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Abstract

This study tests the extent of speakers' linguistic accommodation to members of putative in-groups and out-groups in a border locality where such categorizations can be said to be particularly accentuated. Variation in the speech of informants in dialect contact interactions with separate interviewers is analyzed for evidence of speech accommodation in the form of phonological convergence or divergence. The data do not support a straightforward interpretation of accommodation, and findings are considered in terms of evidence required for such an account. Implications for the notion of salience in explanations of contact-induced language change are also considered, as is the significance of the "interviewer effect" in the compilation of data sets for use in quantitative studies of phonological variation and change.

Keywords

accommodation, salience, phonological variable, border, national identity, social identity theory

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In the context of dialects in contact, it is well established that speakers may adapt their speech in a number of ways in response to the varieties spoken by their interlocutors. Speakers may alter their rate of use of particular phonetic variants, for example; this may serve either to bring their frequency of use of phonetic variants closer to that of their interlocutors or, conversely, to increase the difference between them. As discussed in detail in the literature on communication accommodation theory (e.g., Coupland & Giles, 1988; Giles, 1984), such alterations may be seen as demonstrating the speaker's wish to converge with or diverge from his/her interlocutor(s) in order to "seek approval" or demonstrate social psychological distance, respectively. Not all distributions of phonological features are altered, however, and a question arises as to why some features are modified, ostensibly through accommodation, whereas others are not. Trudgill (1986) suggests that such adjustments are made to linguistic forms that are high in the speaker's consciousness. Awareness of particular features implies that such features carry some sort of salience. By empirically investigating variable linguistic behavior in short-term contact interactions in a controlled study, this article offers insight both into the nature of linguistic accommodation and into what accommodation can tell us about the notion of salience and the socioindexicality of forms.

Berwick-upon-Tweed, the border town in which the research is focused, is situated close to the national border between Scotland and England. The hybrid nature of border towns can result in inhabitants having a fluid sense of identity and fluctuating in-group and out-group categorizations. Such categorizations allow people to evaluate their social identities, and favorable comparisons relative to relevant out-groups allow for the maintenance of a positive self-evaluation (see Turner, 1999; Turner & Brown, 1978). Border regions, then, offer ideal test sites for the examination of convergent and divergent linguistic behavior in interactions with members of varying putative in-groups and out-groups. Adaptations by speakers may be taken as evidence of the salience of forms that are indexical of national identities: "Scottishness" and "Englishness," in this case. The identification of such salience and indexicality at the individual level will then be used to inform and evaluate accounts of the wider patterns of maintenance, leveling, and diffusion of phonological forms in border localities in the larger survey of which the present study forms part.¹

A further aim of this article is to assess empirically the degree to which evidence of phonological variation in short-term contact interactions can be seen as a direct consequence of speaker accommodation. It is widely believed that accommodation processes are (or should be) central in the explanation of language variation and change (Niedzielski & Giles, 1996). However, the use of accommodation as an explanation of production patterns in sociolinguistic research has been criticized as being, at times, unfounded and has been described by Meyerhoff (1998) as "a hand-waving device used at the last minute to give the impression that the investigator has 'explained' all observed patterns in their data" (p. 208). Discussion of the evidence required to make a claim of accommodation requires reflection on the theoretical

nature of the “vernacular,” as suggestions of phonological convergence or divergence in interaction carry with them the assumption that the speaker is moving away from a set of default production patterns. Empirical investigation of speakers’ production patterns in multiple interactions will allow insight into whether or not we can identify such default production patterns.

Additionally, the study reported on here has a methodological aim: It has been designed as a response to Mendoza-Denton’s (2002) observation that “the idea that the *researcher’s* identity and ideological positioning vis-à-vis the interviewee crucially contribute to the patterning of data deserves more systematic exploration” (p. 479). By analyzing speakers’ linguistic behavior on separate occasions with different interviewers using differing varieties of the same language (both native and nonnative), we can systematically assess the contribution of the researcher’s perceived linguistic identity to the patterning of phonological data. This will allow us to assess the consequences of the “interviewer effect” for the compilation of a data set and also for comparisons of patterns across data sets.

With these aims in mind, then, the article begins with consideration of the theoretical and contextual background to the study. We then outline methods used in the design of the study before turning to the phonological and attitudinal results. We end with a discussion of the theoretical and methodological implications of the findings.

Background

Theoretical

Salience. For our purposes, Trudgill (1986) offers a useful set of testable criteria with which to attribute salience to forms in situations of dialects in contact and language change. Salience, according to Trudgill (1986, p. 11), is a consequence of both external and internal factors. The external factors are associated with whether or not a variable is currently undergoing change and with the overt stigmatization of forms (this is often in situations where there is a high-status variant of the variable, which is represented through orthography, e.g., /h/-dropping). The internal factors, which are centrally important to the attribution of salience, are phonetic distance and phonological contrast. Speakers are considered to be more aware of variables with variants that are phonetically radically different and of those with variants involved in the maintenance of phonological contrast (e.g., /θ/-fronting). In dialect contact situations, according to Trudgill (1986, p. 16), salient features will be accommodated to unless factors such as phonemic contrasts, phonotactic constraints, homonymic clash, and the strength of stereotyping intervene to delay, inhibit, or prevent the accommodation. Additionally, features that are overly strong markers of a dialect being accommodated to or, in other words, those which have extrastrong salience,

are avoided by the speaker. Trudgill's definition, despite its circularity, remains a useful and testable definition with which to begin.

Kerswill and Williams (2002, p. 83) claim that extralinguistic cognitive, social psychological, or pragmatic factors must be taken into account to avoid the circularity of definitions that claim that greater awareness attaches to salient forms. Indeed, these extralinguistic factors, according to Kerswill and Williams (2002), are "ultimately the cause of salience" (p. 105). Viewing individual linguistic features more explicitly and carefully in terms of their evaluation and social embedding is crucial, according to Kerswill and Williams (2002, p. 91), as such embedding can change rapidly and is not necessarily implemented equally within the same community. Furthermore, they claim that different linguistic features vary in their social patterning in ways that may relate to their linguistic level (phonological, morphosyntactic, discursal) or their sublevel (consonants or vowels).

Notwithstanding the debate over factors believed necessary for salience to attach to linguistic forms, the connection seems clear between salience and sociolinguistic markers—that is, forms of which speakers are aware and that are subject to stylistic variation (Labov, 1972, pp. 178-180). Indeed, Trudgill argues that the factors he outlines lead to indicators (forms that do not show stylistic variation and of which speakers are unaware) becoming markers. In his taxonomy, Labov also differentiates indicators and markers from stereotypes (features that are the overt topic of social comment). However, such stereotyped forms, according to Labov, may disappear with social comment becoming increasingly divorced from actual usage. Such categorizations, then, may also offer ways of determining which forms are salient and the kinds of social meaning such forms can carry. To identify salient forms, or forms that carry social meaning in the context under investigation, we examine forms of pronunciation that are modified by speakers, ostensibly through accommodative behavior. We turn first to a brief consideration of linguistic accommodation and what it can tell us about motivations for speakers' variable production patterns.

Accommodation. The motivation for and consequences of accommodation can be modeled in two ways. Auer and Hinskens (2005) differentiate between the "change-by-accommodation model" and the "identity-projection model." These are similar to what Purnell (*IN PRESS*) defines as "accommodation for change" and "convergence for goals." The change-by-accommodation model relies on frequency of direct interaction and on the adaptation of the behavior of one speaker to that of another participant in the interaction. Though both models are of interest to the Accents and Identities on the Scottish/English Border (AISEB) project, more pertinent to this article is the second of the models—the identity-projection model.

