Variation and language

Key terms in this chapter:

- variable
- variants
- constrain/constraints
- free variation
- determinism
- regional dialectology
- reallocation
- intermediate forms

- social dialectology
- interspeaker/intraspeaker variation
- envelope of variation
- synchronic variation
- diachronic change
- stereotypes
- markers
- indicators

VARIABLES AND VARIANTS

Some friends were sitting outside one evening in Bequia (an island in St Vincent and the Grenadines) where they were about to watch a video and have a drink. One person lifted their glass and said 'Cheersi', to which their neighbour replied 'Chairs and tables'. This is a play on the way *cheer* and *chair* are often pronounced the same way on Bequia. The **variable** (i.e. the feature that varies) is the vowel – in this case a centring diphthong – and the different variants at play in the community at large are realisations of the diphthong with a closer starting point [tfiez] that sounds like Standard English *cheers* or a more open starting point [tfeez] that sounds more like Standard English *chairs*.

When you are studying variation, whether it is from a quantitative or qualitative perspective, it is important to define as precisely as possible what the object of your investigation is. The general or abstract feature that you are investigating is what is called the **variable**. The actual instantiations of the variable in speech are known as the **variants**.

There are two ways we can identify a variable. One convention is to write a variable in parentheses, i.e., (ear) in this case. A second convention is to refer to vowel variables by using the system of key words in Wells (1982). In this particular case, we would talk about the NEAR vowel or the NEAR lexical set. I will often use Wells's key words in this text, because they have been chosen carefully to pick out classes of words which are reasonably robust across different varieties of English. (A full list of Wells's key words is provided on pp. xviii—xix.)

The relationship between variables and variants is shown in Figure 2.1. On the left, I have tried to illustrate the general relationship between an abstract linguistic form and the variants

Variable

In this text, principally an abstract representation of the source of variation. Realised by two or more variants.

Variant

The actual realisation of a *variable*.

Analogous to the phonetic realisations of a phoneme.

that actually realise that form in speech. On the right, I have replaced the general terms with the variable discussed above, and shown the two most common variants: one with an open onset to the diphthong; the other with a more close onset.

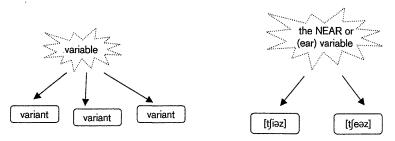


Figure 2.1 The relationship between a sociolinguistic variable and its realisation as different variants. Illustrated with an example from the English spoken on Bequia (St Vincent and the Grenadines).

Identifying variables and variants

- How do you express the concept *die* or *dead*? How many different ways can you think of expressing the idea that someone has died? What determines your use of these different ways of phrasing the same idea?
- Now try and think of at least one word (or set of words) that you sometimes pronounce in different ways (like the example of 'cheers/chairs' in Bequian given above). What determines your use of these different pronunciations? Is it the same kinds of factors that you identified in the *die* example?
- Do social factors enter into your account of pronunciation more or less than they do into your account of vocabulary differences? Why do you think that might be?
- For both the examples above, say what you would consider to be the **variable** and say what the **variants** are.

Regular vs probabilistic alternations between variants

So the relationship between the abstract concept of a variable and the actual variants that realise it is very similar to the relationship between the abstract notion of a phoneme and the actual phonetic realisations of that phoneme. The sound represented orthographically as p in English has very different realisations, depending on where it occurs in a word. When it occurs by itself at the start of a word, as in pinch, it is pronounced with quite clear aspiration (i.e., an extra burst of air that is very clear if the speaker is standing too close to a microphone). But when it occurs at the end of a word, as in rap, or when it follows an s at the start of a word, as in speak, it is pronounced without the aspiration.

This variation is quite predictable and depends entirely on the immediate linguistic context in which the p occurs. Phonologists distinguish what they call the phoneme, which

12 VARIATION AND LANGUAGE

is represented as /p/, from the phonetic variants, one of which is aspirated and one of which is not aspirated (together these are called the allophones of /p/). The phonetic realisations of /p/ can be distinguished in print by using the conventions of the International Phonetic Alphabet (IPA), i.e., $[p^h]$ for the aspirated variant and [p] for the unaspirated one. (A full list of the symbols in the IPA is provided on pp. xvii—xviii.) Because syllable position determines which variant of /p/ is used, we can say that the realisations of the phoneme are **constrained** by where it occurs in a syllable.

However, there is an important difference between the alternation between $[p^h]$ and [p] in English and the alternation between [tfiez] and [tfeez] in Bequian. The constraints on /p/ are completely regular and predictable so you always know which variant will surface when. With the NEAR class of words in Bequian, the situation is less precise. The same person will sometimes use one variant and sometimes the other variant. The same speaker may even alternate in different sentences. For instance, a woman on Bequia was heard calling to her grandson at dusk one evening. The exchange went like this:

(1) Jed! Come here! [heə] (silence from Jed) Jed!! Come here!! [hiər]

The first time she said *here* she pronounced it with the open variant, and the second time she pronounced it with the more close variant (the appearance of the 'r' sound at the end is a separate phenomenon in Beguian; what is of interest is the realisation of the vowel).

For a long time, linguists described variables like this as examples of free variation. By free they meant that there were no clear linguistic constraints which would predict when you got one variant rather than another. So free essentially meant unconstrained. You will still hear linguists use the phrase free variation, but it is a bit sloppy to employ it now. This is because since the 1960s sociolinquists have amassed considerable evidence showing that speaker variability can be constrained by non-linguistic factors (things external to the linguistic system) as well as by linguistic factors. The effects of social factors are seldom categorical; that is, all speakers generally alternate at some time. No social or contextual constraint determines where you will hear one form rather than another 100 per cent of the time. However, they will tell you how likely you are to hear different forms in different contexts and with different speakers. The difference is probabilistic. This is why it is so helpful to take the trouble to quantify forms for different speakers or in different contexts. (The notion of determinism recurs in Chapter 4 when we discuss sexist language. The theoretical importance of distinguishing between forms which occur 100 per cent of the time or just most of the time in some people's speech is discussed further in Chapter 10 where we look at the question of whether women and men speak the same or differently.)

Arguably, though, the only thing that is free about free variation is that it frees the linguist up to dust their hands and say 'OK, we've analysed that!' Sociolinguists' studies of language in use have shown that variation is always more or less constrained by some factor relevant to the context in which a speaker is using their language. Assuming that a linguist's job is to account for as much of the diversity of human language as possible, then they can be seen as abdicating a lot of their responsibility if they consign aspects of the linguistics to a black box called 'free variation'. Sociolinguists have shown that a lot of what appears to be free variation can be accounted for if linguists take social factors into account as well as linguistic factors.

