	M	Adam	that	ð	YA	M
Caly	with	ð	U18	F	James	maths	f	U18	M	Adam	that	ð	YA	M
Caly	with	ð	U18	F	James	maths	f	U18	M	Adam	that	ð	YA	M
Caly	with	ð	U18	F	James	maths	f	U18	M	Adam	the	ð	YA	M
Caly	without	ð	U18	F	James	something	f	U18	M	Adam	their	ð	YA	M
Essa	other	ð	U18	F	James	south	f	U18	M	Adam	then	ð	YA	M

Adam	then	ð	YA	M	John B	that	ð	YA	M	Natalie	than	ð	YA	F
Adam	then	ð	YA	M	John B	that	ð	YA	M	Natalie	that	ð	YA	F
Adam	they	ð	YA	M	John B	the	ð	YA	M	Natalie	that's	ð	YA	F
Adam	month	θ	YA	M	John B	the	ð	YA	M	Natalie	the	ð	YA	F
Adam	something	θ	YA	M	John B	the	ð	YA	M	Natalie	the	ð	YA	F
Adam	something	θ	YA	M	John B	the	ð	YA	M	Natalie	their	ð	YA	F
Adam	something	θ	YA	M	John B	the	ð	YA	M	Natalie	them	ð	YA	F
Adam	thing	θ	YA	M	John B	the	ð	YA	M	Natalie	there	ð	YA	F
Adam	things	θ	YA	M	John B	they	ð	YA	M	Natalie	there's	ð	YA	F
Adam	think	θ	YA	M	John B	they	ð	YA	M	Natalie	everything	θ	YA	F
Adam	think	θ	YA	M	John B	anything	θ	YA	M	Natalie	though	ð	YA	F
Adam	with	ð	YA	M	John B	everything	θ	YA	M	Natalie	north	θ	YA	F
Adam	with	ð	YA	M	John B	everything	θ	YA	M	Natalie	things	θ	YA	F
Adam	with	ð	YA	M	John B	forth	θ	YA	M	Natalie	things	θ	YA	F
Adam	thousand	θ	YA	M	John B	this	ð	YA	M	Natalie	things	θ	YA	F
Charlotte	another	ð	YA	F	John B	health	θ	YA	M	Natalie	think	θ	YA	F
Charlotte	bothered	ð	YA	F	John B	months	θ	YA	M	Natalie	think	θ	YA	F
Charlotte	mother	ð	YA	F	John B	north	θ	YA	M	Natalie	think	θ	YA	F
Charlotte	other	ð	YA	F	John B	something	θ	YA	M	Natalie	think	θ	YA	F
Charlotte	that	ð	YA	F	John B	thing	θ	YA	M	Natalie	think	θ	YA	F
Charlotte	that	ð	YA	F	John B	think	θ	YA	M	Natalie	think	θ	YA	F
Charlotte	that	ð	YA	F	John B	think	θ	YA	M	Natalie	think	θ	YA	F
Charlotte	that	ð	YA	F	John B	whether	ð	YA	M	Natalie	weather	ð	YA	F
Charlotte	them	ð	YA	F	John B	thought	θ	YA	M	Natalie	thirteen	θ	YA	F
Charlotte	them	ð	YA	F	John B	with	ð	YA	M	Natalie	with	ð	YA	F
Charlotte	anything	θ	YA	F	John B	through	θ	YA	M	Natalie	with	ð	YA	F
Charlotte	health	θ	YA	F	John B	with	θ	YA	M	Natalie	with	ð	YA	F
Charlotte	this	ð	YA	F	John B	without	ð	YA	M	Natalie	with	ð	YA	F
Charlotte	this	ð	YA	F	John B	with	θ	YA	M	Natalie	thirty	θ	YA	F
Charlotte	something	θ	YA	F	John Ke	either	ð	YA	M	Natalie	worth	θ	YA	F
Charlotte	thing	θ	YA	F	John Ke	other	ð	YA	M	Rhiannon	furthest	ð	YA	F
Charlotte	thing	θ	YA	F	John Ke	other	ð	YA	M	Rhiannon	neither	ð	YA	F
Charlotte	thing	θ	YA	F	John Ke	the	ð	YA	M	Rhiannon	the	ð	YA	F