According to this model of accommodation, the adoption or suppression of certain dialect features is the outcome of the speaker's wish to identify (or not) with a certain social group. Such an approach is characteristic of social psychological approaches to language variation (e.g., Gallois, Ogay, & Giles, 2005; Giles, Coupland,

& Coupland, 1991; Giles, Mulac, Bradac, & Johnson, 1987). The main tenet of the approach states that during social interaction, participants are motivated to adjust (or to accommodate) their speech style as a means of evoking listeners' social approval, attaining communicational efficiency between interactants, or maintaining speakers' positive social identities (Thakerar, Giles, & Cheshire, 1982). Speakers attempt to converge toward or diverge from the speech patterns they believe to be characteristic of their interlocutors. They may converge when they desire the interlocutor's social approval, and they may diverge when they define the interaction in intergroup terms and desire a positive in-group identity or when they wish to dissociate themselves from a speaker in an interaction that they define in interindividual terms. The extent of such convergence or divergence will depend on the extent of the speakers' repertoires and on contextual factors that may, in the case of convergence, increase the need for social approval or, in the case of divergence, increase the prominence of group identification and the desire for positive in-group identity (Thakerar et al., 1982).

Given the importance of intergroup terms and in-group identity in such propositions, the body of ideas known as social identity theory (e.g., Turner & Brown, 1978) is an obvious framework within which to examine the definitions of in-group and out-group identities. Social identity theory has its roots in Henri Tajfel's early work on categorization and social perception and has as its essence the idea that an individual is motivated to maintain a distinct and positive social identity. In intergroup contexts, people strive for positive distinctiveness for the group to which they feel they belong. The evaluation of in-group membership entails the requirement that relevant in-groups compare favorably with relevant out-groups (Turner, 1999).

These social category memberships are seen as often being negotiated during interaction through processes of accommodation, because "people do not always react to each other as individuals qua individuals; there are occasions when they react (and are seen to react) to each other as representative members of different social groups" (Thakerar et al., 1982, p. 214). Speakers, therefore, are not just seen as linguistic individuals, but they may also be perceived as representatives of relevant social groups.

Tajfel and Turner (1979) describe an interindividual–intergroup continuum along which people operate. At one extreme of the continuum, encounters between people are fully determined by interactants' interpersonal relationships and individual characteristics (interindividual extreme). At the other extreme, the encounters would be determined by participants' knowledge of their membership in contrastive social categories (intergroup extreme). If encounters are perceived by interactants as being toward the intergroup extreme of the continuum, "they tend to treat members of the out-groups as undifferentiated items in a unified social category rather than in terms of their individual characteristics" (Tajfel & Turner, 1979, p. 36). Other researchers (e.g., Gallois & Giles, 1998; Watson & Gallois, 2004) have proposed that intergroup and interpersonal prominence operate as two correlated dimensions rather than as

two ends of a continuum, and in any one interaction, interlocutors can move through the dimensions of high or low interpersonal to high or low intergroup salience. Nonetheless, as the individual is motivated to maintain or achieve a positive social identity, when a particular group affiliation is important to individuals and interaction with a member (or members) of a relevant out-group occurs, interlocutors will attempt to differentiate themselves from each other on dimensions that they value (Thakerar et al., 1982). One such dimension is dialect differences, and in terms of linguistic behavior, the likely result of speakers defining an interaction with high intergroup importance is speech divergence. Thus, whether speakers react to interactants as linguistic individuals or in terms of perceived social group membership will depend on how the interaction is perceived.

Convincing evidence for short-term phonological accommodation comes from studies that examine the linguistic behavior of an individual in multiple interactions, for example, Coupland's (1984) analysis of the speech of a shop assistant in a Cardiff travel agency and Trudgill's (1986) analysis of his own speech in 10 of the sociolinguistic interviews he undertook in Norwich. The majority of such research involves upward/downward convergence—that is, movement between nonstandard and standard or localized to nonlocalized forms. What happens on other dimensions is less well researched—for example, movement from one particular localized form to another localized form or, in this case, from one form that is indexical of a particular regional/national identity to a form that is indexical of another regional/national identity.

No interaction exists in a social vacuum, and, according to Giles and Ogay (2006), the researcher must “take into account the roles of the socio-historical context in which communication takes place for a truly comprehensive picture of how and why accommodation unfolds” (p. 300). We turn now to an examination of the sociohistorical context that gives rise to the putative in-group and out-group categorizations of relevance to the present study and also to a consideration of the phonological variables under analysis, both in terms of their description and their social and geographical distribution.

Contextual. Berwick-upon-Tweed is England's northernmost town, lying around 3 miles (5 km) south of the border between England and Scotland. It is one of the larger population centers between Edinburgh and the Tyneside conurbation, some 60 miles (96 km) to the northwest and south, respectively.

Historically, its strategic importance to both Scotland and England resulted in the town changing hands between the two kingdoms 14 times during the Middle Ages before its final incorporation into England in the late 15th century. The status of the town in relation to Scotland and England is still ambiguous in many respects, five centuries of incorporation notwithstanding, and in many ways, Berwick appears never to have become fully English in an institutional or cultural sense. As Berwick is something of a halfway house between England and Scotland, issues of national

and social (including linguistic) identity among its inhabitants are accordingly complex.

Berwick's dual identity in relation to Scotland and England underlies an ambiguity in terms of how Berwickers classify themselves and how they are classified by people in neighboring districts. Kiely, McCrone, Stewart, and Bechhofer's (2000) research in Berwick and two nearby communities explores these issues in some detail. Initially, Kiely et al. (2000) had expected Berwickers to see themselves as English and perhaps to feel a heightened sense of Englishness, given the town's proximity to the Scottish border. Their results, based on 70 household interviews, suggested otherwise. In answer to the question "how often do you use the following identities [Berwick, Northumbrian, Borderer, English, Scottish, British, European] to describe yourself?" 24% claimed to identify themselves to some extent with both Scotland and England. None wished to claim any form of hybrid identity (such as British). Instead, many Berwickers preferred to avoid national labels altogether. In response to "how often do you use [Scottish] to describe yourself?" almost half (41%) described themselves as Scottish at least some of the time.

Predictably, Kiely et al. (2000) list accent and dialect among the principal resources Berwickers have at their disposal for the purposes of identity making and identity marking. In Alnwick, about 30 miles to the south, Kiely et al. (2000) found that Berwickers were thought to be Scottish principally because the Berwick accent/dialect was perceived as Scottish. Conversely, respondents in Eyemouth, a Scottish coastal village 9 miles north of Berwick "did not interpret the Berwickers' accent as Scottish, but tended to see it as Northumbrian or Geordie [i.e. Newcastle], and certainly English" (p. 11). This perception of dual identity is no doubt what earned Berwickers their nickname "MacGeordies."

Berwick English (BwE) is clearly a hybrid of Scottish and Northumbrian varieties, as would be expected given the high levels of historical and contemporary contact between the populations on either side of the border, and this hybridity is in evidence at multiple linguistic levels (lexical, grammatical, and phonological). Given that BwE exhibits features in common with both Scottish and Northumbrian varieties, we hypothesize that through processes of accommodation, speakers may display greater or lesser proportions of "Scottish" versus "English" features when talking to interlocutors they perceive to be either Scottish or English. We turn now to consider the geographical and social distribution of the linguistic features under examination.