Linguistics has a great deal to gain by distancing itself from a notion like free variation. Sociolinguists argue that even though sociolinguistic analyses don't enable us to predict with

Constrain/

If the distribution of variants is neither random nor free, and instead shows systematic correlations with independent factors, those factors can be said to constrain the variation, or to be the constraints on the variable.

Free variation

The idea that some variants alternate with each other without any reliable constraints on their occurrence in a particular context or by particular speakers.

Determinism/ deterministic

The idea that there is a strong causal relationship between two factors (i.e., one determines how the other will be). The idea that if you know the value for one factor, you can automatically and reliably predict the value for another. (See also Linguistic relativism.)

100 per cent certainty which variant will surface, where, and when, sociolinguistic studies reveal an additional layer of systematic structure that justifies the limited indeterminacy that remains.

In sum, a sociolinguistic variable can be defined as a linguistic variable that is constrained by social or non-linguistic factors, and the concept of a variable constrained by non-linguistic factors emerges straightforwardly from the traditions of dialectology.

In the next section, we briefly look at the methods that are used by dialectologists who are interested in documenting the way speakers use language differently and why language varies depending on what village, town or region speakers come from. Following this, we move on to examine how a more comprehensively *social* dialectology emerged from **regional dialectology**.

REGIONAL DIALECTOLOGY: MAPPING SPEAKERS AND PLACES

The nineteenth century was a particularly good time in the history of the study of regional variation in language. Some very large projects were initiated in Europe, some of which continued to run well into the twentieth century. An early and ambitious example of these was the *Altas Linguistique de la France* or 'Alf', as it is commonly called. This project was begun by Jules Gilliéron and the data collection was carried out by a fieldworker, Edmond Edmont, who bicycled all around France stopping in small villages where he interviewed older speakers and asked them what the local word was for a number of vocabulary items and then carefully noted the local pronunciation of different words. Edmont was trained to use a consistent system for transcribing regional pronunciations, and at every point in his fieldwork he administered the same questionnaire. This standardisation of methods was an important breakthrough as it allowed thorough and reliable comparisons to be made between different localities.

The results of dialect surveys are often plotted on maps, thus providing an atlas which, instead of showing topographical features like mountains and plains, shows how speakers' pronunciation of words changes as you move across physical space. The distribution of different forms – pronunciations or sentence patterns – can be shown with different symbols superimposed on a map of the region which plots every point surveyed.

In 2000, three sociolinguists celebrated the 100th anniversary of the completion of Edmont's fieldwork. David Heap, Naomi Nagy and Jeff Tennant cycled from point 797 to point 798 (the towns of Rivesaltes and Collioure).

A number of detailed atlas projects were undertaken across Europe at about the same time – for example, in Switzerland, Germany, Italy and Spain. (More recently, dialect atlases of North America have been undertaken.) One of the last to be completed was the dialect atlas for the Iberian peninsula (*Linguistic Atlas of the Iberian Peninsula*, or *ALPI*), because work on this was interrupted by the Spanish Civil War in the first half of the twentieth century. However, regional dialectology is by no means a historical exercise. For example, there are ongoing projects involving the comparison of structures across Germanic languages.

Regional dialectology

The identification and mapping of boundaries between different varieties on the basis of clusters of similar and different features in particular regions, towns or villages.



No, really?

One of the *ALPI* fieldworkers found out firsthand how badly people can misunderstand linguistic research. Following the military coup in Spain in 1936, Aníbal Otero (1911–1974) was arrested while undertaking fieldwork in northern Portugal. He had sent a letter back to his family in Galicia commenting on the legitimacy of the Republican government. On the basis of 'evidence' that he was a spy – which included, especially, his suspicious notebooks full of incomprehensible notes in 'code' – Otero was convicted of treason and sentenced to death by firing squad. The testimony of scholars that Otero's notebooks were not in fact a spy's code, but rather linguistic transcriptions, enabled him to have his sentence commuted to life imprisonment. Otero somehow managed to continue his research during his years in various military prisons: he surveyed different fellow prisoners' speech, carefully noting each subject's place of birth and other characteristics. After being released, Otero's health never recovered and he returned to live a private life in his home village, Lugo.

Our awareness of the different linguistic forms we use

One problem with the methods used by dialectologists is that they depend almost entirely on speakers' reports of what they *think* they say. People may not be very accurate in reporting what they actually *do* say. For example, we may believe that we use one form because school has drummed it into us that this is the 'correct' way to speak. Or we may be subconsciously influenced by the spelling of a word when we report on how we pronounce it.

What would you say if someone asked you:

'Do you say The problem is, is that we need more time or The problem is that we need more time?

'Do you say This problem is different from the last one or This problem is different than the last one or This problem is different to the last one?'

What would you say if someone asked you:

'Do you say fas' cars and dangerous livin' or fast cars and dangerous living?' 'Do you say libry or library?'

'Is it Snow White and the Seven Dwarfs or Snow White and the Seven Dwarves?

Try asking some other people and see what they say.

Now try checking the responses people gave you with the distribution of these forms online. One way to do this is with 'Google Battle': try setting *dwarfs* and *dwarves* to do battle with each other; try putting *libry* and *library* to battle. Which one wins?

The internet seems like an easy way to collect data. Are there any problems or disadvantages with using it like this? (Try searching for *libry* and *library* on their own.)

USING REGIONAL DIALECT DATA TO INFORM THEORY

The maps that Gilliéron and Edmont produced from their fieldwork display how language intersects with geographical space, but regional dialectology can be used to do more than simply document where people use one form or another. Quite early on some linguists realised that the level of detail in many of the regional dialect atlases could be used to inform linguistic theory. For instance, William Moulton used the dialect maps for parts of Switzerland and Italy to argue in favour of the principle of maximum differentiation. Moulton noticed that in varieties of Swiss there was a consistent relationship between whether or not a dialect centralised its low, short-a vowel and the number of other low vowels in that variety. He noticed that if the variety had a central [a], then it would have both a low front and a low back vowel. But if speakers of one variety had fronted the short-a, then that variety generally did not have another low front vowel. Conversely, if speakers had backed the short-a in any particular variety, then that variety generally did not have another low back vowel, it would only have a mid back vowel. Moulton suggested that the reason for this was that if the short-a vowel fronted there might not be a big enough difference between the way it sounded and the way the other low front vowel might sound, and this would lead to speakers confusing words with different meanings. He suggested that speakers prefer to maintain a safe level of differentiation between the phonemes in their language, so if there is change in part of the system they will reorganise the rest of the system so as to keep the distinctions between different words clear. He was able to induce this principle solely from the data on regional dialect maps.

