Edinburgh Jockney?

A socio-phonological study of accent variation and change in Edinburgh English

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Abstract in Norwegian

Denne masteroppgaven utforsker språklig variasjon og endring i Edinburgh-engelsk, og undersøker hvordan seks fonologiske variabler utfolder seg blant ungdommer i den skotske hovedstaden. Flere vitenskaplige artikler har i senere tid vist at urbane dialekter i Skottland tar i bruk utradisjonelle varianter som er karakteristiske for typisk London-engelsk, og at underliggende mekanismer som geografisk diffusjon fra England og regional utjevning blant skotske dialekter er mulige årsaker for utviklingen. Målet med denne oppgaven er således å se om det er en pågående anglisering av karakteristiske skotske variabler – for eksempel (ʍ), som i følge tidligere fonologiske beskrivelser tradisjonelt blir uttalt [ʍ] (eller /hw/) i ord som *when, where* og *which*. Tidligere studier fra urbane områder som Aberdeen og Glasgow viser at flere skotske dialekter er under forandring som følge av anglisering, og det er blant annet blitt påvist at <wh>-ord blir uttalt [w]. Stuart-Smith, som er en anerkjent skotsk forsker, har sett på denne utviklingen i Glasgow, og har kalt det nye språkfenomenet *Jockney*, bestående av *Jock* (en skotte) og *–ney* (jamfør Cockney-engelsk). I studien benyttes flere av de samme variablene som blant annet finnes i Stuart-Smith et al. (2007), for å se om det er en pågående endring i Edinburgh-engelsk spesielt, og i skotsk-engelsk generelt i lys av tidligere forsking. De seks fonologiske variablene i denne oppgaven er *TH Fronting*, f.eks. /fɪŋk/ for *think*, *T Glottaling*, f.eks. /sɪʔi/ for *city*, *The Wine-whine merger*, f.eks. /weɪl/ for *whale*, *R Dropping*, f.eks. /mʌðə/ for *mother*, i tillegg til diftongisering i vokalene i *FACE* og *GOAT*. Data har blitt innhentet fra to utdanningsinstitusjoner – én lokal ungdomsskole samt universitetet i Edinburgh, og tolv ungdommer utgjør hovedinformantene i studien av anglo-innflytelse.

Problemstillingene i denne oppgaven tar for seg konseptene *språklig variasjon* og *endring*. Ett av spørsmålene omhandler kjønnsforskjeller, og ser på om ikke-lokale varianter som finnes i Sør-England appellerer mer til jenter enn til gutter. Generelt er spørsmålene knyttet til om informantene foretrekker lokale varianter, eller om utradisjonelle lyder er på vei inn i språket. De siste problemstillingene ser på generell språklig forandring og anglisering.

Resultater fra denne studien bekrefter de fleste av hypotesene, og i alt fire av seks fonologiske variabler viser at angliserte varianter er merkbart tilstedeværende i Edinburgh. I samsvar med tidligere forskning, blir det således argumentert at det er tydelig kontakt mellom brukere av skotske og sør-engelske dialekter, men at årsakene bak endringene er uklare. At det eksisterer kontakt ser allikevel ut som hovedgrunnen til forandringene som skjer, og underliggende mekanismer som diffusjon og utjevning er viktige faktorer i denne utviklingen.

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Abbreviations and conventions

C	- Any consonant
EdinE	- Edinburgh English
GenAm	- General American English
LdnE	- London English
LPD	- Longman Pronunciation Dictionary
RP	- Received Pronunciation
SSE	- Scottish Standard English
SVLR	- The Scottish Vowel Length Rule
V	- Any vowel
/ /	- Phonemic transcription
[ ]	- Phonetic transcription
< >	- Orthographic spelling

1: Introduction

1.1 Preface: aim and scope

This thesis looks at accent variation and change in Edinburgh English (henceforth EdinE) within a socio-phonological framework. Speech data from twelve late-adolescents have been collected at a local high school as well as the University of Edinburgh in order to examine if the speakers keep traditional variants or if they are subjects to *anglicization* and English-English influence. In recent years, various studies have uncovered that characteristic London English (henceforth LdnE) features from southeastern England are frequently appearing in Scottish English varieties. Particularly, a study by Stuart-Smith et al. (2007: 254) suggests that working-class adolescents in the urban setting of Glasgow are changing their vernacular speech towards characteristics found in the London area, and typical Scottish English features seem to be losing ground to non-local English-English variants that are associated with London's working class and Cockney English. At the moment there are a limited number of studies on how teenagers in Edinburgh are affected by influencing features from LdnE, and within a sociolinguistic context this research topic is rather unexplored. The main objective in the present study is therefore to see if speech data from EdinE speakers indicate conservative patterns (cf. Wells 1982: 408) or instances of anglicized variants. In order to examine this, the data have been analyzed auditorily, and previous descriptions of EdinE are also considered.

Today, Scottish Jockney[1] teenagers seem to draw upon LdnE features like TH Fronting – i.e. the replacement of /θ/ with [f] in e.g. *think* /fɪŋk/ – and T Glottaling – i.e. a glottal stop [ʔ] replaces /t/ in e.g. *city* /sɪʔi/. In addition, salient and well-established Scottish English features like (ʍ), e.g. *white* /ʍaɪt/, and full rhoticity – /r/ appears in all contexts – seem to be on the decrease. The replacement of English-English [w] for (ʍ), which is dubbed the Wine-whine merger, and R Dropping – i.e. loss of non-prevocalic /r/ – have been reported by several scholars, most notably Romaine (1978: 150). In her study of (r) in Edinburgh, Romaine reports non-rhotic forms in examples like *father* /fɑːðə/ with male respondents in particular, and non-rhoticity is a characteristic feature of English-English varieties like LdnE

[1] 'Jockney' = Scot + Cockney. The term is used by Stuart-Smith et al. (2007) in the article "Talkin' Jockney?".

and Received Pronunciation (henceforth RP). Traditionally, vowel features like FACE and GOAT are predominantly monophthongized as close-mid front /e/ and back /o/ respectively in Scottish Standard English (henceforth SSE) (Wells 1982: 304). However, scholars like Macafee (1983: 35) claim that '/e/ and /o/ are usually monophthongal […] [but that] middle-class Scottish speakers may have diphthongs similar to those of RP for /e/ and /o/ in any position'. A central part of the present study is thus to investigate if the above-mentioned consonant and vowel variables are in line with traditional descriptions, or if there exists more variation than previously acknowledged. The main objective is to register any form of anglicization through the use of non-local features such as TH Fronting[2] with the adolescents in Edinburgh at micro level, and whether there is a current language change going on within Scottish English varieties at macro level. It is therefore of interest to see if Wells' (1982: 393) statement regarding Scottish English users being conservative and disinclined toward English-English can be verified. In order to investigate EdinE, speech data have been analyzed from twelve late-adolescence students aged 15-18 years old from two educational institutions, in addition to a middle-aged informant, who represents traditional EdinE. James Gillespie's High School and the University of Edinburgh constitute the interview locations.

Figure 1.1: View of Edinburgh and the landmark Arthur's Seat in the background

[2] In fact, one informant pronounced *Arthur's Seat* [ˈɑːrfər siːt], which is an instance of TH Fronting. Figure 1.1 depicts the landmark Arthur's Seat in the background, and the picture indicates the target area in the city center.

The Edinburgh interviews, which consist of careful and casual style data, have been analyzed auditorily and quantified in order to measure the degree of variation, to get a glimpse of the current status of EdinE at present, and determine if southeastern English-English varieties influence teenagers in Edinburgh. Stuart-Smith et al.'s (2007) study about Glasgow youths changing their vernacular Scottish accent towards more London-oriented features constitutes the main source of comparison, but other studies looking at Aberdeen (e.g. Brato 2007) and Edinburgh (e.g. Schützler 2010; 2011) are also included. If the same tendencies of variation in the present study correspond with previous research, it might be argued that there is a broader language change going on. Variationist linguistic theories regarding dialect levelling, language contact and accent variation and change function as a basis for discussing the findings. In particular, the idea of *geographical diffusion* is highly central in this discussion, and several previous studies (see Foulkes & Docherty 1999) claim that Cockney English 'is today the most influential source of phonological innovation' (Wells 1982: 301). According to Kerswill (2003: 1), the concept of geographical diffusion denotes that 'features spread out from a populous and economically and culturally dominant centre', in this case from London. Typically, changes that occur in this process are results of the spread of features from one urban center to another. An example of this is how a typical LdnE and Cockney English feature – T Glottaling – is now also common as far north as Newcastle due to supra-local change and diffusion (Milroy et al. 1994: 6). As Stuart-Smith et al. (2007: 224) also comment, other influences such as television and the media might be important factors of language change, and these are taken into account in the final discussion in ch. 6.

An important reason for examining EdinE is that newer research done on accent variation and change with adolescents in the Scottish capital is relatively restricted, and most studies already cover other varieties in areas like Aberdeen and Glasgow. As is evident in ch. 2, urban Scottish English varieties have shown a great deal of variation and instances of non-local variants, and the objective is to see if the same tendencies can be observed in EdinE.

1.2 Research questions and hypotheses

The research questions and hypotheses outlined below are based on previous descriptions and studies on SSE, EdinE and other urban varieties of Scottish English. Consequently, the questions in 1.2.1 and propositions in 1.2.2 function as the basis for discussing accent variation and change in EdinE. As previously mentioned, the main objective in the present study is to see if late-adolescents in Edinburgh are changing their local speech, and drawing

upon non-local features found in southern English-English and LdnE, and if their speech differs markedly from traditional descriptions of EdinE. The purpose of the thesis is first and foremost to record any variation at micro level in the accent of EdinE, and secondly, to see if the results correspond with previous findings in the discussion of change at macro level.

1.2.1 Research questions

1. What can the data from six different phonological variables say about accent variation and change in EdinE? How intact are the traditional EdinE variants in the data?

2. To what extent do the twelve late-adolescents vary, and is there any substantial inter-speaker variation? Are there differences between high school and university speech?

3. Are there any differences with regard to the social category of gender in the data, and do the female speakers favor more non-local supra-regional variants than the males?

4. Is there an ongoing change from local EdinE features to more non-local 'Jockney' variants? If yes, what are the main underlying mechanisms and factors behind change?

5. In connection to previous reports of changing urban varieties in Scotland, is EdinE taking part in a larger, general movement towards anglicization of Scottish English?

1.2.2 Hypotheses

1. The data from six different phonological variables show considerable variation in EdinE speech, and the results indicate contact with English-English varieties.

2. Non-local features that are common in LdnE are present with late-adolescents in Edinburgh. The high school pupils are more anglicized than the university students.

3. There is considerable variation between the genders. The female speakers use more non-local variants than the male subjects, and females lead in supra-regional speech.

4. There is an ongoing change from traditional EdinE speech to non-local 'Jockney', and geographical diffusion and contact with England are the main underlying factors.

5. Data from Edinburgh teenagers together with previous studies point toward general anglicization of Scottish English accents, and EdinE is taking part in this development.

1.3 The phonological variables

Based on previous studies (see ch. 2), there are six relevant phonological variables being examined in this study. These variables are described in greater detail in ch. 3, but the following points contain basic presentations of the respective features and common variants.

1. (θ) – TH Fronting

   The realization of fortis (θ) has been widely studied by scholars over the last decades, and this variable includes a great deal of variation across several varieties of English. While RP speakers use the dental fricative [θ] in e.g. *think*, TH Fronting involves the replacement of /θ/ with a labiodental fricative [f], e.g. [fɪŋk] (Wells 1982: 328). In Scottish English varieties like EdinE, (θ) can also be lenited to a glottal fricative [h].

2. (t) – T Glottaling

   T Glottaling is another commonly studied feature, and it has been the focus of much research. Overall, the glottal stop is getting more frequent in Scotland, and Aitken (1984: 102) states that it has existed for a while in Scottish varieties where speakers generally use either pre-glottalized [ʔt] or the fully glottalized [ʔ]. Traditionally, Scottish middle-class speakers prefer [t], and they tend to avoid [ʔ] (Wells 1982: 409).

3. (ʍ) – The Wine-whine merger

   Stuart-Smith et al. (2007: 233) report that young Scottish speakers are merging [ʍ] with [w], and the objective of this variable is to see if the teenagers in Edinburgh merge as well. In contrast to English-English speakers, people in Scotland tend to pronounce words like *whale* [ʍeɪl] rather than [weɪl], and the variants of (ʍ) are thus the voiceless labio-velar fricative [ʍ] and the voiced labio-velar approximant [w].

4. (r) – R Dropping

   In contrast to the other consonant variables, the study of (r) looks at the phonotactic distribution of /r/, i.e. whether or not the speakers tend to be rhotic (pronounce non-prevocalic /r/) or non-rhotic (drop non-prevocalic /r/) when they speak, and this study looks at multiple non-prevocalic /r/ environments. Although Wells (1982: 407) defines Scottish English as a rhotic accent, R Dropping seems to be getting more common.

5. (e) – FACE diphthongization

   The vowel in the lexical set FACE varies considerably locally, regionally and across different English accents over the world. In England, monophthongization typically occurs in the North (Wells 1982: 364), while diphthongization is more common in the South. In SSE, the close-mid front monophthong [e] is considered to be the traditional variant (Stuart-Smith 2008: 55), in contrast to English-English diphthongization [eɪ].

6. (o) – GOAT diphthongization

   In SSE, the most typical variant in the lexical set GOAT is the close-mid back monophthong [o] (Stuart-Smith 2008: 55), and this variable is quite similar to the lexical set FACE. The main goal in the study of this feature along with (e) is to see if there are any instances of non-local English-English diphthongization represented by [oʊ], or if traditional monophthongization is still most frequent among the speakers.

1.4 The language situation in Scotland

Although the term 'Scottish English' is problematic with regards to the many varieties found in Scotland, in particular two accents – Scottish Standard English and Scots – are usually included in the definition (Stuart-Smith 2008: 48). SSE is a variety of Standard English that is spoken with a Scottish accent, and reflects characteristic Scottish features that are common with middle-class speakers particularly, who typically live in southern parts of Scotland close to the border, e.g. Edinburgh. Along with other English varieties, SSE is not a homogenous accent, and Kamińska (1995: 13) clarifies that there are several local varieties. In addition, SSE has 'certain systematic differences […] from the Standard Southern English system' (ibid: 13). Therefore, SSE has a unique set of vowel phonemes, which implies that it can be contrasted systemically to most English accents in that there is e.g. no close-mid back /ʊ/ for *foot* (Wells 1982: 77). Instead, SSE speakers tend to use the close central /ʉ/ exclusively for words like *foot* /fʉt/ and *boot* /bʉt/, so that the latter words rhyme (Stuart-Smith 2008: 54f).

Generally, Scottish English can be described as a 'bipolar linguistic continuum, with broad Scots at one end and Scottish Standard English at the other' (Stuart-Smith 2008: 48). However, as Stuart-Smith remarks, accurate definitions of the two main Scottish varieties are hard to come by, and there has been a great deal of debate on the use of proper descriptions and terminology. Generally, however, SSE is associated with the middle classes and Scots

with the working classes. In certain social contexts, people may switch between these varieties, and SSE is more likely to occur in formal contexts and with educated people (Aitken 1984: 94), while Scots is more widely used informally at home or with people whom the speakers of Scottish English are more acquainted with. Stuart-Smith (2008: 48) also points out that in urban areas, it is more common to switch between dialects and styles, and this typically happens in larger cities like Edinburgh and Glasgow. Thus, Urban Scots might occur with some speakers in metropolitan areas, even with people who typically speak the more 'educated' variety of SSE. Scots influence on SSE has to be taken into account, and Scots has also been registered across national borders. In Northern Ireland for example, Ulster Scots features might occur with people who speak with a Mid-Ulster English accent, typically in urban places like Belfast (Corrigan 2010: 17). In some cases, the two Scottish varieties – SSE and Scots – are quite alike, and the lexical sets of FACE and GOAT usually behave in a similar manner with both varieties, and (e) and (o) are monophthongal (Stuart-Smith 2008: 55). It is also important to note that Scottish Gaelic also resides as an important Celtic native language in Scotland, but will not, however, get the same focus as the other two Scottish varieties in the thesis. Typical SSE features and linguistic theories like Aitken's law are described later on in the study. Whether or not the Edinburgh subjects keep traditional SSE features or are moving toward typical English-English pronunciation remains to be seen. The next sections contain presentations of the local EdinE variety and the influential LdnE accent.

1.5 Edinburgh English

As the capital and financial center of Scotland, Edinburgh is a fairly large city with about half a million inhabitants. Therefore, Edinburgh might function as an important linguistic center in addition to being a source of influence for the rest of the region, although the more populated and industrious city of Glasgow still has a strong presence in Scotland. EdinE is an obvious variety to examine, particularly because previous studies have focused on phonological research in other major Scottish cities like Aberdeen (e.g. Brato 2007) and Glasgow (e.g. Stuart-Smith et al. 2007). In particular, Stuart-Smith et al.'s study is relevant here, because it focuses on accent variation and change with adolescence speech in Glasgow and the influence of Cockney English. In connection to the latter, this thesis might shed some light on the position of Edinburgh youths' pronunciation, and if middle-class speakers in the capital show the same tendencies as Glaswegian working-class adolescents. In addition, there has been some recent research on EdinE, e.g. Schützler (2010), who looks at the consonant variables

(ʍ) and (r), and he observes that there is some levelling towards British English speech going on. In contrast to Schützler's study, this thesis includes more variables, in order to establish a broader picture of which of the variables that are affected by anglicization in EdinE speech.

Traditionally, EdinE shares many features with SSE, and just like the standard variety, EdinE users tend to be firmly rhotic as well, and Chirrey (1999: 228) acknowledges that speakers of this particular accent pronounce /r/ in all contexts. In addition, she argues that younger speakers prefer the variant [w] rather than traditional Scottish [ʍ] in <wh> words like *which* (ibid: 226). However, whether the latter is seen with the informants in this study remains to be seen. As for the other variables, EdinE speech generally correspond with Wells' descriptions of SSE, which include traditional [θ] for (θ) and monophthongs for (e) and (o).

As is evident later in the present study, the Edinburgh subjects are predominantly middle-class speakers, with the late-adolescents coming from a local high school and the University of Edinburgh, which are both situated in the city center. In addition, Chirrey (1999: 224) states that 'Edinburgh can be described in general as more middle-class than Glasgow, and […] more oriented towards standard varieties than their Glasgow counterparts'. Although Stuart-Smith et al. (2007) examined variation and change with working-class teenagers, this thesis might shed some light on whether the reported changes are associated with social class, and if the middle-class speakers are conservative in their speech or not.

1.6 London English

London is a significant linguistic center in southeastern England. The city's working-class dialect is commonly known as Cockney English, and according to Wells (1982: 301), it is 'the most influential source of phonological innovation in England and perhaps in the whole English-speaking world'. LdnE and Cockney English are used interchangeably here, because 'Cockney is now used vaguely for speech of the London area' (Wright 1981: 12). Over the last decades, LdnE has been regarded as a somewhat prestigious variety in the regional British context. Therefore, if people from outside the capital adopt London features and modify their own speech to that of LdnE, they might get more recognition and certain prestige (ibid: 13).

Wells (1982: 323) claims that Cockney English features such as T Glottaling have spread geographically to other varieties of English because of the influence of LdnE. Another London characteristic is TH Fronting, which has also been reported in Scottish cities like Aberdeen (Brato 2007) and Glasgow (Stuart-Smith et al. 2007). All native Londoners typically have TH Fronting (Wells 1982: 328), and together with glottalization it is a central

diagnostic of Cockney English speakers. LdnE is a non-rhotic variety along with RP, and according to Wright (1981: 135), the pronunciation of non-prevocalic /r/ disappeared completely in the mid-16th century. Thus, word-final *–er* in words like *mother* is typically in the form of an unstressed mid central schwa /ə/, and non-prevocalic /r/ constructions are vocalized in LdnE. As for the vowels in FACE and GOAT, they are always diphthongized in London (Wells 1982: 304). A central objective in this thesis is therefore to see if the preceding LdnE features have spread to Edinburgh, and if there is any anglicization going on.

1.7 Structural notes

The following chapters present linguistic theories, studies and methods that are important to the investigation of accent variation and change. In chapter 2, previous studies are presented in 2.2, with traditional descriptions of Scottish English in addition to newer research on the three urban varieties in Aberdeen, Glasgow and Edinburgh. Chapter 3 includes descriptions of the variables as well as relevant variants that are examined in the present study, in addition to historical developments in the respective features. An account of data collection, data analysis and quantification methods is reserved for chapter 4. This way, the reader will know exactly how the data have been gathered and processed, so that others may test the validity of the results and follow the same steps of research. The data presentation in chapter 5 goes through the findings for each of the variables, and provides a general analysis of the material. Chapter 6 contains the main discussion of the data, which seeks to answer the research questions and test the hypotheses, and the discussion also compares the findings with previous phonological research. The main summary is reserved for chapter 7, which includes some final conclusions.

2: Linguistic theory and previous studies

2.1 Theoretical background

In 1966, William Labov's study of New York City speech introduced innovative linguistic methods for the study of language (Labov 1972: 183). Today, linguists commonly use methods like the sociolinguistic interview and other data collection techniques that are largely based on Labov's work from the 1960s and 1970s (Milroy & Gordon 2003: 2). Over the last half-century, sociolinguistics has evolved into several branches of study. *Variationist sociolinguistics* (see e.g. Tagliamonte 2012) is considered to be one of the main research areas of accent variation and change. The following chapter contains some of the most common theories behind the variationist approach, as well as a look at previous descriptions and studies, which function as the foundation for discussing the findings in the present thesis.

2.1.1 Accent variation and change

When sociolinguistics was first introduced back in the 1960s, traditional dialectology and structural linguistics were well-established research disciplines in both Europe and the United States (Milroy & Gordon 2003: 16). Since then, however, there has been a change towards more qualitative research that focuses on a range of social categories like age, gender and social class, and what patterns of speech the social aspect might add to observable data. After Labov's pioneer studies, which brought new innovative linguistic methods, there has been a movement from descriptive and traditional dialectology towards a variationist approach with more focus on empirical data, speaker performance and that variation occurs constantly (Milroy & Gordon 2003: 2f). Milroy (1992: 2) points out rightfully that 'the history of language is a continuous process: it is not a series of stills, but a moving picture', which indicates a divide in language research philosophy in that variation and change are naturally occurring phenomena. Therefore, from the 1960s, the search for patterns of variation and change with social aspects in mind has become the main approach in dialectal studies. The focus of variationist linguists today is often to create or use existing linguistic variables, and to examine the lines of variation synchronically and not merely diachronically, which typically was a goal for traditional dialectologists (Milroy & Gordon 2003: 12). In essence,

variationist linguists seek to find out e.g. which gender or age group is leading in change, how and why change occurs, and which social categories are most likely to be in the forefront of change (Milroy & Gordon 2003: 8). According to Holmes (1992: 211), 'language varies in three major ways which are interestingly inter-related – over time, in physical space and socially'. Therefore, language change occurs over time, and factors such as geographical and social variation of speech are contributing factors in how speech sounds are distributed within a community. In addition, variation itself is a forerunner for change to happen (Holmes 1992: 212), typically indicated by the presence of non-local variants. There is always a possibility for change to occur if new forms enter a particular variety and exist beside the local variants.

A central aspect of language variation and change, then, is to see how the system of language is changing, and how accents differ from each other (Tagliamonte 2012: 1ff). In the early 1980s, Wells (1982) identified a list of significant linguistic variables and methods in the study of variation within English varieties. Questions regarding how accents differ and which features are more common with particular accents are some of the main points in his work. According to Wells (1982: 73-80), accents differ primarily in four areas: phonetic realization, phonotactic distribution, phonemic systems and lexical distribution. The most traditional way varieties differ from each other is by realizational differences. Here, a linguistic variable, e.g. (t), can have several possible realizations, e.g. a fortis alveolar fricative [t], a glottal stop [ʔ] or an alveolar tapped [ɾ] in e.g. intervocalic environments of /t/ like *butter* and *city*. Another way accents differ is by phonotactic differences. Typically, this has to do with the fact that some accents are rhotic – /r/ occurs in all contexts – or non-rhotic – /r/ is deleted (vocalized) in non-prevocalic contexts. The remaining concepts – phonemic and lexical differences – include the ideas that some accents, e.g. SSE, have their own unique set of phonemes, and many accents use different vowels in the same lexical set – e.g. BATH is /bɑːθ/ in RP and /bæθ/ in General American (henceforth GenAm). These concepts are less relevant in the study of EdinE, since most of the features vary in either phonetic realization or phonotactic distribution. However, Wells' lexical sets and consonant variables are highly applicable here, and the variables in the present study are described in his books on English accents around the world (Wells 1982), which has been cited in numerous linguistic studies.

Typically, variationist sociolinguists study accent variation and change with regards to the synchronic state of a variety, in contrast to a historical study of an accent (Wells 1982: 72). The reasons why languages change are, however, complex and many, and *factors* behind change can be difficult to interpret, in addition to the notion that speakers may have various *motives* for implementing new forms. In some variables, e.g. the Wine-whine merger, change

happens as a product of an ongoing *merge*, in which two variants become identical, and this phenomenon may lead to change. Therefore, although words with <wh>, e.g. *what* and *which*, are traditionally pronounced with a fortis labio-velar fricative [ʍ] in SSE, recent studies indicate that it can also be merged with [w] to become a lenis approximant [w] (Stuart-Smith 2008: 63). However, the reason why this merger occurs may introduce various questions, such as *why* the merger occurs and *where* the new form originates from. One possibility is that the change occurs by *innovation*, e.g. a variety imports new forms that did not exist before, from e.g. London. Other factors such as *regularization* of an accent may occur through *simplification*, in order to make things generally easier to pronounce (Wells 1982: 102). A focus in this thesis is to look at *external influences* (ibid: 110), which might happen when an accent, e.g. EdinE, adopts features that are common in other accents, such as Cockney English. Moreover, *diffusion* and *levelling* are possible *mechanisms* behind change.