Linguistic: /r/. By the early 1970s, derhotacization of Northumbrian English was well under way (see Pålsson, 1972), such that today postvocalic /r/ in words like *arm* and *bairn* can be heard only sporadically among older people in isolated rural areas of the county such as Holy Island (Maguire, 2005). The characteristic so-called Northumbrian burr—a uvular [ʁ] traditionally pronounced in all word positions—survives precariously, but its use among Northumbrian speakers is said by Beal (2008, p. 140) now to be little more than a "party-trick."

Two recent studies of /r/ in BWE (Llamas, in press; Watt, 2006) have confirmed these trends, in that they reveal that postvocalic /r/ in the variety has all but vanished and that uvular fricative/approximant pronunciations in noncoda positions are comparably infrequent. Of key relevance to the present study is the fact that /r/, of all phonological features of BWE, is singled out by informants in these studies as diagnostic of national, regional, and social identity most frequently when they are asked to identify features of local language associated with Berwick itself or more widely with Scottish or English speech. The uvular form, as Beal's account suggests, is clearly a well-known stereotype of Northumbrian English, whereas the alveolar trill (rolled r) is described as an exclusively Scottish form, an association that also appears to be drawn with [r]. It appears that both nonrhotic pronunciations and the approximant [ɹ] are seen as more typically English, in spite of the fact that [ɹ] is very common in Scottish English (Stuart-Smith, 2008). Variation in /r/ therefore appears to be of central importance among the set of features listeners in the Borders area use to categorize talkers as Scottish or English.

Preliminary observations of /r/ in Eyemouth on the Scottish side of the border (Llamas, in press) have shown that overtly realized postvocalic /r/ is still the majority form among older Eyemouth males and in fact appears to be on the increase among the younger males interviewed, thus emphasizing the linguistic effect of the border with respect to rhoticity. On the other hand, comparison of the two age groups' use of the alveolar tap shows that [r] may be in decline, suggesting that rhoticity and the use of the alveolar tap as markers of Scottish identity need not go hand in hand.

Linguistic: Scottish Vowel Length Rule. Scottish English features a vowel duration conditioning rule formerly referred to as Aitken's Law (see Aitken, 1962) but now more generally known as the Scottish Vowel Length Rule (SVLR; Pukli, 2004; Scobbie, Hewlett, & Turk, 1999; Scobbie, Turk, & Hewlett, 1999). The SVLR is akin to the voicing effect (VE; prefortis clipping) that affects vowels in Scottish English and other varieties of the language (Chen, 1970; Lehiste, 1996). VE predicts that a vowel preceding a voiceless consonant will be somewhat shorter than the same vowel where it precedes a voiced consonant. Thus, although the vowels of both words are usually described as phonologically long in (non-Scottish) English, the /i/ of *feed* will be phonetically marginally longer than that of *feet*. The SVLR can be thought of as a supplementary VE that takes account not just of the voicing of a following consonant but also of its manner of articulation. According to the standard definition of the SVLR, vowels in word-final stressed syllables are long before voiced fricatives (i.e., /v ð z ʒ/), /r/, and before a pause (i.e., in an open syllable) and may be longer still in words in which a morpheme boundary (hereafter symbolized as #) intervenes between the vowel and a tautosyllabic (voiced) coda consonant. One can consequently find minimally distinctive pairs such as *crude* (short) and *crewed* (long) or *side* (short) and *sighed* (long). Similarly, the vowels of *size* and *cruise* may be appreciably shorter than the corresponding vowels of *sighs* and *crews*. In all other contexts, vowels are short. Figure 1 shows illustrative examples.

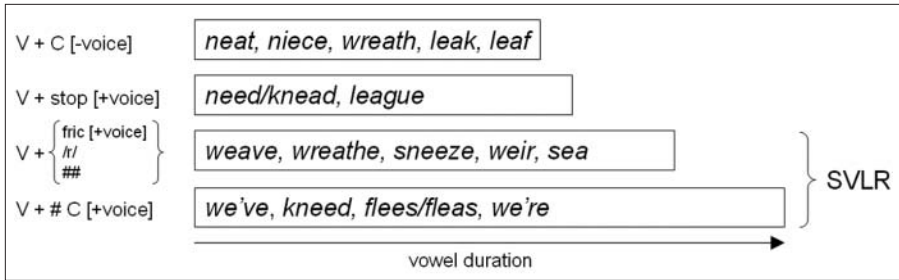


Figure 1. Schematic of relative vowel durations in Scottish English FLEECE-class words as a function of (a) following consonant voicing and manner of articulation and (b) presence of a tautosyllabic morpheme boundary
 Note: SVLR = Scottish vowel length rule lengthening environments.

Similar conditioning effects as those found in the SVLR are found in parts of Northern Ireland (Wells, 1982) and northern England (Glauser, 1988; Krause, 1997; Milroy, 1995). In terms of SVLR alternations in BwE, Watt and Ingham (2000) measured the durations of /i e ε a ɔ o ʌ ai/ in a range of VE and SVLR contexts and found both effects to be present to a greater or lesser degree in the speech of all eight speakers. Watt and Pichler (2003), in line with the findings of Scobbie, Hewlett, et al. (1999) and Scobbie, Turk, et al. (1999), found /i ʌ ai/ to behave very similarly to Scottish English with respect to contextual lengthening, and they concluded that a form of the SVLR was indeed operational in BwE.

Despite the fact that there appears to be no linguistic justification for treating the SVLR as a uniquely Scottish phenomenon, we cannot conclude that Berwick speakers perceive things this way. Indeed, speakers may be capable of subtly adjusting the degree to which they observe SVLR patterns in their vowel productions depending on whether they are talking to a Scottish or an English field-worker.

Linguistic: letter. The unstressed vowel of words in the *letter* set (Wells, 1982) has received only scant attention to date in the literature on northeast England. More recent sources that discuss the variable (Beal, 2008; Hughes, Trudgill, & Watt, 2005; Watt & Milroy, 1999) are focused on urban Tyneside speech. All these make mention of an alternation between a standard-like [ə] and more open vowels (typically [ɛ], but [ɑ] and [ɒ] are also cited). The development of the retracted variants [ɑ] and [ɒ] is ascribed to the coarticulatory effect of so-called “burr retraction” or “burr modification,” whereby the uvular [ɣ] that was found in coda position in traditional rhotic pronunciations of words containing the historical final /r/ caused certain vowels preceding it to retract (Beal, 2000). The backness and openness of the unstressed vowels of *letter*- and *comma*-class words was preserved even after the loss of the coda /r/ via derhotacization, although there is evidence indicating that retracted forms of *letter* (and *comma*) are now less common than they were in northeastern English, with [ə] the default pronunciation for many younger speakers in urban areas such as Newcastle and [ɛ] the pronunciation favored more by working-class speakers.

On the Scottish side of the eastern end of the border, rhoticity persists strongly, as mentioned earlier, and thus the unstressed vowel of *letter*-class words is likely to be a schwa-like vowel, the quality of which will on balance be least affected if the following /r/ is an alveolar tap owing to the relatively abrupt articulation involved in the production of this sound. If the following /r/ is an approximant (particularly if retroflexion is involved), we might expect the vowel to be heavily /r/-colored. Vowels as open as the [ɐ] variant heard in Tyneside and elsewhere in the northeast of England are absent.

