

LINGUISTICS

A complete introduction

For Matthew

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David Hornsby

First published in Great Britain in 2014 by John Murray Learning. An Hachette UK company.

First published in US in 2014 by The McGraw-Hill Companies, Inc.

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British Library Cataloguing in Publication Data: a catalogue record for this title is available from the British Library.

Paperback ISBN 978 1 444 18032 9

eBook ISBN 978 1 444 18034 3

Library of Congress Catalog Card Number: on file.

10 9 8 7 6 5 4 3 2 1

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Typeset by Cenveo® Publisher Services.

Printed and bound in Great Britain by CPI Group (UK) Ltd, Croydon CR0 4YY.

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Hodder & Stoughton Ltd

338 Euston Road

London NW1 3BH

www.hodder.co.uk



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About the author

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Having been curious about language variation since early childhood, he chose to specialize in sociolinguistics and has worked primarily on dialect contact and change in France and the UK. His monograph *Redefining Regional French: Koinéization and Regional Dialect Levelling in Northern France* (Legenda, 2006) explores the emergence of new French varieties in urban areas, a theme developed further in *Language and Social Structure in Urban France* (Legenda, 2013), which he co-edited with Mari Jones.

Acknowledgements

I should like warmly to thank the many people who have offered help and guidance at various stages in the writing of this book. Laura Bailey, John Partridge, Ian Watson and Jason Merchant all took time out to offer comments and guidance on early chapter drafts; later drafts were proofread by Jayne Hornsby, Pete Hayes, Jon Kasstan, Geoff Luckman and especially Martin Kane, all of whom made perceptive and extremely helpful observations. Silvia Dobre, Özcan and Cemal Ezel, Sandra Burk, Arthur Keaveney, and Eda and Darren Bennett-Voci kindly helped me with examples from languages with which I am less familiar.

I am indebted to Sam Richardson and the editorial team at Hodder for transforming my manuscript into something clearer, more accessible and (I hope) more enjoyable to read than I could ever have produced unaided, and especially to my eagle-eyed project manager, Anna Stevenson, who proofread the final draft and offered invaluable support in the final stages before publication. It goes without saying that any remaining errors, misunderstandings or infelicities are entirely my own. Finally, I am grateful to the late Ian George Sully, who kindly helped me find examples for Chapter 11, but tragically died before the book was published. Rest in peace, old friend: we miss you.

Preface

If you've ever purchased a new software package or a computer game, you'll have probably found a file labelled 'READ ME FIRST', containing basic information on how to get started, and use the product effectively. Having briefly perused its contents, you feel ready to explore the software for yourself in whatever order you choose. The chapters of this book can likewise be read in any order and assume no prior knowledge of linguistics. But if you're new to the subject, it makes sense to start with Chapter 1: 'Thinking like a linguist'.

Many people find linguistics disorientating at first, for two reasons. Firstly, linguistic terminology can seem confusing or opaque to the uninitiated. To guide you through the subject's metalanguage, new terms will appear in **bold type** throughout the chapters of this book. But a second, perhaps more fundamental, reason why the subject can appear daunting is that linguists approach their subject matter in ways which can at first seem strange, or even counter-intuitive. To look at their subject matter objectively, linguists have to strip away the value judgements we are used to making about language and perhaps no longer even notice. Having explored linguists' approach to the subject in Chapter 1, we consider, in Chapters 2 and 3, how and for what reasons human beings have reflected on the nature of language in the past, and how their thinking has shaped our present-day understanding. Readers may find these chapters helpful in illuminating concepts introduced in Chapters 4–10, which are designed to cover similar ground to introductory linguistics courses offered at undergraduate level. Attention turns in Chapters 11–13 to language variation and change at the micro level (within a single language) and at the macro level (selection of language varieties by individuals and societies).

There are many ways of 'doing linguistics', only some of which can be described here. It is hoped that, as well as supporting students who are following linguistics courses as part of a degree programme, this book will inspire readers to find new ways of looking at language for themselves.

David Hornsby

How to use this book

This Complete Introduction from Teach Yourself ® includes a number of special boxed features, which have been developed to help you understand the subject more quickly and remember it more effectively. Throughout the book, you will find these indicated by the following icons.



The book includes concise **quotes** from other key sources. These will be useful for helping you understand different viewpoints on the subject, and they are fully referenced so that you can include them in essays if you are unable to get your hands on the source.