Charlotte	thing	θ	YA	F	John Ke	the	ð	YA	M	Rhiannon	the	ð	YA	F
Charlotte	things	θ	YA	F	John Ke	their	ð	YA	M	Rhiannon	the	ð	YA	F
Charlotte	think	θ	YA	F	John Ke	their	ð	YA	M	Rhiannon	the	ð	YA	F
Charlotte	think	θ	YA	F	John Ke	their	ð	YA	M	Rhiannon	there	ð	YA	F
Charlotte	think	θ	YA	F	John Ke	their	ð	YA	M	Rhiannon	there's	ð	YA	F
Charlotte	think	θ	YA	F	John Ke	them	ð	YA	M	Rhiannon	anything	θ	YA	F
Charlotte	thinking	θ	YA	F	John Ke	then	ð	YA	M	Rhiannon	anything	θ	YA	F
Charlotte	thirteen	θ	YA	F	John Ke	there's	ð	YA	M	Rhiannon	bath	θ	YA	F
Charlotte	with	ð	YA	F	John Ke	thing	θ	YA	M	Rhiannon	both	θ	YA	F
Charlotte	with	ð	YA	F	John Ke	thing	θ	YA	M	Rhiannon	both	θ	YA	F
Charlotte	with	ð	YA	F	John Ke	things	θ	YA	M	Rhiannon	this	ð	YA	F
Charlotte	thought	θ	YA	F	John Ke	think	θ	YA	M	Rhiannon	this	ð	YA	F
Fin	feathering	ð	YA	M	John Ke	thought	θ	YA	M	Rhiannon	something	θ	YA	F
Fin	northern	ð	YA	M	John Ke	through	θ	YA	M	Rhiannon	south	θ	YA	F
Fin	other	ð	YA	M	John Ke	with	ð	YA	M	Rhiannon	south	θ	YA	F
Fin	other	ð	YA	M	John Ke	with	ð	YA	M	Rhiannon	thing	θ	YA	F
Fin	others	ð	YA	M	John Ke	with	ð	YA	M	Rhiannon	thing	θ	YA	F
Fin	that's	ð	YA	M	Lucy	brother	ð	YA	F	Rhiannon	think	θ	YA	F
Fin	the	ð	YA	M	Lucy	other	ð	YA	F	Rhiannon	with	ð	YA	F
Fin	the	ð	YA	M	Lucy	than	ð	YA	F	Rhiannon	with	ð	YA	F
Fin	there	ð	YA	M	Lucy	that's	ð	YA	F	Rhiannon	with	ð	YA	F
Fin	everything	θ	YA	M	Lucy	the	ð	YA	F	Rhiannon	with	ð	YA	F
Fin	everything	θ	YA	M	Lucy	there	ð	YA	F	Rhiannon	with	ð	YA	F
Fin	everything	θ	YA	M	Lucy	there	ð	YA	F	Rhiannon	with	ð	YA	F
Fin	health	θ	YA	M	Lucy	there's	ð	YA	F	Rhiannon	with	ð	YA	F
Fin	nothing	θ	YA	M	Lucy	there's	ð	YA	F	Rhiannon	three	θ	YA	F
Fin	something	θ	YA	M	Lucy	there's	ð	YA	F	Rhiannon	three	θ	YA	F
Fin	that	θ	YA	M	Lucy	they	ð	YA	F	Rhiannon	throw	θ	YA	F
Fin	thing	θ	YA	M	Lucy	everything	θ	YA	F	Rhiannon	with	ð	YA	F
Fin	thing	θ	YA	M	Lucy	thingy	θ	YA	F	Amy	anything	θ	MA	F
Fin	things	θ	YA	M	Lucy	think	θ	YA	F	Amy	anything	θ	MA	F
Fin	things	θ	YA	M	Lucy	think	θ	YA	F	Amy	anything	θ	MA	F
Fin	think	θ	YA	M	Lucy	think	θ	YA	F	Amy	anything	θ	MA	F
Fin	think	θ	YA	M	Lucy	think	θ	YA	F	Amy	anything	θ	MA	F
Fin	think	θ	YA	M	Lucy	think	θ	YA	F	Amy	anything	θ	MA	F
Fin	weather	ð	YA	M	Lucy	thinking	θ	YA	F	Amy	something	θ	MA	F
Fin	whether	ð	YA	M	Lucy	whether	v	YA	F	Amy	bother	ð	MA	F
Fin	with	ð	YA	M	Lucy	with	ð	YA	F	Amy	bothered	ð	MA	F
Fin	thrash	θ	YA	M	Lucy	with	ð	YA	F	Amy	south	θ	MA	F