Both central [ə] and open [ɐ] variants may be heard in use among Berwickers. We anticipate that if the interviewees' *letter* vowel is subject to change in line with the perceived identity and/or accent of the interviewer, the tendency will be for the participants to use more open vowels (measured in terms of relatively higher frequency of F1) when interacting with the English field-worker, as opposed to closer ones (lower F1) with the Scottish field-worker.

Method

The study reported here examines the linguistic behavior of informants in multiple interactions, as previously noted. Each interaction represents a different dialect contact context. The varieties in contact were chosen to provoke different potentially relevant in-group/out-group categorizations for the interactants. As such, these interactions represent situations in which convergence or divergence/maintenance would be hypothesized to occur.

Participants

The study concerns the variable linguistic behavior of five speakers in three separate interview contexts. All participants were native speakers of BwE. Four were female and were aged 19, 38, 43, and 78, and one was a male aged 17.² All participants were interviewed by three separate interviewers on three separate occasions. All interviewers were female and were in their 20s or 30s. The independent variable was the variety of English used by each interviewer. One interviewer had a native variety from Dunbar (southeast Scotland), one had a native variety from Middlesbrough (northeast England), and one had a nonnative variety of English, being of Austrian origin.³ The variety of the nonnative speaker thus held neither of the relevant in-group/out-group associations that the varieties of the other two interviewers might evoke. The neutral status of the Austrian interviewer, combined with the fact that the interviews conducted by her were all undertaken as paired interviews with the participant and another local speaker present, justify the classification of these interviews as a control. Linguistic behavior produced by participants in interviews with IvA might arguably be seen as representing something closer to their default production patterns.⁴

In terms of the interviewers' productions, IvE rarely if ever produces coda rhoticity or tapped /r/ in any position. She does not display the vowel length alternations of the SVLR. Her vowel in the LETTER set is usually a mid [ə], though occasionally more open. IvS is regularly rhotic in coda position. She frequently produces taps for /r/ in intervocalic position, and often in onset clusters also, and it appears that SVLR is operational in her speech. Her LETTER vowel is a heavily /r/-colored [ɚ]. IvA is fairly consistently nonrhotic. She never uses tapped /r/. Her vowel duration patterns are nonnative, and do not reflect an SVLR-like system. In the LETTER set, she uses a fairly open, somewhat rounded [ɜ].

Data Elicitation

The sociolinguistic interviews, which ranged from 20 to 70 minutes in length, were designed to highlight the intergroup dimension where possible in order to influence informants' definitions of the situation as high in intergroup prominence. This would make speech divergence more likely to occur so as to allow speakers to maintain positive social identity, as suggested by Tajfel and Turner (1979). Questions posed in the interview context related to the significance and influence of the border, claimed and attributed identities as Scottish or English, awareness of regional identities, levels of interaction with speakers from the other side of the border, preferences for governance, and so on (see further Llamas, in press). Participants were also asked about their awareness of their own accommodative linguistic behavior, about perceptions of linguistic behavior, and about the identification of variants that were indexical of "Scottishness" or "Englishness."

In each interview context, stylistic variation was also elicited from the participants: In addition to the conversational style of speech elicited through the casual interview, wordlists were read with each interviewer to elicit particular phonological variables of interest.⁵

Coding and Analysis

/r/. Twenty-one instances of /r/ were extracted from the wordlist, and all audible tokens of /r/ were taken from the conversational portion of the interviews. The tokens were auditorily coded as approximant, tap, or zero. Here, auditory coding consisted of repeatedly listening to the most relevant section of the waveform for each token before assigning it to a category. The approximant category included a handful of uvular or other back articulations, but the majority were alveolar or retroflex approximants, including r-colored vowels. The few trilled realizations were combined into the tap category.

The data were subdivided into three main categories based on the position of the /r/ in the word. Onset /r/ was either word-initial, as in *rise*, or part of an onset consonant cluster, as in *bread*. Intervocalic /r/, which did not occur in the wordlist,

comprised two subcategories: word-internal, as in *Berwick*, and linking, as in *her aunt*. Coda /r/ could be syllable-final (*her coat*) or else part of a coda cluster (*Burnmouth*).

Scottish Vowel Length Rule: vowel duration. Each speaker read the same 99-token wordlist.⁶ In all words where the stressed vowel was followed by /t/, /d/, /#d/, /s/, /z/, or /#z/ in the syllable coda (e.g., *brute*, *brood*, *brewed*, *Bruce*, *bruise*, *brews*), the duration of the vowel was measured. Duration measurements were made from Praat spectrograms displayed using the standard settings. The start point was usually taken where regular vowel formant structure began. In a few cases, this was difficult to observe, so an earlier point was chosen. The end point of each vowel was more difficult to locate because the energy of the vowels tended to drop off gradually. The easiest case was when /d/ followed the vowel and a narrow vertical burst of energy usually appeared on the spectrogram following the stopgap. This was taken as the vowel end point. For the fricatives /s/ and /z/, the vowel end point was taken at the first appearance of consistent high-frequency energy in the spectrogram. For final /t/, it was difficult to locate the point of transition from the vowel to the /t/, although this was the approach used for F38. For the other four speakers, the end point was the consonant's release burst, as for /d/. This made for a clear measurement point, but it included the period of closure of /t/ in the vowel duration, making vowels before /t/ seem as long as or longer than those before /d/ (which coincides neither with the auditory impression nor with the published literature). For the purposes of this study, however, reliability of measurement across interviews was more important than the absolute vowel durations obtained. Adjustments to these procedures had to be made in some cases, but all instances of a given word were measured using the same criteria. That way, regardless of the procedure used on a particular word, durational differences between repetitions of that word, especially across interviews, were retained. For each word, the mean vowel duration was calculated for each interview. Only words with data from each interview were used for comparison.

letter. In Wells (1982, pp. 165-167), the lexical set *letter* consists of words with a final unstressed vowel pronounced as "plain /ə/ in nonrhotic accents (except when subject to linking /r/)," as discussed earlier. For this study, items with this same vowel word-internally (*Sunderland*) were also included.⁷ The first formant (F1) of the *letter* vowel was measured in Praat, following the procedure outlined in Labov, Ash, and Boberg (2006). Five formants were estimated by LPC (linear predictive coding), using a maximum of 5,000 Hz for the male speaker and 5,500 Hz for the female speakers. A single measurement point was chosen in each case, usually at the F1 maximum or at a steady state near the intensity maximum. A small number of tokens were discarded when the vowel appeared too reduced or too devoiced to be measured.

