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Sociolinguistic Variation on the Scottish–English Border

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Introduction

It is regularly asserted that the interface between the dialects of southern Scotland and those of the far north of England is still a relatively sharp one, and that it persists in coinciding closely with the political border in spite of the presence of conditions which, in other contexts, have been shown to promote linguistic convergence. In this chapter, we explore some of the phonetic evidence we have gathered in order to test these claims.

The border separates two constituent nations within a single state, the United Kingdom. The previously independent kingdoms of Scotland and England were joined by the 1706/1707 Acts of Union, by which point they had already shared a monarch for more than a century. For a considerable span of time there has been no hindrance to movement between the two countries, facilitating plentiful contact between people living on either side of the border. The isolation of the border region from large urban centres was drastically reduced with the construction of railway connections between London and the Scottish Central Belt cities during the nineteenth century (Evans and Gough 2003; Lynch 2011), assisting with the diffusion of linguistic innovations, and the spread of standard (English) English throughout the whole of Britain via schools, the clergy, and the media.

The linguistic border has nevertheless remained extraordinarily resilient to these socio-historical forces. It has long excited interest among dialectologists, and in more recent years sociolinguists have devoted significant attention to a boundary which is arguably unique in the English-speaking world. A recent major sociolinguistic research project, *Accent and Identity on the Scottish/English Border* (AISEB), sought to investigate the effect of the border on phonological patterns among inhabitants of the region. We describe some of the results of this analysis in the remainder of this chapter, focusing on the (r) variable in the speech of people in four border communities (Carlisle, Gretna, Eyemouth and Berwick-upon-Tweed) which were chosen by virtue of their proximity to the border, their positions at its

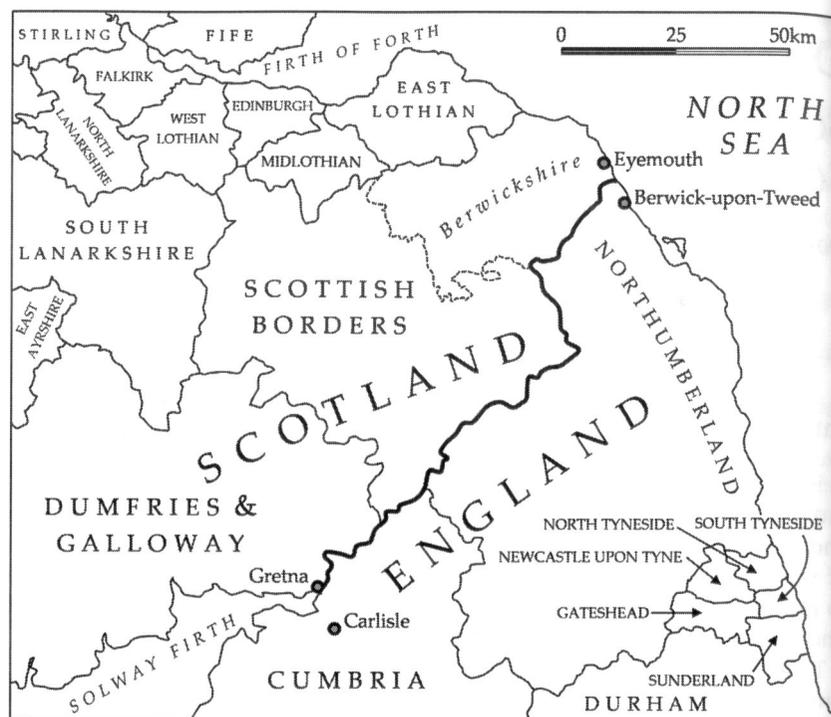


Figure 5.1 Map of the Scottish-English border region, showing the four AISEB localities and other nearby population centres

extreme ends, and the fact that they are 'paired' (see Figure 5.1). The effects of speaker gender, speaker age, and speech style (read versus spontaneous speech) on variation in (r) are considered, and we also assess the potential influence of Scottish Standard English (SSE) on patterns of (r) use in the two Scottish towns.

Background

Well over a century's worth of dialectological research has offered support to the assertion that the political border between Scotland and England coincides with a set of abrupt, and highly durable, linguistic discontinuities (see e.g. Ellis 1889; Zai 1942; Kolb 1966; Kolb, Glauser, Eimer and Stamm 1979). It is no accident – indeed, it seems natural – that the territories investigated for the two principal dialect surveys carried out in the UK during the twentieth century, the *Linguistic Survey of Scotland* (LSS; Mather and Speitel 1975–86) and the *Survey of English Dialects* (SED; Orton and Halliday 1963–64), should be these two, rather than a pair of zones chosen

according to some other well-motivated set of linguistic criteria, like (say) the north versus the south of Britain. For one thing, while English is spoken in both Scotland and England, varieties of Scots are to be found only north of the border, except if one is prepared – as were Mather and Speitel – to classify the vernacular of Berwick as a variety of Scots. But it is also true to say that Scottish English is sufficiently different from the varieties spoken south of the border that even if one only took English into account, it would not be difficult to justify making one's first incision across the dialect map of Britain using a line drawn from the Solway Firth to the mouth of the Tweed.

In a chapter of this length it is not feasible to attempt even a brief summary of the historical development of the Scottish/English border as a major linguistic divide, so the reader is referred instead to relevant sections of Jones (1997) or Corbett, McClure and Stuart-Smith (2003), and to the numerous other sources cited in the chapters in this book. Several articles by Beat Glauser (1974 *et passim*) and Paul Johnston (1980, 1997) deal specifically with dialect variation along and across the border, with an emphasis on the description of phonological and lexical differences. Recent work by Pichler (2009), Montgomery (2012) and Bour (2013) provides new angles on linguistic variation in the region, and makes an important contribution to the growing body of literature on the role played by linguistic variation at this and other political boundaries in the construction, projection and maintenance of social identities (Alvarez 1995; Meinhof 2002; Filppula, Klemola, Palander and Penttilä 2005; Woolhiser 2005; Llamas 2010; Armbruster and Meinhof 2011; Watt and Llamas 2014).