In addition, linguists have found that regional variation can highlight the importance of non-linguistic factors. Work by the sociolinguist Dave Britain shows how the features of different regional varieties intersect with a range of non-linguistic features. One of his more important studies involved studying the English spoken throughout the Fens, a low-lying part of England, north-east of London. For a long time, the Fens were largely covered in swamps, and this made them very difficult to cross. These swamps formed a barrier to movement and contact between people in many of the region's villages. In particular, they divided areas to the north and west, where speakers used the same vowel in the STRUT and BOOK classes of words (i.e., /υ/) from areas in the south where the STRUT class had developed a different vowel (i.e., /N). The Fens also divided into two major regions with respect to the PRICE vowel. Speakers in the eastern part of the region started the diphthong from a more central position (e.g., night/nait/ and tide/taid/), while speakers in the western part of the region used a more open onset (e.g., /nait/ and /taid/). However, starting in the eighteenth century, the swampy areas of the Fens began to be drained, and communication between villages in the north-west and the south-east parts of the region became much easier and increasingly frequent.

Britain recorded the casual speech of a large number of people in the central Fens in the late 1980s. He was also able to compare this with earlier records from regional dialect surveys of what speakers sounded like in the villages he studied. He found there was a clear reduction in the amount of regional variation in the central Fens in the 1980s compared to previous records. Once the Fens ceased to be such a big barrier to the movement of peoples and communication, some of the regional differences began to disappear. But they disappeared in rather different ways for the STRUT/FOOT words and the PRICE words.

Britain found that in the central Fens where the eastern and western varieties had met, the pronunciation of PRICE words had absorbed the pronunciations used in both the western



Reallocate/

Reassignment or reanalysis of forms in contact in a systematic way, e.g., as allophonically distributed variants of a phoneme.

Intermediate forms

Forms emerging following contact between closely related varieties that fall in between the various input forms. and eastern varieties. Typically, speakers used a raised pronunciation of words like *night* or *ice* (i.e., words that have a voiceless consonant after the diphthong), and they had a very open vowel as the main part of the diphthong when the following vowel was voiced (as in *tide* and *rise*). This makes a lot of linguistic sense, and many varieties of English have somewhat raised forms of the diphthong before voiceless consonants. In other words, speakers had **reallocated** the regional forms according to regular linguistic principles. Britain, like Moulton, was able to use regional dialect data to better understand how linguistic and non-linguistic factors are interrelated.

However, when Britain examined the STRUT and FOOT classes of words, he found the situation was less clear-cut. Within a single village, and even in the speech of a single person, he found a lot of variability. That is, unlike the PRICE words, there was no evidence that speakers had developed a single new set of norms for the STRUT and FOOT words. Some people were still using the same vowel in both sets of words (the northern pattern); some people had different vowels in the two sets (so they sounded more like speakers in London); and some people were doing something completely new, and pronouncing the words with a vowel that was different from the standard southern pronunciations and the standard northern pronunciations. These **intermediate forms** seemed to be emerging as the preferred local norm in the Fens, but in the 1980s it was still very hard to see which regional pattern would win out.

Britain points out that the regional dialectologist wants to go beyond simply describing the different ways in which contact between different regional varieties is being resolved in the Fens. He notes, for instance, that the regional dialect records show that speakers resolved the PRICE diphthong quickly and they did so on neat linguistic grounds. But they are still struggling with STRUT and FOOT after more than 200 years. The reason for this is both linguistic and non-linguistic.

The reallocation of the PRICE forms was actually quite simple. As noted, it follows a widely attested and phonetically motivated pattern that has emerged spontaneously in other varieties of English, and this was probably why it was resolved so quickly. Separating the STRUT and FOOT classes, though, is a more complicated task, because there are no natural linguistic principles differentiating the two classes. It is notoriously difficult to learn which words fall into the FOOT class and which fall into the STRUT class, and it is often a shibboleth that can be used to identify a speaker of northern English English even if they have lost most of the other regional markers of their accent.



No, really?

Shibboleth

A shibboleth is a linguistic variable that can be used as a diagnostic of where someone comes from. The story goes that the Ephraimites lost to the Gileadites in a battle. They tried to flee, but the Gileadites were able to unmask them because they pronounced the word shibboleth with an /s/ and not an /ʃ/ (Judges 12: 4–6). Edwidge Danticat's (1998) novel The Farming of Bones has several pivotal scenes involving the use of a shibboleth. Haitians working in the Dominican Republic in

1937 were identified by their pronunciation of the r and the j in the word perejil 'parsley', and many, once identified, were killed in a pogrom against them:

Yves and I were lifted by a mattress of hands and carried along next to Tibon's body. Two soldiers laughed, watching. The young toughs waved parsley sprigs in front of our faces.

"Tell us what this is," one said. "Que diga perejil."

At that moment I did believe that had I wanted to, I could have said the word properly, calmly, slowly, the way I often asked "Perejil?" of the old Dominican women \dots even though the trill of the r and the precision of the j was sometimes too burdensome a joining for my tongue.

(Danticat 1998: 193, see also Wucker 1999)

In addition to the purely linguistic difficulties involved in resolving the contact between different pronunciations of the STRUT/FOOT classes of words, there were social factors slowing down and increasing the complexity of the task. The difference between the northern and southern variants of the STRUT vowel have almost no salience for speakers from the Fens. None of the speakers Britain recorded mentioned this variable as a feature of local speech at all. Britain suggests that the fact that most speakers in the Fens are unaware of this variable has also impeded the speed with which they have resolved this particular variable. Their linguistic and social difficulties can be seen in the patterns of regional variation.

Britain's study is an important one for several reasons. He reaffirms the usefulness of regional dialect data as a resource for inducing linguistic principles and constraints on variation and change. He also illustrates very nicely the way in which sociolinguists have to think about a whole range of different issues when analysing data. They have to be sensitive to aspects of linguistic structure, aspects of social structure and aspects of how speakers conceive of themselves and relate to others. As such, his study provides an excellent entry point for exploring more closely how regional dialectology expanded into **social dialectology**. In the next section, we look at the study of a small island in Massachusetts, in which methods and principles were established that have proved to be essential to the field known as sociolinguistics.