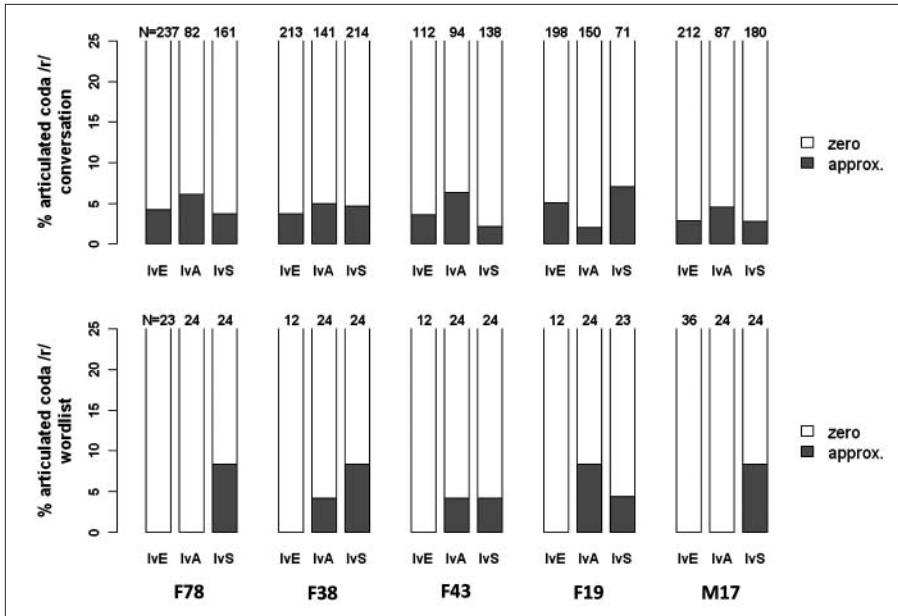


Figure 2. Coda rhoticity in conversational speech (upper stack) and wordlist reading (lower stack), by interviewer (IvE, IvA, IvS) and by interviewee (F78, F38, F43, F19, M17)

Results

Coda Rhoticity

As shown in Figure 2, all five interviewees had a very low level of coda rhoticity in conversational speech, usually slightly below 5%. There were no significant differences between interviewees, nor did any of the interviewees show a significant change across interviews. In the wordlist data, a different pattern emerged. None of the interviewees produced any rhoticity with IvE (0/95). With IvA, the combined rate was 3.3% (4/120). With IvS, they produced 6.7% coda rhoticity (8/119). The hypothesis of equal rhoticity across interviews can be rejected ($p = .02$, Fisher’s exact test).

Figure 3 illustrates the difference between the styles. In conversational speech, there was no interviewer effect. In wordlist style, the rate of coda rhoticity, while remaining very low, increased from IvE to IvA to IvS.

Realization of Intervocalic and Onset /r/

The interviewees varied greatly in their use of taps for /r/ in intervocalic position, as seen in Figure 4. The highest user of taps was F78, with 66% (121/183); next was F38, with 50% (135/271). The other speakers had much lower tap rates. For four of

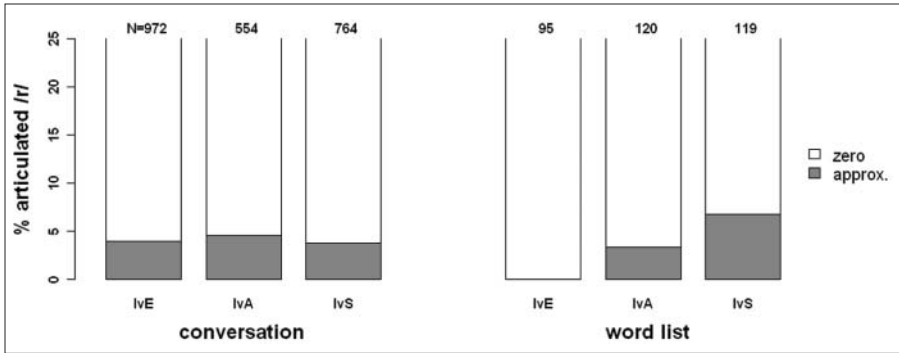


Figure 3. Coda rhoticity in conversation and wordlist, by interviewer (IvE, IvA, IvS), all interviewees combined

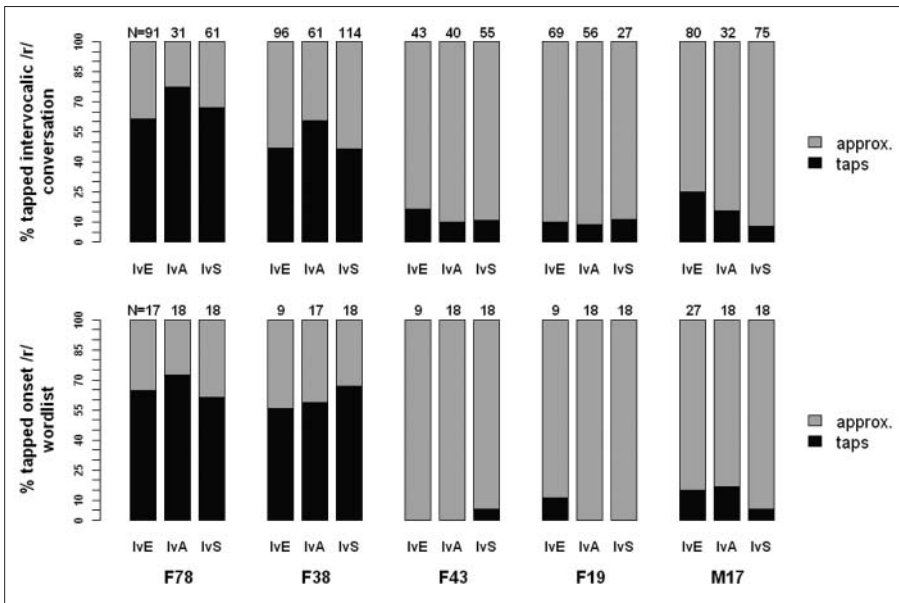


Figure 4. Word-internal and word-final intervocalic taps in conversational speech (upper stack) and syllable-onset taps in wordlist readings (lower stack), by interviewer (IvE, IvA, IvS) and by interviewee (F78, F38, F43, F19, M17)

the speakers, there was no significant difference across interviews. For M17—25% taps with IvE (20/80), 16% with IvA (5/32), and 8% with IvS (6/75)—the difference was marginally significant, considering the number of comparisons ($p = .02$, Fisher's exact test).

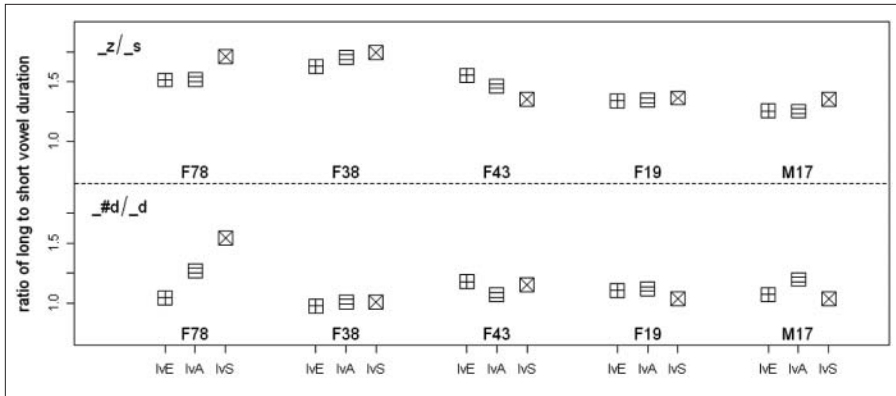


Figure 5. Median vowel duration ratios of long versus short wordlist pairs (6 pairs followed by d/#d, 9 followed by s/z), by interviewer (⊠ represents interaction with IvE, ⊡ with IvA, and ⊞ with IvS) and by interviewee (F78, F38, F43, F19, M17)

For tapped /r/ in onset position in the wordlist data, the interviewees patterned similarly. However, none of them changed their behavior significantly across interviews, nor is there any trend if their data are combined ($\chi^2, p = .96$).