Fin	wealthy	θ	YA	M	Lucy	with	ð	YA	F	Amy	south	θ	MA	F
Fin	with	θ	YA	M	Natalie	others	ð	YA	F	Amy	thing	θ	MA	F
John B	rather	ð	YA	M	Natalie	rather	ð	YA	F	Amy	things	θ	MA	F

Amy	think	θ	MA	F	Carly	them	ð	MA	F	John Ki	thing	θ	MA	M
Amy	think	θ	MA	F	Carly	there	ð	MA	F	John Ki	thing	θ	MA	M
Amy	think	θ	MA	F	Carly	they	ð	MA	F	John Ki	think	θ	MA	M
Amy	further	ð	MA	F	Carly	they	ð	MA	F	John Ki	think	θ	MA	M
Amy	thought	θ	MA	F	Carly	they	ð	MA	F	John Ki	think	θ	MA	M
Amy	other	ð	MA	F	Carly	they've	ð	MA	F	John Ki	think	θ	MA	M
Amy	the	ð	MA	F	Carly	with	ð	MA	F	John Ki	mother	ð	MA	M
Amy	the	ð	MA	F	Ellie	something	f	MA	F	John Ki	think	θ	MA	M
Amy	them	ð	MA	F	Ellie	thought	f	MA	F	John Ki	think	θ	MA	M
Amy	then	ð	MA	F	Ellie	death	θ	MA	F	John Ki	think	θ	MA	M
Amy	there's	ð	MA	F	Ellie	everything	θ	MA	F	John Ki	three	θ	MA	M
Amy	there's	ð	MA	F	Ellie	health	θ	MA	F	John Ki	three	θ	MA	M
Amy	there's	ð	MA	F	Ellie	north	θ	MA	F	John Ki	rather	ð	MA	M
Amy	these	ð	MA	F	Ellie	something	θ	MA	F	John Ki	than	ð	MA	M
Amy	they	ð	MA	F	Ellie	south	θ	MA	F	John Ki	than	ð	MA	M
Amy	this	ð	MA	F	Ellie	thing	θ	MA	F	John Ki	that	ð	MA	M
Amy	together	ð	MA	F	Ellie	thing	θ	MA	F	John Ki	that's	ð	MA	M
Amy	weather	ð	MA	F	Ellie	think	θ	MA	F	John Ki	the	ð	MA	M
Amy	with	ð	MA	F	Ellie	think	θ	MA	F	John Ki	they're	ð	MA	M
Amy	with	ð	MA	F	Ellie	mother	ð	MA	F	John Ki	though	ð	MA	M
Andrew C	aberystwyth	θ	MA	M	Ellie	three	θ	MA	F	John Ki	together	ð	MA	M
Andrew C	north	θ	MA	M	Ellie	three	θ	MA	F	John Ki	with	ð	MA	M
Andrew C	north	θ	MA	M	Ellie	through	θ	MA	F	John Ki	with	ð	MA	M
Andrew C	porthmadog	θ	MA	M	Ellie	otherwise	ð	MA	F	John Ki	without	ð	MA	M
Andrew C	something	θ	MA	M	Ellie	that	ð	MA	F	Juan K	although	ð	MA	M
Andrew C	thing	θ	MA	M	Ellie	that	ð	MA	F	Juan K	another	ð	MA	M
Andrew C	things	θ	MA	M	Ellie	that	ð	MA	F	Juan K	another	ð	MA	M
Andrew C	think	θ	MA	M	Ellie	the	ð	MA	F	Juan K	fifth	θ	MA	M
Andrew C	think	θ	MA	M	Ellie	the	ð	MA	F	Juan K	north	θ	MA	M
Andrew C	think	θ	MA	M	Ellie	the	ð	MA	F	Juan K	north	θ	MA	M
Andrew C	thinking	θ	MA	M	Ellie	them	ð	MA	F	Juan K	north	θ	MA	M
Andrew C	thought	θ	MA	M	Ellie	there	ð	MA	F	Juan K	nothing	θ	MA	M
Andrew C	thought	θ	MA	M	Ellie	there	ð	MA	F	Juan K	sixth	θ	MA	M
Andrew C	northern	ð	MA	M	Ellie	with	ð	MA	F	Juan K	south	θ	MA	M
Andrew C	northern	ð	MA	M	Ellie	with	ð	MA	F	Juan K	south	θ	MA	M
Andrew C	with	θ	MA	M	Ellie	with	ð	MA	F	Juan K	south	θ	MA	M
Andrew C	with	θ	MA	M	Ellie	with	ð	MA	F	Juan K	south	θ	MA	M