2.1.2 Diffusion and levelling

When certain linguistic variables expand beyond the borders of a large, populous city, and the same features start to thrive in nearby areas, the process of *geographical diffusion* is in motion (Kerswill 2003: 1). This mechanism involves the notion that speakers within e.g. London are in linguistic contact of some sort with people outside the city center, and for various reasons, characteristic London features spread out to speakers in other communities. A common pattern is that features first expand to neighboring cities and urban areas, and then later to rural spots in between the respective centers, and *diffusion* denotes the expansion of cultural elements from one area to another (Merriam-Webster[1]: URL). The concept is also dubbed *the wave theory* (Hudson 1980: 41) because of the assumption that some forms spread from significant centers to the surrounding areas in a wave-like manner. Kerswill (2003) looks specifically at consonantal variation and change as results of geographical diffusion. A significant aspect is how the spread of TH Fronting – i.e. the replacement of dental [θ] with labiodental [f] – has been reported not only locally within England, but also across other parts of Britain (Kerswill 2003: 11). TH Fronting, which is a typical LdnE feature from the mid-19th century, has expanded to Welsh cities like Cardiff in the west and to Scottish cities such as Glasgow in the north. In Scotland, TH Fronting was first registered in the 1980s, far away from its origins in southern England. According to Kerswill (2003: 11), the feature spread to Reading just outside of London in the 1950s, and then moved north to Norwich (1960s), Hull and Middlesbrough (1970s), and then finally to Durham, Newcastle and Glasgow (1980s).

In the present study, the process of geographical diffusion is therefore a significant concept in the discussion of variation and change in Edinburgh, because 'once [a] feature is adopted by a critical mass of people […] in more than one location within a region, it can spread to the remainder of the population by a process of both levelling and diffusion' (Kerswill 2003: 13). According to Hudson (1980: 41), geographical diffusion and the wave theory are well-established concepts in sociolinguistics, and are important factors of the variationist approach. In addition to the latter concepts, Kerswill (2003: 1) also discusses the phenomena of *levelling* and *accommodation* of speech. According to Milroy & Gordon (2003: 130), *dialect levelling* is 'the eradication of socially or locally marked variants […] in conditions of social or geographical mobility and resultant dialect contact'. As a result, a person from a rural area with a socially stigmatized accent might reduce or drop local features to sound more like someone from e.g. a neighboring city. Another example of this could be that someone moves into a metropolitan center and accommodates their accent to sound more like a native speaker. However, there are people who oppose levelling and more socially accepted dialects, in order to keep their local variants as *identity markers*, e.g. to sound like an Irish or a Scottish speaker in contrast to an English-English user of e.g. LdnE or RP (Milroy & Gordon 2003: 132). As is evident later, the adult speaker in the present study claims that the cities of Glasgow and Edinburgh are becoming more and more similar in terms of pronunciation. The notion that speakers seem to be eliminating speech differences might be an indication of regional Scottish dialect levelling and accommodation between urban centers.

2.1.3 Gender and supra-regionalism

A number of studies explore the connection between gender and constructions of supra-regional accents. As is apparent in research question 3 in 1.2, this study explores the notion that females favor non-local supra-regional variants, here represented by typical English-English speech. Several articles have observed a marked gender difference in the use of local vs. supra-local forms (Milroy et al. 1994; Watt 2002). In addition, Hickey (2003: 1) argues:

> For reasons best known to themselves, speakers often desire not to sound too local in their speech. […] They adopt some form […] which cuts them off from the moorings of their linguistic locality and allows them to float upwards on the social scale.

Here, Hickey looks at developments toward supra-regionalism in the Irish context, where in particular female respondents under 25 represent the *new* and *modern* version of southern

Irish English. A new form like backing of the vowel in BATH as [ɑː] (instead of traditional [aː]), which is typical of English-English, is thus seen as an attempt at supra-regionalism. In a Newcastle study by Watt (2002: 57), female respondents lead in the use of broader regional variants [eː] and [oː] in FACE and GOAT respectively. In addition, Milroy et al. (1994: 17) argue that women may lead in non-local speech, and in a Cardiff study, the females use [ʔ] more than the males. Although some scholars like Trudgill (1998: 27) note that 'male speakers [are] […] very favorably disposed towards non-standard speech forms', the present study seeks to explore whether females lead in supra-regionalism in EdinE by the use of non-local southern English variants. Social categories like gender are described further in ch. 4.

2.1.4 Studying change

There are several ways to study change in sociolinguistics, and *apparent time* and *real time* studies (see e.g. Boberg 2004) are two traditional approaches in the examination of variation and change within a respective variety. In apparent time research, the focus is to compare speech from various age groups at a single time – i.e. synchronically (see e.g. Greenberg 1966) – in order to see if there for instance are differences between younger and older generations (Holmes 1992: 226). Such studies might indicate whether or not certain data denote clear *age-graded* speech differences between generations, or a significant change across multiple age groups in a community of speakers. A general distributional pattern is that younger speakers use less traditional and *vernacular* forms than adults do. However, even if there is a clear distinction between e.g. adolescence and adult speech, some forms indicate patterns of age-grading and that non-local variants are dropped as the informants get older. In contrast, real time studies examine variation between speakers at different times – i.e. diachronically, and a researcher studies a community e.g. at different decades, in order to figure out if there are differences in speech between e.g. teenagers, parents and grandparents (Holmes 1992 228). By visiting a variety at various stages, it might be possible to see if the same tendencies are evident over a longer stretch of time, and more accurate statements can be drawn with regards to linguistic change. However, since it is more practical and less time-consuming to study a variety in apparent time as well as comparing descriptions of previous research, this thesis focuses on a *combination* of the latter two models. A third approach is thus to study variation and change in the light of empirical, contemporary data that can be compared to earlier descriptions. In addition, this study includes speech data from a middle-aged informant, who represents traditional speech in accordance to previous dialectal reports.

2.2 Previous studies

In the following, previous *descriptions* and *research* on the broader accent of SSE and the local variety of EdinE are presented, as well as accounts of the Aberdonian and Glaswegian accents. The idea is thus to get a comprehensive view of the main tendencies of language variation and change in the region, and what scholars have registered over the past decades.

2.2.1 Previous descriptions

Ever since Scotland became a part of Great Britain in the 18th century and later on part of the United Kingdom in the 19th century, the need to contrast Scottish values and identities to the rest of Britain has been present, also with reference to speech. According to Wells (1982: 393), in particular the linguistic tradition and the importance of a Scottish language have been central, and a strong national awareness has been present even until this day. Therefore, features like rhoticity and the pronunciation of [ʍ] in <wh> environments have remained relatively stable as characteristics of SSE. However, even though many people in Scotland have a distinctive Scottish accent, the written language has been Standard English for a long time. Thus, many view SSE as 'Standard English spoken with a Scottish accent' (Wells 1982: 395). Wells' descriptions of SSE indicate that the fortis dental fricative [θ] is most widely used with initial fortis <th> tokens (ibid: 410), that rhoticity is still dominating the variety (ibid: 407) and that FACE and GOAT are monophthongs in most cases (ibid: 399). Giegerich (1992: 73) argues that these vowels are 'invariably monophthongal', and it is therefore claimed that SSE remains rather conservative and unchanged, perhaps as a way, then, to contrast itself to English-English. A lot of the same descriptions are also seen in Aitken's (1984) work. His 'Scottish Vowel Length Rule' (SVLR) – Aitken's Law – has later been an important reference to how vowels typically behave in Scots and SSE (Aitken 1984: 94ff). According to Aitken, the lexical sets of FACE and GOAT have different realizations, particularly with reference to vowel quantity, in various phonological contexts. In Scottish varieties, vowels are not inherently long or short, and the SVLR explains that e.g. 'vowels are long in morpheme-final position, or in the environment of following /v, ð, z, r/' (Wells 1982: 400) and any other contexts are short. For the consonant variables, Aitken acknowledges the same observations as Wells, but that glottalization can occur with e.g. /t/ (Aitken 1984: 102).

Newer descriptions by Stuart-Smith (2008: 48) suggest that some Scottish English features actually do vary to some degree. For instance, the variable of (ʍ) seems to be [w] with most SSE speakers in Edinburgh, which is more of an English-English realization

(Stuart-Smith 2008: 63). However, as is evident in 2.2.2, the feature also involves a great deal of variation throughout Scotland, with some speakers preferring the local variant [ʍ] and others the non-local anglicized [w]. According to recent reports (Johnston 2007: 113; Stuart-Smith 2008: 64), rhoticity seems to be a relatively stable and established feature in SSE, and /r/ can be realized in various manners. In a 1997 study of middle-class respondents in Glasgow, 90% of the tokens are rhotic in postvocalic position (Stuart-Smith: 2008: 64). In addition, girls seem to vocalize – i.e. use r-less variants – more than boys in words such as *better* (unstressed) and *card* (stressed). Overall, however, after Romaine's (1978) study, the tendency has been towards more instances of non-rhoticity, although Wells (1982), Johnston (2007) and Stuart-Smith (2008) regard SSE as firmly rhotic. In the same 1997 study, Stuart-Smith also states that glottalization is a feature of working-class speakers for the most part, and that middle-class informants favor more traditional [t] with optional T Glottaling (Stuart-Smith 2008: 62f). The variable of fortis (th) seems to be relatively standard – i.e. [θ] – with SSE speakers, and shows more variation in other varieties like Scots (ibid: 63). As for the vowel variables FACE and GOAT, they are listed as monophthongs /e/ and /o/ by most scholars in their descriptions of the features. However, Macafee (1983: 35) registers that they might be 'down-gliding diphthongs when lengthened under stress, especially before /r, n, l/'. Therefore, accordingly, tokens may occur as slight diphthongs, which is not typical of SSE.

Figure 2.1: The three main urban centers in Scotland

2.2.2 Previous research

The next sections present recent studies from the Edinburgh area, as well as Glasgow and Aberdeen, in order to get an overview of developments on variation and change in Scotland. Figure 2.1 (previous page) depicts the main urban areas that are relevant to the present study.

2.2.2.1 Edinburgh

In the local context of Edinburgh, a study by Schützler (2010) looks at two characteristic Scottish features, (ʍ) and rhoticity. Here, Schützler examines the same phonological variables that are relevant in this thesis, e.g. the realization of (ʍ) and merger of [ʍ] and [w] to [w], and the occurrence or lack of /r/ in non-prevocalic contexts. The informants in the study represent speakers from 17 to 62 years old from a private school in Edinburgh as well as the University of Edinburgh (ibid: 6). Results from the interviews, which consist of a reading passage, wordlists and careful speech, show that the middle-class speakers retain the pronunciation of /r/ and that 'we are not looking at change in progress' (Schützler 2010: 17). In addition, it is claimed that Edinburgh speakers with R Dropping are, typically, in contact with speakers of Anglo-English varieties, e.g. through family relations in England. He also notes that the non-rhotic instances are products of age-grading rather than change, and that most of the non-rhotic examples are from younger speakers. As for the other variable (ʍ), only four of the 27 speakers use the variant [w] exclusively (ibid: 18). Here, the youngest informants are less likely to contrast the two variants, which means that they merge [ʍ] and [w] into [w] more than the older respondents do. Out of all the various lexemes that Schützler examines, *which* is the word that merges most frequently and is more likely to be realized as non-traditional [w]. Finally, he states that male speakers are more conservative when it comes to rhoticity, but are less likely to contrast the two variants in (ʍ). In addition, Schützler (2010: 18f) argues that levelling towards British English is most evident in <wh> words and the emergence of [w]. However, the fact that speakers are quite conservative with their retention of (r) makes rhoticity a *counter-variable* in the development towards non-local English-English variants.

Although research on vowel realizations in EdinE is rather limited, a different study by Schützler (2011: 1ff) looks at 'vowel spaces in Edinburgh middle-class speech', with informants from a private school in the city. The object of Schützler's study is to compare his own results with previous vowel descriptions by Giegerich (1992: 75). A *vowel space* refers to the individual set of vowel realizations that each speaker carries, and the differences in

vowel quality certain phonemes may have with various speakers. Therefore, e.g. /e/ and /o/ can be realized in different ways, typically either as traditional monophthongs on the one hand and full diphthongs on the other. However, Schützler (2011: 42) claims that some speakers have realizations in between these two qualities, i.e. there is *slight diphthongization*. The most significant result in the study is the fact that the variables (e) and (o) vary to a large extent in the degree of diphthongization that occurs with each respondent. Thus, according to Schützler (2011: 43), the variables are 'varying between tensely monophthongal and slightly diphthongized realizations, the latter especially when affected by direct language contact', and English-English influence seems to be the main reason for diphthongization to occur.

In a similar study to Schützler's 2010 investigation of EdinE, Lawson et al. (2008) examine rhoticity in Scottish English by the use of an ultrasound method. Here, the data from male adolescence speakers in Livingston just west of Edinburgh indicate that some of the informants have around 30% non-rhoticity at most (ibid: 106). Even though the results show less R Dropping in Livingston than in Glasgow (at most, 63% of the tokens are non-rhotic with adolescents in Stuart-Smith et al. 2007), it is evident that loss of /r/ indeed is happening to some extent also east of Glasgow in the direction of Edinburgh. An important claim in the article is that 'vernacular /r/-loss in Scottish English does not seem to be a result of Anglo-English influence' (Lawson et al. 2008: 108). Moreover, it is stated that non-rhoticity is a result of certain restrictive phonological environments such as unstressed syllables, and that the speakers have 'delayed tongue raising', i.e. the sounds are not entirely r-full (ibid: 109). Thus, it seems that R Dropping is most likely to occur when speakers are rushing in certain unstressed environments, and that non-rhoticity is not a product of Anglo-English levelling.

Another Livingston investigation by Robinson (2005) looks at the variables of fortis (th) and (ʍ). In the study, two age groups of high school adolescents and adults constitute the informants, and methods of data collection are wordlists and the sociolinguistic interview. Results from the survey indicate that in the case of (th), 'only 9 out of a total of 25 young informants showed no sign of fronting' (ibid: 189). Here, TH Fronting seems to be common with most speakers, and (th) appears as either fully fronted or somewhere between fronted, labiodental [f] and traditional, dental [θ]. Generally, girls in the study use more standard /θ/ than boys, and according to Robinson (2005: 181), boys are leading the change. Therefore, a significant result in the study indicates that secondary school boys favor TH Fronting in 60% of the wordlist tokens, with 18% in the same contexts for girls (ibid: 189). Robinson claims that reasons for the high numbers are unclear, and disregards the media as a core source of influence and change. Moreover, TH Fronting, Robinson argues, is a product of 'immature'

pronunciation and parental tolerance for the fronted variant [f] (Robinson 2005: 190). As for the variable of (ʍ), results show that speakers vary to some degree, with a few of the informants using [w] more than others (ibid: 187). In terms of gender, secondary school girls seem to be most conservative with no instances of [w], while the boys in the study tend to vary a lot between the respective variants. Thus, both variables show considerable variation, and Robinson (2005: 191) concludes that there seems to be a change going on in Livingston.

A study by Clark & Trousdale (2009) investigates TH Fronting with 54 speakers from Fife, slightly north of Edinburgh. Here, the focus is on token frequency, and a long-term participant observation functions as the main data collecting method. The researchers claim that certain words are more exposed to phonological change than others. For instance, place names and proper names with fortis (th) are more unlikely to undergo TH Fronting than other lexical words, and are able to resist change (ibid: 50). Another result of lexical frequency research is that words with initial (th) are expected to be dental [θ], while words with final (th) are more likely to be labiodental and fronted [f]. Therefore, Clark & Trousdale argue that TH Fronting is anticipated to occur in the environment of coda word-final position, and that similar contexts are more open to TH Fronting rather than [θ]. Overall, studies in and around Edinburgh indicate some variation, and LdnE features such as TH Fronting and non-rhoticity seem to be related to *age*, and non-local variants are mostly evident with younger speakers.

2.2.2.2 Glasgow

Over the last decades, the Glaswegian dialect has largely been the research domain of Stuart-Smith's linguistic studies. Several of her articles are based on a 1997 data collection, in which 32 teenage and adult speakers from working and middle-class communities were interviewed (Stuart-Smith 1999: 204). A characteristic of the Glasgow area is that 'glottaling of non-initial /t/ is strongly stigmatized yet [an] extremely common feature of Glaswegian' (ibid: 208). In addition, the data indicate TH Fronting, loss of postvocalic /r/ and a merger of [ʍ] and [w] with working-class children in the study. However, the 1997 findings show that the subjects are conservative when it comes to retaining monophthongization (Stuart-Smith 1999: 204).

A recent study on variation and change in Glasgow shows new findings that are in significant contrast to previous descriptions of Scottish English accents. Particularly, Stuart-Smith et al.'s (2007) research on the Glaswegian accent presents some noteworthy results, which differ to a large extent from previous accounts of SSE varieties. In the study, working-class adolescents tend to use features that are not traditional diagnostics of the Glasgow area,

such as TH Fronting and R Dropping (Stuart-Smith et al. 2007: 221ff). Therefore, within this social category of Glaswegian working-class youths, local characteristics appear to be disappearing, and consonant realizations resemble those found in London speech, particularly Cockney English. In contrast, it is argued that middle-class teenagers are keeping traditional Scottish features described in e.g. Wells (1982), like the standard dental fricative for (th) and full rhoticity for (r). Interestingly, middle-class speakers, who are more mobile and belong to more loose-knit communities, appear to be rather conservative, and working-class informants, who are less mobile and have more close-knit networks, seem to favor non-local variants.

The reasons why working-class adolescents in Glasgow choose typical London features are, however, unclear. One argument is that diffusion and accommodation are the primary causes for characteristics of southeastern England to thrive in e.g. Glasgow speech (Trudgill 1986: 53ff). However, exactly how these features have spread is still unclear. Stuart-Smith et al. (2007: 224) mention British television shows, and the possible influence these may have on Scottish youths. In a different study, Kerswill (2003) states that consonantal features such as TH Fronting spread across the UK through geographical diffusion, and that the spread moves from one dominant urban center to another. The fact that there is some form of linguistic contact between London and Scottish speakers is evident, and can be found in Stuart-Smith's data. For instance, in both the wordlist and conversation data, TH Fronting is seen in about 30% of the tokens with young working-class speakers (Stuart-Smith et al. 2007: 236). However, for the middle-class respondents in the study, [f] virtually does not occur at all, with over 90% of the tokens being pronounced as standard [θ]. Other significant results are seen in the variable of (t), as working-class informants use more glottal stops [ʔ] than middle-class speakers (ibid: 238). In addition, the young speakers in the study regardless of social class vary in the realization of /ʍ/ (ibid: 240), and R Dropping is more common with the younger working-class speakers (ibid: 241). Therefore, Stuart-Smith et al. (2007: 254f) conclude that working-class adolescents are the innovators of change in the Glaswegian accent and in the use of 'Jockney', and that the middle class is merely keeping traditional local SSE features. Moreover, it is also claimed that 'the evidence points to changes which are interpreted as local and Glaswegian', i.e. not necessarily a product of supra-regional dialect contact with London. However, even though it is unclear why these changes occur, the results nevertheless indicate that the respondents in Glasgow use typical LdnE features and non-local variants, and Glaswegian users seem to be the core innovators in the Scottish English context.

2.2.2.3 Aberdeen

In northeastern Scotland, many of the same patterns of variation are seen in the country's third largest city, Aberdeen. Results from a preliminary study done by Brato (2007: 1489) show that TH Fronting is on the increase north of Edinburgh. However, the teenager informants in the study vary to a large extent in the use of [f] for (th), and 'TH-fronting was found only infrequently and seems to be restricted to some speakers' (ibid: 1489). In addition, the study looks at the variable of (ʍ), which also varies with some informants. In essence, [w] seems to be more frequent than [ʍ] with the adolescents in the investigation, which is in sharp contrast to previous descriptions of SSE (Brato 2007: 1490). Brato argues that dialect contact is not the sole reason why teenagers in Aberdeen use less traditional variants and more non-local English-English realizations. Instead, Brato (ibid: 1492) claims that a mixture of creating a northeastern identity while adding new features seems to be a cause for change.

Lastly, a study by Marshall (2003) looks at the glottal stop in the town of Huntly in rural Aberdeenshire, northeastern Scotland, and the informants include speakers from multiple age groups. Traditionally, the glottal stop is not a typical feature in the northeast, and several scholars claim that T Glottaling originated in the southwest near Glasgow (Marshall 2003: 89). However, Marshall's results indicate that teenage informants are using [ʔ] more than previously acknowledged in Huntly, and that male speakers are leading the change (ibid: 105). In contrast, female speakers seem to be more conservative, and it is apparent that boys use more non-local variants like the glottal stop. A significant reason for the glottal variant to appear in this rural context seems to be that of *exocentric innovation*, i.e. new forms are introduced through contact (ibid: 90). In addition, Marshall (2003: 105) claims that the use of [ʔ] is a typical feature of city and popular youth cultures, which might appeal to teenagers. The data show that for the variable of (t), male speakers 14-17 use [ʔ] in 75% of the cases, while only a quarter of the tokens are realized with the more local [t] (ibid: 97). With the female speakers in the same age group, the scores are slightly lower, which might indicate that 'the youngest females resist [ʔ] longer as a non-standard [non-local] marker' (ibid: 106).

2.3 Summary

Recent research on variation and change in Scottish English show some interesting findings in comparison to previous descriptions of SSE. Overall, the tendencies move toward less traditional variants and more non-local English-English speech, but some features are also more resistant to change. An example of a seemingly changing variable is (ʍ), and in e.g.

Schützler's (2010) study the standard variant [ʍ] is on the decrease in favor of [w]. In addition, several studies (e.g. Robinson 2005; Brato 2007; Stuart-Smith et al. 2007) indicate that TH Fronting is getting increasingly popular, especially among teenagers belonging to the working class. Studies on rhoticity, however, show less variation. For example, most speakers in Lawson et al.'s (2008) study tend to be mostly rhotic, with some instances of R Dropping. As for the vowel variables, Schützler (2011) argues that the vowel spaces for (e) and (o) respectively are monophthongal for the most part, but that slight diphthongization might occur with some of the speakers. In the studies that cover T Glottaling, the glottal variant is relatively common, and [ʔ] appears even as far north as Huntly in rural Aberdeenshire.

Generally, in most of the studies, female respondents prefer the more prestigious Scottish variants, while male speakers use more non-local features. Geographically, the largest cities of Edinburgh in the east, Glasgow in the west and Aberdeen in the northeast show much of the same variation as presented above. Reasons for the changes, however, are unclear, and there seems to be a lot of controversy regarding what actually causes change to happen. On the one hand, some scholars (e.g. Schützler 2010) argue that diffusion and dialect levelling are the main reasons for new variants to emerge. On the other hand, however, some scholars (e.g. Robinson 2005) claim that e.g. immaturity, the media's influence, family relations in England, popular culture, and so on are important factors of change. In this thesis, however, the traditional arguments regarding geographical diffusion and dialect contact function as a starting point in the main discussion, as 'it is a well-established fact that linguistic innovations, and linguistic forms generally, are diffused geographically from one area to another' (Trudgill 1986: 39). The Edinburgh interviews in the present study, however, might uncover whether or not English popular culture and television shows like *EastEnders* are important influences for the teenagers, and if these can be linked to variation and change.

3: The variables

3.0 Introduction

The following chapter contains descriptions of the phonological variables, which have been chosen to shed light on accent variation and change in EdinE. As is evident from recent studies, these variables have been widely examined in sociolinguistic research on Scottish English varieties, and the features are therefore relevant in a broader discussion of a possible language change in Scottish English. The main focus is, as formerly stated, first and foremost to examine middle-class adolescence speech in Edinburgh, and to see if the teenagers keep traditional EdinE pronunciation or prefer non-local variants, and the following sections look at common realizations in each variable as well as an overview of historical developments.

3.1 TH Fronting

TH Fronting represents the process in which fortis and lenis dental fricatives /θ/ and /ð/ become fronted – i.e. they are replaced by labiodentals [f] and [v] respectively (Wells 1982: 328). In practice, TH Fronting can occur in multiple initial, medial and word-final environments such as fortis *think* /fɪŋk/, *anything* /enifɪŋ/ and *north* /nɔːrf/, which are all replaced by [f]. Moreover, when lenis words are fronted they are typically replaced by [v] in contexts like *that* /væt/, *mother* /mʌvər/ and *smooth* /smuːv/. However, in recent studies on local Scottish varieties (e.g. Brato 2007; Stuart-Smith et al. 2007; Clark & Trousdale 2009), scholars focus mainly on the replacement of traditional fortis /θ/ with [f], and lenis fronting is typically not included. In addition, Clark & Trousdale (2009: 33) define TH Fronting 'only with reference to the voiceless variants', which seems to be the norm in most studies of (th).

In a historical context, Kerswill (2003: 11) suggests that TH Fronting was relatively established in London around the mid-19th century, and that the feature had already existed there for some time. Even today, the feature is a common characteristic of Cockney English, and according to Wright (1981: 137), 'substitutes for *th* do occur far more often in London than elsewhere'. However, over the last decades TH Fronting has spread geographically from London to northern parts of Britain such as Newcastle and Glasgow, and in these parts the feature was first reported in the 1980s (Kerswill 2003: 11). As we have seen in recent studies,

TH Fronting now occurs sporadically in various locations in Scotland, and is mostly evident with Scottish English teenagers. In addition to the two main variants of the variable, there are also other possible realizations that might occur in the same environments. According to Macafee (1983: 32), lenition to [h] – e.g. *think* /hɪŋk/ – has been reported in places like Glasgow, and is a common realization in localized speech. Stuart-Smith (2008: 63) links the pronunciation of [h] to Urban Scots speakers, and the variant has been observed with 'older speakers and [with] younger speakers whose phonology follows […] Scots' in Edinburgh (Chirrey 1999: 227f). TH Stopping can also occur in similar environments like *think* /tɪŋk/, which has for instance been registered in London speech (Wells 1982: 329). However, in the present investigation of TH Fronting, the two main variants are traditional [θ] and non-local [f]. Important to note here is that the first variant [θ] also includes other local realizations such as [h] and [t], while non-local [f] is primarily represented by the fortis labiodental fricative [f].

3.2 T Glottaling

Another characteristic consonant feature of Cockney English is T Glottaling. The replacement of /t/ with a glottal stop [ʔ] was first noted by linguists in the late 1800s, but whether the feature existed in earlier centuries of LdnE speech is unclear (Wright 1981: 136). According to Wells (1982: 323), the spread of the glottal stop to other parts of Britain has to do with 'the influence of London English, where it is indeed very common'. Because the feature is found in many distinctive urban dialects today, T Glottaling is constantly spreading to other places such as Glasgow, where it is a salient characteristic of the Glaswegian accent. Stuart-Smith (2008: 62) also argues that the feature seems to be spreading to other Scottish varieties. However, 'London is the city in which it is most deeply entrenched' (Wright 1981: 136).