At only around 100 miles (160 km) long, the Scottish/English border is short compared to other significant dialect boundaries in the English-speaking world, but this has not discouraged some from portraying it as an unusually entrenched divide. Owing to 'the separation of the two kingdoms since early times', Aitken (1992: 895) contends, 'what appears to be the most numerous bundle of dialect isoglosses in the English-speaking world runs along this border, effectively turning Scotland into a "dialect island"'. This might seem a touch overstated, however, in that while it is certainly possible to identify a host of linguistic features which distinguish Scottish English from northern English English, the dialects also share a diversity of grammatical and lexical properties (Beal 1993, 2008b; Pichler 2009). Several phonological commonalities also exist. Features such as MOUTH monophthonging (/u:/) rather than /au/ in words like *mouth*, *town*, etc.), the set of context-conditioned vowel duration alternations known a little misleadingly as the Scottish Vowel Length Rule (Watt and Ingham 2000) and front vowels in items like *stone* and *home* ([stɛ:m], [hɛ:m], etc.; Johnston 1997; Beal 2008a; Maguire 2012) are found in both. The differences do not appear to impede cross-border communication greatly, either: local people often exaggeratedly describe their speech as 'completely different' from that

of their near-neighbours across the border, but listeners from communities further removed from the border will often observe that in places like Berwick or Gretna, the local speech sounds like a mixture of Scottish and northern English varieties (Kiely, McCrone, Bechhofer and Stewart 2000; Watt and Ingham 2000).

In view of the aforementioned frequency of trans-border contact, such hybridity is scarcely surprising. The borders region is sparsely inhabited by British and indeed European standards, and settlements on the Scottish side are few and very small compared to those just over the other side. When one compares the populations of Eyemouth (3400) and Berwick (12,000), or Gretna (2700) and Carlisle (107,500),¹ it is understandable that the two larger communities inevitably exert much greater economic and social gravity, and do so across quite large regions which straddle the border. Furthermore, there are no settlements bigger than villages close to the border's middle reaches and, owing to relatively poor east-west transport links, inhabitants of the coastal border towns will have many more opportunities for regular face-to-face interaction with people from the other side of the border than they will have to meet and talk to people from the border's far end, some 90 miles (145 km) distant. The distance between our pairs of localities is in both cases no more than one-tenth of that. Aside from this, Gretna and Eyemouth are very different places in historical and economic terms. The former owes its existence to the need during the First World War to house workers hired from around the region for jobs in the world's largest munitions factory, a complex some 12 miles in length straddling the border, while Eyemouth is, like Berwick, a fishing port with a tradition of seafaring spanning several centuries. Thus, it seems safe to say that on the level of cultural norms, and to some extent linguistic ones, the inhabitants of the Scottish towns of Gretna and Eyemouth have at least as much in common with their English neighbours as they do with each other (cf. Pike 2002).

Taking these factors into account, along with the patterns of migration and mobility which characterise the contemporary social geography of the UK (e.g. counterurbanisation and an increase in long-distance commuting; see Britain 2010, 2014 in press), it might reasonably be supposed that – no matter how linguistically isolated this part of Scotland might once have been from northern England – the status of the border as a dialect boundary as well as a political divide must inexorably weaken. However, before the turn of the century some observers, such as Glauser (1997), or the Scots language campaigner Billy Kay (Kay 1986), predicted that in ensuing decades the linguistic border would become more, rather than less, sharply resolved. They argued that this would be one reflex of a reinvigorated Scottish national identity. A regained confidence in being Scottish would, Glauser and Kay argued, lead to the strengthening of linguistic differences, in part via resistance to language changes originating south of the border, and also through the consolidation of SSE as the national standard variety. These predictions,

reiterated (Glauser 2000; Kay 2006) in the wake of the 1997 devolution vote which restored the parliament in Edinburgh and laid the ground for the 2014 independence referendum, are not founded on direct empirical evidence, however, and are thus essentially speculative. In the light of the strident pro-Scots stance he takes in his book and TV series *Scots: The Mither Tongue*, one cannot help wondering whether Kay's prognosis is based at least in part on his personal – but far from universally shared – desire to see a retrenchment of the linguistic boundary and a more prominent place for the Scots language in education and public life.

The need to investigate the continuing status of the political border as a major watershed in the British dialect continuum, and to probe local speakers' social and psychological motives for maintaining the divide, was the impetus behind the *Accent and Identity on the Scottish/English Border* (AISEB) project.² AISEB followed a tripartite 'production–attitudes–perception' design, which allowed us first to quantify pronunciation patterns in the speech of a total of 160 informants resident in Berwick, Carlisle, Eyemouth, and Gretna (i.e. 40 per location). We could then relate these production data to informants' social and political attitudes expressed in response to a sociolinguistic interview questionnaire, and to the results of a series of perceptual tests run on a subset of 40 participants (10 per location).

The phonological variables chosen for investigation in the production strand of AISEB are a mixture of vowels and consonants which were known in advance to vary systematically in the accents under investigation. We focus here on just one of these, (r), which – as is demonstrated in other chapters in this volume – is one of the principal features distinguishing Scottish from English varieties.

(r) on the Scottish/English border

Interest in the politics and economics of trans-border identity in Scotland and England has generated or informed significant quantities of social scientific research literature (see e.g. Kiely et al. 2000; Pike 2002; Stockdale 2002; Gill 2005; Atterton 2008; Bond, Charsley and Grundy 2010), and it is acknowledged in several of these sources that language behaviour plays a key role in the claiming and attribution of identity in the region. Kiely et al.'s study in Berwick found that accent and dialect were foremost among the criteria people in nearby communities used to evaluate Berwickers' claims to either Scottishness or Englishness (or indeed both simultaneously, as Kiely and his colleagues found surprisingly often). They pursued this lead no further, however, and made no attempt to specify what might make Berwickers sound 'Scottish' to English listeners on the one hand, and 'English' to Scottish listeners on the other.

We identified (r) as a key member of the set of phonological variables most likely to fulfil these indexical functions. The decision to focus on (r)

was taken on the basis of observations found in earlier dialectological and sociophonetic studies (e.g. Glauser 1974, 2000; Johnston 1997), via our own informal comparisons of the speech of individuals from either side of the border before and after the AISEB fieldwork commenced, and from the frequency of comments about (r) which were made by the interviewees themselves. When asked about accent traits which help identify a borderer's origin, informants mentioned (r) more often than any other feature, volunteering observations about Scots 'burring their r's' and English people dropping them. Indeed, the alveolar trill is probably the most stereotyped feature of Scottish English, even if it is in reality fairly uncommon in the speech of Scottish speakers (see Lawson, Scobbie and Stuart-Smith, this volume, and discussion below).