Andrew C	with	θ	MA	M	Ellie	with	ð	MA	F	Juan K	thing	θ	MA	M
Andrew C	that	ˌd	MA	M	Ellie	without	ð	MA	F	Juan K	things	θ	MA	M
Andrew C	that	ð	MA	M	Hannah	anything	θ	MA	F	Juan K	father	ð	MA	M
Andrew C	that	ð	MA	M	Hannah	anything	θ	MA	F	Juan K	think	θ	MA	M
Andrew C	that's	ð	MA	M	Hannah	everything	θ	MA	F	Juan K	thought	θ	MA	M
Andrew C	the	ð	MA	M	Hannah	something	θ	MA	F	Juan K	thought	θ	MA	M
Andrew C	there	ˌd	MA	M	Hannah	something	θ	MA	F	Juan K	northern	ð	MA	M
Andrew C	they	ˌd	MA	M	Hannah	that	θ	MA	F	Juan K	other	ð	MA	M
Andrew C	those	ˌd	MA	M	Hannah	things	θ	MA	F	Juan K	others	ð	MA	M
Andrew C	those	ð	MA	M	Hannah	grandfather	ð	MA	F	Juan K	that	ð	MA	M
Andrew C	with	ð	MA	M	Hannah	think	θ	MA	F	Juan K	there's	ð	MA	M
Andrew C	with	ð	MA	M	Hannah	think	θ	MA	F	Juan K	they	ð	MA	M
Andrew C	with	ð	MA	M	Hannah	think	θ	MA	F	Juan K	this	ð	MA	M
Andrew C	without	ð	MA	M	Hannah	threatened	θ	MA	F	Juan K	with	ð	MA	M
Carly	athletes	θ	MA	F	Hannah	three	θ	MA	F	Juan K	with	ð	MA	M
Carly	athletics	θ	MA	F	Hannah	northern	ð	MA	F	Juan K	with	ð	MA	M
Carly	north	θ	MA	F	Hannah	other	ð	MA	F	Juan K	with	ð	MA	M
Carly	sixth	θ	MA	F	Hannah	south	ð	MA	F	Juan K	with	ð	MA	M
Carly	something	θ	MA	F	Hannah	that	ð	MA	F	Matthew	north	θ	MA	M
Carly	south	θ	MA	F	Hannah	that	ð	MA	F	Matthew	north	θ	MA	M
Carly	think	θ	MA	F	Hannah	that	ð	MA	F	Matthew	north	θ	MA	M
Carly	think	θ	MA	F	Hannah	that	ð	MA	F	Matthew	nothing	θ	MA	M
Carly	think	θ	MA	F	Hannah	that's	ð	MA	F	Matthew	thing	θ	MA	M
Carly	thinking	θ	MA	F	Hannah	the	ð	MA	F	Matthew	thing	θ	MA	M
Carly	thinking	θ	MA	F	Hannah	the	ð	MA	F	Matthew	thing	θ	MA	M
Carly	thought	θ	MA	F	Hannah	then	ð	MA	F	Matthew	think	θ	MA	M
Carly	through	θ	MA	F	Hannah	there	ð	MA	F	Matthew	think	θ	MA	M
Carly	through	θ	MA	F	Hannah	there's	ð	MA	F	Matthew	think	θ	MA	M
Carly	that	ð	MA	F	Hannah	they	ð	MA	F	Matthew	think	θ	MA	M
Carly	that	ð	MA	F	Hannah	thought	ð	MA	F	Matthew	think	θ	MA	M
Carly	that	ð	MA	F	Hannah	with	ð	MA	F	Matthew	thousand	θ	MA	M
Carly	that	ð	MA	F	Hannah	with	ð	MA	F	Matthew	three	θ	MA	M
Carly	the	ð	MA	F	John Ki	anything	θ	MA	M	Matthew	three	θ	MA	M
Carly	the	ð	MA	F	John Ki	months	θ	MA	M	Matthew	through	θ	MA	M
Carly	the	ð	MA	F	John Ki	brother	ð	MA	M	Matthew	other	ð	MA	M
Carly	the	ð	MA	F	John Ki	brother	ð	MA	M	Matthew	other	ð	MA	M
Carly	their	ð	MA	F	John Ki	thing	θ	MA	M	Matthew	other	ð	MA	M
Carly	their	ð	MA	F	John Ki	thing	θ	MA	M	Matthew	than	ð	MA	M