Environments of T Glottaling are many, and Wells (1982: 260) lists the full spectrum of possible contexts in which the replacement of /t/ with [ʔ] might occur. Arguably, the most salient environments are intervocalic and syllable-final /t/ in words like *city* /sɪʔi/ and *butter* /bʌʔər/. In addition, there are numerous possible variants of /t/, and the most common glottal realizations are full glottalization [ʔ] (glottal replacement) and pre-glottalization [ʔt] (glottal reinforcement). Other variants are the alveolar tap [ɾ] intervocalically, and zero [Ø] in various contexts, but the main focus here regards the distinction between traditional, EdinE [t] and non-local [ʔ]. The first variant – [t] – includes several locally acknowledged realizations such as [t], [ʔt], [ɾ] and [Ø], while non-local [ʔ] only represents instances of full glottalization [ʔ].

Extra-linguistic variables like gender and social class can often indicate who is leading in the usage of T Glottaling in a speech community. In sociolinguistic research, glottalization has been considered to be a typical gender marker in that male speakers are more likely to produce glottal stops than females (Wells 1982: 325). According to Wells (1982: 409), '[ʔ] is commoner with lower-social-class […] and with men, but [t] is commoner with higher social class […] and with women'. However, Milroy et al. (1994: 26f) claim that women have been reported to favor glottalization in some communities as leaders of change. Consequently, gender may take priority over social class when it comes to linguistic innovation in (t). Moreover, Milroy et al. (1994: 27) state that glottal stops can be products of change from above, as it was registered with middle-class speakers in a Cardiff study. Still, scholars like Wells (1982: 409) regard the glottal stop as a chiefly working-class phenomenon, and that an introduction of T Glottaling in a community is a change from below. Because the feature is a predominantly lower social class characteristic, public opinions toward glottalization are typically mixed, and many view the glottal stop as *modern* and 'incorrect articulation' (Wells 1982: 409). In addition, Milroy et al. (1994: 4) argue that T Glottaling is 'one of the […] most heavily stigmatised features of [British English] pronunciation', and some regard it as 'careless speech'. Feelings toward T Glottaling are varied, but its presence in Britain is clear.

3.3 The Wine-whine merger

The Wine-whine merger represents the replacement of the fortis labio-velar fricative [ʍ] with a lenis labio-velar approximant [w] in words with orthographic <wh>, e.g. *what*, *where* and *which*. Although Wells (1982: 228ff) describes this process as a Glide Cluster Reduction, the Wine-whine merger is more explicitly linked to variation within the labio-velars [w] and [ʍ] respectively. In GenAm and RP, <wh> is generally pronounced [w], e.g. *which* /wɪtʃ/. Some speakers, however, tend to use [ʍ] as a 'conscious decision' (Wells 1982: 229), i.e. the latter realization is primarily used when maximum awareness is given to speech. Additionally, it is argued that 'women seem to be more open to persuasion towards /ʍ/ than men' (ibid: 229). According to Wells (1982: 408), [ʍ] is a characteristic of Scottish English. However, as we have seen from previous studies, the overall development of this feature points towards a merger of the two variants, and non-local [w] is getting more frequent. In the present study, the variants are the traditional, SSE realization [ʍ], and the non-local, English-English [w].

There are a number of studies that include (ʍ) as a variable (e.g. Brato 2007; Schützler 2010). A typical aim is to examine whether speakers tend to contrast the two variants [ʍ] and [w], or if they merge the two sounds into non-local [w] – i.e. the distinction is lost. According to Minkova (2004: 35), this merger is typical of southern British English varieties, and has existed since the Old English period. In addition, Minkova argues that, traditionally, southern English speakers have favored merging in the past, but that certain educated people in the south unmerged the two variants during the 16th and 17th centuries. Other scholars, particularly Milroy (2004: 47) agree with Minkova, and Milroy notes that the distinction of the two sounds survived in northern parts of Britain like Scotland for a long time, but that the contrasts are now generally disappearing. However, Milroy (2004: 50) also claims that 'modern sociolinguistic research show that mergers proceed slowly and unambiguously'. Therefore, even though instances of traditional [ʍ] seem to be on the decrease to English-English [w] in studies on Scottish varieties, a merger takes time to develop within an accent.

3.4 R Dropping

The presence or lack of non-prevocalic /r/ functions as a diagnostic marker in contrasting different English varieties around the world. Some accents like GenAm and Scottish English are considered to be *rhotic* and *r-full* (/r/ is present in all contexts), while varieties like RP and LdnE are *non-rhotic* and *r-less* (loss of non-prevocalic /r/). Overall, (r) varies significantly in prestige between accents, and Foulkes & Docherty (2007: 65) state that 'rhoticity is socially prestigious in North America, Ireland and Scotland, [but] the reverse is true for England', where the more prestigious R Dropping is pressuring several traditionally rhotic varieties in areas such as Berkshire, Bolton and Exeter. In addition, some accents are *semi-rhotic* such as those spoken in East Anglia, and here the phonotactic distribution indicates that /r/ may be present in environments where non-rhotic varieties normally do not have /r/ (Wells 1982: 221). Accents are non-rhotic if /r/ is deleted in contexts e.g. where <r> is followed by a consonant, a pause or a word boundary (ibid: 218ff), but /r/ is nevertheless present in various initial and intervocalic contexts. Rhotic accents are recognizable as varieties that retain /r/ in all historic contexts. SSE is regarded as a firmly rhotic accent, and 'words like *barn* and *car* generally have some type of /r/: a tap or a trill appears at least intervocalically, and often in all positions' (Johnston 2007: 113), and realizational differences are common in Scottish English varieties. In the present study of (r), the two main variants are [r] (r-full) and [V] (r-less).

According to Labov (1972: 192), an accent may change from a non-rhotic to a rhotic classification and vice versa. For example, the English variety of New York City has traditionally been classified as variably non-rhotic. However, since World War II, the variety has moved from r-less towards rhoticity, which is considered to be more prestigious in GenAm overall. In Boston, which is also traditionally non-rhotic, Irwin & Nagy (2007: 144) report a similar movement. Here, the youngest speakers in the study favor rhoticity rather than traditional deletion of (r), while the older speakers are more conservative and non-rhotic. Also, post-graduates in the study favor GenAm presence of /r/ far more than the respondents with less education. Irwin & Nagy (2007: 144) argue that the post-graduates tend to be more rhotic because they have greater loose-knit contact with r-full speakers of other accents.

The latter study uses Feagin's (1990) four /r/ environments, which include various key lexical sets relevant to the study of (r). These environments may indicate to what degree an accent can be classified as either rhotic or non-rhotic (or somewhere in between). According to Feagin (1990: 132), some lexical sets are more open to change than others. For instance, environments with word-final unstressed /r/ – e.g. lettER – may indicate to what degree other words like *car* are rhotic/non-rhotic. Stressed contexts – e.g. NURSE – typically show more resistance towards alteration, and the various environments are explained further in 4.2.5.

3.5 FACE diphthongization

The first of two vowel variables in this study comprises the lexical set of FACE. In GenAm and RP, the vowel in FACE is typically realized as a front closing diphthong [eɪ], but monophthongization can occur in unstressed syllables, particularly with GenAm speakers (Wells 1982: 141). Cockney English and LdnE also favor closing diphthongs with various starting points such as front open [aɪ] and central open-mid [ʌɪ], and both sounds illustrate diphthong shifts (ibid: 308). However, in some varieties of English, the variable is commonly monophthongized as either short or long front close-mid /e/. Monophthongization is particularly common in northern varieties in England, although there is significant local variation. For instance, monophthongs are frequent in areas such as Humberside and Lancashire, while diphthongal variants are seen in Merseyside, Northumberland and Tyneside (Beal 2008: 133). According to Beal, some northern dialects still have the traditional monophthongal variants, which represent old-fashioned speech, as well as non-traditional diphthongs such as RP [eɪ], which are said to have spread from urban areas like Liverpool.

In addition, there are other accents in the British Isles that favor monophthongs in FACE, e.g. southern Irish English and SSE. The main realizational difference between these varieties has primarily to do with quantity and length of articulation. In southern Irish English, the FACE vowel tends to be longer /e:/ (Wells 1982: 419). According to Aitken's Law (ibid: 399), SSE speakers vary when it comes to quantity in the FACE vowel. Overall, the lexical set of FACE differs a lot in realization throughout the British Isles. The traditional vowel chart of SSE indicates that FACE words are monophthongs (Giegerich 1992: 75), and that any instance of diphthongization is typically due to English-English influence (Schützler 2011: 42). In this study, variants of (e) are monophthongized [e] and diphthongization, represented by [eɪ].

3.6 GOAT diphthongization

When it comes to diphthongization, GOAT words tend to behave in a similar manner as the preceding variable (e). This feature also varies substantially from accent to accent in terms of realization. In RP, the vowel in GOAT is typically pronounced as a diphthong /əʊ/ with a mid central starting point, while GenAm speakers favor the narrow closing diphthong /oʊ/ (Wells 1982: 146). In London, the variable is characteristically pronounced as a diphthong with an open-mid central starting point /ʌʊ/ (ibid: 304), while speakers of Scottish English generally tend to favor the close-mid back monophthong /o/ (Giegerich 1992: 75). According to Wells (1982: 146), this vowel feature varies to a large extent regionally in Britain, and appears in different monophthongal and diphthongal realizations. Identical to FACE, in northern parts of England as well as Ireland and Scotland, GOAT words tend to have a monophthongal quality. Although most northern accents have a monophthongal realization in GOAT, there is variation between places like Merseyside /ou/ and Tyneside /o:/ (Beal 2008: 133). In contrast, southern parts of England and Wales favor diphthongization. According to Giegerich (1992: 73), GOAT words in SSE are 'invariably monophthongal', and diphthongal inglides seem to be relatively rare (e.g. Schützler 2011: 42). The main variants in GOAT are the traditional monophthongized variant [o], and any noticeable diphthongization is represented by [oʊ].

4: Methods

4.1 Methods for data collection

In sociolinguistic research, the empirical data function as the core of studying variation and change in a community. Thus, appropriate data collection methods are important in order to get the right types of information necessary to answer various questions about the distribution of speech within a variety. The following chapter contains descriptions of the fieldwork and data analysis processes, as well as an account of linguistic methods and social categories.

4.1.1 Sampling and data collection

The method for choosing and finding informants in the study reflects Milroy & Gordon's (2003: 30) concept of *quota* and *judgment sampling*, which implies that the investigator in advance specifies which groups to examine in a speech community. The term is, however, not entirely unproblematic. A data collection based on quota/judgment sampling is not completely ideal, because the focus is typically on a specific group of speakers of a speech community, and such data do not represent a *random sample* of a population. In addition, an ideal investigation of a variety should include large numbers of informants from various parts of a society in order to get *representative data*. In practice, however, several factors such as time constraints and sample limits make these principles difficult to follow (Milroy & Gordon 2003: 24). Despite the disadvantages of the sampling method in question, a study by Reid (1978) on variation and change in EdinE is an example of a successful quota/judgment approach. Reid (1978: 158ff) identified in advance a sufficient sample size consisting of twelve teenagers from two socially contrasting schools in the city; one school was public while the other was a fee-paying private school. With careful planning, the researcher was able to do a variationist study in the city with data gathered from two different social groups.

Because the present project is chiefly influenced by Stuart Smith et al.'s (2007) Glasgow study, the *sample universe* was limited to teenagers primarily. Initially, the sample size was set to around ten speakers for the adolescents in addition to a small *control group* consisting of middle-aged informants divided equally by gender. Various high schools, which are located in both typical middle and working-class areas, were contacted by e-mail in order

to get clearance from the respective institutions. The preliminary goal was to visit each school and to carry out the interviews there, in addition to interviewing adult informants at various locations. However, the initial sampling aims were modified to some degree when the actual data collection started. For practical reasons, only middle-class informants were interviewed in the end, because it proved difficult to get in touch with working-class high schools. Thus, two educational establishments, which are primarily associated with the middle class, were visited. In the following sections, the interviewing processes are described in greater detail.

I collected the data in the Scottish capital – Edinburgh – early October 2012. Two educational institutions were visited, James Gillespie's High School, which is situated in the residential area of Marchmont, as well as the University of Edinburgh, which lies in the city center next to George's Square (see figure 4.1). James Gillespie's is a relatively large community high school with over 1000 pupils in the age group 11-18. The interview sessions at the school were carried out over two days, with five informants the first day and additional three subjects the following day. Before the interviews started, the principal teacher at James Gillespie's gave a brief introduction to the project and asked for volunteers to participate in the survey. The high school informants were between 15 and 17 years old, equally divided by gender. Each of the one-on-one interviews consisted of a *reading passage*, *sentences* and a *conversation*, which included general questions about e.g. leisure time activities. In addition, before the interviews, the interviewer explicitly stated that the subjects could withdraw from the sessions at any time, without the need to explain why. The interviews lasted about 20 minutes each, and the recordings were done in various quiet locations at the high school.

Finding suitable informants from the University of Edinburgh was a rather time consuming process and proved to be more intricate than anticipated. The main reason for this was that most of the students were either foreigners or originated from other parts of the British Isles, i.e. not from Scotland. Fortunately, university employees at the Department of Scandinavian Studies helped sending out e-mails to students addressing the nature of the project, and four speakers from the Edinburgh area volunteered as interview participants. The interview sessions were located in a quiet office room at David Hume Tower, which is the main building of the Faculty of Humanities. Due to the fact that some students had classes to attend, the interviews were relatively short and did not last more than 30 minutes each. In addition, a middle-aged hotel employee was asked to participate, in order to get an example of traditional EdinE. Because of time constraints and the fact that the study is mainly concerned with middle-class late-adolescence speech, it was decided that additional samples of adults or working-class teenagers were unnecessary, even though the initial goal was to do so. Thus,

previous descriptions of EdinE and SSE function as references for the traditional accent. In general, the data collection was a success, with twelve teenage subjects (equivalent to Reid's 1978 study). Figure 4.1 below depicts the interview locations in the city center of Edinburgh, and e.g. the Meadows, which is a common park and landmark, lies in between the institutions.

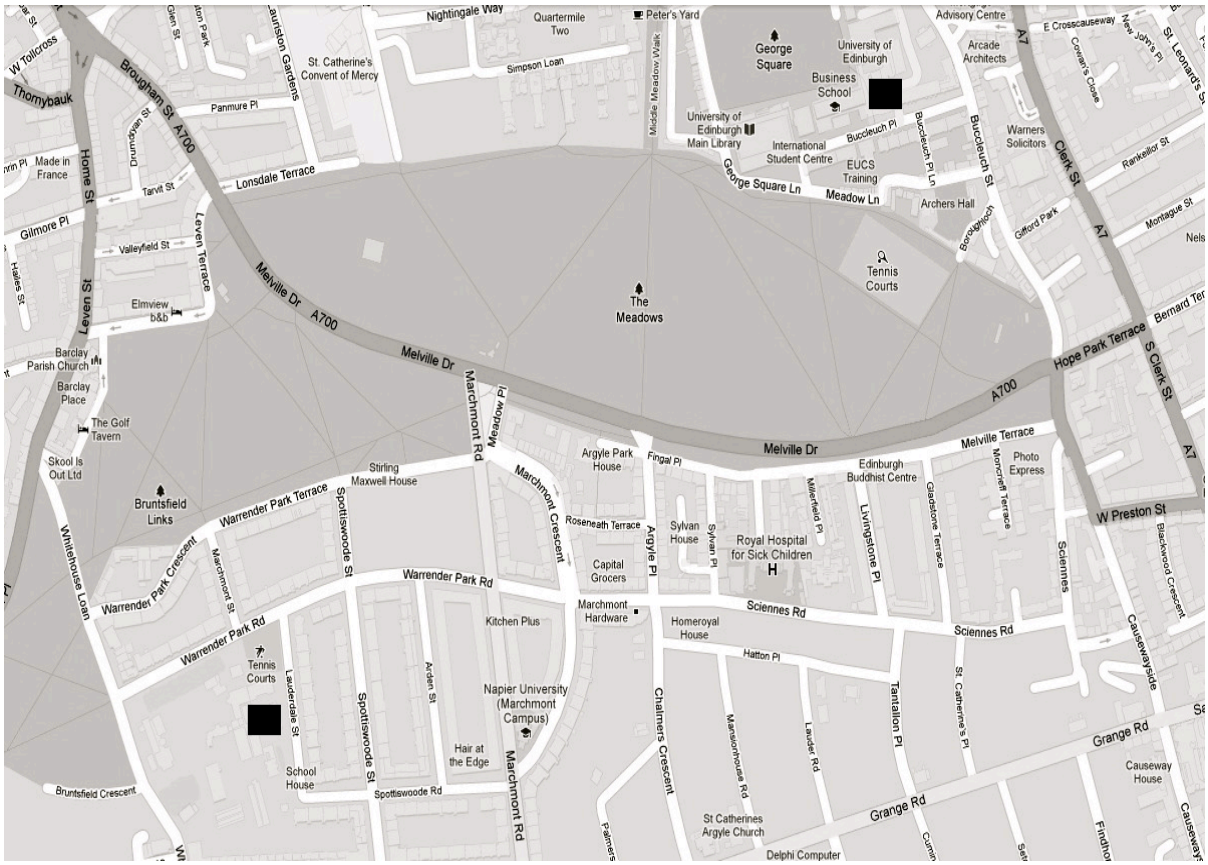

Figure 4.1: Map of James Gillespie's High School (left) and Univ. of Edinburgh (right)

In each of the interviews, an Olympus WS-811 stereo dictaphone recorded the dialogue, and the recorder was placed in between the interviewer and the subjects to ensure proper audio quality. Because the recorder has a built in USB connector, the data were easily stored on a computer as MP3-files (128 kbps) with a sampling frequency of 44100 Hz. The audio editor program Audacity (version 2.0.2) was used to separate the various elements of the recordings into three parts, which made the listening process more efficient. Later on, the sociolinguistic interviews were transcribed orthographically in order to identify the relevant tokens in text. The total corpus consists of approximately 32 000 words, excluding the reading passage (372 words), sentences (347 words) and non-relevant parts of the interviews, e.g. interruptions. In the following paragraphs, the various interview elements are explained in greater detail.

4.1.2 The reading passage

In the first section of the interview, informants were asked to read 'Comma gets a cure' by Honorof, McCullough & Somerville (2000). This particular text was constructed to include all keywords for the standard lexical sets (see Wells 1982: 127ff) in a fairly short passage of 372 words, and each sentence in the reading passage contains at least one relevant token from one of the variables in the present study. Because the text is compact and includes many lexical sets, it has been widely used in other research contexts as well because of its comparability. Most notably, the International Dialects of English Archive (URL) makes use of the text to represent various English accents around the world, and the passage is practical when comparing different varieties. A copy of 'Comma gets a cure' is found in appendix A.

In the beginning of the interviews, the respondents read the passage in front of the recorder. Generally, the subjects had little difficulties with interpreting the text. However, a couple of the youngest teenagers had some trouble with words such as *ether* and *sentimental*, which most likely has to do with the fact that these are rare in a typical teenager's vocabulary.

4.1.3 The sentences

During the second part of the interview, informants read a list of 34 sentences, which was constructed by the interviewer. Originally, the goal was to generate wordlists in which informants would have read relevant tokens word by word. However, complete sentences are more appropriate because of the addition of word boundaries, which expand the number and type of environments. Moreover, in e.g. the sentence 'do you think that whales can talk under water?' it is possible to look for multiple features like TH Fronting, non-prevocalic /r/, as well as the realization of (ʍ). An advantage here in contrast to wordlists is that a sentence may portray a more realistic speech instance than just reading single words. Overall, the speakers read the sentences without much difficulty and pauses, and there were only a couple of minor hesitations in the recordings. A list that contains the sentences is available in appendix A.

4.1.4 The sociolinguistic interview

After the subjects were finished reading both the passage and sentences, which are examples of careful (formal) speech, there was a longer segment of a sociolinguistic interview, which constitutes more casual (informal) speech. The sociolinguistic interview is a frequently used

method in sociolinguistic research, and is typically set in the context of a one-on-one interview (Milroy & Gordon 2003: 57). Before these sessions start, the interviewer has a list of prepared questions for so-called free conversation. However, because of the flexible conversational nature of the sociolinguistic interview and the fact that some informants – particularly adolescents – are less likely to give long responses, the interview setting is not entirely predictable. Therefore, in addition to prepared topics, it is important to be able to adapt as an interviewer and ask follow-up questions that were not necessarily planned in advance. According to Milroy & Gordon (2003: 59), Labov introduced certain conversational modules that researchers may follow in an interview session. Here, various topics (about e.g. family, school, work) are naturally connected, so that an interviewer may keep the discussions going. Therefore, in a conversation with a teenager, questions regarding school might be followed by topics about social networks and leisure time activities, and other related themes.

The length of a sociolinguistic interview varies, and 'useful phonological data can often be obtained in a relatively short time – perhaps as short as 20 to 30 minutes' (Milroy & Gordon 2003: 58), which is the timeframe of the interviews in this study. In the sessions, the first questions regarded demographical information about e.g. where the informants were born, what their parents do for a living and where they live now. The rest of the interviews consisted of prepared questions ranging from various social themes to questions about what the respondents' ideal jobs would be. Keeping the conversations going required some modifications, because a few of the adolescents came up with rather short answers. As the interviews progressed, the level of formality decreased substantially. However, *the observer's paradox*, which is explained in the following section, is always present in any data collection.

4.1.5 The observer's paradox

The initial objective in most sociolinguistic research is to record the *vernacular* and spontaneous speech of an informant in a given speech community (Tagliamonte 2012: 106). Labov (1972: 181) defines the vernacular as 'the style in which the minimum attention is given to the monitoring of speech', and according to Eckert (2000: 17), the vernacular is spoken in local communities. However, it is important to acknowledge the inevitable presence of the observer's paradox, which typically raises a subject's attention to speech substantially.

The observer's paradox represents the notion that 'we want to observe how people speak when they are not being observed' (Milroy & Gordon 2003: 49). The fact that informants talk to a stranger and that a microphone records the interviews typically increases

the degree of speech awareness. Therefore, since the observer's paradox is always present, a challenge for the interviewer is to reduce the level of formality in order to get casual speech that is close to a speaker's vernacular language. A way of getting more informal data is to talk about topics that might engage the interviewee. 'Danger of death' questions, which Labov introduced in the 1970s (Milroy & Gordon 2003: 65), proved to be an effective method in the interview sessions in Edinburgh. Here, the subjects were invited to talk about a time they got scared to death, which in virtually every case got the speakers more involved. In addition, political questions about Scottish independence and a possible referendum yielded a lot of data, and questions regarding childhood memories were also quite effective when interviewing the middle-aged informant. Thus, these types of questions were helpful in order to get more casual speech and to minimize the effects of the observer's paradox. Even though the interview context is rather formal, Tagliamonte (2012: 107) claims that it is important to 'display a relaxed demeanor' as an interviewer. This way, the obvious presence of the microphone, the interviewer's nametag and papers might be less daunting to the informants.

4.2 Methods for data analysis

In phonological studies, there are several means of analyzing speech data, and the most traditional method is *auditory analysis*. Moreover, there are several considerations to be made with regards to *token classification* and what contexts to include or not in an analysis. The following contains descriptions of analysis methods and relevant phonological environments.

4.2.1 Auditory analysis

Auditory analysis is regarded as the most widely used technique for monitoring phonological variation in sociolinguistic research (Milroy & Gordon 2003: 144). In contrast to more modern acoustic instrumental techniques that can analyze data through linguistic computer software, auditory analysis is performed by listening and re-listening to audio recordings by the investigator. This method is often named *impressionistic coding* because of the fact that it is the researcher's impressions that determine the outcome of the analysis itself, not e.g. a computer. Therefore, it is the researcher who decides what variant a token is most closely related to in realization, and where to draw the phonetic boundaries between variants. Typically, in an auditory analysis, variables have either discrete or more open-ended variants. *Discrete variants* are normally *binary*, and there is generally a choice between two

realizations, such as either traditional [θ] or non-local [f] for (θ). However, there may also be an open-ended selection of realizations – i.e. there is a possibility of more than two variants, which is regularly the case in the study of vowels (Milroy & Gordon 2003: 144). Vowels normally include multiple *open-ended variants* that are points in a *phonetic continuum*. The number of variants in a vowel variable depends on the phonetic distance between the two end points of the continuum. As is evident in table 4.2 (see section 4.2.7), most variants in this study are discrete and relatively uncomplicated to differentiate, except for the vowels.

The auditory analysis of the data was carried out over several months. It was necessary to listen and re-listen to the recordings numerous times in order to establish which of the two variants that were realized in each of the tokens. Firstly, the data from the sociolinguistic interviews were transcribed *orthographically*, which in itself was a time-consuming process. Fragments of the transcriptions are available in appendix B. Following the transcriptions, relevant tokens from each of the variables were identified in all three parts of each interview. Words from the interviews were initially highlighted as possible tokens, and dropped if they were inaudible due to e.g. speech tempo. After the token classification, the actual auditory analysis commenced, and most tokens were coded as binary – i.e. either variant A (the traditional variant) or variant B (the non-local variant). The analysis method consisted of merely counting each instance of a variant in the interviews, and proper around-ear headphones were used in the process. Some of the variables like (θ) and (t) had occurrences of other local realizations, e.g. TH Stopping and pre-glottalization, which are not uncommon in EdinE, and these are also taken into account in the final results as local variants [θ] and [t]. In several cases it was necessary to re-listen a couple of times because of unclear articulation. For example, some monophthongs of (e) and (o) respectively had traces of a second quality, and were between an inglide and a diphthong. However, as described in the classification of the vowel variables, unclear instances were typically coded as monophthongs because the diphthongization criteria were set high. In the analysis of the sociolinguistic interviews, the maximum amount of tokens for each variable was set to the first 30 analyzable occurrences, and this follows Milroy & Gordon's (2003: 164) methodology, e.g. that '*N*=30 is an important dividing line in statistics generally between large and small samples'. In addition, anything smaller than 10 tokens may include fluctuation in the findings. Because the other parts had fewer examples, the number of analyzable tokens varied. Overall, the auditory analysis process was unproblematic, which has a lot to do with the audio quality of the recordings. In addition, the supervisor for this project listened to four of the sociolinguistic interviews and

did a *cross analysis*. Overall, both analyses agreed to a large extent, and there were no significant discrepancies to be found. The following sections contain token classifications.