Methods

Participants

The informants for the study were men and women in two age groups – younger (16–25) and older (57+) – recruited using the 'snowball' method (Milroy and Gordon 2003) in the four border localities shown in Figure 5.1. Two widely separated age groups were chosen so as to maximise the opportunity to observe differences in apparent time, and to keep the scale of the project at a practical level. Forty individuals were recorded in each locality. So as to help put participants at their ease, and to increase the likelihood that they would talk freely and candidly in answer to interview questions, participants were recorded in self-selected pairs wherever possible, though in some cases it was necessary to interview them individually.

Materials

A range of different speech styles was elicited from each informant, through the use of a specially composed word list and text passage featuring (r) in a wide variety of prosodic and segmental contexts, and via a questionnaire which elicited informants' opinions about national politics, the significance of the border in their lives, their attitudes towards linguistic variation along and across the border, and their orientations to larger population centres in the wider region (Edinburgh, Glasgow, Newcastle, etc.). The interviews were recorded using professional-quality Marantz and Zoom solid-state digital recorders and high-quality external microphones.

Transcription and coding

The results reported below are based on auditory transcriptions of (r) in coda and onset positions in words drawn from the interview conversations and the word-list readings. The presence or absence of overt coda (r) – i.e. rhoticity – in candidate forms was noted, and the pronunciation of (r) was transcribed where an overt rhotic segment could be heard.³ Realisations of (r)

in onset positions, where a rhotic segment of some sort is obligatory, were recorded in the same way. Playback was performed using *Praat* software (Boersma and Weenink 2013) such that visual inspection of the spectrogram corresponding to each token could be made. This was often helpful when attempting to transcribe difficult examples, e.g. weakly articulated alveolar taps, which can be difficult to distinguish from alveolar approximants. Where transcription of a token proved particularly problematic, two or more transcribers listened to the relevant portion of the recording and agreed upon the IPA symbol(s) to use to represent the token, and regular checks were made of one another's transcriptions to ensure consistency across transcribers. Details of the phonetic variants themselves are given below.

Variation in (r)

Postvocalic (r)

As a broad generalisation, it would be uncontroversial to say that speakers of Scottish English more consistently pronounce an overt postvocalic (r) in words like *car* and *card* than do speakers of northern English varieties. Carlisle English is said to be fully non-rhotic (Hughes, Trudgill and Watt 2012; Jansen 2012), while the Berwick variety is at most sporadically rhotic (Llamas 2010). Derhoticisation of Berwick English appears to be a relatively recent development which follows a pattern seen elsewhere in Northumberland and throughout almost all of northern England. There are areas of rural Northumberland in which rhoticity (at times realised using the uvular 'Northumbrian burr' [ɣ]) can still be heard, but by and large these pronunciations are highly recessive or altogether extinct in this part of England (Beal 2008a).

As other entries in this book make clear, it would be wrong to suggest that rhoticity is robustly present in all varieties north of the border, however. Reports of the derhoticisation of Glaswegian English date, according to Johnston (1997: 511), from the early twentieth century (Trotter 1901, cited in Macafee 1983: 33; also Rippmann and Robson 1913: 27–8). In contemporary Scottish English, the loss of coda /r/ in working-class Glaswegian speech is especially advanced, as demonstrated in the work of Lawson et al. (this volume) on English in the urban Central Belt (see also Schützler 2010 for recent data from Edinburgh). In areas of Scotland away from the Central Belt, however, full rhoticity tends to be preserved in most areas. This holds true right up to the English border, though as we will see below, the border does not act as a sharp rhoticity/non-rhoticity heterogloss for its entire length. Johnston (1997: 511) notes that /r/-vocalisation is spreading southward from urban Scots 'even ... into Wigtownshire, Berwickshire and the Borders'. He does, however, note that it might be premature to describe this process as /r/-deletion per se, because its outcome – /r/-coloured and

'distinctly pharyngealised' vowels (ibid.) – indicates that a rhotic gesture is still present. The phenomenon might more accurately be described as one of /r/-weakening, especially in view of what is known about the retention of 'inaudible', sparsely acoustically cued lingual gestures by working-class Scottish English speakers (Lawson et al., this volume). On the other hand, Johnston also suggests that the pharyngealisation associated with weakened /r/ might just be the result of a generally pharyngealised articulatory setting in mid-Scots, making it more difficult to argue that a residual rhotic articulation is present. In support of this view, he cites evidence provided by Macafee (1994) to the effect that the appearance of /r/-liaison and the use of certain rhymes in Glasgow English give strong indications that Glaswegians can be just as non-rhotic as speakers of varieties which are uncontroversially non-rhotic.

It was not feasible to gather articulatory data for the current study, and the size of the data set sought meant that acquiring acoustic measurements for every token was also impractical. We rely instead upon detailed impressionistic transcriptions of a very large number of (r) tokens, which includes not just instances of (r) in coda position but also (r) in prevocalic environments. It is clear from the outset that (r) is pronounced using a very wide range of phonetic variants in this part of the world. These are discussed in the following section.

Phonetic variants of (r)

Glauser (2000) is of the opinion that the attrition of what he calls 'regional /r/' in the far north of England and rural southern Scotland is, like the loss of other localised consonantal features such as the phonemes /x/ and /m/, so well documented that detailed discussion of these changes would be redundant. By regional /r/, he means 'a flapped or trilled alveolar in Scotland, to a uvular continuant ... in Northumberland' (2000: 72). The alveolar approximant – or 'English [ɹ]', in Glauser's terms – is classified as one of several 'southern consonant features' (p. 71). Using data from the *Survey of English Dialects* (Orton and Halliday 1963–64), Kolb (1966), and Kolb et al. (1979), Glauser posits the existence of a heterogloss dividing the area in which 'English [ɹ]' occurs in onset #C/r/V clusters (*brown*, *green*, etc.) from the region in which more traditional trilled, tapped, and uvular pronunciations are used. This boundary runs to the north of Carlisle, but well to the south of Berwick. Indeed, practically the whole of Northumberland is shown to retain 'regional /r/'. He argues that /r/ is of particular perceptual importance:

Quite a few speakers say that the language on either side of the border is very similar; differences are said to make themselves felt in Edinburgh or Newcastle-upon-Tyne. On the whole, however, these speakers are

quite competent at detecting from matched-guise samples whether a voice hides a person from Berwick or the Scottish or the English side of the border. How they do this is not clear yet, but Berwick appears to have an 'English' /r/ as opposed to the rural Northumberland burr or the Scottish trilled or flapped alveolar. Whether this 'English' /r/ is going to spread in either direction would have to be investigated. (Glauser 2000: 75)

Glauser's dialectological sketch of the phonology of the border region is not detailed enough to be more than suggestive, however. By comparison, Johnston's (1997) treatment of /r/ in regional varieties of traditional Scots, and by extension regional and social varieties of Scottish English, is more informative. He observes that the approximant [ɹ] found in the high-status SSE of the cities is 'beginning to percolate into Scots, especially non-intervocally ... it seems more common in the west than the east, and more in codas than onsets' (Johnston 1997: 511).

