1 Introduction

> For its novelty to the newcomer,
> its variety and its preserving so much that is historical,
> Carlisle's must surely rank as one of the
> most interesting city dialects in the British Isles
> (Wright 1978: 15)

This is a sociophonetic study of speakers from Carlisle, Cumbria in the far north west of England, an area which has had little attention from a dialectological and variationist sociolinguistic point of view. Language change in the community is studied by investigating variation in the speech of adults of different ages. The results are set in the context of geolinguistic processes, i.e. geographical diffusion and dialect levelling. These are mechanisms in dialect contact situations which lead to language change.

The thesis examines six phonological features of Carlisle English in a variationist sociolinguistic framework. Auditory and acoustic methods as well as statistical modelling are employed to investigate processes of language change. The following research questions are addressed:

- Which geolinguistic processes are observable?
- How does linguistic variation pattern across the social categories age, sex and social class in Carlisle English?
- Is variation leading to language change? If so, are these changes led by internal or external motivation?
- Can geolinguistic processes explain variation and change in the linguistic system of Carlisle English?

The book is structured as follows:

Chapter 2 presents the theoretical framework of this study. I concentrate on a dialect contact framework since dialect contact (often due to mobility) is responsible for various changes that have occurred and are occurring in varieties across the north of England. Of considerable interest is Trudgill's (1986) seminal work *Dialects in Contact*. Processes such as geographical diffusion and dialect levelling are identified as key processes in dialect contact scenarios. Moreover, external an internal factors of language change are discussed.

Chapter 3 introduces Carlisle as research site comprising essential geographic, demographic and historic background information.

Chapter 4 provides a detailed account of the data collection and highlights relevant issues in connection with the fieldwork.

In **chapter 5** the variation of the following phonetic variables is discussed:

The first of these variables is the degree of fronting of the GOOSE vowel. In addition, results of possible fronting of GOAT and FOOT are discussed in relation to the GOOSE vowel. For studying variation and change in Carlisle English vowels, acoustic phonetics as a mean of measuring variation has been chosen.

The use of (T) in intervocalic and word-final position such as *butter* or *hat* but not in word-initial position such as *tea* is analysed. In contrast to the vowel variables, the consonant variables are studied by auditory means.

The use of (R) in words such as *red*, *merry* and *free* is considered. However, /r/ in final or pre-consonantal position (rhoticity) such as *pair* or *park* are not taken into account here.

The use of voiced and voiceless variants of (TH) in words such as *other*, *breathe*, *three, something* and *north* is analysed.

The sociolinguistic variables have been selected because of their ubiquity in northern English varieties due to diffusional mechanisms (e.g. Burbano-Elizondo 2006; Llamas 2007; Atkinson 2011; Flynn 2012). One goal is to observe whether these features are already part of Carlisle English despite Carlisle's geographical distance from London. Another goal will be to see if a change in progress is observable. The diffusional mechanisms within the community but also in relation to other urban areas in close proximity to Carlisle will be taken into account.

In **chapter 6** the results obtained in chapter 5 are discussed and common themes are identified. They are related to theories and findings in the literature on language variation and change. The research objectives proposed in this chapter are revisited in the light of the results. In addition, the results are linked to social practice in Carlisle English. The analysis of social practice of people can yield important insights into the linguistic behaviour.

The conclusion in **chapter 7** completes the book.

2 Theoretical framework

This thesis draws on sociophonetic methods. The study provided here describes variation and change processes in Carlisle English. Dialect contact is an important factor in dialect change and this is the starting point for this study. I investigate changes in Carlisle English which are due to dialect contact scenarios, in particular the geolinguistic processes *diffusion* and *levelling*.

2.1 Dialect contact

This part of the chapter deals with the dialect contact framework. Dialect contact due to mobility lies at the heart of the geolinguistic processes diffusion and levelling which have been discussed widely in the sociolinguistic literature in recent years (e.g. Trudgill 1986; Britain 2002; Kerswill 2003; Steele 2008; Atkinson 2011; Flynn 2012).

