THE ROUTLEDGE COMPANION TO SOCIOLINGUISTICS

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VARIATION AND THE VARIABLE

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DEFINITION AND EXAMPLES

In all human languages, spoken and signed, we can find examples of cases in which speakers have multiple ways of saying the same thing. Some variation is accidental and transitory; it may arise from the mechanical limitations of the speech organs, for instance, and may not be fully under the speaker's control. Other, more systematic variations represent options speakers may consciously or unconsciously choose (Coulmas 2005). A choice between two or more distinct but linguistically equivalent **variants** represents the existence of a **linguistic variable**. Speakers in Aberdeen, north-east Scotland, for instance, may choose between the terms *boy*, *loon*, *loonie*, *lad* or *laddie* when referring to a young male person, or between *quine*, *quinie*, *lass*, *lassie*, or *girl* in reference to a young female. These sets exemplify lexical variables, and, following the convention of labelling variables in parentheses, we might refer to them as (boy) and (girl), respectively.

Variables are also found at all other levels of linguistic structure. Speakers may exploit **phonological** variables by choosing from different pronunciations of the same word or phrase. For example, Aberdonians may pronounce *what* using either the Scottish standard [ʌ] or the (stereotyped) local form [f] (thus [fɪtsa̲ʔ] *what's that?*). Though alternation in (wh) is typically treated as binary, other pronunciations such as [w] can also be heard in the **accent**. As discussed in Chapter 3, phonological variables may additionally be continuous rather than having discrete, clearly distinguishable variants.

Discourse variables are used as a means of structuring discourse, such as when organizing conversational **turns**. Markers in English such as *you know*, *you see*, *like* and *I mean*, **tags** (e.g. *or something*, *and that*), or **tag questions** (*innit*, *right*, *know what I mean*, etc.) have, however, been under-researched compared with lexical and, in particular, phonological variables. The study of discourse variation is still at an early stage, and while it presents challenging problems – in what sense, for example, is an utterance ending in the tag *you know* 'equivalent' to the same utterance which lacks the tag? – the fact that such variation has been found to be systematic indicates that a full understanding of how speakers construct conversations will necessitate a good deal of further research to establish more explicitly the forms, functions and uses of discourse variables (see Schiffrin 1987, 1994; Ochs *et al.* 1996; Couper-Kuhlen and Selting 2001; Macaulay 2002a; Cheshire 2005a, b; and Chapter 5).

Grammatical (morphological and syntactic) variables have, on the other hand, received much more attention in the sociolinguistics literature over the last four decades, focusing on the notion of the **variable rule** (Cedergren and Sankoff 1974; Sankoff 1978, 1988; Sankoff and Labov 1979; Wolfram 1991). Lack of space prevents fuller discussion of the hotly debated issue of the extent to which syntactic forms claimed to be functionally equivalent are in fact (or even can be) exactly synonymous; see instead Lavandera (1978), Labov (1972b, 1978); Romaine (1982); Cheshire (1987, 2005a); Cheshire *et al.* (2005); and Chapter 4. Unambiguous synonymy can none the less be found. While, for instance, Aberdonian speakers very frequently use the distal demonstrative *that* with plural noun phrases – as in example (1) – they can also use standard *those* alongside the other **non-standard** alternatives given in (3)–(6) without any difference in linguistic meaning intended or implied (McRae 2004; Beal 1997; Smith 2005).

(1) This is enough to feed all that rabbits.
(2) This is enough to feed all those rabbits.
(3) This is enough to feed all them rabbits.
(4) This is enough to feed all thae rabbits.
(5) This is enough to feed all thon rabbits.
(6) This is enough to feed all yon rabbits.