4.2.2 Token classification for (θ)

The study of fortis (θ) includes a vast array of possible environments, ranging from initial (e.g. *think*, *thought, thrive*), medial (e.g. *anything*, *ether*, *something*) to final (e.g. *bath*, *mouth*, *north*) positions, all of which are included in the analysis. The focus in the present analysis is on fortis (unvoiced) TH Fronting exclusively – i.e. /θ/ is replaced by [f]. It is worth noting that some seemingly fortis tokens, e.g. *with*, may be realized as e.g. lenis [ð] or [v] by some informants[3]. Closed word classes, such as prepositions, might be included in the analysis if the examples are relatively stressed and uttered within a reasonable timeframe. However, if a token is rushed and unclear in its realization, then naturally, it is not a valid example. In addition, the text 'Comma gets a cure' includes a generally difficult word – *ether*, which is realized with /θ/ in Standard English (Wells 2008: 283). Since most of the informants are in the age group 15-16, this particular word can be difficult to pronounce because of its rarity in everyday speech. In cases where the respondent is hesitant or unsure of how to pronounce it, the word has simply not been included as a valid token in the analysis. As previously mentioned, there are two main variants in the discussion of TH Fronting, traditional [θ] and non-local [f]. Other local realizations such as lenition [h] are included in the local variant [θ].

4.2.3 Token classification for (t)

In the study of T Glottaling, there are numerous possible environments of (t) that might be fully glottalized and replaced by a glottal stop [ʔ]. For practical reasons, it is therefore important to narrow the phonological contexts to one representative and salient environment of T Glottaling. According to Wells (1982: 260), glottalization can occur in a range of contexts, and the most traditional T Glottaling environments are syllable-final contexts – e.g. *bottle* – and between vowels – e.g. *city*. Due to the fact that these environments of /t/ are relatively common, tokens are thus limited to intervocalic /t/ – i.e. V_V contexts, where <t>

[3] According to Wells' LPD (2008: 904), English-English speakers generally favor the lenis variant [ð] in the pronunciation of *with* /wið/ (85%), and only 15% of the examples are fortis /wiθ/. However, *with* seems to vary significantly, and it is also stated that Scottish respondents preferred the fortis variant [θ] in 82% of the cases.

usually occurs between a stressed and an unstressed vowel, e.g. *city*, and words with syllable-final /r/ and /l/, e.g. *butter* and *bottle*, are also included here. Because intervocalic environments of (t) are relatively typical, potential tokens are further narrowed down to word-internal T Glottaling, and examples like *a lot of* are dropped. Just like (θ), in order for an example to be a suitable token, a general analysis rule is that an utterance has to be relatively stressed and analyzable, and not rushed by the speaker. In addition, only fully glottalized [ʔ] instances belong to the non-local variant B [ʔ]. Cases of [t], pre-glottalization [ʔt] and T Voicing [ɾ] are examples of the local variant A [t], and tokens are limited to lexical words.

4.2.4 Token classification for (ʍ)

Finding proper tokens for the study of fortis (ʍ) is relatively straightforward. In most cases, these examples are found in words that start with initial <wh>, e.g. *whale*, *when*, *where*, *which*, and so on. Therefore, tokens can belong to both closed and open word classes, and most examples are included as long as the interviewee produces an analyzable token. In addition, Wells (1982: 409) argues that [ʍ] might occur in other constructions as well. Typically, this can occur with words that start with the letter <w> such as e.g. *weasel*, which can be realized as [ʍ] as a variant of traditional /w/. However, in the present analysis, tokens are limited to orthographic <wh>. Moreover, Wells (ibid: 409) states that a number of speakers in Edinburgh have previously been reported to replace traditional /ʍ/ with [w].

Generally in the analysis, each instance of initial <wh> is regarded as a possible token, except words like *who*, *whom* and *whose*, which are irrelevant environments. Since there are only four instances of this feature in the reading passage and a restricted number of examples in the sentences, the interview function as the main source of information in the study of (ʍ).

4.2.5 Token classification for (r)

Studies on rhoticity in Scottish English varieties (e.g. Romaine 1978: 144; Stuart-Smith 2008: 64) typically operate with the term *postvocalic* /r/ – i.e. the environment of V+r. However, others (e.g. Schützler 2010: 5) use the term *non-prevocalic* /r/ – i.e. V+r+C, which is a more appropriate term when examining rhoticity in general. Non-prevocalic /r/ involves the presence or absence of /r/ in pre-consonantal, pre-pausal and word-final phonological contexts. According to a study by Feagin (1990: 133), there are typically four stages in a change from *r-less* to *r-full*. As mentioned, Feagin argues that the pronunciation of unstressed

/r/ tokens like *mother* may indicate to what extent other environments are rhotic/non-rhotic. For instance, if a speaker has /r/ in e.g. *mother*, then, it is likely that stressed environments such as *far*, *fur* and *first* are also rhotic. Feagin's hypothesis regarding a step-wise change was partly confirmed by Irwin & Nagy (2007: 141), who wanted to see if the same patterns of change could be seen in Boston. Their results indicate that the unstressed schwa environment is most resilient to change, while the lexical set NURSE had many instances of non-local [r].

Even though the present study looks at the opposite development – *R Dropping* – in EdinE, Feagin's (1990) four stages of change might be relevant here as well. In order to study the distribution of (r) with the adolescents in Edinburgh, multiple unstressed and stressed environments are included. LettER represents unstressed contexts, e.g. *mother*, which is realized as schwa in RP (Wells 2008: 521). In addition, stressed lexical sets like NEAR, NURSE and START are also included. These environments represent a single variable – R Dropping – in order to get a broad impression of the distribution of /r/ with the teenagers. Examples of relevant tokens are thus e.g. *bird*, *car*, *either*, *father*, *first*, *fur*, *lawyer*, *near*, *sure* and *work*. Because of the range of /r/ examples in the interview parts, closed word classes such as prepositions are not taken into account since these are typically unstressed. However, if verbs – e.g. *are*, *were*, *working* – are stressed in the material, they might be included. The variants in the study comprise traditional rhoticized [r] and non-local R Dropping represented by [V], which involves the elimination of (r), common in many English-English varieties. Although phonetic realizations are of less importance to R Dropping, these are listed in 6.1.1.

4.2.6 Token classification for (e)

The lexical set of FACE represents words that are realized with a front closing diphthong /eɪ/ in RP and General American, and with a front close-mid monophthong /e/ in SSE. Relevant orthographic environments for FACE are *a*, *a*C*e*, *ai*, *ay*, *ei*, *ey*, *aig*(*h*), *eig*(*h*) and *ea* (Wells 1982: 142). Examples of tokens are thus *eight*, *face*, *name*, *say*, *waiting*, i.e. where the vowel appears initially, medially and word-finally. Tokens may be either lexical or grammatical words as long as the interviewees pronounce the examples audibly. As mentioned, a focus in the study of FACE is to record any anglicization in the form of diphthongization. In the auditory analysis of the data, however, a token is only regarded as a diphthong if there is full diphthongization with a clearly audible second quality. Consequently, if there is merely a slight inglide in a FACE word, the token is regarded as an instance of monophthongization.

4.2.7 Token classification for (o)

The vowel in GOAT is quite similar in classification as (e). In fact, it is common to list them as one variable. However, /e/ and /o/ may show different patterns of variation, and are thus separated. (o) includes words that in RP use a diphthong /əʊ/ and in SSE a monophthong /o/. According to Wells (1982: 146), common spellings of this feature are *o*, *o*C*e*, *oa* in addition to *ow* and *o* before *l*. Possible tokens are words like *bowl*, *coat*, *go*, *home*, and *old*, and (o) may appear in initial, medial and final positions. However, smaller words like *no* and *so* are less likely to be included as tokens, because they are usually unstressed and pronounced faster than other examples. Just like the lexical set of FACE, GOAT tokens are only regarded as diphthongs as long as there is an audible second quality, and not merely a minor inglide. In sum, table 4.1 below indicates the various environments that are relevant with each variable:

Variables	**Variants**	**Environments**
(θ)	[θ][a], [f][b]	Word-initial, medial and final
(t)	[t][a], [ʔ][b]	Word-internal, 'V_V intervocalic /t/, before /l, r/
(ʍ)	[ʍ][a], [w][b]	Word-initial and medial
(r)	[r][a] (rhotic), [V][b] (non-rhotic)	Non-prevocalic /r/, V+r+C, pre-pausal
(e)	[e][a], [eɪ][b]	Word-initial, medial and final
(o)	[o][a], [oʊ][b]	Word-initial, medial and final

Table 4.1: Token classifications ([a] = traditional variant, [b] = non-local variant)

The classifications in table 4.1 give an overview of the main variants and phonological environments that are examined in the variables. It is important to note that the traditional variants [θ] and [t] also include other common realizations found in descriptions of EdinE.

4.3 Methods for data quantification

After the auditory analysis, the data were transferred from written notes to the spreadsheet application Microsoft Excel. Since the data already had numerical values after counting each instance of a variant, plotting the scores for each variable was fairly straightforward. In Excel, it is possible to make various diagrams for data presentation, which is explained next.

4.3.1 Data presentation methods

In sociolinguistic studies, there are numerous ways to illustrate phonological findings. In addition to pioneering data collection methods, Labov introduced several quantification techniques, which have been widely used by scholars ever since. A typical method is to calculate scores for each variable by giving the variants numerical values. Thus, it is possible to figure out the *index scores* for the various features (Hudson 1980: 161). For instance, if the traditional variant [ʍ] is given the score 1 and the non-local variant [w] is given the score 2, an average score for (ʍ) may be calculated. Therefore, if there are e.g. 12 instances of the first variant and 20 of the second variant, the index score formula is (12 x 1) + (20 x 2) divided by the number of variants (32) = 52/32 = 1.625. Here, the score is closer to 2, which is the number given to the non-local variant [w]. In addition, it is important to show consistency, and traditional variants should have the score 1 and non-local variants the score 2 in order for a fair comparison between variables. According to Hudson (1980: 161), index scores are advantageous if there are two realizations for each variable at most. In cases where there are more variants, the two most contrastive realizations should be used to calculate the scores.

The main focus of the data presentation is primarily to indicate *individual scores*, in order to see if there are any significant differences between speakers. Hudson (1980: 167) claims that 'information about the speech of individuals is […] lost if these are included in group averages'. Therefore, in order to get a fair data presentation that does not conceal variation within groups, individual scores are also included. Here, the data are depicted through percentage scores that show how often each variant of a variable is realized, and these scores are easily comparable with other data. In addition, however, *group scores* are also shown in order to depict differences in gender through both index and percentage scores.

The actual data presentation is visualized in various manners. Firstly, tables show data in overall percentage and *number scores* from all the interview parts, in order to get an overview of the general distributional patterns. Moreover, two figures indicate individual data scores from a) careful speech – i.e. the reading passage and sentences combined, and b) casual speech – i.e. the sociolinguistic interview. Lastly, group scores are depicted according to gender, and the data are shown in both index and percentage scores. Individual as well as group scores are indicated through bar charts, which are easily comparable and relatively uncomplicated to interpret. Bar charts were made with Excel, which converts the quantified data into diagrams. The quantitative presentations in this thesis remain simplistic, and the results are at percentage and index score level, so that the findings are easily understood.

4.4 Informants

The main informants are eight high school pupils and four university students, in addition to a middle-aged speaker, who represents traditional EdinE speech. Information regarding the data collection can be seen in 4.1.1. Table 4.2 below lists general demographics about the subjects.

Speaker nº	Age	Sex	Born	Address	Parents' occupations
1	17	F	Edinburgh	Newington	Guest house owners
2	16	F	Edinburgh	Polwarth	Car mechanic (fa)/pharmacist (mo)
3	17	F	Edinburgh	South Ed.	Unemployed (fa)/tax consultant (mo)
4	17	F	Edinburgh	Marchmont	Consultant (fa)/shop assistant (mo)
5	16	M	Edinburgh	Suburbs	Doorman (fa)/web designer (mo)
6	16	M	Edinburgh	Marchmont	Lecturer (fa)/council employee (mo)
7	16	M	Edinburgh	Stockbridge	Guest house owners
8	15	M	Edinburgh	Newington	Eye surgeon (fa)/housewife (mo)
Speaker nº	**Age**	**Sex**	**Born**	**Address**	**Parents' occupations**
9	17	F	Falkirk	Edinburgh	Banker (fa)/pre-school teacher (mo)
10	18	M	Fife	Edinburgh	Part-time councilor (fa)/unknown
11	18	F	Fife	Edinburgh	Engineer (fa)/unemployed (mo)
12	17	F	Livingston	Edinburgh	Consultant (fa)/teaching ass. (mo)
Speaker nº	**Age**	**Sex**	**Born**	**Address**	**Occupation/ spouse's occupation**
13	58	F	Edinburgh	Newington	Land lady/lecturer

Table 4.2: List of informants

In table 4.2, speakers 1-8 represent high school teenagers, speakers 9-12 are late-adolescence university students and speaker 13 stands for a middle-aged informant respectively. It is evident from the table that nearly all of the respondents were born in Edinburgh, with the exception of the university students. However, most of these students have lived in the area for some time, and they are originally from places that are close to Edinburgh like Livingston, which is about 25 km west of the capital city. In addition, there is a slight imbalance with the university respondents when it comes to gender, simply because few of the potential informants were from the Edinburgh area. Based on e.g. parents' occupations, the informants

can be said to belong to the same middle class. Although some of the parents are housewives or unemployed, the spouse typically has a high-end job, like an engineer or a surgeon.

In addition, before the interview sessions at the high school started, teachers claimed that the majority of the teenagers belong to the middle class, even though James Gillespie's is a state secondary school. Location-wise, most of the subjects live in Marchmont or Newington, which are middle-class residential areas close to the high school as well as the city. At the time of the recording sessions, all of the informants were residents of Edinburgh.

4.5 Social categories

The next sections contain descriptions of the *socio* aspect of this socio-phonological study. In the data presentation, *gender* is the main social variable. However, other categories such as *age* and *social class* are also included, since they are important concepts for the present study.

4.5.1 Age

In the study of English varieties, age is typically a characteristic marker of variation. Eckert (1997: 158ff) divides the social category of age into three life stages: *childhood*, *adolescence* and *adulthood*. The present project focuses first and foremost on adolescence speech, and according to Wells (1982: 24), teenagers are generally considered to be the main innovators of speech. Consequently, the young speakers of a community tend to represent the latest version of a respective variety. If a new feature is observed with young informants, it is typically an indication of a changing language, and 'change over time results overwhelmingly from innovations in the speech of children and adolescents' (Wells 1982: 24). After puberty, however, most speakers become more conservative, and few alter their speech much. In particular, Eckert (1997: 163) writes extensively about characteristics of teenagers' speech:

> Adolescents lead the entire age spectrum in sound change and in the general use of vernacular variables, and this lead is attributed to adolescents' engagement in constructing identities in opposition to – or at least independently of – their elders.

These points made by Eckert support the notion that teenagers – typically – are the linguistic innovators in a community, and that they have a need to contrast their speech to other age groups, e.g. middle-aged speakers. For example, in a West Midland study by Mathisen (1999: 110), the informants vary sharply in the use of [ʔ] for (t) according to age. A noteworthy

result here indicates a gradual decrease in frequency of non-local [ʔ] between the age groups with the teenagers leading the usage of T Glottaling (Mathisen 1999: 116). The young adults in the study use [ʔ] less frequently, while the elderly informants avoid the glottal stop. Thus, age is a characteristic extra-linguistic variable when studying accent variation and change.

4.5.2 Gender

In socio-phonological research, gender is a commonly used social category, because women and men tend to differ their speech in many different aspects. According to Holmes (1992: 164), 'it is claimed women are more linguistically polite than men […] and that women and men emphasize different speech functions'. More importantly, scholars, e.g. Holmes (1992: 172), state that women have a tendency to use more standard forms, simply because people expect them to be the 'guardians of society's values'. Contrastively, men use more vernacular forms because it is connected to 'masculinity and toughness' (ibid: 174f). However, as cited in Milroy & Gordon (2003: 101), Holmes claims that there is 'no satisfactory explanation […] [as to] why women should orient more readily than men to a prestige norm'. Alternatively, it is stated that women create prestige variants, and that these naturally become characterized as prestigious, and Tagliamonte (2012: 32) argues that 'women tend to avoid stigmatized forms'.

Although women are said to generate prestige variants, men typically assign *covert prestige* to non-standard, working-class features, which initially do not have the same status. Consequently, linguistic change may come from *below*, and Trudgill (1984: 65) explains that 'covert values lead to sex-differentiation of linguistic variables […] in urban societies'. In e.g. Trudgill's Norwich study, male speakers favor typical working-class speech, which is not a product of overt prestige. As Wells (1982: 20) points out, the 'roughness and toughness' of working-class speech seems to be more appealing for men than for women. However, Tagliamonte (2012: 34) comments that even though social norms and prestige are factors of variation and change, there are women who use stigmatized forms and men who favor more standardized language, and that certain generalizations must be avoided. In addition, a Tyneside study by Watt (2002) suggests that women introduce *supra-local* features such as monophthongs in the vowels of FACE and GOAT, which are typical realizations of the northern English accent. Here, women use the supra-local variants [eː] and [oː], while the male informants favor local variants [ɪə] and [ʊə] respectively (ibid: 47f). As mentioned, one of the thesis aims is to see if female respondents favor more non-local features than males, and research on language and gender might indicate who is leading change in a community.

4.5.3 Social class

Social class is another significant factor in phonological research. In sociolinguistics, there is traditionally a clear distinction between working and middle-class features, and Wells (1982: 13) claims that 'speech stratification correlates with social stratification'. However, it seems that this connection is more evident with English accents in the British Isles than in e.g. North America, because people in the U.S. may share the same realizations across social classes. Therefore, in e.g. London, there is typically a clearer contrast between working-class speech and that of someone from the middle class than is the case in e.g. the U.S. (ibid: 13). Social class is, however, not an unproblematic term in sociolinguistics. According to Milroy & Gordon (2003: 95), 'a satisfactory theoretical framework within which to interpret recurrent and robust correlations between language and class has not been clearly articulated'. Defining which social class a respondent belongs to in a community might cause difficulties for a linguist. However, based on demographic information – e.g. where an informant lives, what his or her occupation is, etc. – it is possible to identify a person's social class to some degree.

In a speech community, if there is a significant gap in pronunciation between social groups, there exists *sharp social stratification* (Tagliamonte 2012: 26f). However, if the distribution is more stepwise from a social group to another, there is *gradient stratification*. In a study on dialect levelling in Milton Keynes, Reading and Hull by Williams & Kerswill (1999), there is significant variation between working and middle-class teenagers. Generally, the results from three consonantal variables – (t) T Glottaling, (θ) and (ð) TH Fronting – indicate sharp social stratification. Non-local variants such as [ʔ], [f] and [v] are more common with working-class respondents, while traditional [t], [θ] and [ð] respectively are evident with the middle-class informants (William & Kerswill 1999: 160). These findings are similar to Stuart-Smith et al.'s (2007) study of Glasgow teenagers, where non-local features are leading in working-class speech. A focus in the present study is to see if the same features are entering middle-class EdinE speech, or if the speakers retain traditional SSE variants.

4.6 Summary

The focus in this chapter has been to give the reader a general impression of the main methodological approaches that are relevant to the present study. It is evident that the initial quota/judgment sampling goals were not entirely met with reference to the absence of working-class informants. However, it is still of interest to see if the middle-class adolescents in Edinburgh use non-local variants, which have been reported in studies of other Scottish

English varieties. The Edinburgh interviews were divided into careful speech segments, as well as a longer sociolinguistic interview, and the interview settings were relatively informal. Impressionistic coding was used as the main data analysis method, and although the token classifications cannot describe every possible environment, a general rule has been to only include audibly analyzable tokens and characteristic contexts. Figures and tables are presented through percentage, number and index scores in chapter 5, indicating individual variation and group totals. Finally, the most applicable extra-linguistic variable in the study is gender.

5: Data presentation

5.0 Introduction

This chapter presents data from the Edinburgh interviews, and a summary of the main patterns can be seen in section 5.8. The objective is to depict various findings through individual as well as group scores, and the figures and tables are briefly commented on – as the primary discussion of the data is reserved for chapter 6. In gender, index and total scores, data from the middle-aged subject – speaker 13 – are excluded. *Careful speech* refers to reading style – i.e. data from the reading passage and sentences, while *casual speech* denotes interview style – i.e. data from the sociolinguistic interviews. As mentioned, the aim of the present study is to investigate to what degree middle-class teenagers use non-local variants.

5.1 TH Fronting results

The primary focus in the study of TH Fronting is to see whether or not the adolescents tend to replace local /θ/ with [f] in various phonological environments, and the main variants are traditional [θ] and non-local [f]. In addition, other realizations like lenited [h] and stopped [t], which are common in several Scottish varieties, are also included in the local variant [θ].

Variants	N	%
[θ]	504	92
[f]	45	8
Total	549	100

Table 5.1.1: TH Fronting: total scores

Table 5.1.1 indicates overall scores from both careful and casual speech with the high school and university respondents combined. Instances of TH Fronting are generally rare with 45 of the tokens belonging to [f]. It is evident that the local realization [θ] is most frequent on the whole with over 90% of the tokens being [θ], which includes other local variants. However, these numbers do not indicate inter-speaker variation, the latter being presented below.

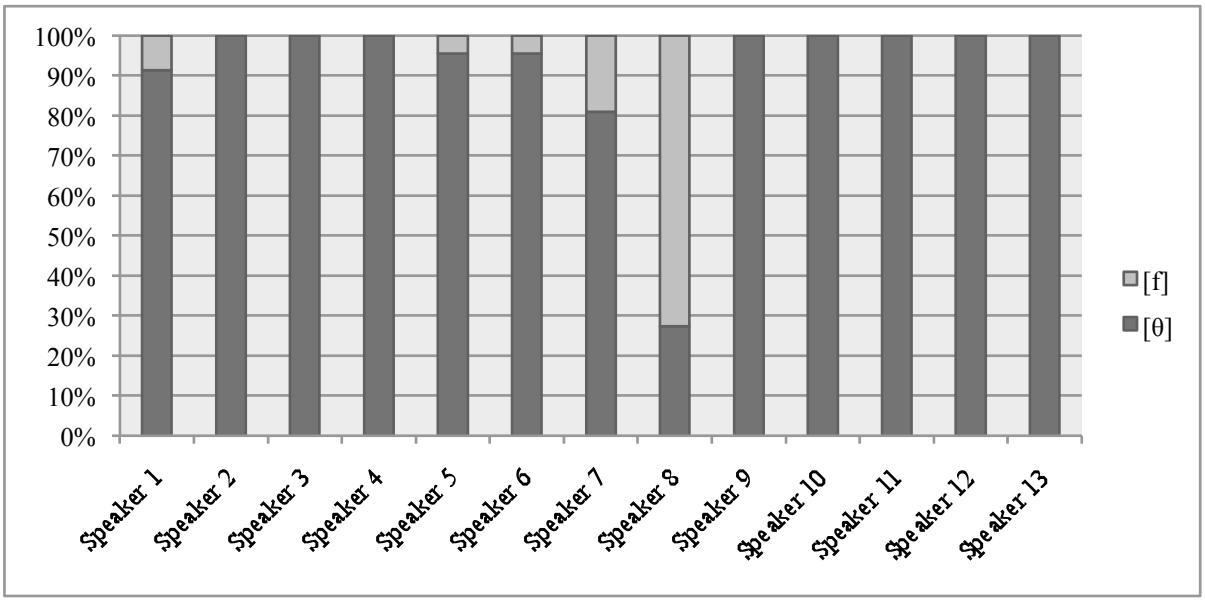

Figure 5.1.1: TH Fronting: individual percentage scores in careful speech

In figure 5.1.1, the percentage scores depict variation between speakers. It is evident that the university students (speakers 9-12) and the adult informant (speaker 13) are more traditional than the younger teenagers when it comes to the realization of (θ). The high school respondents are the only ones who have instances of TH Fronting. In this group, speakers 5-8, who represent the male informants, replace (θ) with [f] most frequently. Additionally, speaker 1 – a female high school respondent – has about 10% non-local realizations. Out of all the subjects, speakers 7 and 8 stand out with around 20% and 70% TH Fronting respectively. The great majority of the informants, however, did not produce any tokens with [f], and the dental fricative [θ] is favored in most cases. In addition, there were odd cases of e.g. alveolar [s] with some of the speakers. The formality of the reading style might be one reason why TH Fronting appears relatively rare here. Moreover, the environment that [f] occurs in varies, and the subjects typically have TH Fronting in certain restrictive contexts. For instance, speaker 8 tends to front in word-initial contexts, e.g. *thought* in the reading passage and *think* in the sentences, while speaker 7 uses [f] only word-medially and finally, e.g. *birthday* and *mouth*.