Realisations of postvocalic (r) in varieties which retain rhoticity in the Scottish/English border region encompass a broad spectrum of pronunciation variants. Alongside the 'mainstream' alveolar approximant [ɹ], we find significant quantities of the alveolar tap [ɾ], a retroflex approximant variant [ɻ], a 'fricated' approximant [ɹ̥] featuring noticeable levels of friction noise, more rarely the alveolar trill [r̄], and 'back' (uvular, even pharyngeal) approximants and fricatives, e.g. [ʁ]. It is fairly common for the above variants to be devoiced in final pre-pausal position. Occasionally, in /r/-liaison contexts (linking and intrusive /r/, e.g. *soar up* and *saw up*, respectively), the labiodental approximant [ʋ] is used. The set of rhotics in onset and intervocalic positions is essentially the same as that found in postvocalic contexts.

Tokens of (r) in read (word list, reading passage) and spontaneous (interview) speech were coded auditorily using a detailed IPA-based transcription system which classified individual instances of (r) into a set of more than 40 variants, some of which were only subtly different from each other (e.g. a rounded alveolar tap versus a devoiced rounded alveolar tap). A classification scheme at this level of detail is unwieldy, so infrequent variants were pooled into broader variant categories, as were tokens exemplifying phonetic differences which we deemed to be of no special importance, e.g. devoicing of word-final alveolar trills, or friction accompanying a back (r) variant. A total of approximately 55,000 tokens was collected.

Six variants of (r) in coda and onset positions are allowed for: these are shown in Table 5.1. Note that the zero variant is not excluded as a possible variant of onset (r), as it does in fact very occasionally occur in onset clusters, as shown in the results in the next section.

Table 5.1 Variants of (r) coded for in the present study

Variant name	Symbol
Zero	∅
Back	ʁ
Central	ɹ
Tap	ɾ
Trill	ʀ
Labial	ʙ

Results

Coda (r)

Figure 5.2 shows the results for the coda (r) tokens produced in spontaneous conversation by 40 speakers, with the data for men and women pooled, in each of the four localities (total = 160). The sample has been divided by speaker age into old and young groups, and by phonological context, where VR indicates postvocalic (r) in absolute final position (*car, four*, etc.) and VRC means that (r) is the first element of a coda cluster (*card, fourth*, etc.). The data were subjected to statistical analysis using mixed-effects models with random intercepts for speaker and word.

Two broad patterns are immediately obvious. The first is that virtually no overt (r) occurs in the speech of the Carlisle or Berwick informants; although there is a little residual rhoticity among the older speakers in both localities, it amounts to only about one rhotic token for every 12 candidate forms in VR contexts (*car, four*, etc.). Overt coda (r) is rarer still in VRC items. In effect, then, these varieties have derhoticised. If the data for the two English localities are compared with those for the two Scottish towns, it is evident that in spite of the very small geographical distances involved, the trans-border speech patterns are very different with respect to rhoticity.

The second major pattern involves the difference between the Gretna and Eyemouth groups, both of which exhibit substantial levels of rhoticity. In the speech of our older Gretna informants the rate of rhoticity attains almost 50 per cent in VRC contexts, but this is markedly lower than what is found for the Eyemouth participants, where it exceeds 80 per cent for both age groups (comparing the older Gretna and Eyemouth groups, with a random effect for speaker, returns an extremely strong locality effect ($p < 0.0001$); where the scores for the Eyemouth age groups are combined and compared with the data for the older Gretna group, the effect is stronger still ($p < 0.00001$)). There is an obvious age-related difference between the older and younger Gretna speakers, in that there appears to have been a significant drop in the use of overt coda (r), with the zero variant being very much more common in the speech of the young informants than it is

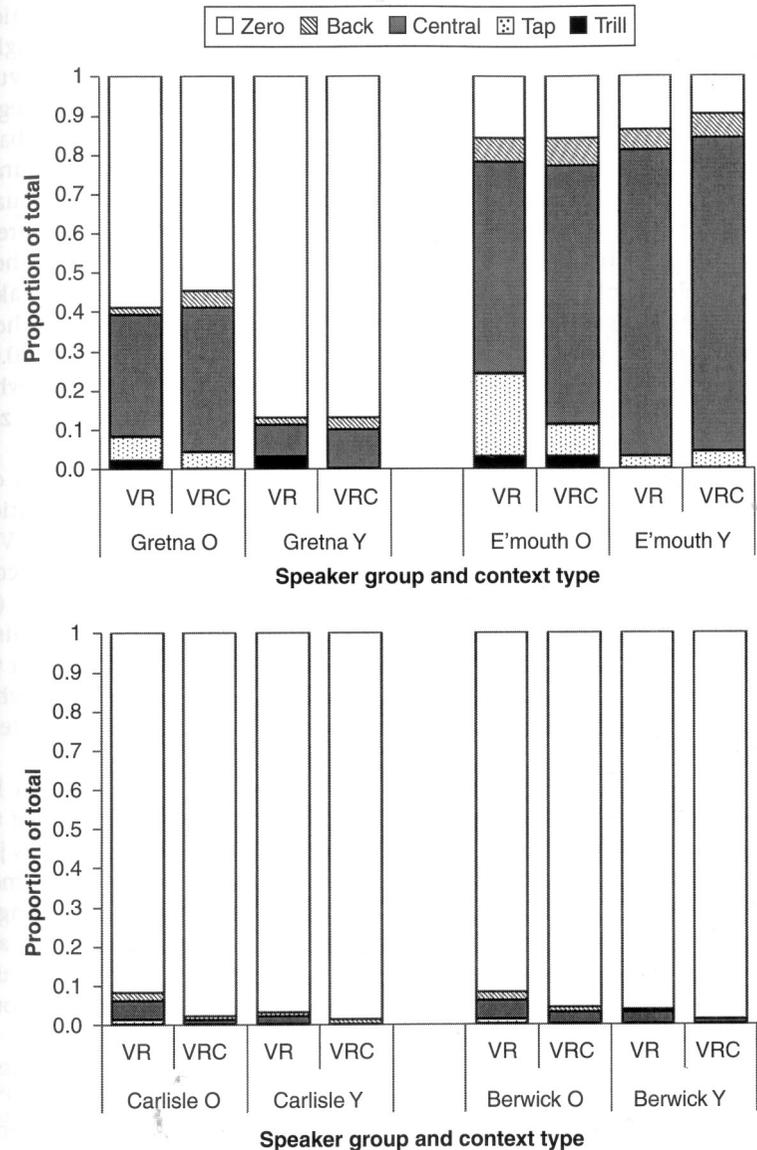


Figure 5.2 Proportions of variants of (r) in coda position (VR = postvocalic absolute final, VRC = postvocalic cluster), for 160 older (O) and younger (Y) speakers in the four fieldwork localities, conversational style

in that of the older ones ($p < 0.0001$). Note too the absence of the alveolar tap among the young Gretna speakers.