Mobility increased dramatically over the course of the 20th century and is a major part of today's society. Increased mobility leads to an increase in contact between individuals from different geographical and social areas and thus to the increase of dialect contact scenarios which Trudgill (1986: 1) defines as "contact between varieties of language that are mutually intelligible."[1] Possible contact scenarios are when people go on holiday or when they travel to the next bigger city for shopping or for cultural events. These are rather short-term contacts and are often discarded in dialect contact research while commuting and moving can be interpreted as long-term contact situations which can lead to and further language change. But not only mobility can influence language change. The area that people orient themselves towards or away is also an important factor (cf. Montgomery 2012; Leach, Watson and Gnevsheva 2016). Britain (2010b) emphasises social practice, attitudes and orientation as key factors for dialect change scenarios.

In the following part I present various processes that are related to dialect contact scenarios.

1 In contrast to language contact scenarios that can lead to different outcomes such as bilingualism, diglossia, pidgins and creoles.

2.1.1 Accommodation

Accommodation has to be seen as a supposition in dialect contact scenarios. It refers to the linguistic changes on the individual level in short-term contact situations. In general, speakers tend to modify their speech towards or away from their interlocutor. This hypothesis is put forward by Giles and Powesland (1975 quoted in Trudgill 1986) in the *communication accommodation theory*. Their explanation for such behaviour is similar to positive politeness strategies found on the pragmatic level.

> The essence of the theory of accommodation lies in the social psychological research on similarity-attraction. This work suggests that an individual can induce another to evaluate him more favourably by reducing dissimilarities between them. The process of speech accommodation operates on this principle as such may be a reflection of an individual's desire for social approval (Giles and Powesland 1975: 157).

Studies have shown short-term accommodation of speakers towards the interlocutor. Coupland (1984) demonstrates in his study that a travel agent accommodates her speech towards her customers. Bell (1984) on the other hand analyses the accommodation of radio presenters to their invisible audience (an approach which is also called *audience design*). However, short-term accommodation and long-term accommodation have to be distinguished. Auer (2007: 109) restricts the impact of short-term accommodation when he states that "it cannot be taken for granted that the social psychological model which explains interpersonal accommodation can be expanded to explain long-term dialect accommodation as well." Thus, he argues that while short-term accommodation is a non-permanent change, long-term accommodation might lead to changes that last and modify the original variety considerably.

Trudgill (1986: 24) claims that long-term accommodation follows a fixed route, i.e. speakers with a similar linguistic background acquire features of another linguistic background in a similar manner. He bases this assumption on data of English citizens acquiring American English features as a result of long-term accommodation. Trudgill ascribes an important role to *salience* in the accommodation process which he defines as "due to factors such as [...] stigmatization, linguistic change, phonetic distance and phonological contrast" (Trudgill 1986: 11). A predecessor to the concept of salience is Schirmunski's (1928/29 and 1930 quoted in Schwarz, Spiekermann and Streck 2011) model of primary and secondary dialect features. Schirmunski argues that primary dialect features are more ostentatious than secondary dialect features which lead to the loss of the former ones in dialect contact situations (see Lenz 2010 for a historical overview on the notion of salience).

However, the concept of salience is highly debatable. Meyerhoff (2011) criticises the term salience as "a maddeningly under-defined term when used in sociolinguistics" and different approaches to define salience exist: Hickey (2000) provides a list of possible triggers for salience. He does however emphasise that none of these factors can be given more importance than others and that they can co-occur. His list of factors includes acoustic prominence, homophonic merger, system conformity, deletion and insertion, grammatical restructuring, openness of word class, the loss of vernacular features and retention of conditional realisations. Hickey (2000: 13) suggests that "the features involved are always strongly local and contrast with their lack in varieties which are less regionally bound, more 'standard' in the sense that they are not primarily indicative of a specific geographical area or of a social group."

Kerswill and Williams (2002) introduce a model which takes salience into account as a possible factor in language change. Social factors as well as language-internal factors are important in their approach to explain salience, e.g. stark phonetic contrast. However, internal factors are only a prerequisite for features to become salient.