It is of course not true that all Aberdeen speakers would necessarily use *all* the forms at (1)–(6): only (2) is likely if Scottish Standard English is being used, and forms like (1) and (3) might be avoided in 'polite' speech owing to their perception as 'bad English'. To this extent a speaker's choice of variant may be constrained by non-linguistic, 'external' factors such as the social situation (an interview in a doctor's surgery, say, versus an argument at home), or the speaker's educational and economic background, age, etc., these being powerful predictors of non-standard variant usage. Alternatively, a variant's use may be constrained by an internal, linguistic factor: in Aberdeen (wh), lexical distributional constraints favour [f] in function words like *what*, *why*, *where* and *who* more highly than in content words like *white*, *whittle* or *whale* (see further Jones 1997: 331; Johnston 1997: 507; Smith 2005). In certain infrequent words such as *whippet*, *whimsical*, *wherewithal*, etc., [f] appears never to occur. When investigating alternations the domain of variability is circumscribed by eliminating those contexts in which variability is absent. Structural factors may assist. If, for example, a London English speaker uses the **labiodental approximant** [ʋ] as a pronunciation of (r), s/he will obviously only do so where phonological constraints allow (r) to occur, namely in pre-vocalic or **intervocalic** positions in words like *red*, *brown*, *string*, *around*, *marry*, *soaring* and *sawing*, across word boundaries in sequences like *soar above* and *saw it up*, and, as a consequence of **H-dropping** in the **variety**, also *sore head* and *saw himself* (Wells 1982; Foulkes and Docherty 2000, 2001; Altendorf and Watt 2005; Hughes *et al.* 2005). Whether the constraints are linguistic or non-linguistic, the fundamental premise is the same: that the distribution of the different surface forms

of a **dependent variable** (the linguistic feature under scrutiny) can be correlated with bi- or multivalent **independent variables** (speaker characteristics, speech style, linguistic context, and so forth).

Identifying the social and linguistic constraints that prevent or disfavour a particular form from occurring in a given language variety and that license the use of another form instead is the central empirical preoccupation of **variationist sociolinguistics**. In this way, the social meaning of each of a variable's variants can be deduced, and their distribution within the system circumscribed. This is done by correlating patterns of variation in a community's language with the social and demographic characteristics of its speakers and the **social networks** and/or more generic categories to which they can be assigned (**social class**, **gender**, **ethnicity**, etc.), and by noting those linguistic contexts in which certain variants are always, frequently, seldom or never found. It should be emphasized that the distribution of variants is not held to be 'either/or', but rather probabilistic. Categorical distribution of linguistic forms is clearly of secondary interest to researchers aiming to account for patterns of variation in language data.

THE HISTORY AND UTILITY OF THE (SOCIO)LINGUISTIC VARIABLE

The **sociolinguistic variable** was first systematically used for quantification of language variation in Labov's Martha's Vineyard study (1963). While in this guise it is a relatively new addition to the toolkit used by linguists for describing, analysing and modelling language structure and use, the (at least tacit) notion of the linguistic variable is as old as language study itself. Pāṇini's grammar of Sanskrit (?350 BC) incorporates variable rules that allow for differing outputs (Kiparsky 1979), and in the **dialect** geography and historical linguistics of more recent centuries the establishment of sets of 'equivalent' dialect terms and historical cognates entails identifying direct lexical and structural correspondences within and between languages. This is not at all surprising if, instead of assuming – as many modern linguists do – that variation is of only marginal significance to 'language proper', we take a more socially and historically realistic view of language structure, development and function. It hardly needs to be said that knowing that there are different ways of expressing the same idea in a given language is a fundamental element of people's everyday linguistic awareness – as Sapir (1921: 147) remarked, 'everyone knows that language is variable'. Despite this, and the fact that modern linguistics has its roots in the work of scholars who sought to provide a model of language structure and evolution to account for historical and contemporary intra- and interlinguistic differences, variability was generally marginalized or ignored by practitioners of the dominant schools of linguistics during the twentieth century, not least those working in the Chomskyan generativist tradition which continues to hold sway over large areas of the discipline. Intralinguistic variation is seen by many of the more conservative researchers in the generativist tradition to be irrelevant to an understanding of the nature of

language beyond the most trivial level because, they argue, variability of the sort that interests sociolinguists is an epiphenomenon arising from the vagaries of language in use rather than a property of grammars at a deeper level (Chomsky 1986; Guy 1997; Henry 2002, 2005; Chambers 2003). But assuming, as seems reasonable, that one of the primary purposes of language acquisition is to permit social interaction, developing an awareness of the social meanings of linguistic variants and an ability to adapt one's use of variant forms according to situation and the perceived social characteristics of one's conversational partner(s) is as essential as any other aspect of language competence (Hymes 1971; Roberts and Labov 1995; Roberts 2002; Foulkes *et al.* 2005).