Use of 'back' (velar or uvular) pronunciations of (r) is rather rare for all the speaker groups, though for the Eyemouth speakers this variant is more

common than the iconic Scottish trill. The presence of back pronunciations may be attributable to contact with traditional Northumbrian English which, as noted earlier, is characterised by the use of the 'burred' uvular fricative [ɮ]. The back form appears to be used to about the same degree by both older and younger speakers. On balance, one would probably anticipate a greater use of back variants among older speakers than younger ones, but it must be remembered that young Eyemouth speakers actually use rhotic pronunciations more than any other speaker group, and are in this sense behaving in line with the traditional pattern. They do not, however, use the alveolar tap anything like as much as older Eyemouth speakers do, nor do they use the trill, and so their slightly larger proportion of rhotic pronunciations (Eyemouth, zero versus other realisations, by age: $p = 0.05$) comes at the expense of variability in (r) where it is overtly realised (when taps and trills combined are compared with approximants and the zero form, the model yields a highly significant age effect; $p < 0.0001$).

Only in the English localities does there appear to be much of a difference between the two context types with respect to (r) realisation, in spite of the raw frequencies of postvocalic (r) in both VR and VRC contexts being very low. The effect of context where zero and overt coda (r) values are compared yields $p = 0.0013$ (for Carlisle) and $p = 0.001$ (for Berwick), but non-significant results for Gretna and Eyemouth. This is in spite of the relative popularity of the alveolar tap in VR contexts for the older Eyemouth speakers, a difference which achieves significance when taps are compared with the other variants in VR versus VRC contexts ($p = 0.008$).

In summary, then, it appears from these data that derhoticisation has gone almost to completion in the communities on the English side of the border, but it is retained to a much greater degree in the Scottish towns just a few miles to the north. The central approximant [ɹ] is very much more popular overall than any other non-zero variant, though it is decreasing in frequency in Gretna while gaining in popularity in Eyemouth. There is also some use of other variants, including the alveolar tap and the velar/uvular forms, among those speakers for whom sporadic use of these variants would not be unexpected.

Figure 5.3 reveals how the age- and locality-related differences discussed above interact with speaker gender in the conversational material. There are no significant gender differences in the English data (rhoticity (zero versus other) by gender: Carlisle, $p = 0.28$; Berwick, $p = 0.23$). Gender appears to be secondary to age in the data for the Scottish speakers (rhoticity (zero vs other) by gender: Gretna, $p = 0.88$; Eyemouth, $p = 0.14$). Overall, the patterns in Gretna are very similar for men and women. In Eyemouth, perhaps surprisingly, the use of postvocalic (r) is highest among female speakers, if only by a small margin. Trilled and back articulations are not recorded in any numbers in either Scottish location.

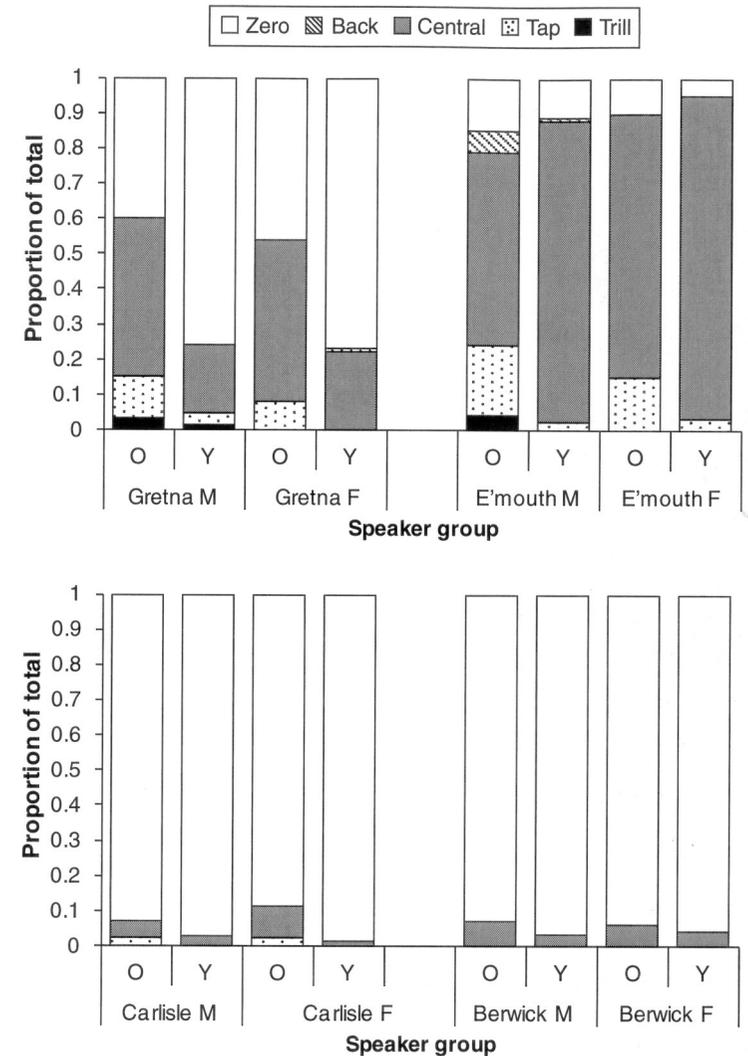


Figure 5.3 Proportions of variants of (r) in coda position (data pooled for VR and VRC syllable types), for 160 older (O) and younger (Y) male (M) and female (F) speakers in the four fieldwork localities, conversational style