Matthew	that	ð	MA	M	Emily	grandmothe	ð	RA	F	Kathleen	they're	ð	RA	F
Matthew	that	ð	MA	M	Emily	grandmothe	ð	RA	F	Kathleen	thing	θ	RA	F
Matthew	that	ð	MA	M	Emily	anything	θ	RA	F	Kathleen	think	θ	RA	F
Matthew	that	ð	MA	M	Emily	both	θ	RA	F	Kathleen	think	θ	RA	F
Matthew	that's	ð	MA	M	Emily	death	θ	RA	F	Kathleen	with	θ	RA	F
Matthew	there	ð	MA	M	Emily	everything	θ	RA	F	Kathleen	though	d	RA	F
Matthew	there	ð	MA	M	Emily	health	θ	RA	F	Kathleen	with	ð	RA	F
Matthew	together	ð	MA	M	Emily	north	θ	RA	F	Kathleen	with	ð	RA	F
Matthew	with	ð	MA	M	Emily	north	θ	RA	F	Kathleen	with	ð	RA	F
Matthew	with	ð	MA	M	Emily	north	θ	RA	F	Mary Ca	brother	ð	RA	F
Matthew	with	ð	MA	M	Emily	nothing	θ	RA	F	Mary Ca	other	ð	RA	F
Matthew	with	v	MA	M	Emily	something	θ	RA	F	Mary Ca	otherwise	ð	RA	F
Andrew T	mother	ð	RA	M	Emily	something	θ	RA	F	Mary Ca	bath	θ	RA	F
Andrew T	mother	ð	RA	M	Emily	south	θ	RA	F	Mary Ca	everything	θ	RA	F
Andrew T	northern	ð	RA	M	Emily	thick	θ	RA	F	Mary Ca	everything	θ	RA	F
Andrew T	northern	ð	RA	M	Emily	the	ð	RA	F	Mary Ca	fifth	θ	RA	F
Andrew T	other	ð	RA	M	Emily	thing	θ	RA	F	Mary Ca	nothing	θ	RA	F
Andrew T	both	θ	RA	M	Emily	there	ð	RA	F	Mary Ca	the	ð	RA	F
Andrew T	north	θ	RA	M	Emily	there	ð	RA	F	Mary Ca	the	ð	RA	F
Andrew T	north	θ	RA	M	Emily	there	ð	RA	F	Mary Ca	the	ð	RA	F
Andrew T	north	θ	RA	M	Emily	these	ð	RA	F	Mary Ca	their	ð	RA	F
Andrew T	something	θ	RA	M	Emily	think	θ	RA	F	Mary Ca	them	ð	RA	F
Andrew T	south	θ	RA	M	Emily	think	θ	RA	F	Mary Ca	then	ð	RA	F
Andrew T	that	ð	RA	M	Emily	with	θ	RA	F	Mary Ca	there	ð	RA	F
Andrew T	that	ð	RA	M	Emily	those	ð	RA	F	Mary Ca	they	ð	RA	F
Andrew T	the	ð	RA	M	Emily	with	ð	RA	F	Mary Ca	thing	θ	RA	F
Andrew T	the	ð	RA	M	Emily	with	ð	RA	F	Mary Ca	thing	θ	RA	F
Andrew T	them	ð	RA	M	Emily	with	ð	RA	F	Mary Ca	think	θ	RA	F
Andrew T	they	ð	RA	M	Emily	with	ð	RA	F	Mary Ca	think	θ	RA	F
Andrew T	thing	θ	RA	M	Emily	within	ð	RA	F	Mary Ca	think	θ	RA	F
Andrew T	thing	θ	RA	M	Juan C	although	ð	RA	M	Mary Ca	thirty	θ	RA	F
Andrew T	think	θ	RA	M	Juan C	ninth	θ	RA	M	Mary Ca	thought	θ	RA	F
Andrew T	think	θ	RA	M	Juan C	north	θ	RA	M	Mary Ca	three	θ	RA	F
Andrew T	thought	θ	RA	M	Juan C	north	θ	RA	M	Mary Ca	three	θ	RA	F
Andrew T	through	θ	RA	M	Juan C	north	θ	RA	M	Mary Ca	three	θ	RA	F
Andrew T	north	θ s	RA	M	Juan C	north	θ	RA	M	Mary Ca	youth	θ	RA	F
Andrew T	south	θ s	RA	M	Juan C	north	θ	RA	M	Mary Ca	with	ð	RA	F
Andrew T	this	d	RA	M	Juan C	north	θ	RA	M	Mary Ca	with	ð	RA	F