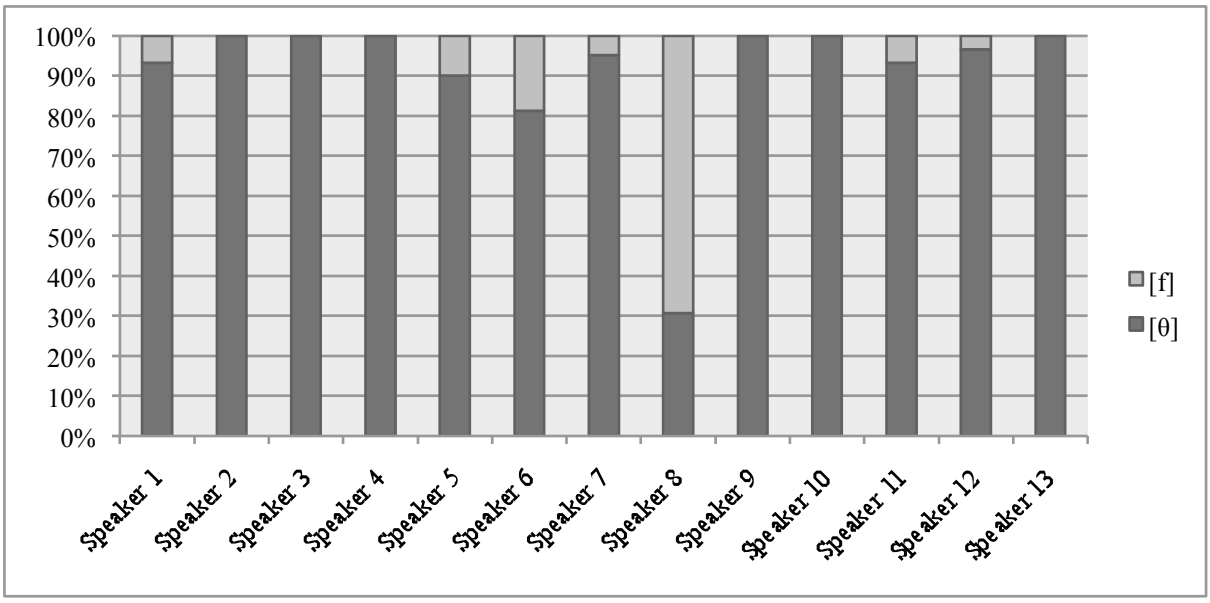

Figure 5.1.2: TH Fronting: individual percentage scores in casual speech

Figure 5.1.2 above indicates casual speech results from the sociolinguistic interviews. Although much of the same findings as in 5.1.1 are seen here, two of the university students – speakers 11 and 12 – had some instances of TH Fronting in casual style. Non-local [f] is again most apparent with the male high school informants, with speaker 8 being the most frequent user of TH Fronting in 70% of the cases. Out of twelve adolescents, seven speakers realized non-local [f] to various degrees, and it is clear that TH Fronting is present with the teenagers.

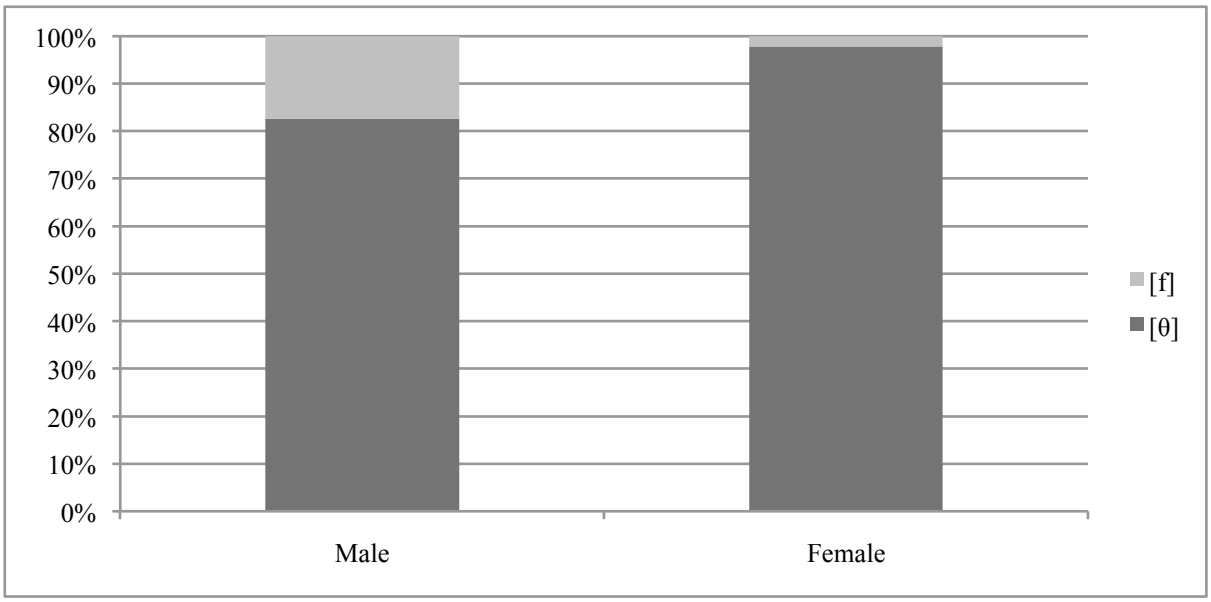

Figure 5.1.3: TH Fronting: group percentage scores according to gender

As illustrated in figure 5.1.3, there is a noteworthy contrast in the distribution of TH Fronting between genders. On the one hand, male informants replace (θ) with [f] in close to 20% of the cases, while on the other hand, the female speakers in the study are less likely to produce the non-local variant, which only occurs sporadically with some of the informants. Even though TH Fronting is apparent with the males, speaker 8 clearly stands out as the main user of [f].

Table 5.1.2 below indicates that the variant [θ] dominates with the adolescents, and both index scores are close to 1, which indicates a high frequency of the traditional realization. All in all, the data show that TH Fronting seems to be most frequent with the males. Although TH Fronting occurs rarely, it certainly exists with several of the teenagers.

Gender	Male	Female
Index	1,17	1,02

Table 5.1.2: TH Fronting: index scores according to gender

5.2 T Glottaling results

The present study of T Glottaling looks at the replacement of /t/ by [ʔ] intervocalically. Variants are traditional [t] and non-local [ʔ], and other local realizations are noted as [t].

Variants	N	%
[t]	322	63
[ʔ]	189	37
Total	511	100

Table 5.2.1: T Glottaling: total scores

The overall scores in table 5.2.1 show the realization of (t) with the twelve adolescents. In contrast to the (th) variable, the non-local variant is significantly present in teenage speech, with over a third of the tokens belonging to [ʔ]. Although data from other environments of T Glottaling are not included here, [ʔ] also occurred in e.g. word/syllable-final contexts to an even larger extent. Traditional [t] is generally most frequent with 63% of the overall tokens.

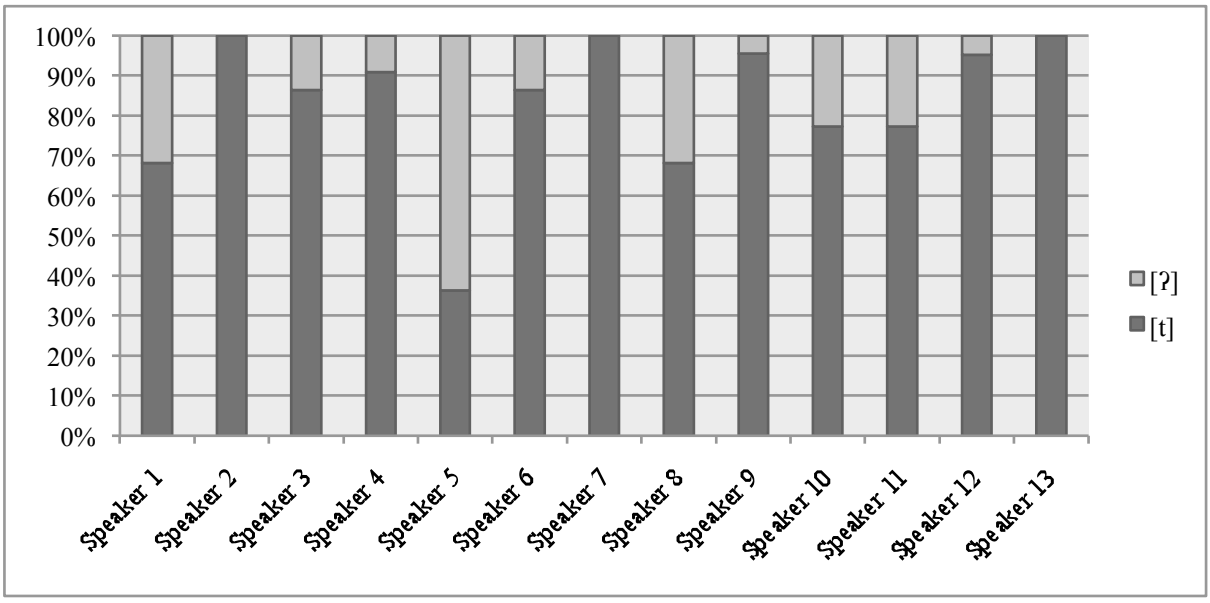

Figure 5.2.1: T Glottaling: individual percentage scores in careful speech

Figure 5.2.1 depicts the use of [t] and [ʔ] in careful speech between all the informants in the study. Interestingly, T Glottaling is seen with most teenagers except speakers 2 and 7, who were extra cautious and used significantly more time when reading the texts than the other participants; this was also the case with the middle-aged informant. The non-local variant is especially evident with speaker 5, who pronounced [ʔ] in over 60% of the cases. In the sentences, the latter informant pronounced [ʔ] in *butter*, *later*, *pity*, *pretty* and *water*. Speakers 1 and 8 – a female and a male informant respectively – used [ʔ] in over 30% of the tokens. Other realizations such as pre-glottalization and T Voicing also occurred in careful speech, and these were analyzed as [t]. Both the high school teenagers and the university students seem to use [ʔ] to some degree, although the inter-speaker realization of (t) varies notably.

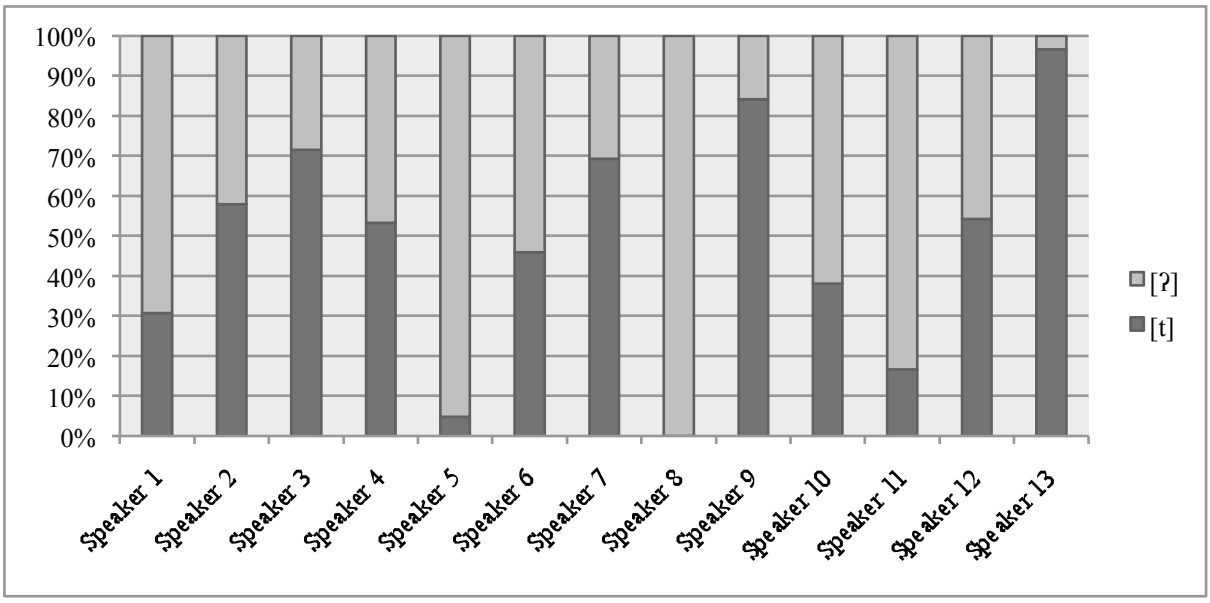

Figure 5.2.2: T Glottaling: individual percentage scores in casual speech

In contrast, it is evident that glottal replacement is far more frequent in the sociolinguistic interviews than in careful speech. As figure 5.2.2 indicates, all informants, including the middle-aged speaker, pronounced [ʔ] to various degrees. Most significantly, speaker 8 used T Glottaling in all tokens of word-internal intervocalic /t/, and speaker 5 preferred T Glottaling in over 90% of the cases. In addition, one of the older university students – speaker 11 – had close to 85% T Glottaling, and both the high school and university students pronounced [ʔ].

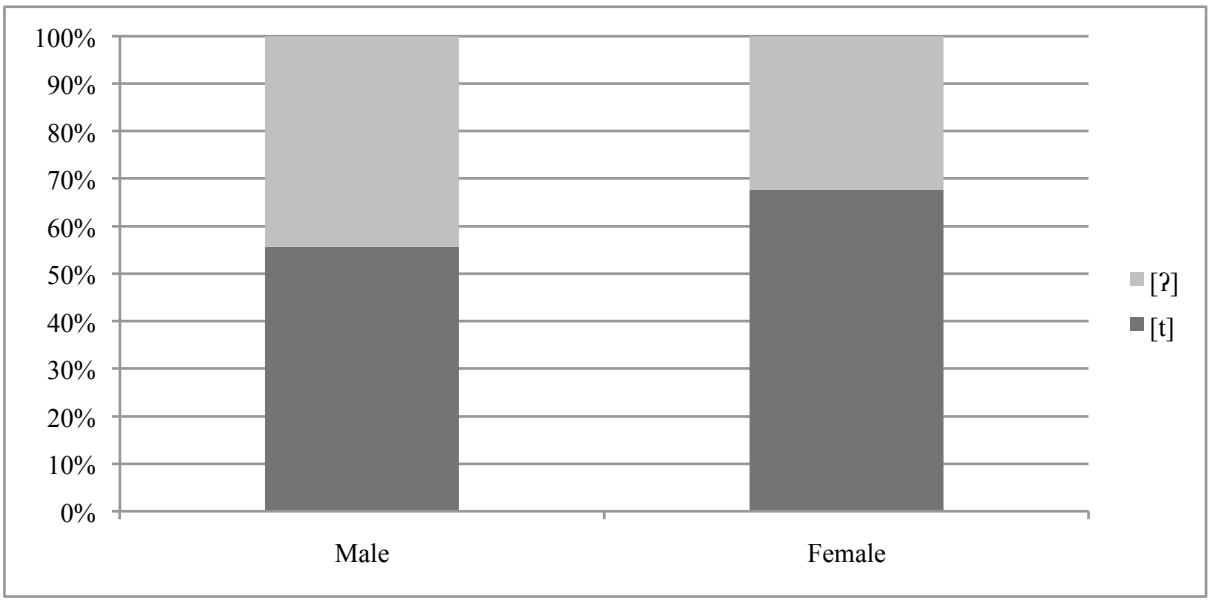

Figure 5.2.3: T Glottaling: group percentage scores according to gender

Figure 5.2.3 depicts gender differences in the realization of (t) among all the adolescents. It is evident from the figure that there is a slight distributional difference, as male informants tend to use [ʔ] in around 44% of the cases, while the female informants pronounce the non-local variant in about 32% of the tokens. Overall, instances of [ʔ] are fairly equally divided between the genders, and therefore, it is relatively unclear who is leading in the usage of T Glottaling. However, table 5.2.2 below indicates that the female speakers are closer to traditional [t] with the index score 1,32, while the males are somewhat nearer [ʔ] with 1,44.

Gender	Male	Female
Index	1,44	1,32

Table 5.2.2: T Glottaling: index scores according to gender

5.3 The Wine-whine merger results

The investigation of the Wine-whine merger looks at the realization of (ʍ) in words such as *when*, *where* and *which*, and the traditional variant is [ʍ], while the non-local variant is [w]. An objective here is to see if informants merge the two variants into English-English [w].

Variants	N	%
[ʍ]	40	11
[w]	318	89
Total	358	100

Table 5.3.1: The Wine-whine merger: total scores

Table 5.3.1 presents total scores of the realization of (ʍ) with the Edinburgh teenagers. At only 11%, the local variant is rather rare in all the interview parts with only 40 cases of traditional [ʍ]. Generally, [w] is favored by most informants and there are 318 occurrences of the non-local variant. In overall scores, this variable indicates a major break with what is considered a characteristic SSE feature, and the table signifies that a merger is taking place.

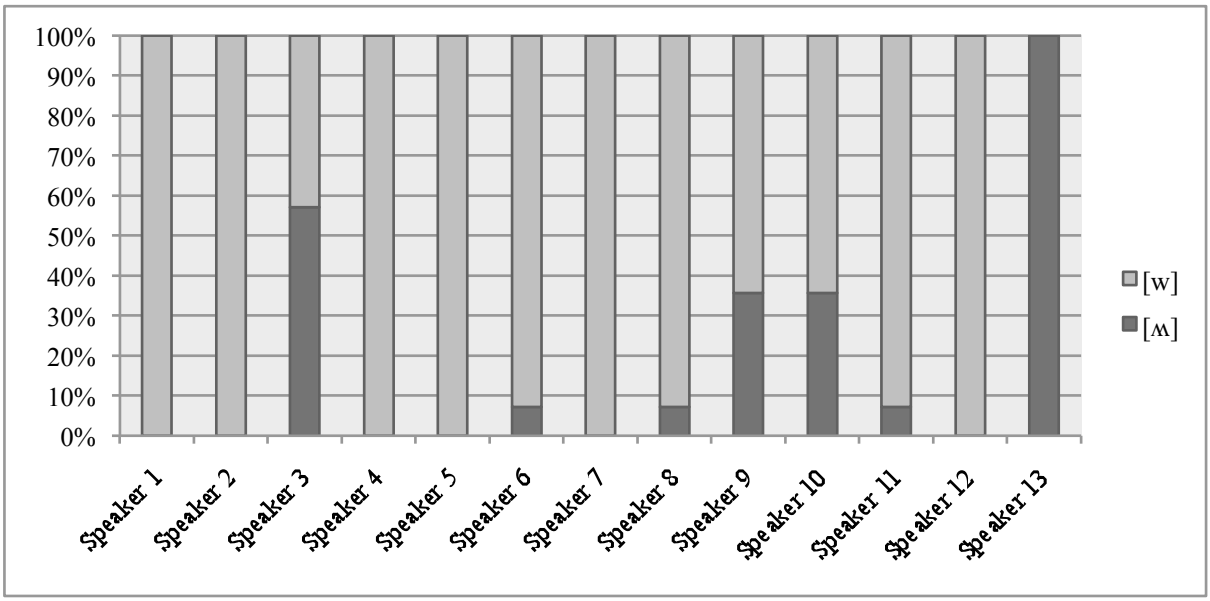

Figure 5.3.1: The Wine-whine merger: individual percentage scores in careful speech

Figure 5.3.1 above shows the careful speech scores from all the informants. Out of the twelve adolescents, it is evident that speaker 3, who is a female high school informant, varies a lot between traditional [ʍ] (close to 60%) and non-local [w], which is realized in about 40% of the tokens. Interestingly, in two similar interrogative sentences, this speaker alternated between the variants for the same token *when*. The other high school teenagers merged the two sounds into [w], with the exception of speakers 6 and 8 who had a couple of instances of [ʍ] in *wheels* and *when*. As for the university students, all the late-adolescents apart from speaker 12 used [ʍ] to some degree, and speakers 9 and 10 pronounced the traditional variant close to 40% of the time. In addition, the middle-aged informant used [ʍ] exclusively, perhaps because of the formality of reading style. However, considering the fact that this is careful speech in a formal setting, it is rather interesting that the teenagers used the English-English variant [w] most frequently, and many did not pronounce traditional [ʍ] at all.

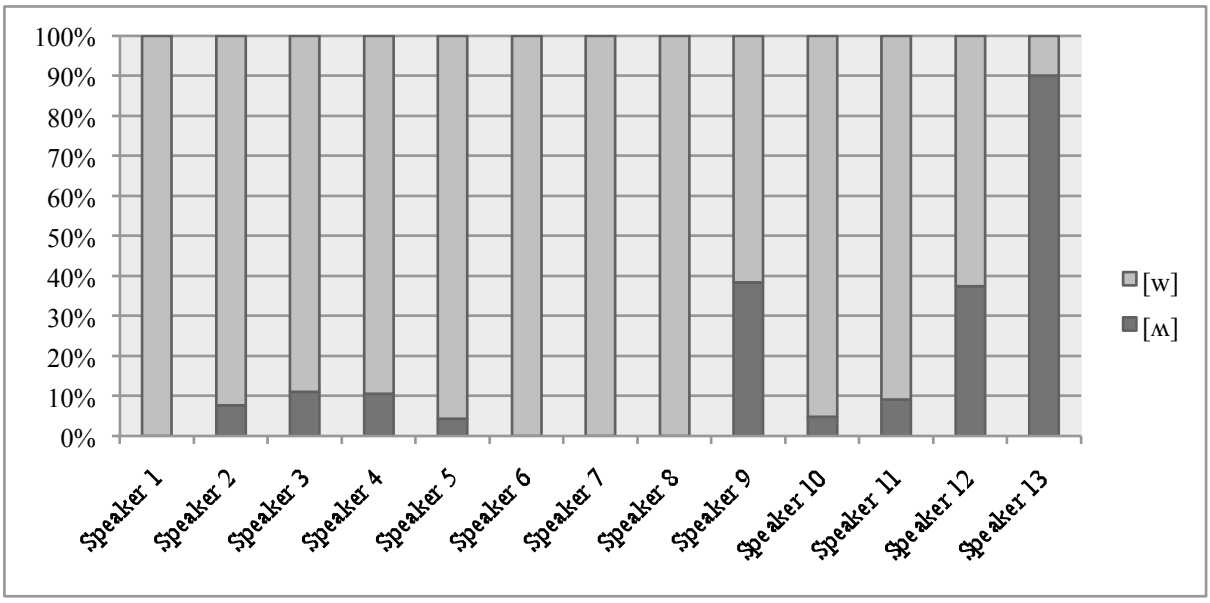

Figure 5.3.2: The Wine-whine merger: individual percentage scores in casual speech

In casual speech, the realization of (ʍ) is slightly different. As figure 5.3.2 indicates, speakers 9 and 13 are the only ones who maintain the realization of [ʍ] with a similar pattern as in figure 5.3.1. Four of the eight high school pupils pronounced the traditional Scottish English variant, although the numbers are low. Out of all the adolescents, the university students seem to be most consistent in the usage of [ʍ], while the younger high school pupils vary. Even if few speakers resist the merger, the older teenagers use [ʍ] more than the youngest subjects.

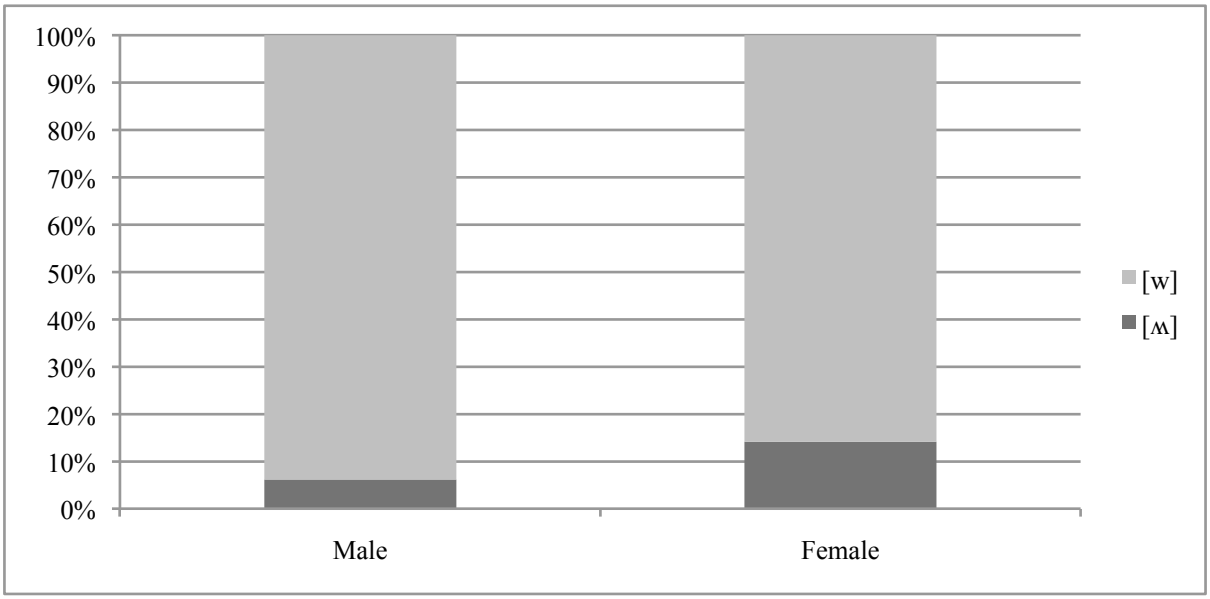

Figure 5.3.3: The Wine-whine merger: group percentage scores according to gender

Even though the frequency of traditional [ʍ] is low for all speakers, figure 5.3.3 depicts a minor difference in distribution between the genders. With close to 15% of local [ʍ], the female respondents have higher numbers of the characteristic Scottish variant, while the male informants seem to merge the two variants more with [ʍ] at 5%. As shown in table 5.3.2 below, two of twelve teenagers merge consistently, while the others use [ʍ] variably. Index scores indicate that the non-local variant, however, is by far the most common realization. Overall, index numbers are close to 2, which is the value for the English-English variant [w].

Gender	Male	Female
Index	1,93	1,85

Merge	Consistently	Variably
Adolescents	2	10

Table 5.3.2: The Wine-whine merger: gender index scores and number of mergers

5.4 R Dropping results

The study of rhoticity in EdinE seeks to look at the presence or absence of non-prevocalic /r/ with the adolescents, and variants are local [r] (rhotic) and non-local [V] (non-rhotic).

Variants	N	%
[r]	1006	93,5
[V]	69	6,5
Total	1075	100

Table 5.4.1: R Dropping: total scores

In the study of (r), the overall results in table 5.4.1 show a clear pattern: the adolescents are firmly rhotic. With about 6,5% of the tokens, R Dropping is relatively uncommon with the teenagers, and the speakers are rhotic 93,5% of the time. As is evident from the table, 1006 of the cases of non-prevocalic /r/ belong to [r], while only 69 of the total are non-rhotic. Thus, the results correspond closely with Wells' (1982: 407) claim that 'Scottish English is rhotic'.