As suggested above, much of the value of the sociolinguistic variable in language research lies in its potential for quantifying patterns of variation: we can, that is, count how often a particular form occurs and express that frequency as a proportion of the total number of occasions on which the form *could have* occurred, even if it did not. And by comparing samples drawn from different age groups or from the same speakers at different times, we can get a sense of how the language or dialect is changing over time. The variable permits us to make statements of the sort: 'for two variants *x* and *y* of a variable (*z*), we find that *x* is used twice as much as *y* by older working-class men, but for young middle-class women the reverse is true.' The sociolinguistic variable thus allows us to observe changes in progress in a way that was once thought impossible (Labov 1994, 2001; Labov *et al.* 1972; Milroy 1991; McMahon 1994). Differences in the distribution of variants between casual, spontaneous speech and more closely monitored 'style-shifted' speech can likewise be captured, thereby allowing insight into speakers' attitudes towards and perceptions of the variant forms in their repertoires. This is an especially useful technique, as the researcher can thereby elicit attitudinal and perceptual information that the speaker may be unaware of, or is unable to articulate.

INDICATORS, MARKERS AND STEREOTYPES

By alluding to differing levels of 'salience' among variables and their variants, Labov (1972b) distinguishes between **indicators** (variables of which speakers other than linguists are unaware, and which are not subject to style-shifting), **markers** (variables close to speakers' level of conscious awareness which may have a role in class stratification, and which are subject to style-shifting), and **stereotypes** (forms of which speakers and the wider community are aware, but which, like other stereotyped expectations of social groups, are often archaic, misreported and misperceived). Of these, it is markers that have received, and continue to receive, the most attention from sociolinguists. These have tended to be phonological variables. This is no accident: their variants are usually more frequent than those of other sorts of variables, allowing the researcher to collect and analyse hundreds or thousands of tokens with relative ease; they can be elicited from informants without much effort; they lend themselves to **instrumental**

analysis; and they are functionally equivalent in a much less ambiguous way than are other sorts of variables. The remainder of this chapter will focus on a phonological variable that has been the object of much attention in the literature to date: (r) in English.

PHONOLOGICAL VARIATION: (r) IN BERWICK ENGLISH

Until the formalization of the sociolinguistic variable in Labov's early work, much of the surface variation in speech and writing had been treated by the majority of linguists as random, unpredictable 'free variation' that did not seem systematically to pattern with other factors. As an example, consider the use of **postvocalic (r)** in US English (the use of a **rhotic** consonant following the **vowel** in words like *car*, *turn* and *floors*). Hubbell (1950), for instance, concluded that:

> The pronunciation of a very large number of New Yorkers exhibits a pattern [. . .] that might most accurately be described as the complete absence of any pattern. Such speakers sometimes pronounce /r/ before a consonant or a pause and sometimes omit it, in a thoroughly haphazard pattern [. . .] The speaker hears both types of pronunciation about him all the time, both seem equally natural to him, and it is a matter of pure chance which one comes first to his lips.
>
> (Hubbell 1950: 48)

Such claims were made in spite of deeply held beliefs among the public that speech features of this sort were indexical of social status, ethnic group, and so forth. It is hard to see why else features such as non-rhoticity in US English would be stigmatized at the time for their perceived incorrectness, even among non-rhotic speakers themselves, as Labov's New York City studies would later demonstrate (Labov 1966).

Rhoticity works differently in the English of England. **Received Pronunciation**, which continues to enjoy the highest overall **prestige**, is a non-rhotic accent. Speakers from the few rhotic areas that remain in north-western and south-western England are not accorded much prestige, and (r)-ful pronunciations of words like *bird* and *short* are often considered amusingly rustic and old-fashioned. Rhoticity is becoming scarce in England, even in remote northern areas such as Northumberland, the accents of which were until quite recently fully rhotic and characterized by the long-standing and stereotyped 'Northumbrian burr' (**uvular fricative** or **approximant** [ʁ]; see Påhlsson 1972; Wells 1982). The accents of Scotland, lying immediately to the north, have on the other hand retained rhoticity almost universally. It is of great interest therefore to examine the interface between the two areas: since a robust **isogloss** is implausible given the plentiful cross-border interaction between Scots and Northumbrians, there is presumably a transitional area in which rhoticity is variable. Berwick upon Tweed, a town on the Northumberland coast three miles (5 km) south of the Scottish border, is cited as just such a transitional zone (Glauser 1991, 2000), and is for other historical and

sociolinguistic reasons a prime site for investigating phonological variability in the region. Most intriguing is the finding of Kiely *et al.* (2000) that informants from nearby Alnwick report that they perceive Berwickers to sound Scottish; if so, rhoticity seems a good candidate as a cue to this perception. (Other possible cues are listed in Watt and Ingham 2000.)