Auer, Barden and Grosskopf (1998) observe changes in the speech of individuals in a long-term dialect contact situation. They choose various factors mentioned by Schirmunski and Trudgill and divide them into subjective and objective aspects: articulatory distance, areal distribution, phonemicity, continuous vs. dichotomous structure, lexicalisation as objective criteria and code-switching, representation in writing and stereotyping as subjective criteria. They find that some of the categories are not at all applicable. One main finding is that salience cannot be reduced to single factors but rather is a complex process, e.g. salience does not seem to have an influence on strong accent features in their case study but only on features they classify as weak forms. Therefore, Auer, Barden and Grosskopf (1998: 184) come to the conclusion that "subjective and objective parameters in determining salience are therefore not mutually predictive." Based on the results of the case study, Auer, Barden and Grosskopf (1998: 168) criticise Schirmunski's (1928/29) as well as Trudgill's (1986) concept in that salience in the two processes of levelling and diffusion are not seen separately.

Labov (1972a) categorises linguistic features according to their awareness in a community, i.e. *indicators, markers* and *stereotypes*. For example, in the sociolinguistic interviews Trudgill conducted in Norwich he notes that he adapted some linguistic features of some of the interviewees. While Trudgill (1986: 7-11) accommodates his use of T-glottaling to the interlocutor, his use of [a:] is fairly constant and does not conform to the use of this feature by the interlocutor.

Trudgill suggests that T-glottaling must be what Labov defines as a marker while [aː] is rather an indicator in Norwich English. Linguistic indicators show only limited style shifting while markers are subject to it. The comparison of indicators and markers on an awareness level shows that speakers are usually not aware of variation of indicators while markers are sometimes commented on, and style shifting of markers points to awareness of the variation.

Accommodation has to be seen as umbrella term for two processes: Convergence seems to be the expected result of accommodation. However, linguistic divergence, though less well reported, is a possible outcome as well. Hickey (2000) suggests the concept of *dissociation* in opposition to accommodation:

> The notion of dissociation is diametrically opposed to accommodation, the approximation of individuals to the speech of their interlocutors. The latter is taken to be – and have been – a powerful force in dialect differentiation as pointed out by sociolinguists repeatedly, above all by Peter Trudgill (Hickey 2000: 303).

Figure 2.1 and Figure 2.2 present the differences in concepts between the short-term social psychological model by Giles and Powesland and the dialect contact model by Hickey. Giles and Powesland's concept of accommodation is divided into convergence and divergence.[2] For Hickey on the other hand, dialect contact situations are split up into accommodation and dissociation instances. However, linguists tend to use the terms divergence and dissociation synonymously, e.g. Watts (2005: 9).

Giles and Powesland (1975) promote a model where a short-term contact situation is the point of departure. The contact scenario leads to the socio-psychological process of accommodation which can take the form of convergence or divergence towards a speaker. Trudgill (1986) applies this model to short-term dialect contact scenarios and hypothesises that convergence and divergence are also the outcomes when two speakers of different dialects come in contact.

2 Auer (2007) distinguishes between positive and negative dialect accommodation.

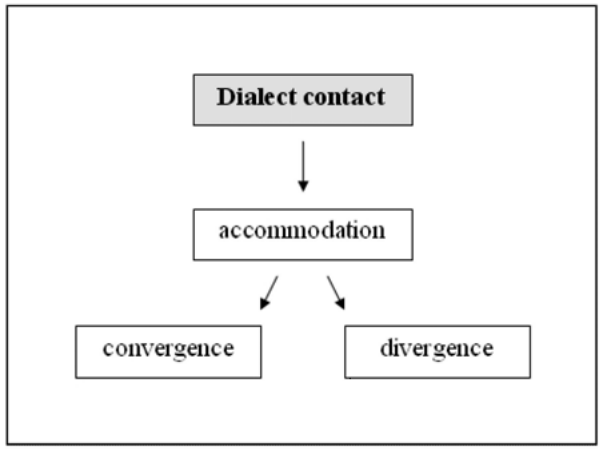

Figure 2.1: Accommodation as described by Giles and Powesland (1975; cited in Trudgill 1986)

Hickey (2000) on the other hand criticises the fact that the term accommodation only describes the process where speakers attune to their interlocutors but not the process where speakers distance themselves linguistically from their interlocutors. This process is also not very well recorded in linguistic studies; though there are instances of this behaviour observed in ethnographic studies, e.g. Jones (2012: 198, 200-203). In his model, Hickey (2000) describes accommodation as the positive outcome of a dialect contact situation, with dialect convergence and dissociation as the negative effect, i.e. dialect dissociation.