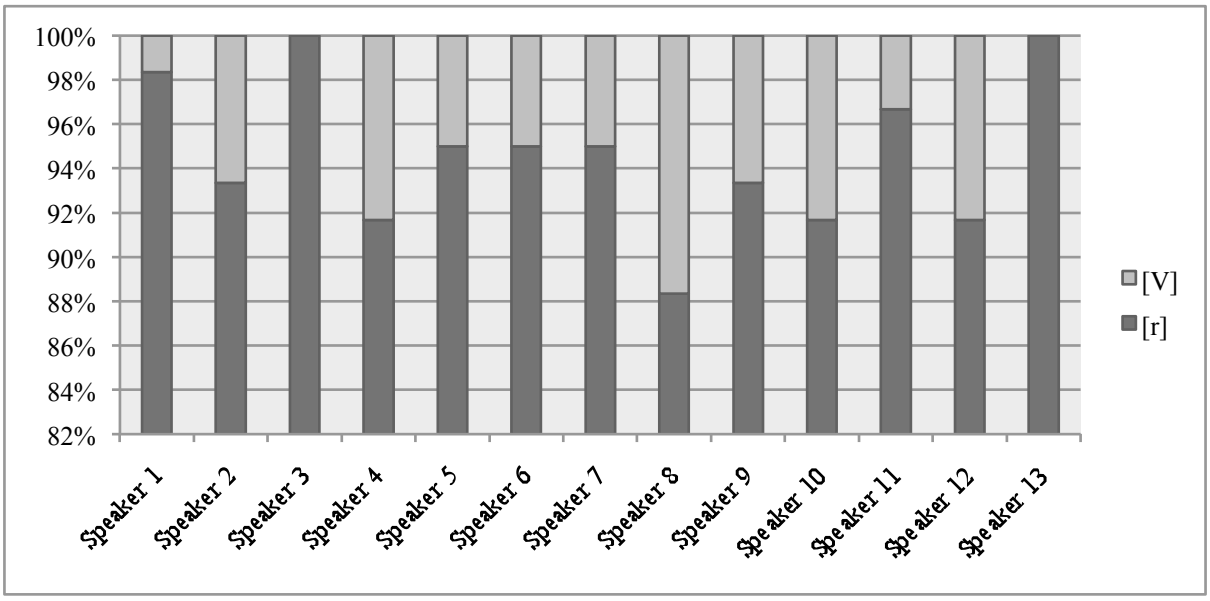

Figure 5.4.1: R Dropping: individual percentage scores in careful speech

Figure 5.4.1 shows the upper percentage scale of R Dropping in careful speech, and the reading passage and sentences combined yielded about 60 tokens per speaker. Two of the female high school informants – speakers 1 and 3 – are particularly conservative when it comes to the use of non-prevocalic /r/, and most tokens are rhotic. In contrast, speaker 8, who is a male informant, dropped /r/ in slightly over 10% of the cases. For instance, in the reading passage, speaker 8 dropped /r/ in the unstressed word-final /r/ environments *either*, *owner* and *tower* in addition to *cure*, which is stressed. However, the same speaker also pronounced /r/ in e.g. *letter* and *were*, which indicates inconsistency. In the sentences, unstressed constructions are more likely to undergo R Dropping, and e.g. speaker 2 dropped /r/ in *Roger loves his brand new car*. Here, the stressed token *car* is rhotic, while the unstressed environment *Roger* is non-rhotic. However, since most examples of R Dropping belong to the lexical set of LettER, it is likely that some non-rhotic instances were due to fast-paced reading, or because of certain word boundaries like *it's getting late and I better get home*. Speaker 2 dropped /r/ in *better get*, which is an environment where /r/ is lost possibly as a product of *elision*.

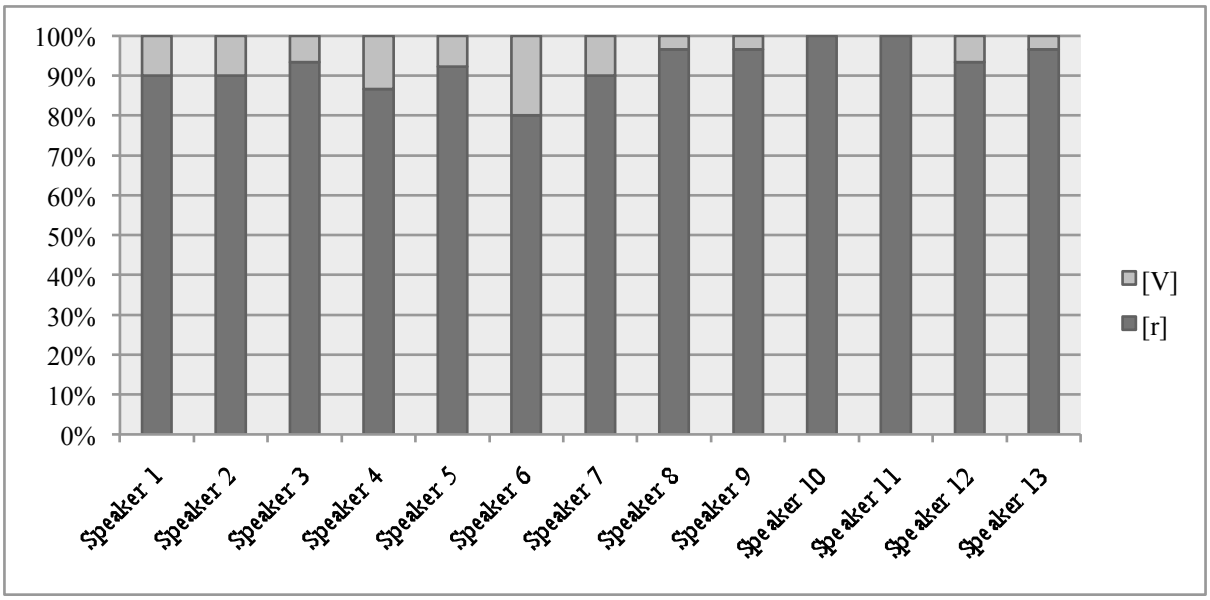

Figure 5.4.2: R Dropping: individual percentage scores in casual speech

Casual speech results of (r) in figure 5.4.2 show much of the same distribution. Generally, speakers tend to include [r] in 90% to 100% of the tokens. However, speaker 6, who is a male high school informant, had 20% R Dropping (6 out of 30 tokens) in the sociolinguistic interview. The informant dropped /r/ in environments like *shooter games* and *support ourselves*, which were all non-rhotic. These instances were most frequent in the last half of the interview with speaker 6, who gradually reduced his attention to speech. Interestingly, the university students were most traditional in casual speech, and they generally retained /r/.

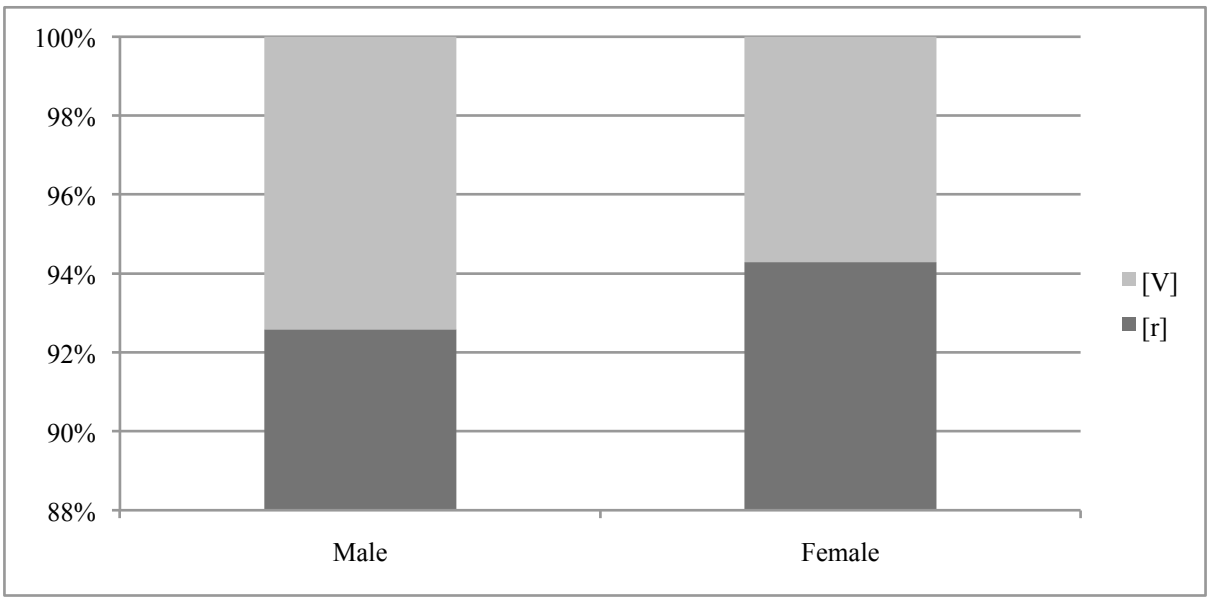

Figure 5.4.3: R Dropping: group percentage scores according to gender

Figure 5.4.3 depicts minor differences between the genders when it comes to R Dropping. Both male and female informants have [r] in over 90% of the non-prevocalic /r/ tokens. However, the females use the traditional variant about 2% more than the males throughout.

Gender	Male	Female
Index	1,07	1,05

Table 5.4.2: R Dropping: index scores according to gender

The index scores in table 5.4.2 indicate that the female informants are slightly closer to the traditional variant value of 1 than the males. However, the results for R Dropping show that rhoticity is strongly favored, and the index scores only have minor indications for [V].

5.5 FACE diphthongization results

The main objective in the study of FACE is to see if speakers tend to hold onto traditional monophthongal /e/ or if there is a movement in the direction of diphthongization, which is common in English-English varieties like LdnE and RP. Variants are local monophthongal [e] and non-local diphthongization, here represented by [eɪ] with an audible second quality.

Variants	N	%
[e]	573	84
[eɪ]	110	16
Total	683	100

Table 5.5.1: FACE: total scores

In table 5.5.1, it is evident that out of 683 tokens of (e), 110 are diphthongized by the adolescents in the study. Although the majority of tokens belong to the traditional monophthongized variant [e] with 573 occurrences and 84% of the total, 16% are nevertheless realized as full diphthongs. In addition, many tokens with minor inglides of a second quality were analyzed as [e], because of a rather strict token classification. However, it is apparent that diphthongization occurs fairly frequently, which points in the direction of anglicization.

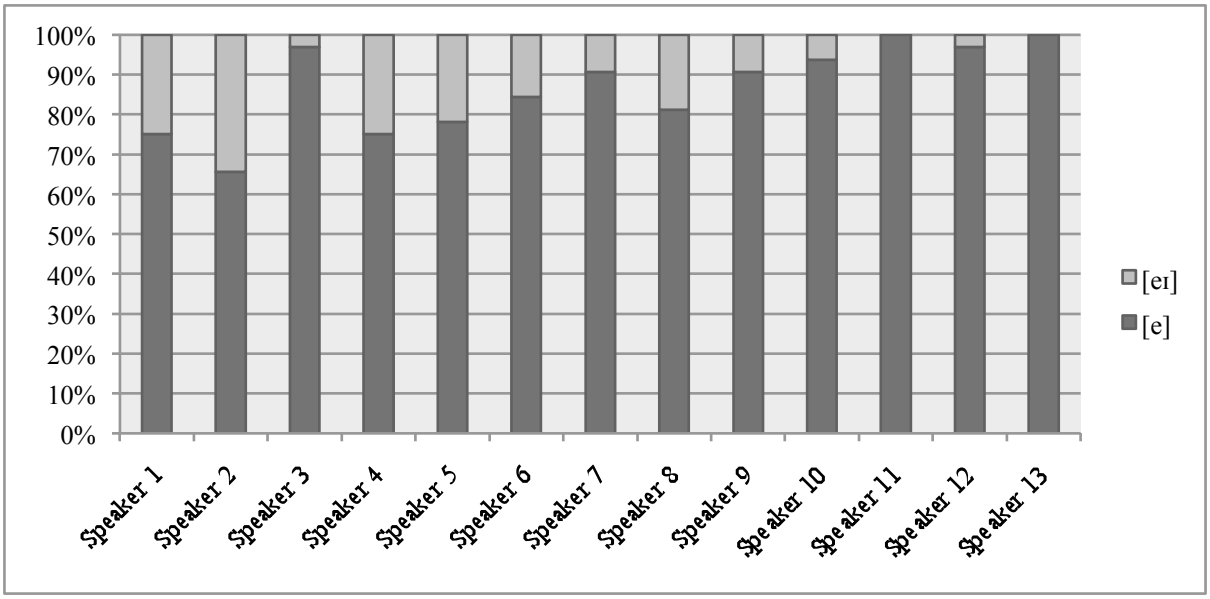

Figure 5.5.1: FACE: individual percentage scores in careful speech

Figure 5.5.1 above indicates the realization of FACE with all the subjects. The university students – speakers 9 to 12 – favored the traditional variant [e] in reading style. However, the high school speakers 1, 2 and 4, who are all female informants, used non-local diphthongized [eɪ] from 25% to 35% of the time. Examples of tokens with [eɪ] in the reading passage for the latter speakers are e.g. *bathe*, *daily*, *face*, *made* and *plain*, although speaker 1 alternates between the variants in *made*. In the sentences, these speakers diphthongize in e.g. *great*, *late*, *rain*, *space* and *way*. However, the same informants vary in realization of (e), and sometimes use a monophthong in the same tokens. As for the male high school informants, speaker 5 has slightly over 20% diphthongization while the rest are below that score. Speaker 11 and the middle-aged speaker 13 were most conservative in the realization of (e), and they pronounced traditional [e] exclusively in reading style. Overall in the casual data, the level of non-local diphthongization varies, with the high school students being the most apparent users of [eɪ].

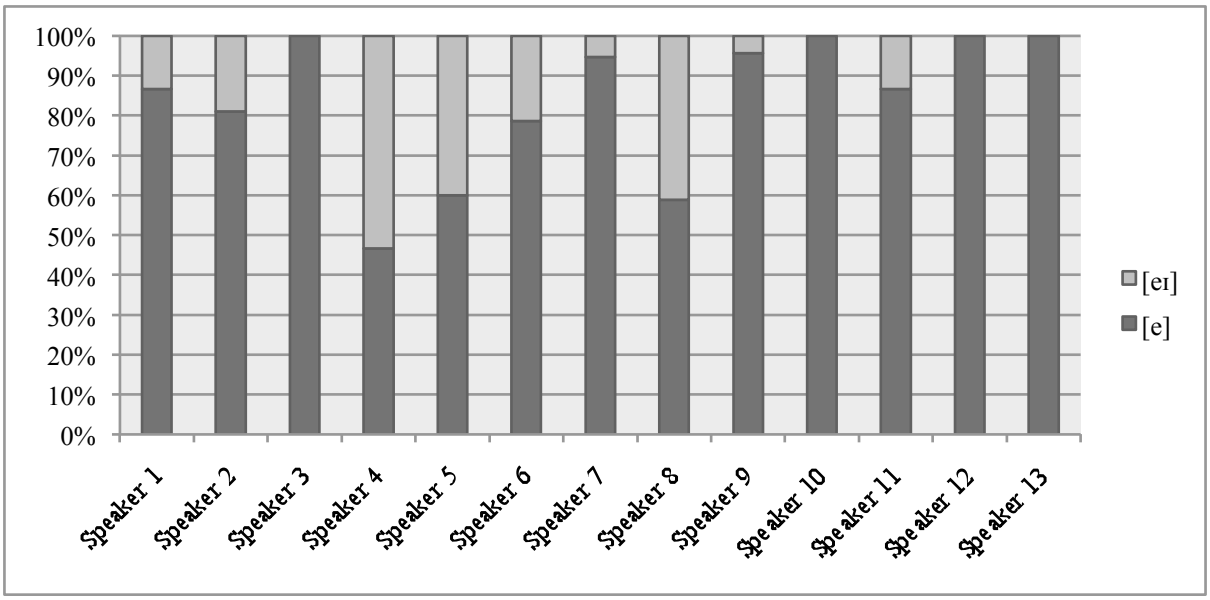

Figure 5.5.2: FACE: individual percentage scores in casual speech

The casual speech data in figure 5.5.2, however, depict slightly different results. Although the university students in addition to the middle-aged informant remain conservative in the realization of (e), the numbers for high school subjects are a little higher. Most evidently, speaker 4 had over 50% diphthongization in the sociolinguistic interview. Moreover, for the male speakers 5 and 8, 40% of the tokens belong to non-local [eɪ]. Speaker 3 remains, however, conservative in the realization of (e), and this is also apparent with speakers 10, 12 and 13. The degree of diphthongization in FACE thus varies considerably between speakers.

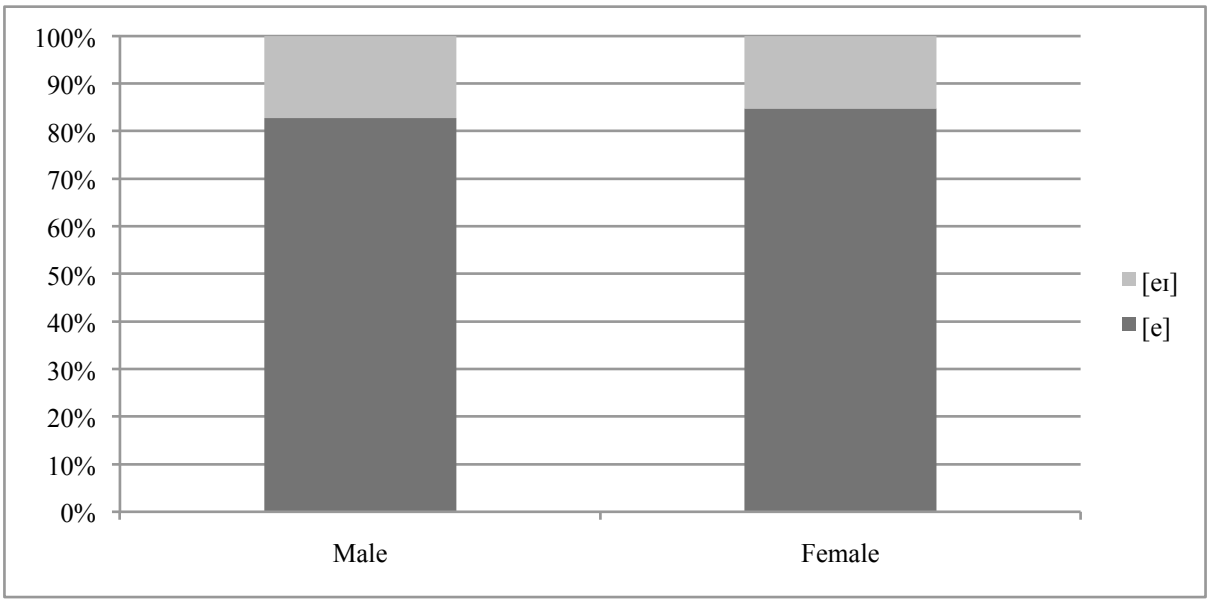

Figure 5.5.3: FACE: group percentage scores according to gender

Figure 5.5.3 depicts minor differences in the realization of FACE between genders. Both male and female speakers seem to diphthongize slightly above 15% of the time. However, the figure does not show the fact that female informants produced more instances of non-local [eɪ] in number of tokens than the males. Percentage-wise, the frequency of local [e] is more or less the same with the genders. According to table 5.5.2, both genders agree substantially when it comes to the index scores. Although there is a slightly stronger tendency towards diphthongization among the males, the gender scores correspond clearly in distribution.

Gender	Male	Female
Index	1,17	1,15

Table 5.5.2: FACE: index scores according to gender

5.6 GOAT diphthongization results

The final variable looks at the distribution of the vowel in GOAT, which is typically realized as a close-mid back monophthong /o/ in Scottish English. A focus in the presentation of this feature is to see how often non-local diphthongization [oʊ] occurs in the data. As previously mentioned, there has to be a significant and clearly audible second quality in a GOAT token for it to be deemed a diphthong. The variants are therefore local [o] and non-local [oʊ].

Variants	N	%
[o]	582	95
[oʊ]	29	5
Total	611	100

Table 5.6.1: GOAT: total scores

As table 5.6.1 indicates, diphthongization in (o) is extremely rare with the teenagers, and traditional [o] is realized in around 95% of the tokens. Just like the data for (r), the vowel in GOAT has few traces toward anglicization, and only about 5% of the tokens are full diphthongs represented as [oʊ]. This pattern is also seen in Schützler's (2011: 42) study, where only one of the speakers has clear traces of diphthongization, which is common in southern English-English. It is apparent that the overall scores in (o) point in the direction of a conservative distributional pattern, in contrast to the findings in the related variable FACE.

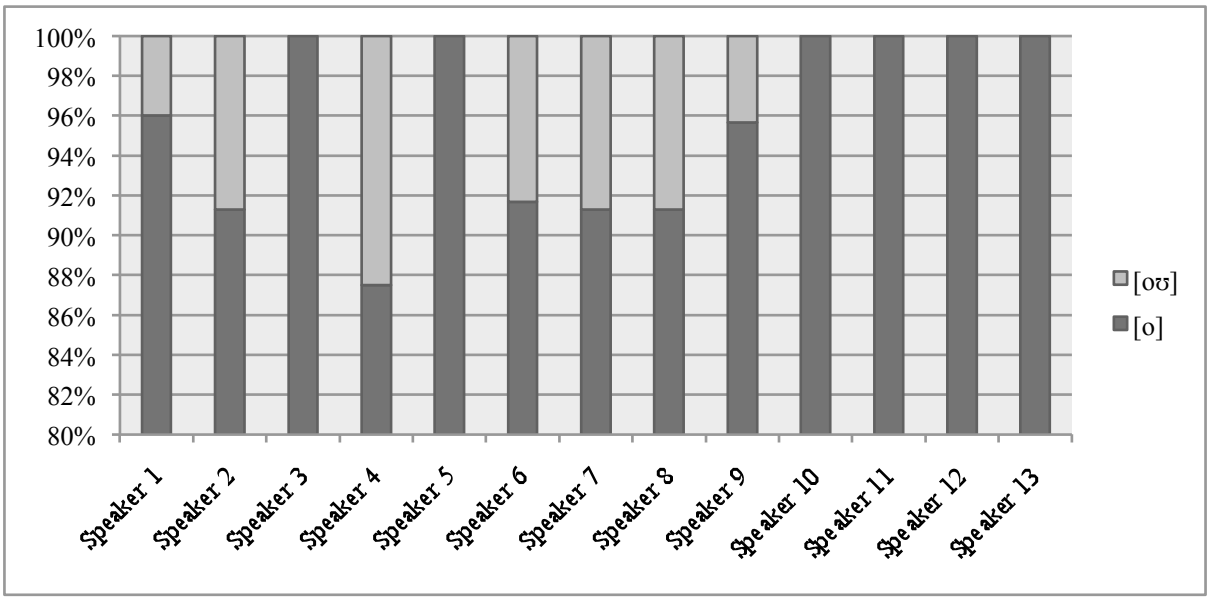

Figure 5.6.1: GOAT: individual percentage scores in careful speech

Figure 5.6.1 depicts the upper percentage scale in the realization of (o) in careful speech with all the speakers. The university speakers 10-12 and the middle-aged speaker 13 are most conservative here with [o] dominating the distribution, and only speaker 9 seems to have traces of diphthongization in some of the tokens. However, except for speakers 3 and 5, who favor the traditional variant, several of the high school adolescents use [oʊ] close to 10% of the time, with speaker 4 as the main innovator. In the reading passage, the latter informant pronounced [oʊ] in the clause *you would only expect to see it in a dog or a goat*, where *goat* is [oʊ] and *only* is [o]. Speaker 4 also pronounced [oʊ] in the token *goat* in the sentence *goats are one of the oldest domesticated species*. In general, diphthongization occurs mostly in the tokens *goat* and *slow*, which represent the spellings *oa* and *ow*, but these cases are still very rare. In other environments, however, [o] is highly favored, and there were few inglides.

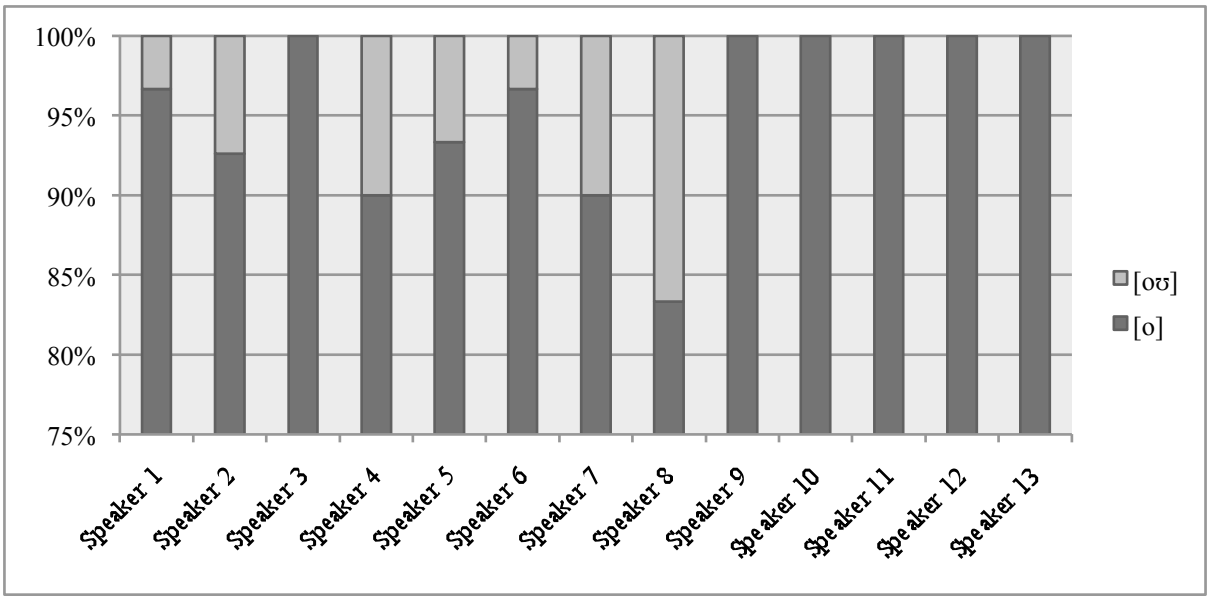

Figure 5.6.2: GOAT: individual percentage scores in casual speech

As figure 5.6.2 indicates, there is a similar pattern in the casual speech data of (o). In the conversations, the university students as well as the middle-aged informant were firmly conservative with monophthongization dominating the results. However, except for speaker 3, again, the high school pupils have instances of non-local [oʊ]. Speaker 8, in particular, has slightly over 15% diphthongization, and [oʊ] appears in e.g. the tokens *phone* and *road*. The other pupils diphthongized in e.g. *boat*, *coast*, *go*, *hold* and *know*. However, the latter tokens vary in realization, and were often pronounced [o] by the same speaker in other instances.