(r) is a complex variable, as we must consider not just the presence or absence of rhoticity, we must also describe those tokens which do occur in terms of their **phonetic** identity. Berwick speakers can pronounce the word *bars* as [bɑːz] or [bɑɹz], but they also have a choice of which kind of postvocalic (r) to use should they use a rhotic pronunciation. In the present analysis, we coded for the variants [ɹ], [ʁ], [ɾ], [ʋ] and [ɻ], and the zero variant [∅] to indicate non-rhoticity in postvocalic positions (we have actually simplified the analysis somewhat for present purposes; for fuller results see Watt and Pichler 2004). [ɹ] is the 'mainstream' British English variant; the **alveolar tap** [ɾ] is a traditionally Scottish form but is also found widely in northern England; [ʋ], the labiodental approximant, mentioned earlier, was until recently associated with infantile or defective speech, since when it has become extremely frequent in the English of southern England (Foulkes and Docherty 2000); [ɻ] differs from [ɹ] in that friction is audible.

In order first to try to establish whether or not Berwick English is undergoing a loss of rhoticity, we compared auditory **transcriptions** of spontaneous speech taken from recorded interviews with twenty male and female Berwick English-speakers ranging in age from 14 to 78 years (n = 1,973; average 98.7 tokens per speaker; Pichler 2005 gives further information on her fieldwork procedure). **Linking** /r/ (e.g. *sore arm*) and **intrusive** /r/ (e.g. *saw it*) contexts were of course excluded from this data set, the results for which are plotted against speaker age (Figure 1.1). Non-rhoticity appears to be (near-)categorical for all speakers. Even the eldest speaker uses non-rhotic pronunciations almost 90 per cent of the time. These data suggest, then, that Berwick English is now effectively established as a non-rhotic variety, and has thereby converged on mainstream **English English**. If Alnwick listeners hear Berwick English as 'Scottish', the perception is presumably triggered by cues other than postvocalic rhoticity.

What, then, of (r) in pre- and intervocalic positions? Figure 1.2 summarizes the pooled findings by speaker in descending order of age (n = 1,550; average 77.5 tokens per speaker). These results again suggest a pattern characterized by loss of traditional features. Use of [ɻ] and the traditional [ʁ] by all twenty speakers is negligible, and they are therefore omitted from the chart. What is most striking is the virtual loss of [ɾ] from old to young, and a corresponding upward trend (albeit a rather peaky one) in [ɹ]. Part of the reason for the peakiness lies in the modest – but perhaps growing – popularity of the innovative [ʋ] among the younger speakers, suggesting that it is finding favour among Berwick's teenage population. At any rate, it occurs at least as frequently as [ɾ] for five of the six teenage speakers.

Bringing other demographic factors (**sex**, place of residence) into the analysis as independent variables reveals additional distributional patterns that show

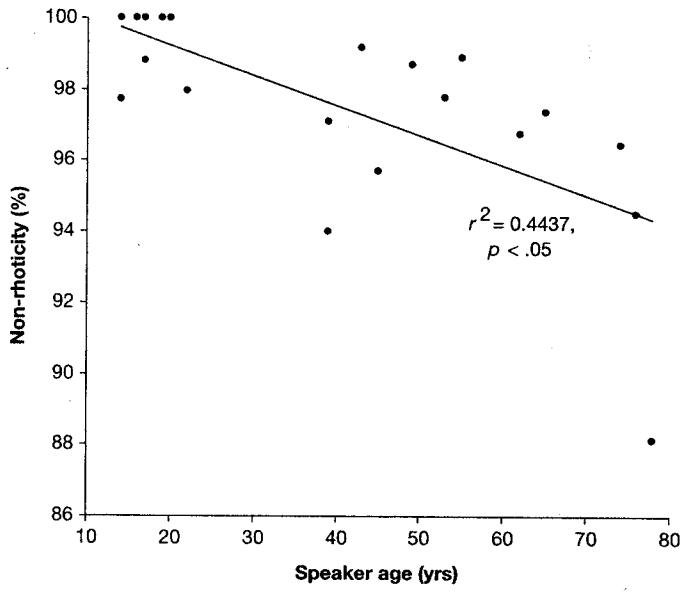

Figure 1.1 Non-rhoticity among twenty Berwick English-speakers (%)