Social dialectology

The study of linguistic variation in relation to speakers' participation or membership in social groups, or in relation to other non-linguistic factors.

Connections with theory

Many factors influence the diffusion of linguistic innovations through a community: communication networks, distance, time and social structure (Bailey *et al.* 1993; Rogers 1995). We could add *imagination* to Rogers's list of factors: Le Page and Tabouret-Keller (1985) argue that a lot of the differences in how speakers use language depends on what kind of person we perceive ourselves to be, or how we want to be perceived by others. For them, differences between speakers (or even in the speech of a single speaker) can be thought of as *acts of identity* (more on this in Chapter 11). The idea that different ways of using language (i) constitute social actions, and (ii) involve expressing social and personal identities, will recur in a number of later chapters.



STANDARDS, NORMS AND ALTERNATIONS FROM THE NORMS

Amidst all this regional variation, where are the standards and norms? It is important to remember that when we consider how people use language, one of the things we are trying to do is to understand better what the norms are underlying some of the alternations we observe in practice. This intersects in interesting and complicated ways with what we understand 'Standard English' to be. There can be typical (and in that sense, standard) ways of expressing something that are particular to a very specific locality. But what we mean when we talk about Standard English is a set of norms that are shared across many localities and which have acquired their own social meaning. In general, they are the norms that are associated with education, and they may function as gatekeeping norms, establishing who will and who will not be able to exercise authority or power. They may be deployed as signs of upward mobility (or aspirations for upward mobility).

Some sociolinguists argue that 'Standard English' can only be used properly to refer to features of grammar and vocabulary; Trudgill and Hannah (2002), for example, point out that the features that make up Standard English can be spoken in many different local accents.

On the other hand, other sociolinguists (Milroy 1992; Mugglestone 2003) find the term 'standard' useful for discussing attitudes to different accents. In particular, they discuss the way in which standardisation works as a social and historical process. The process of standardisation involves a community of speakers converging on a shared sense that some forms (spoken or written) are valued more than others and are therefore more appropriate in situations where people are speaking carefully and the exercise of social power is relevant – for example, in law courts, schools, funeral services, and so forth.

Milroy (1992) discusses the overlap and also the divergence in what the terms 'prestige' and 'standard' refer to (and we return to this in Chapter 3). For now it will be helpful to understand 'standard' as referring to norms which represent an intersection of other sociolinguistically interesting phenomena such as carefulness, education, and social status. As we progress through the book we can start to unpick the web that they form. One of the principal tools we will use to unpick them is by looking closely at the way speakers use different languages or different variants in a language in different social contexts and with apparently different motivations.

MARTHA'S VINEYARD: A STUDY OF SOCIAL DIALECTS

The first social dialect study was conducted in the summer of 1961 on Martha's Vineyard, an island off the coast of Massachusetts in the north-eastern United States. Martha's Vineyard was then already something of a summer playground for people who live most of the year on the mainland US — in the 1960s, the number of residents during the summer increased nearly seven times over the winter population. This has only increased in the years since; in the year 2000, the year-round population on the Vineyard was 14,000, but during the summer the population of the island ballooned to 100,000. Moreover, there is a big discrepancy between the circumstances of the summer-only people and the year-rounders. The cost of housing on the Vineyard is fabulously expensive, driven up by the intense demand of summer residents, yet the island has the second-lowest per capita income in the entire state

of Massachusetts. Many year-rounders on the Vineyard struggle quite hard to get by and increasingly have to do so by providing services for the summer visitors.

In 1961, William Labov was one of those summer visitors. A student of Uriel Weinreich's at Columbia University, Labov was well acquainted with Weinreich's work on language and dialect contact and he was therefore well placed to extend this work in new directions. Weinreich's work built on the descriptive tradition of the European regional dialectologists; however, he was interested not just in variation as a linguistic phenomenon. He was also interested in the relationship between different linguistic variants and the local social order. This approach (which Labov has always considered to simply be sound *linguistics*) has come to be known as sociolinguistics.

Although the island lies not far off shore from the mainland United States, the pronunciation of certain key variables on Martha's Vineyard differs markedly from the neighbouring parts of the mainland, and it appears that it has done so for some time. The specific variable that Labov became aware of was the realisation of the diphthong in words like *ice* and *time*. In Wells's (1982) standard lexical sets we would call these the PRICE words. Of course, in 1966 Labov didn't have access to Wells's sets. Instead he introduced a new convention: he used parentheses to represent the sociolinguistic variable; that is, he talks about the (ay) variable which is realised by different phonetic variants.

On the Vineyard, the PRICE words were very often pronounced with a more raised, centralised onset (i.e., [əi]), which is not typical of the island's mainland neighbours. The centralised variant is recorded as characteristic of the Vineyard in the 1951 *Linguistic Atlas of New England*. However, Labov noticed that not all the year-round residents of the Vineyard used the centralised pronunciation. Some of them used a lower, fronted onset, more like the mainland norm (i.e., [ai]). The same variability occurred in words with the back-gliding diphthongs such as *south* and *loud*; that is, the MOUTH set or what Labov called the (aw) variable.

Connections with theory

One of the reasons Labov refers to the (ay) and (aw) variables and prefers to use this notation over Well's lexical sets is that (ay) and (aw) make the phonemic nature of the class of words a bit clearer than Well's system does. For example, calling the variables (ay) and (aw) makes it clear that they share the properties of being a low vowel onset with an offglide (front and back, respectively), and knowing that they share these properties makes it easier for us to see that they might be affected by similar phonetic processes or long-term change. This notation is more transparently concerned with the systemic nature of sound change than Well's PRICE and MOUTH notation system is.



Even more importantly, he noticed that speakers who used the centralised variants didn't always do so. Sometimes a speaker would use a centralised variant and then in the next sentence use something more like the mainland variant. In other words, not only was there variation between individual speakers (interspeaker variation) on the Vineyard, there was also variation within individual speakers (intraspeaker variation).

The extent of this variation piqued Labov's interest. Was the variation a very subtle pattern of regional differentiation? Or was there more to it? He set out to find out by gathering data on these two variables from as many people as he could find.

Interspeaker variation

Differences and variation that is measured between different speakers (individuals or social groups).

Intraspeaker variation

Differences in the way a single person speaks at different times, or with different interlocutors, or even within a sentence. Intraspeaker variation is a necessary corollary of inherent variability in grammars.