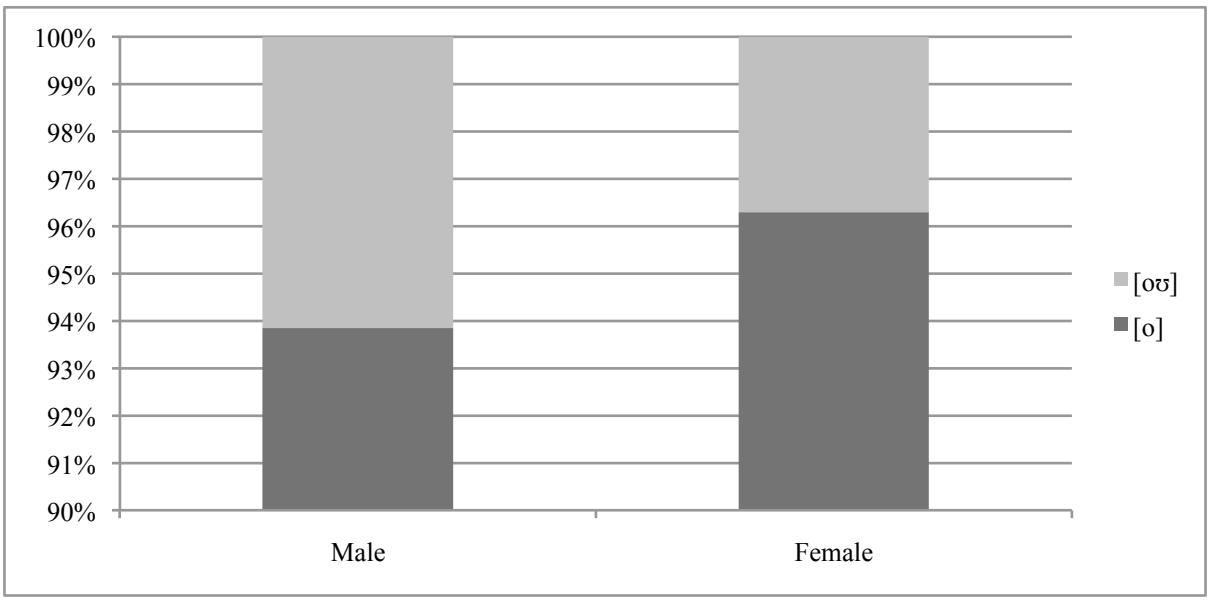

Figure 5.6.3: GOAT: group percentage scores according to gender

Both male and female speakers agree to a large extent in the realization of GOAT. As figure 5.6.3 depicts, females are slightly more conservative in (o) with around 96% of the tokens belonging to local [o]. 6% of the tokens are diphthongized with the male informants overall.

Gender	Male	Female
Index	1,06	1,03

Table 5.6.2: GOAT: index scores according to gender

The index scores in table 5.6.2 also show that there is a minor difference in the realization of (o). Because the scores are close to 1, which is the local variant value, it is evident that both genders favor monophthongization, and occurrences of non-local [oʊ] are indeed very rare.

5.7 Issues of representativeness

In addition to the common issues regarding data sampling, the interview setting and the inevitable presence of the observer's paradox, which were addressed in the previous chapter, source criticism is essential in order to get a nuanced look at the results. The data explicitly represent middle-class teenage speakers from Edinburgh, and the observations only apply to that particular group, and are not representative of the entire city's population. Therefore, as Milroy & Gordon (2003: 25) point out, 'linguistic samples are usually too small to ensure representativeness in the strict statistical sense', and the data do not indicate broad patterns.

Although the sociolinguistic interviews were relatively casual, there were noticeable levels of formality involved. According to Holmes (1992: 285), 'we adapt our talk to suit our audience and talk differently to children, customers and colleagues [and] we use language differently in formal and casual contexts'. *Hyperdialectism* (Merriam-Webster[2]: URL), in which a person attempts to sound like a characteristic user of an accent, may thus occur. This is perhaps particularly evident with the middle-aged informant, who had high numbers of traditional variants, particularly in the realization of [ʌ]. A reason for this is possibly due to the informant wishing to sound like a traditional Scottish English speaker in front of a foreign interviewer. The vernacular, everyday variety is probably reserved for more informal settings where the conversations are among people from the same community. In Edinburgh, one of

the observations was that people generally spoke in a different and more relaxed manner in everyday situations, e.g. while traveling with the public transport system. Common situations probably lower the attention to speech, as opposed to a formal interviewing context, in which traditional variants, arguably, are more likely to occur. For example, one of the high school pupils pointed out that: 'I normally speak in sort of two dialects, and only speak with the one I have used right now with school mates […]' (Speaker 5). According to Stuart-Smith (1999: 203), Scottish speakers living next to the border typically switch between the vernacular Scots and standard Scottish English varieties according to social context, and factors such as *stylistic variation* (Milroy & Gordon 2003: 200) might have influenced the data. In addition, some informants – e.g. speakers 5 and 8 – are in sharp contrast to the other subjects, and typically produced more non-local variants than the rest of the speakers in certain variables. The lack of male informants is also apparent in the material. There is only one male university subject, and token numbers for female speakers are therefore much higher than for males.

5.8 Summary

The focus of the data presentation has been to illustrate how the six variables behave between speakers through individual scores, and to register if there are any notable differences in gender through group scores. Results show that some features have many instances of non-local variants, while other variables indicate more conservative patterns. Although frequencies of TH Fronting are rather low, it is evident that some speakers use it to a large extent, with individual scores as high as 70%. As for word-internal T Glottaling, it is realized in 37% of the total amount of tokens for the adolescents. Surprisingly, the variable of (ʍ), which is a characteristic Scottish English feature, is rather rare in the data with only 11% of the tokens being traditional [ʍ]. However, the majority of the adolescents contrast the two sounds – i.e. they produced both realizations, and only two speakers merged consistently without traces of local [ʍ]. Results from non-prevocalic /r/ and the lexical set of GOAT are rather unanimous in that the majority of the tokens belong to traditional [r] (rhotic) and monophthongized [o] respectively, and there are no significant contrasts in gender. However, the lexical set FACE shows some interesting findings, and 16% of the overall tokens were diphthongized as non-local [eɪ]. Thus, four out of six variables show noteworthy variation while (r) and (o) seem to be rather traditional. In gender scores, the tendency is that male speakers favor more non-local variants than female subjects, although the differences vary. In addition, the high school pupils used more non-local variants than the university students.

6: Discussion

6.0 Introduction

Chapter 6 contains the main discussion of the results presented in chapter 5. The objective here is to explore the distributional patterns that have been found in this study, and to compare them to similar studies on Scottish English varieties. In addition to the quantitative findings outlined in the previous chapter, qualitative observations are also taken into account in order to discuss what causes non-local variants to appear in EdinE. The research questions and hypotheses presented in chapter 1 are central in the discussion of anglicization in EdinE.

6.1 Variation

As is evident in the first research questions of the present study (see 1.2), aims have been to look at the *degree* of inter-speaker variation and to what *extent* the speakers from Edinburgh vary with regards to the linguistic variables. In addition, an objective has been to examine if *gender* is important in connection to the distributional patterns. Generally, data from each variable indicate considerable variation from speaker to speaker. In particular, the high school informants emerge as the most apparent users of non-local 'Jockney' variants, although the traditional variants typically dominate the results, particularly among the female respondents.

The results for (θ) show that the male high school speakers in particular seem to be leading in the replacement of [θ] with non-local [f], while the rest of the adolescents display a more traditional pronunciation. Other studies on TH Fronting in Aberdeen (Brato 2007) and Glasgow (Stuart-Smith et al. 2007) indicate both similarities and contrasts to the findings in the present study. For instance, Brato (2007: 1491) only found a couple of instances of TH Fronting with middle-class young male speakers in Aberdeen, although they produced an intermediate realization – i.e. a variant between traditional [θ] and non-local [f]. However, the middle-class young female speakers in Aberdeen pronounced far more tokens with TH Fronting in comparison to the present study, in which the females did not pronounce [f] to any great extent, with the exception of a few speakers (see figure 5.1.3). Stuart-Smith et al.'s (2007: 235f) research observes the same patterns, although the middle-class respondents in the Glasgow study did not produce any clear instances of [f]. However, what is similar is that

the traditional variant occupies around 90% of the tokens for the young middle-class speakers, which corresponds to table 5.1.1 in the present study with around 92% in favor of traditional [θ]. Moreover, Stuart-Smith et al. (2007: 235) state that '[f] is absent from middle-class speech, and occurs mostly in working-class adolescents'. In the *Scottish middle-class context*, the high school pupils in Edinburgh seem to lead in the use of [f] for [θ], although the working-class speakers in Glasgow have the highest numbers of [f]. In Edinburgh, [f] almost never occurs with the female subjects, but why this is the case is still unclear. TH Fronting seems to be connected to gender, and it is possible that male speakers seek to contrast their speech to females, who typically favor prestige variants. In the Livingston study, Robinson (2005: 181) claims that boys are the main innovators of TH Fronting, as 'conservers of […] informal variants', and the notion that males chose vernacular variants might be relevant here (Holmes 1992: 174f). However, results from working-class adolescents in Stuart-Smith et al.'s (2007: 236) study, in which females use [f] more than males suggest that the patterns vary considerably, and thus, it is still uncertain who the main innovators of non-local [f] are.

Even though glottalization is not uncommon in descriptions of EdinE – particularly with reference to working-class speakers (Wells 1982: 409), results from (t) indicate rather interesting findings when it comes to variation. In the interviews, the development from careful style – with few instances of T Glottaling – to casual style – with frequent occurrences of [ʔ] – denotes that *formality* is a factor. Interestingly, the findings in this study are quite similar to the results in Glasgow (Stuart-Smith et al. 2007: 238). Both studies show low numbers of full glottal stops in careful speech. In the sociolinguistic interviews, however, instances of [ʔ] are considerably more common with middle-class young speakers. Marshall's (2003: 97) study also reveals an expanding glottal variant, which seems to be a general pattern in several Scottish English varieties. However, gender does not approach as a dividing factor in the studies, and glottalization occurs regularly with both genders. In the present study, figure 5.2.2 depicts that one female speaker pronounced up to 85% of the tokens as [ʔ] intervocalically, and T Glottaling is present with all speakers, although the scores show slightly more occurrences of [ʔ] with the males. Thus, Wells' (1982: 409) claim that glottalization is commoner with males than with females is not entirely apparent in this context. It seems rather likely that there is a current acceptance among adolescents, regardless of gender, towards T Glottaling, with Glaswegian teenagers leading the T Glottaling trend.

The most surprising variable is (ʍ), as traditional [ʍ] is rather infrequent in the Edinburgh data. Speakers in the study prefer non-local [w], which is realized in 89% of overall tokens (see table 5.3.1). However, there are instances of variability in the results, and

female speakers tend to retain the local variant more than the male informants. In comparison, similar results are evident in Brato's (2007: 1490) Aberdeen study, where English-English [w] is favored, and the percentage scores for [ʍ] are usually above 20% for the middle-class respondents. However, in the present study the scores are lower, at around 11%. Schützler's (2010: 18) Edinburgh study confirms the same patterns, where the youngest speakers are less likely to contrast, i.e. they merge, the two variants, and female speakers pronounce the traditional variant more often than the males. According to Jones (1997: 330), [ʍ] has been viewed as a 'recommended' variant associated with prestige, which might be a reason why it appears more with females. Thus, these studies support the same pattern of variation as is evident in the present thesis, although the scores for [w] are higher in this thesis. As Schützler (2010: 18) argues, a reason why the middle-class informants seem to be leading in the Wine-whine merger is perhaps due to traditional language contact with southern English-English varieties like LdnE. Schützler even states that 'Edinburgh University is particularly anglicised' in comparison to other Scottish universities. As figures 5.3.1 and 5.3.2 indicate, the university students in the study contrast the two sounds and are more conservative than the high school pupils. Moreover, in contrast to the males, female speakers tend to retain [ʍ], and Wells' (1982: 229) notion that 'women seem to be more open to persuasion towards /hw/ than men' appears to be evident here. In accordance with the latter, local [ʍ] is probably still viewed as prestigious among female speakers primarily, although [ʍ] is getting less frequent.

In terms of variation, the results for (r) indicate a chiefly one-sided pattern and most tokens retain [r], while R Dropping is rare. Both the high school and university students seem to be extensively rhotic, and keep traditional [r] to a large extent. Over a thousand tokens belong to local [r] (see table 5.4.1), while only a small percentage represents R Dropping. According to Schützler (2010: 17), 'we are not looking at change in progress, but […] in fact rhoticity is maintained in Scottish middle-class speech'. Since the present study also looks at variation and change in EdinE, the latter claim is of particular interest here. Stuart-Smith et al.'s (2007: 241) results of (r) indicate similar findings, where the young middle-class speakers tend to favor [r] 93% (females) and 89% (males) of the time in casual speech. In contrast to the observations made by Romaine (1978), non-rhotic forms are rare, although some adolescents in the present study – in particular speaker 8 – have quite a few instances of R Dropping. As stated in 5.4, R Dropping occurs in both stressed, e.g. *cure*, and unstressed environments, e.g. *owner*, with this speaker. Feagin's (1990: 133) assumption that the presence or lack of /r/ in unstressed environments might say something about where the respective variants appear, seems to also apply to the study of (r) in Edinburgh. However,

because instances of the non-local variant are rare, it is difficult to establish a general pattern, as the findings only indicate sporadic R Dropping. Occurrences of [V] in the data may be results of occasional *reduction* of [r], and that the speakers sometimes rush the pronunciation of the variable. According to Lawson et al. (2008: 109), phonetic factors such as *delayed tongue raising*, which results in a non-rhotic realization in non-prevocalic /r/ environments, might be a reason why some tokens occur as [V]; the latter aspect is probably most related to fast-paced speech. Connections to England (see 6.1.2 on qualitative observations) might be another factor in the occurrences of non-rhoticity, and that general contact with speakers of English-English is an influence in the realization of [V]. Gender differences in the data are almost non-existent, and the extra-linguistic variable does not show any clear leaders in the realization of non-local [V]. Male speakers, however, have slightly more R Dropping than females, which is in contrast to e.g. Schützler's (2010: 17) study, where females lose /r/ more than males. Additionally, Romaine's (1978: 148) study, which is one of the first sociolinguistic studies of (r) in Edinburgh, indicates that primarily male subjects drop /r/. Based on the present study and previous research, it is therefore unclear who is leading in R Dropping, although there is a general tendency towards dropping with males, and retention of /r/ with females. Rhoticity seems to be a *counter-variable* in the discussion of anglicization with middle-class Scottish English adolescents, which is supported by the low numbers for R Dropping, and therefore, the presence of /r/ might be linked to *prestige* as stated by Schützler (2010: 19). In comparison to (ʍ), it seems as though the two variables enjoy different forms of prestige in EdinE, and that presence of /r/ is more important than the preservation of [ʍ].

The realizations of the vowels in FACE and GOAT indicate considerable variability. On the one hand, results from FACE point toward diphthongization, with [eɪ] being noticeably present in the data. However, on the other hand, GOAT seems to be representing a counter-variable with regards to the discussion of diphthongization in EdinE. The traditional monophthong in (o) is dominating with the adolescents, and constitutes about 95% of the overall tokens in table 5.6.1. In contrast, the non-local variant [eɪ] makes up 16% of overall scores for (e) in table 5.5.1, i.e. considerably higher than the results in (o). Consequently, a significant problem for discussion that arises is why (o) displays a more traditional pattern than (e), with the two variables being so closely connected[4]. Schützler's (2011) study of vowel spaces with middle-class speakers in Edinburgh might shed some light on this matter:

[4] Phonological accent descriptions – e.g. Stuart-Smith (2008: 60) – often view FACE and GOAT as one variable.

> My explanation of this phenomenon is that in this particular variety of English, /o/, especially when beginning on a more or less cardinal quality [o], will have to employ lip rounding rather than tongue movement to achieve a secondary quality […]. Sometimes very different trajectory shapes of /e/ and /o/ are explained by the fact that lip-rounding plays virtually no role in the front vowels (Schützler 2011: 40).

The latter quote illuminates a few things phonetically. Firstly, in order for (o) to become diphthongized it seems to require greater articulatory effort that involves lip rounding. Secondly, diphthongization in (e) is more likely to occur because lip rounding is not required in front vowels – only tongue movement. In an accent that traditionally keeps monophthongal realizations, a factor such as lip rounding might be significant in that more is required articulatorily than is the case in the realization of [o]. These points seem reasonable with regards to why FACE words are considerably more diphthongized than GOAT words in the thesis. However, the exact reason why diphthongization is more common in FACE is still unclear. In fact, the phonetic distance between the starting point [o] and the end point [ʊ] (both seemingly rounded) appears to be smaller in correlation to the starting point [e] and the end point [ɪ], and therefore a satisfactory explanation is not met. As for Schützler's (2011: 42) own results, they indicate few instances of diphthongization for both /e/ and /o/. Overall, though, it seems like (e) is more open to anglicization than the vowel in GOAT words.

With reference to the hypotheses in chapter 1, it is evident that there exists quite a lot of variation. Moreover, it is fairly apparent that speakers do not always agree in realization, and inter-speaker variation is certainly present, particularly among the high-school pupils. Non-local variants are quite common, although the traditional variants dominate in most cases. The hypothesis regarding females leading in the use of non-local variants is rejected. Males tend to produce more instances of TH Fronting and T Glottaling than girls, who typically keep traditional variants. However, the difference between genders is not always as clear, and for (r) both genders seem to agree, although males have a small lead in R Dropping. In addition, it is likely that the presence of /r/ enjoys a different form of prestige than traditional [ʍ], which might explain why [r] gets 93,5% and [ʍ] gets 11% in overall scores. Along with prestige, the conservation of particular Scottish features, e.g. rhoticity, might be linked to the retention of Scottish *identity markers* of speech, as a contrast to English-English.

6.1.1 Other phonetic observations

In addition to the main linguistic variables in the thesis, observations were also made with regards to the realization of other features. These findings are, however, not quantified, but

function as supplementary remarks based on the data from the reading passage in particular. Generally, the phonetic realization of (r) seemed to be that of a retroflex approximant [ɻ], which corresponds to one of Wells' (1982: 411) descriptions of SSE. Conservative trills [r] were not observed. However, as Romaine (1978) also reported, alveolar realizations of (r) such as tapped [ɾ] were detected, although the general tendency of realization was towards [ɻ].

Some vowel features also varied to some extent. Although the vowel in KIT appeared as [ɪ] for the most part, the university speakers 9 and 10 seemed to prefer a slightly lowered realization [e]. In the reading passage, this is particularly evident in the phrase *picked up her kit*, in which *kit* is realized as [ket]. The latter realization is described by Stuart-Smith (2008: 58), who argues that KIT might be more open in pronunciation, e.g. [ë]. The vowels of FOOT and MOUTH also varied slightly, particularly in the phrase *foot and mouth disease* in the reading passage. Although FOOT is said to be realized as fronted [ʉ] in Scottish English, there were instances of southern English-English [ʊ], which, according to Giegerich (1992: 57), might appear predominantly with middle-class speakers. The high school teenagers had instances of [ʊ], although the realization seemed to be intermediate and somewhere between [ʉ] and [ʊ], in contrast to the university students who clearly favored fronting. MOUTH also had instances of fronted /au/ with speaker 7 in particular, instead of traditional centralized /ʌu/ (Wells 1982: 399). Therefore, other variables also vary to some extent in terms of realization.

6.1.2 Qualitative observations

In addition to the quantitative data, the sociolinguistic interviews also included some findings of qualitative interest that are presented below. One of the questions regarded television habits and whether or not English shows are popular. In most cases, the speakers said that American series are preferred over typical British programs. All the speakers gave a general account of their favorite television shows, and when asked about the soap opera *EastEnders* some said:

> I used to watch all the soaps when I was young, *EastEnders*, *Coronation Street*, all that stuff. But, then sort of moved on for more, like, American comedies [and] sitcoms like [*The*] *Big Bang Theory* and *How I Met Your Mother* and stuff, […] and then *Glee* got a hold of me, and I can't let go [laughs] (Speaker 1).

> No, I mostly watch American shows, like, [*The*] *Big Bang Theory*. Like, *Friends* is quite good. Err, I think the British soap operas are, like, pretty terrible (Speaker 8).

Most of the teenagers seem to draw upon American television series, and only a few of them actually said that they watched typical British shows. In addition, a couple of the subjects –

mainly speakers 1 and 9 – often travel to the United States on holiday. Based on television and vacation habits, they seem to be more exposed to GenAm than to English-English speech.

Although it is impossible to get a broad impression of accent attitudes based on one speaker, the middle-aged speaker had some interesting reflections regarding accent attitudes:

> Yes, I have very positive thoughts about the Highland accent. I like to listen to it, because it's a very soft and gentle accent. The Aberdeen accent I have real difficulties [with]. I struggle. People who speak with a strong Aberdonian accent; you need to tune in. It's almost like a foreign language, and I find I have difficulty with that. The Glasgow accent I like to hear, but it's very; it's like people sing when they speak to you – the intonation is so lyrical, and I think that Edinburgh has a very – but then I'm very biased – I think that Edinburgh has got a very neutral accent (Speaker 13).

According to the latter, it seems as though the Glasgow accent is viewed positively in general, while the accent in Aberdeen is more difficult to interpret. A reason why e.g. T Glottaling is common in the Edinburgh data might be due to dialect levelling with Glasgow. Additionally, several of the subjects seem to have connections to England, either through family ties or because they travel regularly across the English border. Regarding mobility, speaker 4 stated:

> We go down to Newcastle quite a lot, because my sister is at university there. […] Um, we usually go; we usually stay in Britain just because it's cheaper and easier to do. So, we've been to Norwich a couple of times, which is really nice (Speaker 4).

As is evident, speaker 4 has traveled both to Newcastle in the north and Norwich in the southeast of England, which are areas that have traces of LdnE influence (Docherty & Foulkes 1999; Trudgill 1999). Other subjects tend to take trips across the border as well, and e.g. speaker 8 typically travels to London to visit 'Thorpe Park', which is a big theme park near the city. Qualitative factors are taken into account in the following discussion on change.

6.2 Change

The final research questions in this thesis deal with *language change* and whether or not there is an ongoing movement towards *anglicization* in EdinE in the light of the findings in the present study and previous research. Results from four of the six variables indicate variable usage levels for non-local variants, with high numbers in (t) and (ʍ) and less frequent instances in (θ) and (e). Overall, these features give indications of a changing variety, although the traditional variants seem to dominate in most cases. The following sections examine possible local factors as well as supra-regional mechanisms behind anglicization.

6.2.1 Dialect levelling and supra-local factors

When it comes to change at the local level, the Glasgow dialect appears as the main innovator by far in comparison to the other Scottish English varieties. Since most of the related previous studies look at consonantal variables, (e) and (o) are less relevant in the discussion of levelling, and e.g. Schützler's (2011) research on vowels is restricted to the Edinburgh area. Several of Stuart-Smith's (1999; et al. 2007) studies have shown that T Glottaling and TH Fronting are thriving features with Glaswegian teenagers, although these features are mostly apparent with the working class. In particular, T Glottaling, which has been characterized as an original Glasgow phenomenon (Macafee 1997: 528), seems to be the most influential feature locally. In connection to the results for (t) with middle-class speakers in Stuart-Smith et al.'s (2007) study, the numbers for T Glottaling in the present study as well as Marshall's (2003) findings show much of the same tendencies. Additionally, TH Fronting, which was first discovered sporadically in Glasgow in the early 1980s by Macafee (1983), seems to be most common in Glasgow, although the feature is primarily associated with the working class (Stuart-Smith et al. 2007: 236). Data from the present study as well as Brato's (2007: 1491) Aberdeen investigation indicate established instances of non-local [f], although the latter study shows higher numbers of TH Fronting with working-class subjects than for middle-class speakers. The results for (ʍ) and (r) in the present thesis agree with findings in the previous studies, where (ʍ) is particularly affected by the incoming non-local variant [w] and /r/ seems to be firmly present with the middle-class informants from all the investigations.

The findings in these studies introduce the question: are the changes products of regional dialect levelling? As one of the most populous areas in Britain, Glasgow certainly has the right premises needed for being an influential urban variety. Arguments for dialect levelling and the reduction of local contrasts can be seen in most of the studies, where the non-local variants seem to be most evident with the working class. The possibility of a change from below with the Glaswegian working class as the main innovator of change in Scottish English varieties is therefore a possible explanation behind the high scores of certain non-local variants in the present study. However, apart from T Glottaling, which is characteristic of Glasgow, it seems unlikely that TH Fronting, the Wine-whine merger and R Dropping are products of regional levelling alone. Most likely these features have originally come through contact with supra-regional English-English varieties. The Glasgow dialect and working-class users seem, nevertheless, to be the main innovators here. However, the results for (ʍ) in the present study indicate lower numbers of traditional [ʍ] than in e.g. Glasgow (Stuart-Smith et al. 2007: 240), and in the middle-class context, the adolescents in Edinburgh

appear to be leading in the usage of English-English [w]. First and foremost, however, the reduction of local contrasts through levelling seems to be a product of Glaswegian influence.

6.2.2 Geographical diffusion and supra-regional factors

Several studies on variation and change in Britain focus on geographical diffusion and levelling between accents as explanations for the spread of Cockney English features. However, as Stuart-Smith et al. (2007: 224) point out, 'the changes are awkward to explain with reference to a single main factor […]'. As the basis for the discussion of change, influence from London appears as the main external reason for non-local variants to emerge.