Data for coda (r) in read speech (here, for candidate forms in the 153-item word list) is shown in Figure 5.4. If this figure is compared with Figure 5.2, it can be seen that the overall pattern is preserved, but that in the Scottish towns the proportion of rhotic pronunciations has gone up for both young and old speakers. The effect is particularly marked in the Gretna sample, in

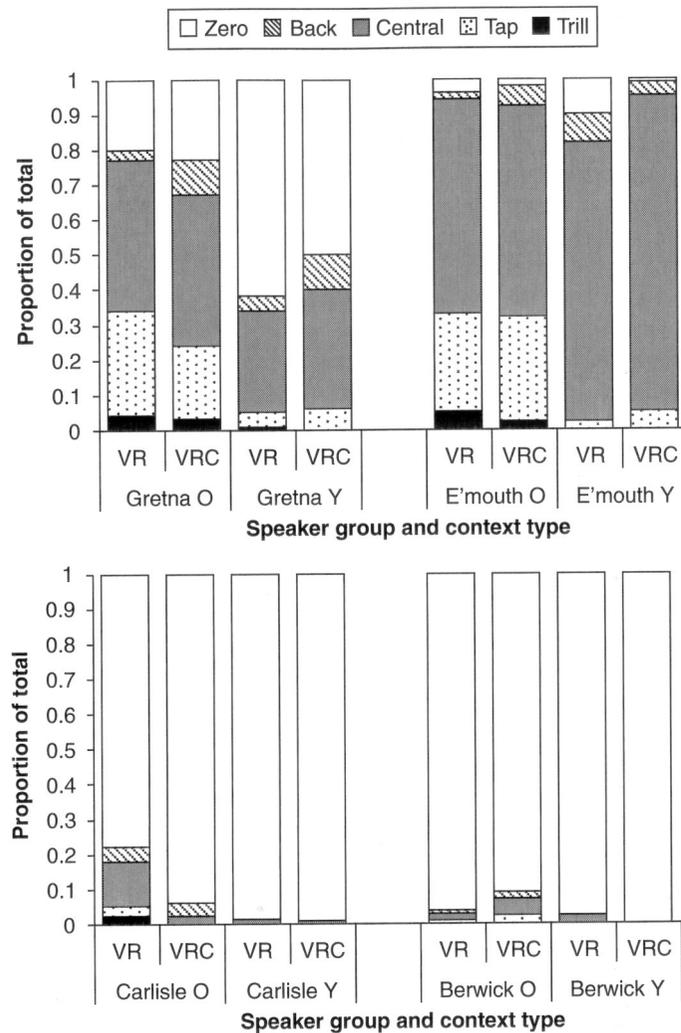


Figure 5.4 Proportions of variants of /r/ in coda position (VR = postvocalic absolute final, VRC = postvocalic cluster), for 160 older (O) and younger (Y) speakers in the four fieldwork localities, word-list style ($N = 11,700$)

which the proportion of overtly realised /r/ is very much larger in word-list style than in conversational style ($p \sim 0$). The figures for the Eyemouth speakers, which for conversational style revealed that rhoticity was already at 80 per cent, jump higher still in the word-list readings, to the point at which they are very close to ceiling for both groups in both VR and VRC contexts (Eyemouth rhoticity, word-list versus conversational style,

$p < 0.0001$). Among the Eyemouth participants, the alveolar tap becomes more frequent overall, rising among older speakers far above the proportions seen in conversational style even for the older Eyemouth speakers (Eyemouth, tap versus other variants, by speech style: $p < 0.0001$; Gretna: $p \sim 0$; Carlisle: $p = 0.087$; Berwick: $p = 0.0099$). In the English localities, rhoticity is approximately the same in word-list style as in conversational style, though around a fifth of VR tokens produced by the Carlisle informants are heard as rhotic. Why this might be difficult to say; perhaps, in spite of the fact that the standard pronunciation in England is non-rhotic, some of the Carlisle readers believe rhotic pronunciations to be more 'precise' or 'correct' than non-rhotic productions of the target words. On the Scottish side of the border, this belief is almost certainly held. Even Gretna speakers, who generally avoid rhotic pronunciations of *car* or *card* in their conversational speech, appear to respond to a perceived upward shift in the formality of the situation by producing more overt coda (r) in candidate forms. The alveolar approximant is still the commonest form of overtly pronounced (r), but the use of alveolar taps becomes very much more frequent in this more formal style ($p \sim 0$). We may point to the influence of SSE, which is still a rhotic variety, as a way of accounting for the marked increase in rhoticity. Despite a pattern in the conversational data which suggests the convergence of Gretna English on the Carlisle variety with respect to derhoticisation, the word-list evidence seems to point clearly to a perception among Gretna speakers that rhotic forms are more appropriate in a style we can reasonably suppose to be associated with careful articulation and correctness. The same is true for the Eyemouth speakers, who cannot effect such a large upward shift in rhoticity relative to their conversational speech because in the latter style they already produce such a high proportion of rhotic forms. We discuss this point further below.

Onset (r)

If we now turn to the figures for onset (r), shown in Figure 5.5, it becomes quickly apparent that the principal difference in evidence concerns the frequency of the alveolar tap.

Predictably, the tap is most frequently used by Scottish speakers, in particular by older ones, and where (r) occurs intervocalically in V#RV positions. An age effect is present in both Scottish localities. It is more pronounced in Eyemouth (tap versus other variants, by age: $p < 0.0001$) than in Gretna ($p = 0.0003$). [r] is far less frequent among the Carlisle and Berwick speakers than it is among the Scottish speakers, though it is the second-most frequent pronunciation among older Carlisle informants, accounting for over 10 per cent of instances in the intervocalic and onset cluster environments.