Ideally, Labov hoped to capture the way people talked when they were talking with one another at home or with their friends. He realised that as an outsider to the Vineyard, and, moreover, as an outsider with a mike and tape-recorder, it wasn't going to be easy to get the kind of speech he was after. He decided first to record people engaged in fairly formal, language-oriented tasks like reading lists of words out loud. However, once this was completed he would shift to a more informal frame of conversation in which he asked them about their life on the Vineyard. This method for collecting data represented a significant departure from the brief question-and-answer format of regional dialect surveys, and it has subsequently formed the basis for numerous other studies.

Labov conducted these sociolinguistic interviews in a number of different parts of the island. In some places, the inhabitants were mainly of Anglo-British descent, in some they were mainly of Portuguese descent, and in some they were mainly of Native American descent. He also sampled speakers from different walks of life. Some of the people he talked to worked on farms, some worked in the fishing industry, and some worked in service occupations. Some were older, some were in their thirties and some were younger. In the end, he interviewed 69 people, more than 1 per cent of the year-round population on the island. Although some ages or groups of speakers were better represented than others in the final sample, the survey provided a much better cross-section of the Martha's Vineyard community than regional dialect surveys had in the past. What Labov saw in his interviews fundamentally challenged the notion of **free variation**.



Connections with theory

Regional dialectology has traditionally sought out older speakers, and especially those who have lived sedentary lives without much contact and experience outside of their immediate locality. The famous great surveys from the early twentieth century also mainly sampled male speakers. This target sample has been called the NORMS – non-mobile, older, rural, male speakers (Chambers and Trudgill 1998: 29). It was believed that such speakers used the most 'authentic' local variants. The dialectologist Harold Orton went so far as to say, 'in [England] men speak vernacular more frequently, more consistently, and more genuinely than women' (Orton et al. 1962: 15).

Counting variation: the use of index scores

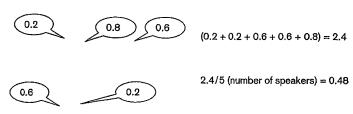
Labov found that, even though the Vineyard was quite small, the variation in how speakers pronounced PRICE and MOUTH seem to divide the community along several distinct axes. He extracted every example of a PRICE or MOUTH word from all the recordings he had and coded them according to how raised and backed the onset of the diphthong was. Lower onsets received a lower score and more raised and centralised ones received a higher score. He was able to use these scores to obtain averages for each speaker. These individual speaker averages could be combined further to produce averages for groups of speakers. This process is illustrated in Figure 2.2.

For example, if a woman in her sixties produced 40 tokens of PRICE words in her interview, Labov would listen to each one. If a token had a very centralised onset he gave that token

$$(5 \times 2) + (20 \times 0) + (15 \times 1) = 25$$

25/40 (all the tokens) = 0.6

0.6 individual index score



0.5 group index score (rounded up)

Figure 2.2 Method for calculating an index score for an individual speaker and a group of speakers.

Raising and centralisation of the onset of PRICE words, or the (ay) variable, shown as an example.

a score of 2, for example. If it had a very low onset, he would give it a score of 0. Let's say this woman produced five very centralised tokens of PRICE (i.e., 2 points \times 5 = 10 points) and 20 very low ones (i.e., 0 points \times 10 = 0 points), and the remaining 15 were somewhere in between (i.e., 1 point \times 15 = 15 points). She would end up with an index score of 25/40 or 0.6.

Once he had an index score for all the women in their sixties, he could group them and average that out. So if there were four others in that group and their index scores were 0.2, 0.2, 0.8, 0.6, then the average across the whole lot of them would give you an index for the group of 0.5 (rounded up); that is, it would show that this group of women raise the onset of PRICE words relatively infrequently compared to what is attested in the rest of the community.

Calculating index scores

Spanish from Mexico City allows two variants for /-r/ at the end of a word. One variant is a voiced alveolar flap [r] which is considered normal or standard; the other is a voiceless variant that is assibilated or fricated [r] (Matus-Mendoza 2004). Imagine you have recorded a number of speakers from Mexico City and you have found the following distribution of the two variants in their speech.

Generation	Speaker	[r]	· [ř]
1	Flora	24	80
1	Pablo	3	20
1	Luis	5	250
1	Carmen	12	30
11	Marta	30	250
11	Juan	12	171
H	Nico	2	200

exercise

First, calculate what percentage of each speakers' tokens are the non-standard voiceless assibilated variant. Who has the highest and lowest scores?

Now try making an index of non-standardness. In this data set, there are only two variants, so if we allocate the voiced flap a value of 0 and the voiceless assibiliated variant a value of 1, you can calculate a very simple index score for each of the speakers. Remember that you will need to adjust the index to take into account how often they could have assibilated /r/. How do the index scores compare with the percentages?

Now compare averages or scores for the two generations: Generation I (the teenagers) and Generation II (their parents). Which group uses the standard flap variant more and which group uses the assibilated variant more?

Index scores with three variants

In other varieties of South American Spanish and Portuguese, there are even more possible ways of pronouncing /r/. Taylor and Eddington (2006) discuss the pronunciation of /r/ in the Brazilian Portuguese of Piripiri (a small town in the northeast of Brazil). In Piripiri, the segment spelled $\langle r \rangle$ can be pronounced as either [χ], or before /t/ it can be pronounced as [s] or [ʃ]. So for the word *quarta* 'fourth', you get [kwaśtɐ] or [kwaʃtɐ].

Let's assume that [ś] and [ʃ] count as progressively more assibilated variants of [χ]. And let's suppose you want to work out, by means of an index, who is leading in assibilation so you record some speakers from Piripiri and ask questions that are likely to generate examples of words that have the sequence <rt>. Suppose you get the following results (which I have made up):

Speaker	Number of [χ]	Number of [ś]	Number of [ʃ]	Index score
João	5	4	6	
Gabriel	6	3	6	
Matheus	2	5	8	
Ana	6	5	4	
Vitória	10	2	3	
Júlia	8	4	3	

If you assign a value of 0 to $[\chi]$, 1 to [s] and 2 to [J], calculate who has the highest index score for assibiliation. Do any groups of speakers seem to pattern together?