Scottish Vowel Length Rule and Vowel Duration

Scottish Vowel Length Rule. Vowel durations were compared for 6 short/long word pairs from the /d/ and /#d/ classes: *aloud/allowed, code/towed, feed/kneed, greed/agreed, side/sighed, staid/stayed*. Such pairs have identical vowels in most varieties of English, but, as discussed earlier, in Scotland and Berwick they can differ, with the /#d/ vowels being longer. Nine pairs were taken from the /s/ and /z/ classes: *choice/noise, close/doze, face/phase, fuss/fuzz, gas/jazz, house/browse, kiss/fizz, mess/Des, rice/rise*. These pairs show a durational difference in most varieties of English, but it is more pronounced in SVLR varieties. By taking the ratio of the durations of each pair—for example, dividing the length of *sighed* by that of *side*—we obtain the results shown in Figure 5.

All speakers except F38 show evidence of a /#d/-to-/d/ ratio greater than 1, consistent with the SVLR. All speakers have a larger /z/-to-/s/ ratio, between 1.25 and 1.75. In terms of differences across interviews, there is no consistent pattern. With one exception, these ratio fluctuations could be because of chance, meaning that no real SVLR-related changes occurred from interview to interview. F78's /#d/-to-/d/ pattern stands out because of the single /#d/ word *kneed*. With IvE, F78 read *kneed* with a markedly short vowel in both repetitions: 126 and 139 ms. With IvA, repetitions were much longer (278 and 279 ms), and they were longer still with IvS (299 and 314 ms).

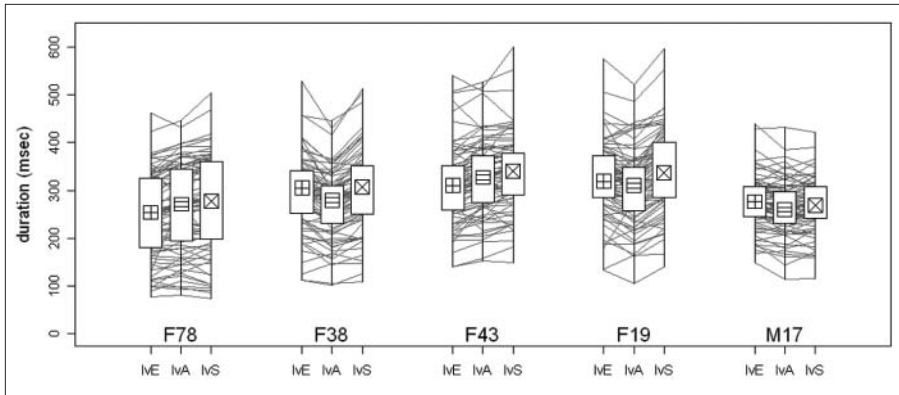


Figure 6. Individual word and median vowel durations in wordlist readings, by interviewer (☒ represents interaction with lvE, ☐ with lvA, and ☒ with lvS) and by interviewee (F78, F38, F43, F19, M17)

Table 1. Mean wordlist vowel durations (in ms) across interviews; all interviewer differences except lvS Versus lvE, for F38 only, were significant ($p < .05$)

	lvE	lvA	lvS
F78, 75 words	250	266	271
F43, 76 words	313	329	337
F38, 77 words	298	272	303
F19, 75 words	324	307	345
M17, 76 words	276	263	268

No other duration shifts were nearly this dramatic, but it became clear that most speakers were producing longer or shorter wordlist vowels from interview to interview. These were then investigated separately from the SVLR long/short ratios.

Vowel duration. A total of 79 words was selected for measurement from the wordlist, divided between the /t/, /d/, /#d/, /s/, /z/, and /#z/ classes. Each speaker had a few missing data points; the actual number of words that was compared across all three interviews ranged from 75 to 77. Figure 6 presents box plots of the duration measurements. For each interview, the boxes contain the middle 50% of the measurements. Lines connect the data points for each word, indicating the amount of variation as well as the general trend. The mean durations for each speaker–interviewer pair are presented in Table 1.

Each speaker's durations were compared across interviews using paired *t* tests (two-tailed); in other words, tokens of a given word were compared with the other

instances of the same word. The changes were small but consistent; in almost all cases, speakers' differences across interviewers were statistically significant.

For F78, the mean duration increased from IvE to IvA to IvS. F43 showed a similar pattern, increasing in the same order from IvE to IvA to IvS. F38 showed a different pattern. Her vowel durations between IvE and IvS were not significantly different. However, her durations with IvA were shorter than either of the other two interviews. F19's pattern was somewhat similar to F38's. Again, durations with IvA were the shortest of the three interviews. Durations with IvE were intermediate, whereas those with IvS were the longest. M17 produced a narrower range of vowel durations, reflected in smaller differences across interviews. Uniquely, his vowels were longest with IvE; the difference between IvS and IvA was not significant. The interviewees did differ from interview to interview in terms of their vowel durations, then, with the clearest overall trend being for durations to be longest in the IvS interview (4 of 5 speakers).

In summary, there was no obvious accommodation to the interviewers in terms of the vowel length ratios that characterize the SVLR. Absolute vowel durations did shift from interview to interview, but these shifts were small—almost always below 50 ms and often much smaller.

letter. Measurements of F1 for the *letter* lexical set were taken from conversational speech. Clearly, not all speakers produced the same *letter* words in their three interviews. Crucially, though, many common words (e.g. *borders*, *over*) were uttered in more than one interview. This enabled a statistical comparison to be made across interviews for each interviewee.

Rather than eliminating the data from words that only occurred in one interview, each speaker's complete data were analyzed in a linear mixed model with a random effect for word. The random effect assumes that words—with their individual properties of phonology, stress, frequency, and so on—follow a normal distribution with respect to the F1 of *letter*. The technique also assumes that if a speaker tends to use a low (or high) F1 in a given word in one interview, she or he would do the same in others.

Two models were fit for each speaker: a null model with a single estimated mean and an alternative model with a fixed effect for the three interviewers. The models were compared using a likelihood ratio χ^2 ($df = 2$; df refers to the degrees of freedom). For three of the interviewees, there was insufficient evidence of an interviewer effect: F78 ($p = .23$), F43 ($p = .10$), and F19 ($p = .59$). For the other two speakers, there was strong evidence of one: F38 and M17 (both $p < .001$).

For F38, the F1 of *letter* was highest (the vowel was most open) with IvE. With IvS, F1 was, on average, 67 Hz lower, and with IvA, F1 was 49 Hz lower still. For M17, the F1 of *letter* was also highest in the IvE interview. In both his other interviews F1 was, on average, 53 Hz lower. These differences are substantial, even in light of the speakers' large overall F1 ranges. For F38, the F1 of *letter* ranged from 416 to 1,010 Hz. For M17 the range was from 303 to 742 Hz.