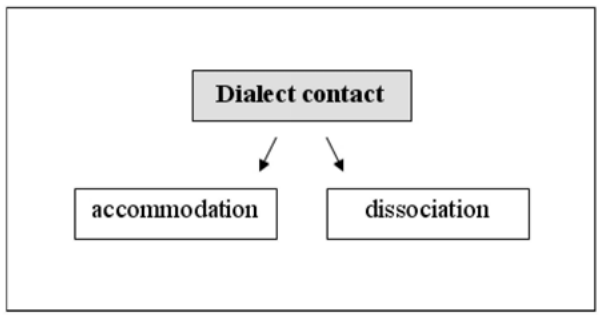

Figure 2.2: Accommodation process as described by Hickey (2000)

Both models can be justified. While Giles and Powesland (1975) focus on the social psychological side of accommodation, Hickey (2000) concentrates on the (long-term) linguistic outcome. However, an important point which has to be made is that while accommodation towards an interlocutor is foremost an unconscious process, dissociation or divergence in contact situations is very likely a conscious decision that a speaker makes. Yet this assumption needs to be tested. Researchers also have to trial whether accommodation has repercussions on long-term dialect contact outcomes.

Divergence patterns are widely recognised, i.e. young people in a speech community try to dissociate from older speakers, MC speakers dissociate from WC speakers and vice versa. For instance, Watt (2002) suggests that young speakers of Newcastle English do not want to be identified with the old "cloth cap and clogs" image of the city anymore and therefore turn to a more general Northern feature which he interprets as dialect levelling. In a similar vein, Hickey (2005) explains the recent changes in Dublin English. But not only is dissociation likely due to age but also due to social practice (cf. Moore 2010). Geographical dissociation is observable in the north-east of England, where Burbano-Elizondo (2006) and Llamas (2007) have shown that some groups do not want to be associated with Newcastle and therefore linguistically dissociate from its linguistic norms.

2.1.2 Levelling

One possible macro-linguistic outcome of dialect contact is *levelling*. In recent years, this geolinguistic process is a ubiquitous finding in European languages (cf. Foulkes and Docherty 1999b; Britain 2002; Kerswill 2003 for Britain; Boughton 2005 for France; Hinskens 1996 for the Netherlands). Even though many researchers had already stated that dialect features are lost, Trudgill (1986: 98) proposes a model of levelling as a process in which contact between speakers with different dialectal backgrounds leads to the levelling of local dialects. He defines levelling as "the reduction or attrition of *marked*[3] variants" (emphasis in original).

3 Markedness is a concept which is often confused with salience. Marked features are features that are typologically infrequent, i.e. a linguistically objective category while salience is relative to the speaker group. Trudgill (1986: 98) defines markedness as "unusual or in a minority." A feature that is salient to one group of speakers does not have to be salient to another group. This fact has consequences for the language change process.

Kerswill (2003: 224) unravels the terminological ambiguity of the term levelling in that he distinguishes between the two related concepts *regional dialect levelling* (= supralocalisation/diffusion) and *levelling*. He argues that the former concept is an outcome of geographical and social processes. The latter term should be used in the sense that Trudgill (see above) referred to it: the process of delimiting the linguistic variables of a variety.

Watt (2002) provides evidence that the local diphthongal variants of FACE and GOAT in Newcastle English are undergoing a levelling process and are replaced by the pan-northern monophthongal forms which young speakers associate with 'modern northerners.' They do so by adopting features which are perceived as non-local. Foulkes and Docherty (1999a: 14) point out that "it seems to be important, too, that the incoming features do not signal any other particularly well-defined variety, because of the potential signalling of disloyalty to local norms."