Defining the envelope of variation

This example illustrates a key methodological principle for studying variation: you have to define all, and only, the contexts in which the variants you are interested in alternate. This is either known as defining the **envelope of variation** or as circumscribing the *variable context*. We can either use Well's PRICE notation to stand in for a whole class of words with a long vowel that has a low onset and (in Martha's Vineyard) a front offglide, or we can use Labov's (ay) to do the same thing. What is important methodologically is that (ay) and PRICE both tell us that we are considering every word in which this vowel occurs no matter where it occurs – from single syllables where it occurs at the end of a word (*I, why, sigh*) or with a consonant(s) following (*eyed, wine, sight*) to multisyllable words (*invite, surprising, panto<u>mime</u>*). The envelope of variation doesn't include every long, low vowel – for instance *block* may have the same vowel as the onset of (ay) for many speakers of American English, but it doesn't get variably raised and centralised; that is, it doesn't enter into the same variation. Similarly, not every diphthong that has a low onset and a front offglide is part of the envelope of variation – *choice* and *boy* don't alternate between [$\mathfrak{p}I$] and [$\mathfrak{p}I$] for people in Martha's Vineyard.

It is generally relatively straightforward to define the envelope of variation for phonological variables like (ay) and (aw) – the phonology is the sound of the word – but when you start looking at syntactic variables it may be a bit harder (because syntax is intimately involved in expressing relations between people and events, speakers have more latitude for individual expression). In Chapter 5, we'll look at variation in how people express politeness and we'll see that it can be (nearly) impossible to define the envelope of variation for speech acts.

Comparing index scores: towards the social meaning of variation

First of all, it is important to note that linguistic factors explained most of the variation Labov observed. When we considered the contrast between an aspirated and unaspirated /p/ in English earlier, we noted that which variant is used depends entirely on linguistic factors (where the /p/ occurs in the word). Likewise, Labov found that the kind of sound following the PRICE variable was the most important factor in determining which variant a speaker used. If it was followed by a voiceless fricative or stop (/t, s, p, f/) then speakers were more likely to use a centralised variant. We can say that when PRICE words are followed by these sounds they are in a phonetic environment that favours centralisation. If PRICE was followed by /l, r, n, m/ then speakers were more likely to use variants with a lower onset. In other words, a following nasal is an environment that does not favour centralisation.

But in addition to these linguistic constraints, Labov also found there were some very clear correlations with non-linguistic factors as well.

In general, Labov found that people 'Up-island' in the more rural areas and smaller towns were more likely to use the centralised variants than people from 'Down-island' in the bigger townships. But this regional divide wasn't the only, or most noticeable, distinction between the groups he recorded. He also found that if a person was associated with the fishing industry they were much more likely to use the centralised variants than if they were associated with any of the other occupations. He also found that if he looked at Vineyarders of different ages he found some regular differences. People between the ages of 31 and 45 used centralised variants of the PRICE and MOUTH diphthongs more often than speakers in any other age group.

Envelope of variation

All, and only, the contexts in which a variable occurs.

Labov found that after he had talked to all these people he had a good sense of how they felt about Martha's Vineyard and what their attitudes were to living on a relatively isolated island which in winter becomes even more isolated. Most of them had fairly positive attitudes to living on the Vineyard. Some, for instance, had made the conscious decision to return to the island after having gone away to university. However, a smaller number of the people he talked to were more ambivalent about it, and some actively expressed negative attitudes towards being there. He decided to treat speakers' attitudes as a factor that might influence variation, along with the linguistic context and demographic features associated with different speakers. Labov discovered that the lowest rates of centralisation were found among the people who expressed active dislike or some ambivalence about living on the Vineyard.

A number of things about Labov's methods revolutionised the way in which dialectology could be approached. First of all, he tried to sit down with people in contexts that approximated ordinary everyday speech, and he recorded what they actually said, not just what they said they said, as had been true of most regional dialectology up until then. In addition, he investigated whether there were correlations between linguistic variants and a range of social factors. The factors he investigated were ones that seemed to be particularly relevant to life on Martha's Vineyard, and it turned out that they did correlate with the linguistic variation.



No, really?

The Martha's Vineyard survey was not the first piece of dialectology to observe social differences between speakers. Louis Gauchat (1905) observed five variables in the speech of the residents of the quite isolated village of Charmey (Switzerland). He noted younger speakers used innovative variants most, older speakers used them least, and middle-aged speakers alternated. He also noted that women in each group tended to use the innovative variants more than men. We return to the role of speaker's age in Chapter 7 and gender in Chapter 10.

With the benefit of this socially, as well as linguistically, detailed corpus of information, Labov was able to build up a larger picture than would otherwise have been possible. He had discovered that among the islanders, centralisation was highest among people who:

- (i) lived in the more rural, Up-island areas:
- (ii) engaged in the traditional island occupation of fishing:
- (iii) were in their thirties and forties; and
- (iv) liked living on the Vineyard and felt fondly towards life there.

Each of these correlations on its own is pretty arbitrary. That is, there is no reason why we might suppose people in their thirties and forties, or who are employed on fishing boats, necessarily would centralise more. Working amidst salt spray and fishing nets doesn't actually change the way you have to talk. But taken together, Labov perceived an overarching generalisation that unified all four characteristics.

The fourth correlation proved to be pivotal in the overall analysis. Contrasts between the year-round residents on Martha's Vineyard and the summer-only residents can be quite

exercise

extreme. Labov proposed that centralisation was a means by which speakers could subtly but clearly stake a claim to being different from the mainlanders who come over for the summer only. All of the social factors that correlated with centralisation were consistent with this claim. The areas in which the invasion of summer residents was most localised was Down-island, and, as the finding in (i) shows, speakers who used the centralised variants of (ay) and (aw) most often were people who, by choice or tradition, lived Up-island. As (ii) indicates, centralisation also correlates with speakers who, by choice or tradition, were still trying to make a living in the traditional Vineyard way — from the sea. In addition, the most frequent users of centralised variants are also people of an age where they might well have children growing up on the Vineyard (as shown in (iii)), further reinforcing a qualitative difference between locals and summer residents. And finally, centralisation was much less frequent among locals who disliked living on the island and wished they lived somewhere else.

In short, by combining the linguistic facts with the social facts he had learnt about the island, Labov was able to argue that the variation was not free and unconstrained. He argued that the intraspeaker variability reflected and constructed an underlying social opposition: an opposition between locals and non-locals. Linguistic differentiation seems to serve the purpose of social differentiation.

Identifying relevant non-linguistic factors in a community

Labov found that the variation on Martha's Vineyard required him to pay attention to the social categories and issues that were most relevant to locals, e.g., changes in the economic base of the island, the increasing contrast between year-round and summer-only residents, the sense of isolation of living on an island.