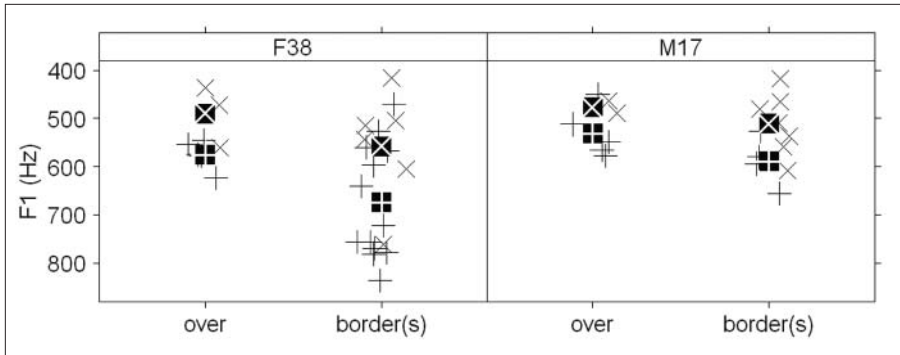


Figure 7. F1 of the letter-class words *over* and *border(s)*, in conversation with IvE (+) or IvS (x) for interviewees F38 and M17 (black markers indicate mean scores)

Most individual words varied within a narrower range. The differences across interviews are most easily observed for words used several times in each interview, as Figure 7 shows.

For the other three speakers, F1 differences between interviews were either smaller, less consistent, or both. Only F38 and M17 showed a clear interviewer effect, and in both cases, their letter vowels were more open with IvE, as predicted.

Attitudinal Data

An important component in the interpretation of the linguistic patterns uncovered is consideration of the speakers' attitudes toward the putative in-group and out-group categorizations and also their awareness of linguistic variation and the indexicality of forms. As Thakerar et al. (1982) state, "unless we take into account the notion of speech stereotyping and consider the process whereby speakers themselves think they are shifting too, then researchers will be unable to take account of such variations and of superficially 'erroneous' results" (p. 247).

In interviews, all informants except M17 expressed the opinion that they would prefer that their accent be misidentified as Scottish to its being misidentified as Geordie (Newcastle English). Most expressed negative reactions toward a Geordie misidentification, including F38, one of the two speakers who appeared to accommodate toward the more open letter vowel of the perceived variety of IvE.⁸ The other speaker, M17, did not express such negative reactions but expressed a preference for the misidentification of his accent as Geordie over Scottish. As for national identity, only two of the five informants (M17 and F43) claimed English as their preferred identity. One claimed British (F19). F38 and F78 claimed Scottish.

In terms of their awareness of accommodative behavior, all speakers appeared aware of their upward convergence in certain situations. When specifically asked about accommodation to speakers of Scottish English or northeastern English, three

speakers claimed that they would speak in a more Scottish way to speakers of Scottish English (F38, F78, and M17). Only F38 and M17, the speakers who appeared to accommodate toward IvE, stated that they might alter their speech with an interlocutor from the northeast of England, but F38 was emphatic that such alteration would not entail using a Geordie accent, which she evaluated negatively.

As regards awareness of features that are indexical of Scottishness and Englishness, findings from the larger AISEB study (Llamas, in press; Llamas, Johnson, & Watt, 2008) suggest that the production of /r/ is the major differentiating feature, as noted earlier. Multiple references to “rolling r’s” in reference to “Scottishness” indicate that trilled realizations carry stereotypical social meaning. Other observations suggest that use of coda rhoticity carries indexicality and acts an important differentiator. No mention is made of features demonstrating either the SVLR or variants of the letter vowel, however.

Discussion

This study extends the research on linguistic identity markers and accommodative behavior. By investigating such behavior in a border town context using interactions between participants and three different interviewers who represent different national identity groups, we are able to examine features in terms of their salience as national identity markers—in this case, as markers of “Scottishness” and “Englishness”—and examine whether such salient features are those that are adjusted in the process of accommodation.

In terms of fulfilling Trudgill’s (1986) criteria for salience, we can say that the consonantal variable, /r/, is undergoing change and that phonetic distance and phonological contrast (in terms of coda rhoticity) are relevant. Regarding stigmatization of a variant, we see that differing prestiges are at work, however: Whereas an /r/-ful pronunciation would be considered prestigious on the Scottish side of the border (Stuart-Smith, 2008), an /r/-less one would be the prestige norm on the English side (Wells, 1982). Nonetheless, despite fulfilling the majority of Trudgill’s criteria, there is little accommodative behavior in evidence in the use of /r/. In terms of coda rhoticity, we cannot look to a phonotactic constraint explanation because even if coda /r/ is rare in their speech, all participants demonstrate some coda rhoticity in conversational speech style. However, in the wordlist readings, no tokens in the interview with IvE were produced with an /r/-ful pronunciation, yet in the other interviews levels of rhoticity increased, slightly with IvA and to a greater extent with IvS.

The variation in wordlist readings appears to illustrate the interaction of two different, often competing, models of stylistic variation. The “attention to speech” model (Labov, 1972) asserts that a speaker will alter features he or she uses the greater the level of self-monitoring of speech. The investigator can manipulate speech style by the use of different tasks, and stylistic variation is revealed through comparing speech in a casual, unmonitored speech style (the supposed “vernacular”) with the reading of wordlists, possibly including minimal pairs, which elicits the most monitored

speech style. A shift along a standard to nonstandard continuum is usually observed with this manipulation of attention paid to speech. The “audience design” model (Bell, 1984) asserts that speakers adjust their speech style depending on their audience (both those present and/or those acting as overhearers). This need not be along a standard to nonstandard continuum. The interesting result reported here suggests that speakers adjust their speech in line with their audience’s actual or perceived usage—that is, not necessarily to a more “standard” form—when close attention is being paid to speech through wordlist reading, even though it is not adjusted in a less-monitored speech style.

As regards the salience of the vowels examined in the study, although use of the SVLR is reported as currently undergoing change, there are no recent reports of the same happening with the LETTER VOWEL. In terms of phonetic distance, though this may be relevant for the /r/ variable, there is no principled way of knowing what this distance should be in reference to vowels. Nonetheless, given that the differences in LETTER measurements are relatively small, we may suggest that this is not a sufficient distance to count as salient. As for the other criteria, though the SVLR may be involved in the maintenance of phonological contrast, the qualitative variation in the LETTER VOWEL is not. Furthermore, no evidence is available to suggest that either variable has variants that are stigmatized. The BwE vowel variables, particularly the LETTER VOWEL, then, do not appear to fulfill the requirements for salience, yet use of their variants does show some evidence of patterns consistent with accommodative behavior.

It does seem from this evidence, as Kerswill and Williams (2002) intimate, that consonants and vowels behave differently. Given the speakers’ comments on the indexicality of /r/, we might say that coda rhoticity carries extrastrong salience, which would prevent accommodation in the absence of any other factor promoting it (though we do see interesting evidence of accommodation in wordlist reading style). Although tapped /r/s may be salient, they may not carry the extrastrong salience that trilled /r/s carry. The vowels under consideration, on the other hand, do not appear to carry either salience or extrastrong salience. Overall, it appears that Trudgill’s assertion that in dialect contact situations speakers modify features of their own varieties of which they are most aware is not borne out by the data presented here. Whether, on a wider scale, phonological variables can be said to behave differently depending on their sublevel as vowels or consonants and whether such differences can be linked with the identity-projection model of accommodation, as opposed to the change-by-accommodation model, or salience as opposed to nonsalience, require further investigation.

The second research question of the study concerns the evidence required for a claim of accommodative behavior. Though some results show significant shifts in the direction that may be interpreted as convergence toward the perceived variety of the interviewer (notably M17’s and F38’s use of the LETTER VOWEL), we see little evidence of divergence, which is what we may have expected given the accentuation of the intergroup dimension in the interview situation. The exception to this may be

M17's marginally significant difference in the use of intervocalic tapped /r/. In a sense, however, M17 diverges from both IvE and IvS in this variable. Given the hybrid nature of the variety and the participants' identities under investigation, this may be, in some ways, predictable as in intergroup terms participants may not wish to accommodate too closely to one interviewer or the other. They may not be making a straightforward in-group/out-group distinction between the two British interviewers but rather could be perceiving both as members of an out-group for at least part of their (the participants') identity.