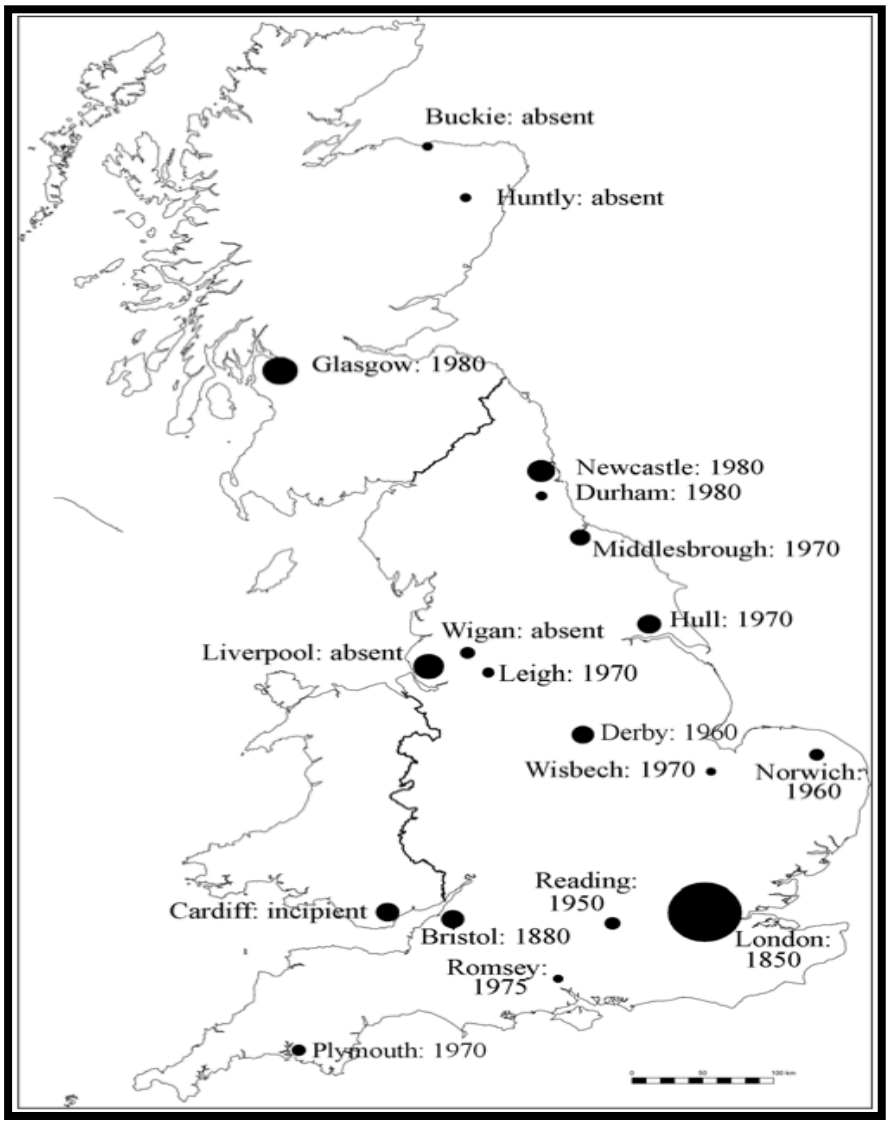

Figure 6.1: Spread of [f] for (θ) in Britain (Kerswill 2003: 11)

During the last half-century or so, variables like T Glottaling and TH Fronting have been registered in many northern British varieties, even as far from London as Glasgow. In particular, a collection of articles (Foulkes & Docherty 1999) examines the development of these changes through research on key varieties in the British Isles. Places like Milton Keynes and Reading, which are areas close to London, have experienced an increase in non-local variants such as [f] for /θ/ and [ʔ] for /t/ (Williams & Kerswill 1999: 147). The same developments have also been recorded in Norwich, where Trudgill (1999: 132) states that 'TH-fronting was completely absent from Norwich English in 1968. By 1983, however, it had become very common indeed'. Further north in the Newcastle area, a study by Docherty & Foulkes (1999) registered similar findings for (θ). Here, young middle-class speakers produced non-local [f] in 7% of interview style data (ibid: 51), which is similar to 8% in the present study. In addition, the Newcastle subjects pronounced [ʔ] in 60% of /t/ environments such as *water*, and the vowels in FACE and GOAT were also mostly diphthongized (ibid: 49f). In fact, most of the areas like Milton Keynes (Williams & Kerswill 1999: 142), Norwich (Trudgill 1999: 129) and Newcastle (Docherty & Foulkes 1999: 49) have diphthongal qualities in FACE and GOAT, which might influence southern Scottish accents, e.g. EdinE.

The latter studies point toward geographical diffusion, and figure 6.1 (previous page), which is taken from Kerswill (2003: 11), indicates that TH Fronting has expanded from London to other urban centers in Britain (the size of the dots indicates population density). As is evident from this figure, the changes first reached Reading in the 1950s and have since moved north to Durham, Newcastle and Glasgow in the 1980s. In contrast to vowel features, Kerswill (2003: 7) argues that consonant variables like TH Fronting and T Glottaling are 'torchbearers of geographical diffusion'. Moreover, Kerswill argues that the process is a result of both diffusion and of *speech accommodation* (ibid: 14). Consequently, it is likely that other consonant variables like the Wine-whine merger are also affected by these factors. However, the concepts are only *mechanisms* behind the changes, and do not explain the *motives* behind these developments. Based on qualitative observations, *mobility* seems to be one important non-linguistic factor for 'Jockney' features to appear in Edinburgh. Generally, it is apparent that several of the adolescents tend to take vacations in southern England and many informants also have English relatives, and therefore these connections might expose EdinE speakers to English-English variants. Contact and mobility are thus some possible factors for change, and according to e.g. Milroy (2002: 7) such factors lead to 'large scale disruption of close-knit, localized networks which have historically maintained highly systematic and complex sets of socially structured linguistic norms', although the latter is more typical of

working-class communities. In addition, according to Schützler (2010: 18), 'Edinburgh University is particularly anglicised among Scottish Universities'. The university, which is set in the city center, is widely regarded as a prestigious institution in Britain, and many southern English speakers tend to take their higher education there because of low tuition fees compared to other British universities (The Guardian: URL). Therefore, in-migration might be a reason behind the presence of non-local variants with EdinE adolescents. Television as a factor for change, however, seems to be less significant in this discussion, because most of the teenagers prefer American shows over typical British shows like *EastEnders*. The latter remarks are in contrast to the findings made by Williams & Kerswill (1999), who claim that:

> The tremendous increase in […] TV stations and programmes directed at young people has led to the widespread use of informal and non-standard registers in the broadcast media, many of which emanate from London and the south. Adolescents throughout Britain are regularly exposed to southern accents which in turn are associated with young people and youth culture (Williams & Kerswill 1999: 162).

Based on feedback from the speakers in the present study, British television may not be such a decisive factor on accent variation and change after all. Thus, 'youth culture' influence from southern England is perhaps less connected to television today than previously acknowledged.

The results from (r) in this thesis indicate a counter-variable to the proposed main mechanism of change by geographical diffusion. As a prominent consonant feature, (r) seems to be more linked to *loyalty* than the other variables. Loyalty here is connected to the assumption that some variables carry salient, local variants that are more resistant to change, and for some reason, features like TH Fronting and T Glottaling are less affected by this. While the adolescents in Edinburgh seem to be open to a more *modern* and *anglicized* version of their variety, some variables are perhaps too diagnostic to undergo significant changes.

> Speakers can achieve [modernity] by avoiding variants which they perceive to be particularly indicative of their local roots, while at the same time adopting some features which are perceived to be non-local (Foulkes & Docherty 1999: 14).

The latter quote may explain why it is possible to be loyal to one's local variety, like EdinE, while implementing non-local variants that are not particularly diagnostic or significant to a respective accent in order to sound *modern*. However, it seems strange that (ʍ) gets low scores for the local variant, since it is arguably very diagnostic of SSE in general. Again, this feature might be associated with the older generations, and the merger is maybe an attempt at a broader, supra-regional accent without losing the distinction between [ʍ] and [w] completely. It is also possible that non-local variants are used as a modern contrast to how

their elders talk. Rhoticity seems to have a special position here, and R Dropping is perhaps viewed as too diagnostic of southern English accents for it to be implemented in EdinE. Schützler (2010: 18f) also addresses this in his conclusion, and states that 'speakers favor rhoticity but disfavor the /ʍ/ - /w/ contrast', and he continues by arguing that the two variables 'enjoy rather different prestige' (ibid: 19). It can also be argued that /r/ is one of the more diagnostic features of an accent, and is typically an important contrast between English varieties. Wells (1982: 407) states that /r/ is 'strikingly conservative' in Scottish English, and thus resists change as it is more associated with prestige, because 'a Scottish accent can be prestigious in a way that a local English accent is not' (ibid: 393). Although the motives for change and counter-change are unclear, the primary factors for change seem to be that of contact and diffusion, while (r) represents a prestigious counter-variable to the developments.

6.3 Summary: approaching a conclusion

This chapter has related the findings in chapter 5 to the research questions and hypotheses regarding variation and change in EdinE. Levelling and diffusion appear as likely factors behind supra-local and supra-regional change even though a single mechanism cannot be fully responsible. Results from the present study confirm a lot of the findings from previous research done on Scottish English varieties. It seems to be fairly evident that non-local features are established with the teenagers, and that there is ongoing anglicization due to contact with England. Interestingly, females tend to be more conservative in relation to local variants than males, which means that the original hypothesis about females being more concerned about supra-regionalism is refuted. Compared to the findings in this study, it is clear that features such as TH Fronting and T Glottaling are more widespread in the Glasgow area, but that these are getting more common in places like Aberdeen and Edinburgh as well. However, presence of /r/ seems to be a prestigious Scottish variant in contrast to dropping of /r/ found in English-English varieties like LdnE. If speakers of EdinE would lose /r/, the distinction to other British varieties would become less visible, because as Milroy & Gordon (2003: 132) argue, 'speakers want to sound for example [Scottish] and be distinguished from whatever […] group they perceive themselves as opposing'. Mobility, family relations and contact with southern England seem to be the most important external factors responsible for implementing non-local features, although the loyalty and prestige of retaining [r] is a counter-variable to these trends. There appears to be a general tendency towards anglicization, even if the extent of non-local influence is limited by the clear presence of traditional variants.

7: Conclusion

7.1 Concluding remarks

The final chapter presents concluding statements with regards to the main findings that have been discussed in ch. 6. It is evident that most of the results correspond with the patterns of variation and change seen in previous phonological studies. The concluding remarks are listed below, and these are connected to the research questions and hypotheses presented in 1.2.

1. The results for TH Fronting, T Glottaling, the Wine-whine merger and FACE indicate relatively high frequencies of non-local variants, while the counter-variables (r) and GOAT show more conservative usage patterns. Overall, the data point toward contact with English-English, and London English seems to be the main source of influence.

2. There is extensive inter-speaker variation in the data. Generally, the high school pupils use more non-local variants than the older university subjects. Although local variants dominate for the most part, it is evident that non-local variants are fairly common.

3. Male speakers seem to use more non-local variants, e.g. [f] and [w], than female subjects, who typically keep traditional variants, e.g. [θ] and [ʍ]. Although the gender differences are small, the male speakers lead in the use of supra-regional variants.

4. According to the data, it is likely that there is a change going on in EdinE. The most important mechanisms seem to be geographical diffusion from England as well as supra-local levelling between accents in Scotland. The main underlying social factor is connected to general contact with England through e.g. mobility and family relations.

5. Based on the present study and previous records of Scottish English varieties, there is an ongoing anglicization in Scotland, especially with features such as TH Fronting, T Glottaling and the Wine-whine merger in addition to diphthongization in FACE. However, speakers are also loyal to traditional variables such as presence of /r/, which indicates that speakers seek to sound modern without losing diagnostic, local features.

The preceding five points indicate that most of the hypotheses are corroborated – with the exception of the gender hypothesis. Non-local, supra-regional 'Jockney' speech seems to be

most widely present with the males, particularly high school male pupils, who are leading in the use of e.g. TH Fronting with around 20% of overall tokens belonging to [f] in figure 5.1.3. The university students, however, retain most of the traditional variants, and e.g. the [ʍ] – [w] contrast is more noticeable with these speakers than with the high school subjects. In addition, the middle-aged subject uses traditional variants almost exclusively, and the marked contrast between this speaker and the teenagers could signify change. Most speakers frequently replace /t/ with [ʔ] intervocalically, and the non-local variant has an overall score of 37% with the adolescents. The most surprising result was observed for (ʍ), and indicates a significant break with traditional Scottish pronunciation. Out of 358 tokens, only 40 are realized with the local variant, while 89% represents the English-English [w]. Even in careful style data, the merger has a significant majority, and this variable strongly suggests that there is a movement away from characteristic Scottish speech. However, the presence of /r/ in over 93% of the analyzed non-prevocalic (r) tokens is an important counter-variable, and it can be argued that this variable is more linked to loyalty than is the case for e.g. (ʍ). R Dropping is viewed as non-prestigious, because rhoticity is an important feature when it comes to contrasting Scottish English to English-English. Diphthongization occurs mostly in FACE words, while in GOAT, monophthongization dominates with 95% of overall scores. However, the reason for this is still unclear, but might lie in the phonetic production of the sounds. Overall, [eɪ] is pronounced in 16% of the tokens, whereas non-local [oʊ] is only realized in 5% of the cases.

Data from the present study combined with previous studies of Scottish English varieties point toward a changing phonological situation. Future descriptions of accents in Aberdeen, Edinburgh and Glasgow should acknowledge that certain anglicized variants seem to be increasing in these varieties. Numerous studies indicate that geographical diffusion is the main mechanism behind the developments, but that the motives behind change are still unclear. Since the middle of the 20th century, LdnE features have been moving northbound to places such as Norwich, Newcastle and Glasgow. The introduction of features such as TH Fronting in the Glaswegian accent has clearly resulted in the weakening of traditional variants in localized speech. Thus, regional dialect levelling between the innovating Glaswegian accent and its working class and other urban Scottish English varieties seems to be ongoing.

While the motives for change are unclear, it seems to be highly evident that there exists some form of contact between Scottish and English-English accents. Factors such as contacts, family ties and mobility through e.g. vacation activities in England might be some of the reasons why non-local variants are found in Edinburgh. There is, however, unquestionably more than one motive behind change, although contact-based change has a central position.

Results from four of the six variables in the thesis indicate that non-local variants are present with the Edinburgh adolescents. 'Jockney' LdnE features like TH Fronting seem to be well-established, and southern English-English variables like T Glottaling, the Wine-whine merger and diphthongization in (e) have high scores. However, the results for (r) and (o) show that the subjects seek to maintain prestigious identity markers of speech while implementing modern, non-local variants. Together with previous research on variation and change in Scottish English, the findings in the present study point to an ongoing anglicization in EdinE.

7.2 Shortcomings

Some of the initial aims in the present study were, unfortunately, not fully accomplished, particularly with reference to sample size. Supplementary middle-aged subjects in addition to working-class adolescents would have allowed for a broader sociolinguistic examination of EdinE, although Edinburgh is less socially stratified than e.g. Glasgow, which has clearer social contrasts. While there could have been more informants, it is nonetheless interesting to note that non-local 'Jockney' variants are present with the respective teenagers in the study.

7.3 Future research

The data from the present investigation as well as other related phonological studies would certainly benefit from a unified large-scale study of variation and change in Scottish English, that includes additional speech communities and informants of several age groups and social backgrounds. In particular, a broader investigation of the Wine-whine merger could shed some light on which parts of the country that apply the merger most frequently, and which areas are more conservative, i.e. whether or not residents of southern parts like Edinburgh use [w] more regularly than someone from northern areas like Aberdeen. Additionally, a study that includes informants from rural communities in between the major cities could illuminate if the merger is mostly apparent in urban centers. Dividing the (ʍ) variable further into single lexemes (cf. Schützler 2010: 14) and examining multiple <wh> words like *what*, *when* and *where* might show which contexts are more likely to be merged. In addition to (ʍ), a similar study could be done with TH Fronting, as these consonantal variables appear as the most interesting features in the study of anglicization and contact with southern English varieties. The speech situation in Scotland deserves a comprehensive and thorough investigation of the most salient Scottish features, in order to examine the extent of an ongoing language change.

Appendix A: Reading tasks

Comma gets a cure (by Douglas N. Honorof, Jill McCullough & Barbara Somerville © 2000)

Well, here's a story for you: Sarah Perry was a veterinary nurse who had been working daily at an old zoo in a deserted district of the territory, so she was very happy to start a new job at a superb private practice in North Square near the Duke Street Tower. That area was much nearer for her and more to her liking. Even so, on her first morning, she felt stressed. She ate a bowl of porridge, checked herself in the mirror and washed her face in a hurry. Then she put on a plain yellow dress and a fleece jacket, picked up her kit and headed for work.

When she got there, there was a woman with a goose waiting for her. The woman gave Sarah an official letter from the vet. The letter implied that the animal could be suffering from a rare form of foot and mouth disease, which was surprising, because normally you would only expect to see it in a dog or a goat. Sarah was sentimental, so this made her feel sorry for the beautiful bird.

Before long, that itchy goose began to strut around the office like a lunatic, which made an unsanitary mess. The goose's owner, Mary Harrison, kept calling, "Comma, Comma," which Sarah thought was an odd choice for a name. Comma was strong and huge, so it would take some force to trap her, but Sarah had a different idea. First she tried gently stroking the goose's lower back with her palm, then singing a tune to her. Finally, she administered ether. Her efforts were not futile. In no time, the goose began to tire, so Sarah was able to hold onto Comma and give her a relaxing bath.

Once Sarah had managed to bathe the goose, she wiped her off with a cloth and laid her on her right side. Then Sarah confirmed the vet's diagnosis. Almost immediately, she remembered an effective treatment that required her to measure out a lot of medicine. Sarah warned that this course of treatment might be expensive – either five or six times the cost of penicillin. I can't imagine paying so much, but Mrs. Harrison – a millionaire lawyer – thought it was a fair price for a cure.

Sentences

There's a lot of rain coming our way.

I think I'm going to take a shower later.

I saw something surprising yesterday; it was a black and white killer whale!

How many hours are there in a day?

Goats are one of the oldest domesticated species.

My mother and father are totally giving me a new computer for my birthday.

Jimmy has got a scar on his face, but I think he looks cool!

I am thinking about applying for nursing school next year.

Roger loves his brand new car.

My fate lies in your hands.

It's getting late and I better get home.

John took all the butter so there was nothing left for me.

Have you heard the story about Alexander and his wild bird?

He got to the office and wrote a note.

Grace told us that an airplane had crashed in Whitby.

What is wrong with being a little slow at 100-meter dash?

I started working here last year, and I think it's going pretty well.

I got a letter from the vet today, and my white cat is well.

Get over here, Trevor!

It is a pity that we cannot watch the football game later.

Yesterday, John tried to put some new wheels on the car.

Stuart was good at playing cards.

While I tried on a fur coat last night the alarm system went off, and it was anything but silent.

There is something in the air tonight, and I think it might start to snow later.

Something's wrong with my cat "Summer".

In space, no one can hear you say anything.

Do you think that whales can talk under water?

What is your verdict about Facebook's new timeline?

With this pace we'll get home in no time.

My mother told me that the first thing I got to do when I get back is homework.

The goalkeeper was tired after 90 minutes of playtime.

His foot was hurting pretty badly after yesterday's game.

When I got back home the birthday party was over.

Appendix B: Interview excerpts

Speaker 1

ØR U-huh. Uh, and lastly. Do you have [laughs]; do you have a story about a time you got scared to death, like?

SP1 Yes, yes, yes! Ok, this is gonna be brilliant. So, um, you'd probably never been to Blair Drummond Safari Park. But, um, it's just a random safari park in the middle of nowhere. And, um, we used to go there when we were younger for like picnics and go see the animals and stuff, and flying fox. And, um, I was. There's zebra crossings all around the road, because you know, there's little kids in the area in the play park. So, I was going across the zebra crossing. And all of the sudden, this car – from nowhere – just comes, probably like, tumbling up the road, uh, right at me. And I'm on the zebra crossing, and I'm like, it's not gonna stop is it? So, literally, it stops about that far [points] away from my leg.

ØR Oh, wow.

SP1 Literally. I was merely on the floor crying. My mom's running in screaming her head off at the people driving the car. And they are like "I'm so sorry, so sorry", and I'm like "Argh, I could have died!". So [laughs], aye, that's probably the time I was scared the most in my life. But, no, that was absolutely terrifying.

ØR Oh, wow. Was that long ago, or?

SP1 Ah, it was probably when I was seven or something. So, I mean, I was young then. And I was like; it's like the whole life flashing, very shortly. Like, life flashing before my eyes.

Speaker 4

ØR So, obviously, December is slowly closing in. What do you and your family generally do around Holiday time? Do you have, like, a tradition, or?

SP4 Um, I dunno. We all watch a lot of films, lots of Christmas films. Um, like *The Muppet Christmas Carol* [laughs]. We'll have to sit down and watch *The Muppet Christmas Carol* on Christmas Eve. Um, my mom works usually on Christmas Eve,

‘cause she works in the shop. So, she’s usually working until sort of early evening. So, my dad and my brother and me and my sister sometimes get all the food ready, and just so that it can all, just, be shoved in the oven [laughs] on Christmas Day and not have to worry about it. Um, and then my mom comes home and we all sit down and watch TV, and do stuff like that.

ØR U-huh, great! Yeah, and you were talking about books. What sort of books do you like to read?

SP4 Um, a bit of everything really. Uh, I quite like sort of dramas with maybe a bit of, uh, like an odd edge to them. Like a bit of a fantasy, or a bit of a sci-fi edge. I’m not a big fan of, like, pure fantasy and pure sci-fi, just ‘cause they’re a bit too, yeah. Things that you can sort of possibly see happening in, like, hundred years time or whatever, I kinda like that sort of thing. Um, so yeah.

ØR So, any particular series or books you prefer?

SP4 Um, I don’t know. Not really series I don’t think. Um, I’ve been reading a couple of books lately. I’ve been reading “The Perks of Being a Wallflower”, which is also a film, which is like a teen coming of age novel thing, and it’s following this American boy who goes into high school and everything. So, I’ve been quite enjoying that.

ØR U-huh. So what’s the basic storyline there?

SP4 Um, basically this boy is a bit of, uh. He’s not really a nerd; he’s just a bit socially awkward. He doesn’t really get along with people very well. And he goes - starts high school in America, so he’s like fourteen or fifteen. And he ends up with this very odd group of friends, who are, like, seniors in America, and they are just a bit weird, and. They have social gatherings where they also go ‘round and drink brandy and things, and it’s just about him, like, growing up. And it follows him through his first year of high school, and just, like, the ups and downs of that, and the ups and downs of all of his friends and things.

ØR Interesting, yeah. So, um, when you go on vacation with the family, where do you, like, typically travel?

SP4 Um, we haven’t been [laughs] on a holiday for a while. We go down to Newcastle quite a lot, because my sister is at University there. So, we’ll go down and see her, and

help her with whatever she needs helping out with. And, then, maybe stay for a couple of days, and do some sightseeing and things. Um, we usually go. We usually stay in Britain, just because it's cheaper and easier to do. So, we've been to Norwich a couple of times, which is really nice, and, yeah. We used to go up north quite a lot. We used to go up to like Skye, and places like that.

Speaker 5

ØR And, what would your, like, ideal dream job be?

SP5 Dream job, uh, I've got a couple. I've got a few for that. Eh, if I can really… can do physics and do computer games design, and physics, it would be astronomy and astro-engineering type of stuff. Or aerospace, 'cause I know that the whole Nova Space Flight thing is kind of gonna be taken off in the next ten years. So, I thought that might be a good place to go into.

ØR U-huh, nice! And, lastly, do you have, like, a story about a time you got scared to death?

SP5 Um, scared to death. […] 'Cause I've had a few times where I've had good frights. But, I don't think I've ever really been that scared.

ØR No? But tell me a story about a time you got scared.

SP5 Um, there was a. There's been a couple of times where I've tried to go, it was during trips. And we tried to get up ladders and stuff. And to climb one, there's three beams if I remember. You know, to climb up, walk alone and do that. But I'm scared to heights, so would be terrified and ask to come down. And, my mom's boyfriend scares me quite a lot 'cause he jumps out at me. And I randomly, I could walk in the house and he'd try and hide somewhere near, just jump out. Just, at me. Yeah, that's quite annoying. And one time, he actually hid underneath my dressing gown. Yes, he hid in my bedroom under my dressing gown, 'cause my pile of clothes are so large I couldn't tell what's under there. And he jumped out at me, and I was just sticking myself down there, just. Came out of… I was like [screams].

ØR [laughs].

Speaker 13

ØR So, um, tell me a story about some of the things you did at school.

SP13 Oh, at school, gosh. Um, I went to a very small, local primary school. Um, it was a catholic primary school. We were a Roman Catholic family, which was quite unusual in our street. And, on holidays of obligation we would have to fast before we went to communion. If you're not a Roman Catholic you may not understand this; it may seem a bit odd. But, we didn't have breakfast before we left home, because we had to fast for three hours before we had communion. And so, it was always cold in the wintertime, and we would go to school. First of all, we'd go to school and then we would be walked to the church. We went to mass, and then the entire school walked back from the church to the school, and as a treat we took our breakfast with us. And it was the only time we were allowed to eat in the classroom, and so we took our breakfast, which was like a packed lunch, and we had breakfast at ten o'clock in the morning. Which was… which to us just seemed magical, to do such a thing, it was out... it wasn't a normal school routine, and that was always great fun. Because you had your breakfast, and then it was playtime [laughs].

ØR U-huh. And, um, talking a little bit about the language. Do you think the language has change much in Edinburgh from when you grew up, and do you think… has the language changed?

SP13 Yes, language has. Language has changed I would say probably worldwide, but it has definitely changed here. Yes, the… I think there's less formality now. I was very conscious as a child. We were taught grammar and you applied the rules of grammar very precisely. And we had a sense of what we used to call, I don't know if they still call it now, register. You knew to whom you would speak in one voice, and other people you could be, like, your friends. But with adults, you'd generally speak very formally, very politely, and always with correct grammar. Now, it doesn't happen. I'm very conscious of this with my own children. My own children are twenty-one and twenty-three. And I have, to this day, they will say to me: "Mom, you're the only person in this world who bothers about grammar". Because I'm very particular about, not about the way they speak. They can speak to each other however they like, but they must be conscious that it's important to know the difference. And I think it's… there's a kind of a blooding of the ages now with all the technology that goes.

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