Another salient aspect of the distribution of variants shown in Figure 5.5 relates to the use of labial pronunciations, principally by young Berwickers. Labiodental [v] has spread very rapidly through British English in recent decades (Foulkes and Docherty 2000), and according to the present data

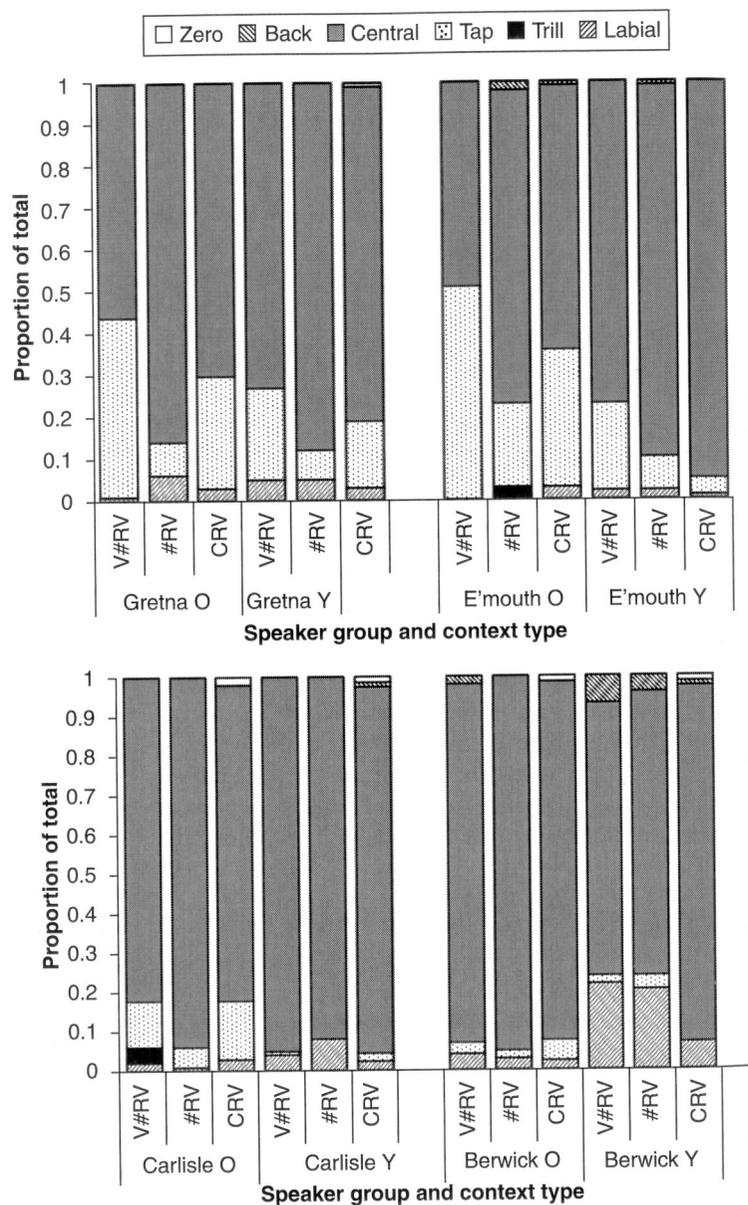


Figure 5.5 Proportions of variants of /r/ in onset positions (V#RV = intervocalic across word boundary, #RV = onset prevocalic (absolute initial), CRV = onset cluster), for 160 older and younger speakers in the four fieldwork localities, conversational style

it appears to have reached somewhat beyond the border into Scotland, though, as yet, its levels of use among the Gretna and Eyemouth talkers are very low compared to those observed in Berwick (Berwick vs (Gretna and Eyemouth), labial versus other variants, $p = 0.0029$).

The back variant is not present in significant numbers in the Scottish data but is used to a small degree in Berwick, while the trill is almost completely absent throughout the data set except for occasional productions among older Eyemouth and Carlisle speakers.

Overall, then, there are clear differences in /r/ use between speakers from Scotland and speakers from England, both in terms of the degree of rhoticity exhibited and the distribution of Glauser's 'Scottish' tapped variant. This difference becomes especially stark where informants are asked to read isolated words aloud. There are appreciable differences between the speech of men and women, and between that of older and younger speakers. Men are more frequent users of the alveolar tap in the Scottish towns, and older speakers use more of it than younger ones. The recessive trilled variant is found only among older Scottish speakers and very occasionally among older speakers from Carlisle, while the back variant is retained to a marginal degree on both sides of the border. The labiodental [ʋ] has made significant inroads only in the speech of young Berwickers. Overall, however, the alveolar approximant – Glauser's 'English' variant – is clearly the default form of overt /r/ among speakers from this region of Britain.

Discussion

The age-related differences observed in the patterns of /r/ production discussed above support the view that change in this variable is under way, and that the direction of the change is in line with several of the predictions made in earlier and contemporary work on /r/ in Scottish English. It appears to be true, as per Johnston (1997), that derhoticisation is taking place in the varieties spoken in the southernmost parts of Scotland, at least if one focuses one's attention on the western end of the border. Note that we are not convinced that derhoticisation of Gretna English must necessarily be directly related to the patterns observed in Glasgow and Edinburgh, however. It may be more plausible to argue that the process is a recapitulation of what is happening south of the border. After all, one must travel some distance northward from Gretna before one reaches parts of central Scotland in which English is consistently derhoticised, whereas one can encounter non-rhotic accents literally within walking distance the other side of the border.

The mainstream alveolar approximant [ɹ] does indeed seem to be supplanting the alveolar tap [ɾ], recalling Glauser's (2000) observations about the encroachment into border varieties of the southern 'English' /r/ at the

expense of the 'regional /r/' variants traditionally used in Northumberland and Scotland.

However, the picture of the changes which are currently taking place becomes less crisply resolved when we consider the difference between Gretna and Eyemouth with respect to rhoticity. Eyemouth English preserves rhoticity very strongly, and if anything the variety is becoming yet more rhotic, with the degree of overt postvocalic (r) exhibited by young Eyemouth speakers rising slightly higher than that of their older counterparts. This level is raised further still in the Eyemouth speakers' word-list readings. The pattern is mirrored in Gretna, where postvocalic (r) use is remarkably high in the word-list readings relative to the Gretna speakers' conversational speech. It seems justifiable to argue that we are seeing here the effect of SSE on speakers' (r) productions. The SSE pronunciation model, which has as its basis the speech of the educated urban middle class (Stuart-Smith 2003, 2008), is consistently rhotic. In this, it contrasts with the innovative derhoticising varieties spoken in Glasgow and Edinburgh, where a lack of overt postvocalic (r) is associated with young working-class speakers. Moreover, the type of postvocalic (r) used in SSE is an alveolar, often somewhat retroflex, approximant. This is precisely the sort of pronunciation which can be heard among the Gretna and Eyemouth speakers. Because it is relatively rare in the speech of young Gretna speakers, it is all the more salient when these young speakers use it in their word-list readings.

No such effect can be observed among their counterparts in Carlisle, just nine miles to the south. The reach of SSE as a variety which is understood to represent an institutionally endorsed standard (Corbett 2003; Unger 2010) only extends as far as the border; the territory over which SSE has influence is thus tightly geographically circumscribed.