Even though one can detect convergence of varieties in addition to the spread of innovative forms nationwide, these changes are locally determined and have to be analysed under this premise. "The specific attributes of any given locality are paramount in the explanation of the emergence of a supralocal variety" (Watts 2005: 19). On the surface geolinguistic processes might be accountable for variation within a variety but underlying patterns might indeed be the driving force for the variation. Thus, a detailed analysis of a change is necessary in order to detect and explain linguistic patterns.

2.1.3 Geographical diffusion

Another geolinguistic process that recently has attracted a lot of attention from scholars is *geographical diffusion*. In recent years, many studies in the dialect contact framework have been dealing with geographical diffusion of linguistic features. Boberg (2000: 1) describes geolinguistic diffusion as "the process by which linguistic changes spread geographically from one dialect or language to another" while Kerswill (2003: 223), defines it as "features [that] spread out from a populous and economically and culturally dominant centre" which entails a hierarchy. In particular consonants in British English are "torchbearers of geographical diffusion" (Kerswill 2003: 231), i.e. mainly consonants are diffusing across the country in a fast manner.

The diffusion of features is enhanced by loose social networks when a change progresses through a community. Mobility is the main reason for close-knit networks to break up into loose social networks. Close-knit networks are more traditional in their language choice than loose networks which often are the

engines of diffusion. Individuals in loose networks are in contact with many people often on an infrequent basis, and often from outside a community which leads to various dialect contact situations. Therefore, they are usually the ones who adopt changes easier and faster than people in a closed circle of friends and family who are usually restricted in their contacts to small areas (cf. Milroy 1987: 202-203, 213).

Inter-speaker communication is thus the core issue for supralocal changes. Britain (2010b) emphasises the importance of physical and social space for the diffusion of linguistic features. The habits and daily routines of individuals have changed dramatically over the course of the 20th century (cf. Watts 2005; Britain 2010b). Mobility, commuting, out of town shopping and attending university away from home are all social practices that have developed and increased only in the last sixty years or so (cf. Beal 2010). It is very likely that these factors are influencing the diffusion of linguistic features which is observed in Britain. Spatial practice (Britain 2010b) and mobility (Milroy 1987) are both interrelated factors which can have linguistic effects. Thus, spatial practice might be a social factor which influences dialectal variation.

Wolfram and Schilling-Estes (2006: 154) emphasise that dialect diffusion can happen on a horizontal dimension (geographically) as well as on a vertical dimension (socially). If a diffusional change arrives in a community, it is usually one social group that promotes the change before it extends to the use of other social groups. Thus, the use of linguistic features can be indexical for being part of a certain group. For example, the use of glottal stops used to be indexical for Cockney speakers, i.e. WC speakers living in London's East End. This enregisterment has decreased in London recently due to the spread of this feature to other vertical dimensions. Thus, today T-glottaling is also used by middle class speakers in London (cf. Altendorf and Watt 2008). This linguistic feature has also spread horizontally so that the use of T-glottaling is found in other areas around Britain.

Chambers and Trudgill (1998: 167) identify four ways in which sound change can diffuse within a variety.

1. Sociolinguistic diffusion: social group to social group
2. Lexical diffusion: word to word
3. Linguistic diffusion: linguistic environment to linguistic environment
4. Spatial diffusion: place to place

These kinds of diffusion usually do not happen in isolation but are intertwined. In this particular study I will analyse the sociolinguistic, linguistic and spatial diffusion of selected features of Carlisle English.

Beal (2010: 73) states that "changes involving diffusion have an identifiable historical starting point and geographical trajectory: 'new' variants can be seen to have spread or to be spreading, displacing 'old' variants indigenous to the places affected." For the consonantal changes observed in Britain in recent years, it is often assumed that some these changes started in the south-east and in particular in the East End of London (with the exception of T-glottaling which seems to have originated in two separate regional centres (cf. Beal 2007; Schleef 2013; Smith and Holmes-Elliott 2017).