Andrew T	this	d	RA	M	Juan C	south	θ	RA	M	Mary Ca	with	ð	RA	F
Andrew T	this	ð	RA	M	Juan C	south	θ	RA	M	Mary Ca	with	ð	RA	F
Andrew T	with	ð	RA	M	Juan C	south	θ	RA	M	Mary Ch	another	ð	RA	F
Andrew T	with	ð	RA	M	Juan C	that	ð	RA	M	Mary Ch	father	ð	RA	F
Andrew T	with	ð z	RA	M	Juan C	the	ð	RA	M	Mary Ch	mother	ð	RA	F
Clague	another	ð	RA	M	Juan C	the	ð	RA	M	Mary Ch	northern	ð	RA	F
Clague	father	ð	RA	M	Juan C	the	ð	RA	M	Mary Ch	aberystwyth	θ	RA	F
Clague	father	ð	RA	M	Juan C	the	ð	RA	M	Mary Ch	other	ð	RA	F
Clague	otherside	ð	RA	M	Juan C	the	ð	RA	M	Mary Ch	that	ð	RA	F
Clague	bath	θ	RA	M	Juan C	the	ð	RA	M	Mary Ch	the	ð	RA	F
Clague	bath	θ	RA	M	Juan C	thick	θ	RA	M	Mary Ch	the	ð	RA	F
Clague	broth	θ	RA	M	Juan C	there's	ð	RA	M	Mary Ch	there's	ð	RA	F
Clague	health	θ	RA	M	Juan C	they	ð	RA	M	Mary Ch	they	ð	RA	F
Clague	health	θ	RA	M	Juan C	they	ð	RA	M	Mary Ch	thing	θ	RA	F
Clague	north	θ	RA	M	Juan C	they	ð	RA	M	Mary Ch	things	θ	RA	F
Clague	something	θ	RA	M	Juan C	they	ð	RA	M	Mary Ch	think	θ	RA	F
Clague	that	ð	RA	M	Juan C	things	θ	RA	M	Mary Ch	think	θ	RA	F
Clague	the	ð	RA	M	Juan C	think	θ	RA	M	Mary Ch	think	θ	RA	F
Clague	the	ð	RA	M	Juan C	think	θ	RA	M	Mary Ch	think	θ	RA	F
Clague	the	ð	RA	M	Juan C	three	θ	RA	M	Mary Ch	think	θ	RA	F
Clague	then	ð	RA	M	Juan C	whether	ð	RA	M	Mary Ch	thirty	θ	RA	F
Clague	there	ð	RA	M	Juan C	with	ð	RA	M	Mary Ch	three	θ	RA	F
Clague	thirty	θ	RA	M	Kathleen	father	ð	RA	F	Mary Ch	through	θ	RA	F
Clague	thirty	θ	RA	M	Kathleen	northern	ð	RA	F	Mary Ch	with	θ	RA	F
Clague	thought	θ	RA	M	Kathleen	other	ð	RA	F	Mary Ch	with	ð	RA	F
Clague	three	θ	RA	M	Kathleen	both	θ	RA	F	Mary Ch	with	ð	RA	F
Clague	three	θ	RA	M	Kathleen	everything	θ	RA	F	Mary Ch	with	ð	RA	F
Clague	through	θ	RA	M	Kathleen	everything	θ	RA	F	Mary Ch	with	ð	RA	F
Clague	with	θ	RA	M	Kathleen	south	θ	RA	F	Mary Ch	without	ð	RA	F
Clague	with	θ	RA	M	Kathleen	the	ð	RA	F	Ricky	another	ð	RA	M
Clague	with	θ	RA	M	Kathleen	thing	θ	RA	F	Ricky	father	ð	RA	M
Clague	whether	ð	RA	M	Kathleen	then	ð	RA	F	Ricky	grandfather	ð	RA	M
Clague	with	ð	RA	M	Kathleen	there	ð	RA	F	Ricky	grandfather	ð	RA	M
Clague	with	ð	RA	M	Kathleen	there's	ð	RA	F	Ricky	anything	θ	RA	M
Emily	another	ð	RA	F	Kathleen	they	ð	RA	F	Ricky	both	θ	RA	M
Emily	either	ð	RA	F	Kathleen	they	ð	RA	F	Ricky	eighteenth	θ	RA	M
Emily	father	ð	RA	F	Kathleen	they	ð	RA	F	Ricky	everything	θ	RA	M

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