What kinds of issues and social groups mattered the most in the town where you grew up? If you moved while you were growing up, or for university, did you have to change your ideas about what groups or issues were most important?

Do people seem to think they can 'hear' these social differences in the way people talk? What do they pay attention to? Vocabulary? Pronunciation? Grammar?

Connecting variation with change

In addition, Labov realised that his survey of Martha's Vineyard provided a snapshot of one point in ongoing change. By comparing older and younger speakers, a researcher could obtain a window into the long-term changes that linguists traditionally only studied at a much greater distance in time. In this case, a combination of the descriptive, linguistic facts about older and younger speakers, and an appreciation of the social changes taking place in the Vineyard, simulated a picture of how social and linguistic changes work their way through a community with the passage of time.

Prior to this study, linguists had believed that language change could only be studied once it had happened, but Labov's methods have established that there is a robust connection between the variation found in any community of speakers at a given point in time and the long-term processes of change studied by historical linguists. He showed that **synchronic variation** (variation right now) is very often the root of **diachronic change** (change over

Synchronic variation

Variation occurring now.

Diachronic change

Change realised over chronological time. a period of time). Moreover, he showed that this relationship may emerge most clearly when researchers carefully consider the non-linguistic constraints on synchronic variation, such as speakers' age, their occupation and their attitudes or aspirations. (In Chapters 7 and 9 we return to the Martha's Vineyard study and see what happened in the 40 years after Labov conducted his research. We also consider the use of speakers' ages as a window on change, and the ways in which sociolinguistics and historical linguistics can be integrated.)



Connections with theory

The connection between synchronic variation and diachronic change had been established by Hermann's (1929) restudy of Charmey. A generation after Gauchat's first visit, Hermann found that four of the five variables had indeed progressed in the direction Gauchat predicted on the basis of the age differentiation Gauchat had observed.

STEREOTYPES, MARKERS AND INDICATORS

Stereotype

A linguistic feature that is widely recognised and is very often the subject of (not always strictly accuratel) dialect performances and impersonations.

Marker

A variable that speakers are less aware of than a stereotype, but which shows consistent style effects. (See also

Indicator

A linguistic variable which shows limited or no style-shifting. Stratified principally between groups.

People sometimes have very clear perceptions about the features that differentiate linguistic varieties. These **stereotypes** are things people can comment on and discuss, and they often have very strong positive or negative opinions about them. They include, for instance, the Canadian use of *eh* at the end of sentences, or Australians' use of *dinkum*, and young people's (especially young women's) use of question intonation when they are making a statement or reporting an event (e.g., 'A bunch of us went down to see a movie at the Riverview on Friday?). Linguistic stereotypes are the kinds of features that make it into the Letters to the Editor section of local papers, and they are important features used when speakers are performing or putting on another accent or dialect. Upper-class speakers from England are known as *yahs* for their pronunciation of *yes* as /ja:/. The difference between the northern and southern English pronunciation of the vowel in the STRUT class of words, such as *cup* and *butter*, is one that most speakers in the UK are aware of, and, as Britain's study of the Fens showed, this level of awareness may be a factor contributing to the ongoing variability in how the community realises the vowel in this class of words.

However, the variables Labov was looking at on Martha's Vineyard, (ay) and (aw) centralisation, were aspects of the local dialect which speakers on the Vineyard were hardly aware of. Variables that speakers are less consciously aware of, and consequently which have not acquired strong stereotypes, provide some of the richest data for sociolinguists. They may be markers or indicators of important social factors in a community of speakers or the beginnings of language change, and because they are features which speakers are not consciously aware of (yetl), the variation a linguist finds is particularly revealing. Markers can be distinguished from indicators on the same continuum of speaker awareness that differentiates stereotypes and markers. Speakers show some subconscious awareness of markers, and this is made evident in the fact that they consistently use more of one variant in formal styles of speech.

Indicators, on the other hand, show no evidence that speakers are even subconsciously aware of them, and speakers consistently favour one variant over another regardless of who

they are talking to or where. However, the relative frequency of one variant rather than another may differentiate groups of speakers as a whole.

In the next two chapters we will look at style-shifting more closely and you will see how markers work with some concrete examples. The importance of where speakers are and what interpersonal effect they want to create is also discussed in Chapters 5 and 6.

FACTORS MOTIVATING VARIATION

This chapter has already alluded to a number of factors that correlate with and seem to influence differences in how people use language. In the discussion of the studies conducted by Labov and Britain, we have seen how sociolinguists use both social and linguistic factors to explain or account for different patterns of usage. We have seen that even quite small differences in the ways speakers pronounce words are systematic and not free or unconstrained. The rest of this book is devoted to exploring such constraints even further.

We have also begun to touch on more difficult questions as well. Sociolinguists would like to know how people differ in the ways they use language and the linguistic variants available in their community at large; they also would like to ask why people differ in these ways: what motivates their differences in use? The conclusion that the (ay) variable marks the extent to which a speaker identifies as a 'real' Vineyarder, and the extent to which they might want to differentiate themselves from the swarm of summer visitors, moves towards addressing the questions of why as well as how people vary in their language use. Indeed, sociolinguistics would be a pretty dry business if all it did was document differences and similarities. But because sociolinguists are interested in the people and the use of language as much as they are interested in linguistic structure, the field is a bit more vibrant than that

It is impossible to provide an exhaustive list of what motivates speakers to use language differently from each other or in different ways at different times. A lot of the context of language in use is very idiosyncratic. It pertains to the conditions associated with a single moment, an interaction between particular speakers, or the personal mood and intentions of a single speaker.

Notwithstanding this, though, it is possible to identify a smaller set of motives that recur frequently in sociolinguistic analyses. Variation in how people use language is often attributed to the following four motivations:

- (i) a desire to show how you fit in with some people and are different from others;
- (ii) a desire to do things that have value in the community (and associate yourself with that value):
- (iii) a desire not to do things that are looked down on in the community (and have others look down on you);
- (iv) a desire to work out how others are orienting themselves to the concerns in (i)-(iii).

These are summarised in Table 2.1 where each of these important motivations is linked to an aphorism that may help you remember them.