It is true that SSE is heard all the time in communities like Carlisle or Berwick via the broadcast media (TV stations such as Borders TV serve northern England as well as southern Scotland, for example), but owing to the fact that Scotland and England have separate education systems, there will be few young people in any of the four AISEB localities who will attend a school on the other side of the border. While Scottish schools may – probably tacitly rather than overtly – endorse Received Pronunciation (Standard Southern British English) as a model of good diction, no school in England is likely to promote SSE as an accent to be aspired to. Even in the northernmost parts of England, SSE is in effect just another non-standard variety of English, and so cannot rival the overarching RP standard. It is scarcely surprising, then, that the style shift prompted by reading words aloud has a negligible effect on coda (r) use among speakers from Carlisle and Berwick, but a large one on their near-neighbours just across the border.

Another factor we must consider is speaker's sense of national identity. In the UK context it is said to be especially strong among the Scottish population (Bechhofer and McCrone 2010; Soule, Leith and Steven 2012).

However, as detailed in Llamas (2010), there is a marked disparity between Gretna and Eyemouth with respect to how 'Scottish' versus 'British' the AISEB informants reported feeling. Many Gretna interviewees stated that they were ambivalent towards Scottishness, because they felt that their entitlement to be part of that 'club' was based more on geography than on subscription to Scottish cultural and political values. They did not perceive the Gretna accent to be fully Scottish; rather, they remarked upon its similarity to Carlisle or Cumbrian speech. By contrast, Eyemouthers were very confident of their Scottishness, in terms of both professed identity and linguistic behaviour. It seems logical, then, that a consequence of this assured sense of national belonging among people at the border's eastern end would be the retention of a robust dialect boundary symbolising national distinctiveness, while at the western end there is a fuzzier transition zone. It is difficult to determine whether this occurs because or in spite of the historical fluidity of the border in the Berwick region and the apparent Scots/English hybridity of that town, as discussed previously.

It can be informative, when theorising the correlation between shared opinions and how these views are enacted, to look to studies of group polarisation such as those summarised by Sunstein (2008, 2009). The results of these studies show that after an individual interacts with others who share his or her view, that individual will tend to express the belief more strongly than before. Put another way, 'members of a deliberating group', Sunstein observes, 'usually end up at a more extreme position in the same general direction as their inclinations before deliberations began' (Sunstein 2009: 3). Because it can happen without participants being consciously aware of it, the process of group polarisation is not just confined to circumstances in which groups overtly deliberate about such-and-such an issue. That being so, the phenomenon, which has been documented hundreds of times in research carried out over several decades and across the world, might help to explain why linguistic boundaries like the Scottish/English border become so entrenched, and stay that way for long spans of time even where the conditions for linguistic convergence (high levels of trans-border mobility, contact, etc.) appear to be optimal. The near-categoricity of postvocalic (r) among young Eyemouth speakers might plausibly be seen as symptomatic of this kind of 'group repulsion' effect. Where the national and linguistic ideologies of members of speaker groups are less uniformly aligned, perhaps because they were more ambivalent to start with, sound changes spreading from elsewhere – such as derhoticisation – may find greater purchase.

The group polarisation phenomenon represents an extension to the notion of group-internal norm-enforcement Milroy and Milroy (1985) used in their social network analysis of variation in Belfast English to account for the linguistic conservatism of working-class men. The pressure to conform linguistically that close-knit social networks exert on their members is, like group polarisation, an emergent and self-perpetuating property of these

groups, but group polarisation disfavors maintenance of the status quo, and amplifies pre-existing differences between groups.

We might then ascribe the differences between Gretna and Eyemouth with respect to the realisation of coda (r) in casual, conversational speech to an unequal allegiance to Scottish national identity. On the other hand, the vigorous restoration of rhoticity in the Gretna word-list readings seems to indicate gravitation towards an SSE norm among these speakers. We might expect Gretna speakers to feel more conflicted by the discourses of correctness and propriety attached to two competing standard accents of English in the region than Eyemouth speakers are, but it is the Scottish national standard which seems to win out in both communities.

Conclusions

The data explored in this chapter simultaneously support and confound the predictions made by researchers who have previously investigated language variation and change in the border area. On the one hand, there are indications that the linguistic border is becoming sharper with respect to (r) realisation, as seen in the coda (r) data for Eyemouth, where a slight increase in rhoticity over apparent time is observed. On the other hand, there are signs of greater linguistic homogeneity among young speakers: erosion of postvocalic (r) in Gretna, fewer taps and trills, and an uptake of the innovative labial variant on both sides of the border. The social traits the last of these variants might index are not yet clear, but what it does suggest is that young speakers in the region are receptive to the spread of a variant that in onset contexts is coming to rival the mainstream alveolar approximant in large areas of Great Britain.

The lack of a unified picture in this component of the AISEB study reminds us that one cannot and should not automatically treat a border 'all of a piece', even if precedents in the literature could bias one to do so. Rather, one should consider each border community as potentially unique, with its own history of settlement, internal structure, traditional occupations, and interaction with other nearby and distant centres of population. There is no a priori reason why Gretna and Eyemouth people should behave alike when it comes to the pronunciation of (r), if one accepts that the circumstances in which they live and the relationships they contract with people locally and further afield might have an influence on how they choose (whether consciously or unconsciously) to talk. Our ongoing research will be informed by further study of the individual histories of the two towns, which differ in a multitude of ways with respect to their relative antiquity, political and religious preferences, the inhabitants' traditional occupations and the opportunities these provided for contact with outsiders, and so on.

Future work stemming from the AISEB project will seek to combine data for multiple phonological variables with the findings of the attitudinal

surveys and perceptual experiments we have run in each of the four border towns, in order to address some of the questions which have been aired in this chapter. In particular, we are keen to know more about how the attitudes and perceptions which are overtly or implicitly expressed by our interviewees correlate with their own linguistic behaviour, and what this might tell us about the extent to which speaker and group agency might steer the ways in which incoming sound changes are adopted or resisted.

Notes

1. Sources: Scotland's Census Results OnLine (<http://www.scrol.gov.uk/>); Berwick-upon-Tweed Town Council (http://www.berwick-tc.gov.uk/town_council/); Office for National Statistics (<http://www.ons.gov.uk>).
2. We gratefully acknowledge the financial support of the UK Economic and Social Research Council (award no. RES-062-23-0525, 2008-11).
3. To denote these different aspects of the way in which non-prevocalic (r) varies in Scottish English, Schützler (2010) uses R^a as the label for non-linking coda (r), which is bivalent (zero vs articulated), and R^r for the set of rhotic consonants which are used for the articulation of non-zero R^a tokens.

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