Overall, the evidence for accommodation appears inconsistent and not wholly compelling. The question arises, however, of what kind of production patterns would provide convincing evidence in such a study. Although the "measured linguistic shifts of convergence and divergence need not necessarily reflect the direction in which speakers themselves believe they are moving" (Thakerar et al., 1982, p. 247), the researcher cannot automatically know the direction in which speakers themselves believe they are moving in terms of the phonological variables under investigation. Even if we were to witness consistent differences in the use of phonological forms under investigation, we could not be certain that such patterns were not part of the variation inherent in the speech of the linguistic individual. Neither could we be completely confident that such patterns would not also occur in interactions with interactants from the participant's own speech community or, indeed, in interactions with the same interlocutor on different occasions. Furthermore, although we can highlight the intergroup dimension of the interaction, the researcher does not know whether the participants defined the interaction as high in intergroup salience throughout and viewed the interviewers as members of relevant social categories (in this case, "English," "Scottish," or "other" in- and/or out-groups).

Triangulating detailed production data with social psychological information would yield substantive advances in terms of ascertaining whether linguistic behavior reflects the fact that the speaker desires the approval of all, if any, of the interviewers and also whether changes in production data reflect changes in movement from high to low gradations in the correlated intergroup/interindividual dimensions during the interaction. Such factors would influence whether fine-grained differences in production patterns were interpreted as evidence of accommodation—specifically linguistic divergence in intergroup interactions, in this case—or as representative of the inherent variability in the speaker's linguistic repertoire. Without such triangulation, attributing phonological variation in short-term dialect contact situations to processes of accommodation in a cause and effect way remains problematic and also has implications for the theoretical status of the vernacular as used in sociolinguistics.

The concept of the vernacular is ubiquitous in sociolinguistics, but as an observable phenomenon, it is surprisingly underdefined and underdiscussed. In terms of its use in relation to a style of speech in the linguistic repertoire of the individual, little debate on its exact nature exists beyond Labov's initial definitions as the variety acquired in adolescent years (Labov, 1984) and the variety adopted when speakers

are monitoring their speech least closely (Labov, 1972). Milroy and Gordon (2003) acknowledge that it is “a fundamentally abstract object, rather like its counterpart, the standard language” (p. 50). Yet its utility for sociolinguistics remains undisputed. When investigating shifts in the frequencies of usage of phonological forms in dialect contact situations rather than a language or code switch in bilingual and/or multilingual contexts, the interpretation of symmetrical or asymmetrical convergence or divergence rests on the assumption that speakers are moving from a position of default production patterns, presumably those representing a vernacular speech style. Results presented here suggest that further empirical investigation is required to ascertain whether default production patterns for variable forms can be said to exist, as is assumed in claims of interspeaker short-term contact convergence or divergence.

The final research question of this article was to evaluate the methodological implications of the “interviewer effect” for the compilation of a comparable data set. Although we see some evidence suggestive of accommodative behavior in some speakers, the results on the whole show relatively small and inconsistent differences in phonological behavior in conversational style in different interactions. The interviewer effect does not, therefore, appear to pose a significant problem for the compilation of a data set in terms of the increased or decreased use of phonological variants associated with relevant in-groups and out-groups. Findings from wordlist readings, however, suggest that more research is needed on the interaction between the attention to speech model and the audience design model in the analysis of stylistic variation.

Conclusion

This article has presented the results of a study designed to test the extent of speakers’ linguistic accommodation to members of putative in-groups and out-groups in a border locality, where such categorizations can be said to be particularly accentuated. Findings were considered in terms of their implications for the notion of salience, the evidence required for claims of phonological convergence and divergence, and the interviewer effect in the compilation of data sets for use in quantitative studies of phonological variation and change.

In terms of the notion of salience, the testable definition offered by Trudgill (1986) did not offer a match for the forms that appeared to be modified in interactions in this study. The vowels under investigation did not appear to fulfill the criteria for salience in all respects, yet did appear to vary in the interactions, whereas the consonantal variable /r/ did fulfill the requirements, yet it did not appear to be modified to a great degree in interactions.

As regards compelling evidence for phonological divergence in intergroup short-term contact interactions, it appeared that to interpret patterns of variation in such a way, it would be necessary to identify a set of default production patterns, presumably those corresponding to a vernacular speech style, from which the speaker would

move. It is not clear that this identification is possible. Without triangulation with social psychological information, it is also unclear how to determine whether the encounter was perceived as high in intergroup terms and low on the interindividual dimension by participants. It is necessary to conduct further experimental work that combines such social psychological information with fine-grained phonetic detail to shed more light on motivations for phonological variation.

In terms of the methodological implications of the study, the small differences in patterns of phonological variation produced in interactions in which the intergroup dimension was deliberately highlighted and between speakers who represented different in-groups and out-groups in terms of relevant national and regional identities suggest that the interviewer effect is relatively insignificant in the elicitation of casual speech in this context.

As Meyerhoff (1998) states,

Communicative accommodation need not simply be a last ditch save of messy data, which it so often is in sociolinguistics, but in order for it to avoid this fate, it is up to linguists to apply its principles with rigor, not hindsight. (p. 223)

More work is necessary on the central notions of interspeaker convergence and divergence in short-term contact situations, which are so often invoked in the interpretation of patterns of phonological variation and change. The potential they contain as explanations of motivations for variable linguistic behavior implies that better understanding of such processes permits us to comprehend more fully the dynamics of language change more generally.

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Notes

1. This study of accommodation in Berwick-upon-Tweed forms part of the larger Economic and Social Research Council-funded research project Accents and Identities on the Scottish/English Border (AISEB;

RES-062-23-0525). The AISEB project investigates patterns of phonological variation and claimed, attributed, and perceived identities in Berwick and Carlisle (on the English side of the border at the east and west ends, respectively) and Eyemouth and Gretna (on the Scottish side of the border, at the east and west ends, respectively).

2. Participants are referred to as F19, F38, F43, F78, and M17, indicating their gender and age.

3. Interviewers are referred to as IvE, IvS, and IvA indicating their nationality as English, Scottish, and Austrian. (Although we describe IvA's variety as nonnative, she has native-like fluency in English.)

4. Interviews with IvA consisted of (a) F43 and her daughter F19; (b) F78 with a female friend; (c) F38 with a female friend; and (d) M17 with a male friend. Subsequently, IvE and IvS each reinterviewed F43 and F19 in a paired interview, and F78, F38, and M17 in one-on-one interviews.

5. Not all variables reported on here were included in wordlist readings, and conversely, not all variables can be elicited from conversational speech (e.g., SVLR). Stylistic variation is therefore only reported for variables for which data are available.

6. Usually, the list was read twice (with the words in a different order); in some cases, the list was read only once and, in one case, three times.

7. Words from the lexical set comma would have been included also if not for their rarity.

8. Recall that IvE is from Middlesbrough. The Middlesbrough accent is often misidentified as Geordie by people from elsewhere in the country, though IvE's LETTER VOWEL is more central than a stereotypical Geordie LETTER VOWEL.

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