Diffusional changes do not spread in a uniform way. Britain (2009: 137f) gives an overview of different diffusional mechanisms. The diffusion of linguistic features in a *wave* or *contagious* manner describes a model of a spread of innovations from a central area, first to places in close proximity to the centre and then to places which are geographically further away. Boberg (2000) describes this diffusional pattern for (a) from the USA to Canada. On the U.S. side of the border, the innovation first reaches areas that are geographically closer, before it spreads to centres in Canada. Kerswill (2003: 234) claims that TH-fronting and other consonantal variants are diffusing in this manner in the south of England and then across the country.

A second model of diffusion is the *urban hierarchical* or *cascade* model where an innovation reaches urban areas earlier than smaller, geographically closer areas. Labov (2003) claims that the Northern Cities Shift in the USA can be interpreted as a diffusional change according to the urban hierarchical model. He argues that this change was first observed in the largest cities Chicago, Detroit and Buffalo, but now involves a large number of smaller cities.

Bailey et al. (1993: 361) argue that the gravity model, introduced by Trudgill (1974: 235), is a model to explain and predict hierarchical diffusion by calculating the interaction between two places on the basis of overall population and distance.

Even though diffusion is explained by the gravity model in sociolinguistic studies, e.g. West (2013), there are some issues. First and foremost, the model does not take any geographical boundaries such as hills, lakes or valleys into account which could prevent contact situations between speakers. In addition, Bailey et al. (1993: 361) point out that linguistic diffusion might not be a clear-cut business. They mention important factors which have to be taken into account when data is discussed on the ground of geolinguistic diffusion models.

> [...] our research shows that the emergence of focal areas for linguistic diffusion is not solely a consequence of the size of the population of those areas. The demographic makeup of the metropolises, their location in particular dialect areas, and their prox-

imity to innovations spreading from other areas all contribute to their emergence as focal areas.

Wolfram and Schilling-Estes (2006: 154) provide examples where the gravity model fails due to geographical isolation, e.g. isolated parts of the Southern mountain ranges of Appalachia and some of the islands off the Atlantic coast such as Smith Island, Maryland. They point out that "this model rarely works out neatly or symmetrically" (Wolfram and Schilling-Estes 2006: 155). They refer to the work by Rogers (1995), who names five factors which (at least) influence the diffusion of cultural innovations, such as customs: "(1) the phenomenon itself, (2) communication networks, (3) distance, (4) time, and (5) social structure." Though Wolfram and Schilling-Estes point out that linguistic diffusional processes are quite different from other kinds of (cultural) diffusion, they argue that a wave diffusion model can hardly be reduced to distance and time (cf. Britain 2010a: 149–151; Britain 2002).

The gravity model also fails to explain cases of resistance to diffusion. Watson (2006) reports that the use of glottal stops for (T) is not attested in Liverpool English. Merseyside seems to be resisting the change while the feature has indeed diffused to other varieties in surrounding areas such as West Wirral (Newbrook 1999). Watson (2006) argues that the reason for this resistance is the language internal lenition process with the variants slit-t and [h] for the (T) variable which stand in structural contradiction to T-glottaling, even though the use of glottal stops can be interpreted as a lenition process as well. Thus, not only do language external factors play a role for the diffusion of features, language-internal factors do as well.

The *cultural hearth* diffusion model explains a diffusion pattern which spreads from an urban centre to the surrounding area first before it spreads to other urban areas. For example, this pattern is attested for Australian English. Horvarth and Horvarth (1997, 2001, 2002, cited in Britain 2010a: 148) show that L-vocalisation is attested in and around Adelaide first and then spreads to other regions of the country instead of diffusing from the central focal areas Sydney or Melbourne.

A fourth model is the *contra-hierarchical* diffusion. In this model, innovations spread against the urban hierarchy, i.e. they are observed in rural areas first and then spread to urban areas. This kind of diffusion is rarely found. Trudgill (1986: 47-49) gives an example from his East Anglian research where smoothing effects reduce triphthongs such as in *tower* to monophthongs in the more rural Northern part of the East Anglian region and then spread to the larger towns.

Overall, the diffusion of linguistic features is not restricted to one type but it is possible to find different patterns for one community (Bailey et al. 1993). They