The first motivation is developed especially in the examples discussed in Chapters 3–6. There we will see that sociolinguists frequently argue that variation in the speech of an individual is motivated by the speaker's desire to identify with some social groups, and/or differentiate themself from others (cf. Myers-Scotton 1993b). This requires balancing goals that may be in conflict with each other. This tension will be highlighted particularly when a

Table 2.1 Some common motivations for sociolinguistic variability, with everyday 'translations' into aphorisms, or adages. (Source, Meyerhoff 2001.)

General motivation	Associated aphorism		
Fit in with some people; differentiate from others	'Life's a balancing act'		
Do what has value	'Accentuate the positive'		
Avoid what has costs	'Eliminate the negative'		
Try to work out what others are up to; Reduce uncertainty	'It's a jungle out there'		

speaker has to maximise their fit with others, while simultaneously maintaining individual distinctiveness.

We will also see that in many cases use of a specific linguistic variant can be interpreted as having a value within a community of speakers. Variation can be interpreted as speakers being motivated to use particular variants because they are responding to, or are orienting to, the value associated with a particular variant in their community. We saw this in the Martha's Vineyard study and will return to it in more detail, especially in Chapters 8 and 10 where we discuss social class and gender. We'll see that the community may value a variant consciously or unconsciously (as noted in the discussion of stereotypes, markers, and indicators above), and we will look at the methods we can use to work out directly or indirectly what groups of speakers consider 'better' or more valuable in their community.

Conversely, there is a similarly strong desire for speakers to avoid using forms that will bring them scorn or censure in their speech community. This may involve avoiding variants that sound 'old-fashioned', or that are strongly associated with another group that a speaker would rather not identify with. In other words, avoidance is sometimes just as important a factor as identification. Speakers may stay away from a variant if it has negative associations for them, and they may use another one if they feel that this will minimise the social risk they expose themselves to. Since this is the other side of the coin to accentuate the positive, these two factors are often relevant to the same examples. In a sense, a desire to accentuate the positive and to eliminate the negative is what gives rise to the tricky balancing act that we have already discussed.

The final motivation is a little different from the other three. Instead of being centred on the speaker's needs and desires, it stems from our intuition that others are motivated by the same things as we are. For the first three motivations speakers may be pretty clear about what group or personal identities and attributes are available for them to identify with or differentiate themselves from at any one time. But often this is not so obvious. As we noted earlier, language not only reflects social and interpersonal dynamics, it also constitutes them. The constitutive role of language introduces a degree of indeterminacy in every interaction. It is not hard to find examples that seem to indicate that speakers are working quite hard to pin down what the relevant, or most salient, identities are for themselves and their interlocutors – or that they are trying to work out how the identities they have oriented to relate to the ones their interlocutors seem to have oriented to. Communication accommodation theory takes this indeterminacy to heart, and it argues that a lot of variation may result from speakers testing their hypotheses about these factors. Accommodation theory is introduced fully in Chapter 4, but the idea that language can be used to test hypotheses about social relationships and thereby reduce uncertainty recurs in several others.

We will return to these motives in the final chapter, by which time we will be able to assess them against specific linguistic examples. At that point, we will also be in a position

to evaluate the extent to which they express distinct insights and the extent to which they articulate with each other.

CHAPTER SUMMARY

This chapter has covered a lot of theoretical and historical ground. It has tried to:

- acquaint you with the breadth of questions that fall within the domain of sociolinguistics,
 and
- begin to shape our focus on questions relating to how and why speakers alternate between different language varieties or different forms within a particular variety.

We have begun to see some of the important methodological and theoretical contributions that sociolinguistics has made to the study of language in general. These include:

- the shift to the use of naturally occurring speech as the basis for the description of variation, and
- the admission of social and attitudinal factors when analysing variation.

These complement and extend the purely linguistic factors which had been the stock-in-trade for linguists before, and they provide a basis for accounting for phenomena which formal linguistics had been unable to handle and had written off as unconstrained, free variation. The use of quantitative methods to demonstrate that non-linguistic factors pattern with language in non-random ways was an important step; later chapters will gradually flesh out some of the wide range of non-linguistic factors that pattern with speakers' different ways of using language.

It is important to bear in mind that even though the ground covered in this chapter leads most directly to the quantitative methods and studies associated with variationist sociolinguistics (discussed in more detail in Chapters 3–4 and 7–10), even approaches to more qualitative questions benefit if researchers recognise that their enterprise is to untangle and describe the sense and systematicity behind the apparent idiosyncrasy of surface patterns of language use and attitudes about language. These topics are discussed in more detail in Chapters 5 and 6 – but they will also prove to be relevant in Chapters 4, 9 and 10 (the overlap will, I hope, reinforce the complementarity of different approaches to all questions of sociolinguistic interest).

In the chapters that follow we will try to maintain a dual focus on how sociolinguistic research contributes to insights about both the structure of language and also social structure. There will be occasions where we focus mainly on individual speakers and occasions when the focus is more on the behaviour of groups of speakers, but again these complement each other.

In the next two chapters, for instance, we begin to look at how an individual's use of different forms or different language varieties tell us something about their relationship and attitudes to other individuals as well as to other social groups.

FURTHER READING

Article-length introductions to sociolinguistics and the study of language variation include:

Preston (1994), Wolfram (2006), a number of contributions in Newmeyer (1988), contributions in part II of Coulmas (1997).

Other general introductions to sociolinguistics include:

Chambers (2003) – a strong focus on variationist sociolinguistics and linguistic theory. Holmes (2001), Mesthrie *et al.* (2000) – include more sociocultural discussions of language in use as well as a variationist backbone.

Milroy and Gordon (2003) – emphasis on methodology and principles for quantitative sociolinguistics.

Johnstone (2000) - emphasis on methods and issues for qualitative sociolinguistics.

Nevalainen and Raumolin-Brunberg (2003) – an emphasis on historical data, but provides a very solid introduction to principles and issues in the study of variation and change.

Wolfram and Schilling-Estes (2005) - focus on mainland US varieties of English.

There has been a recent burst of handbooks or encyclopaedias:

Chambers et al. (2001) – survey articles on quite specific topics of interest in the study of variation.

Ammon et al. (2005).

Mesthrie (2001) – very comprehensive coverage of terms, principles, trends and people in sociolinguistics generally (really gives you an idea of the breadth of the field).

Your library will have more.

On specific topics in this chapter:

Chambers and Trudgill (1998), Francis (1983) – good resources on methods and principles in dialectology and connections between regional and social dialectology.

Labov (1972a, 2001) - more on the original Martha's Vineyard study.

Blake and Josey (2003) - more on 'localness' on Martha's Vineyard.