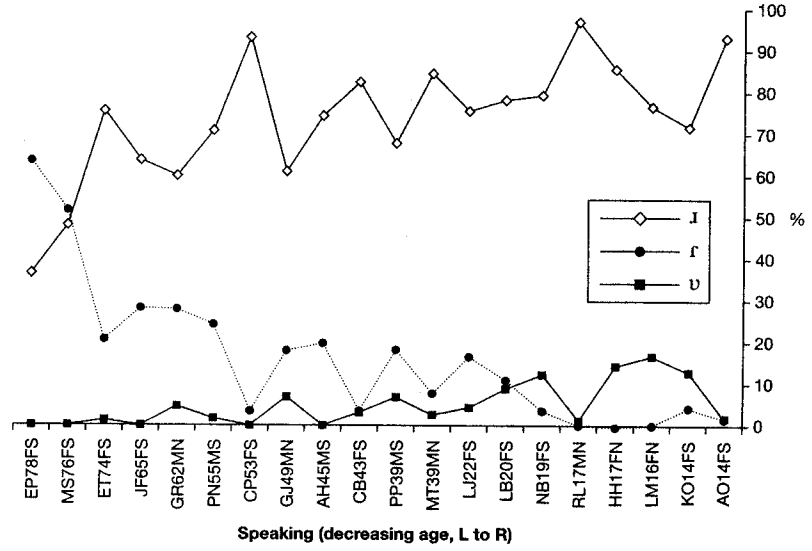

Figure 1.2 Phonetic variants of (r) in pre- and intervocalic positions (pooled) in Berwick English, by speaker (%). The speaker labels give the speaker's initials, age, sex (M/F) and place of residence (N/S, i.e. north or south of the river Tweed)

complex interactions with the effect of speaker age. **Qualitative** information on attitudes (e.g. a sense of being more Scottish than English, or vice versa) and self-perceptions (e.g. feeling oneself to have a Northumbrian rather than a Scottish accent) among the informants can also be aligned with the sort of **quantitative** results described briefly in this section, with illuminating results (Pichler *et al.*, forthcoming).

Current instrumental analysis techniques facilitate further refinement of the rhoticity analysis by subdividing the rhotic variants into narrower categories (e.g. rhotic pronunciations which involve **devoicing**, or those where friction noise is visible in a **spectrogram**). Instrumental analysis of vowel variation in English is well established (Labov *et al.* 1972; Labov 1966, 1972b, 1991; Thomas 2001; and see Chapter 3) and while it has hitherto been rather rare in analyses of consonantal variables, **acoustic** profiling methods are now being used much more widely by researchers investigating fine-grained variability in consonants (Docherty and Foulkes 2001; Carter and Local 2003; Jones and Llamas 2003).

FUTURE TRENDS

The study of phonological variables to date has concentrated almost exclusively on segmental variables and, in spite of considerable classificatory and quantificational difficulties, systematic variability in **suprasegmental** features such as **intonation**, rhythm and voice quality is starting to receive more attention (Stuart-Smith 1999; Low *et al.* 2000; Grabe *et al.* 2000). Furthermore, an emphasis on the study of production at the expense of perception has meant that we know comparatively little about how listeners selectively filter and attend to different aspects of variation in the signal (Thomas 2002a, b). It seems clear that a full account of the scope of phonological variation within a language is necessary if we are to come to understand the range of indexical resources that speakers may draw upon.

For the investigation of phonological variables and variables of other types the growing availability of searchable tagged electronic text and speech corpora is proving of enormous benefit (Garside *et al.* 1997; Oakes 1998; Sampson and McCarthy 2005; Gries 2005; Beal *et al.* forthcoming). These resources circumvent, or at least complement, intuition-based judgements of grammatical acceptability. A trend towards attempting to integrate socially conditioned variability into current theoretical models such as Optimality Theory (Nagy and Reynolds 1997; Anttila and Cho 1998) and the Minimalist Program (e.g. Adger and Smith 2005) gives an encouraging indication that as time goes on the sociolinguistic variable is being given more space as a useful analytical and explanatory device in theoretical frameworks that might previously have viewed even the most systematic variation as a 'nuisance factor'. In applications such as **forensic linguistics** and language pathology and therapy any sidelining of the role of systematic variation can be dangerously counterproductive (Nolan 1997; Foulkes and French 1999; Oetting 2005; Watt and Smith 2005), and it seems inescapable that the development of

reliable human–computer interfaces – especially speech recognition systems – can progress beyond their present point only if sociolinguistic variation at multiple levels of structure is afforded a more central role. While it is still in need of refinement in some areas, as noted earlier, the sociolinguistic variable represents the means by which bringing variability in speech and language under analytical control can be achieved.

FURTHER READING

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