The **case study** is a more in-depth introduction to a particular example. There is at least one in most chapters, and they should provide good material for essays and class discussions.



The **key ideas** are highlighted throughout the book. If you only have half an hour to go before your exam, scanning through these would be a very good way of spending your time.



The **spotlight** boxes give you some light-hearted additional information that will liven up your learning.



The **fact-check** questions at the end of each chapter are designed to help you ensure you have taken in the most important concepts from the chapter. If you find you are consistently getting several answers wrong, it may be worth trying to read more slowly, or taking notes as you go.



The **dig deeper** boxes give you ways to explore topics in greater depth than is possible in this introductory-level book.

1

Thinking like a linguist

Our tasks in this chapter will be to explain what it means to ‘think like a linguist’ and to show how linguists’ assumptions about language often differ from those of the layperson. One might assume, for example, that a linguist would be the first person to turn to when seeking advice on good speech or writing. In fact, few linguists would see it as part of their role to prescribe how language *should* be used, preferring instead to describe the facts of language as it *is* used. As we will see later in the chapter, linguists are quick to point out that the bases for our linguistic value judgements generally turn out to be arbitrary, spurious and inconsistent.

In literate societies, we are also used to equating language with its written form, and treating speech as somehow deviant. Linguists make precisely the opposite assumption, reminding us that we all learn our mother tongue at a very young age without the aid of books, and if we learn to read and write in that language at all, we do so *only after* we have mastered speech. As we will see in this chapter, language looks radically different when we start from a spoken language perspective. It will also become clear that some everyday assumptions we take for granted – for example, the difference between a language and a dialect, or the notion of ‘beautiful’ or ‘primitive’ languages – become highly problematical once our linguistic prejudices are stripped away.

The science of language

It makes sense to start by asking what the term **linguistics** actually means. The following definition is taken from *Collins English Dictionary*:

‘Linguistics, n. (functioning as sing.) The scientific study of language’

As a working definition, ‘scientific study of language’ will probably do, but the word ‘scientific’ might appear problematic in this context, because language doesn’t seem to belong to the realm of science in its conventional sense. One certainly doesn’t imagine linguists in laboratories wearing white coats, and it isn’t immediately obvious how one could undertake experiments on language, something that resides ultimately in the head of a native speaker.

It might help if we construe ‘scientific’ here to mean something like ‘objective’, but achieving ‘objectivity’ in linguistics is far from a straightforward task, not least because speakers’ judgements about the same data can differ hugely, making reliable conclusions difficult to draw. For example, while most British English speakers would probably reject the sentence ‘I didn’t do it though but’, it’s perfectly acceptable in some British dialects. Likewise, many English speakers accept ‘innit?’ as a contraction of ‘isn’t it?’ but reject it (often vehemently) as a **tag question** in sentences like: ‘We’re seeing him on Saturday, innit?’ – now commonly used in some varieties of British English. Even for a question as apparently innocuous as ‘Do you speak language X?’, native speaker intuitions may be contradictory or difficult to interpret: responses may be influenced by informants’ attitudes to the language in question (‘Do I approve of X, or even think of it as a proper language? Would I want people to think I use it?’) or to their understanding of the question, which might range from: ‘Do I speak this language every day?’ to ‘Can I understand it, even if I don’t speak it?’, or even ‘Can I manage a few words if the need arises?’ So linguists need to be especially careful when claiming ‘scientific’ objectivity for their findings.

To approach their subject matter objectively, linguists need first to shed a number of everyday assumptions, or ‘language myths’: we’ll be looking at some of these below. The good news is that learning to think like a linguist isn’t difficult: in a real sense, it’s a bit like releasing your inner child, as we’ll see in the next section. A further piece of good news is that, as a native speaker of *any* language, you’re already in possession of some ‘expert knowledge’! But before you start, you need to grasp two fundamental principles that underpin everything linguists do and that go some way to explaining what ‘scientific’ means for the study of language:

- ▶ Principle 1: ‘The spoken language comes first.’
- ▶ Principle 2: ‘Linguistics is descriptive, not prescriptive.’

Principle 1: The spoken language comes first

As we saw, thinking as a linguist does is like ‘releasing your inner child’. The following thought experiment will help get you started.



Spotlight: Try to forget you can read

Imagine what your world would be like if the written word were completely alien to you, and letters on the page no more than meaningless squiggles. Since you’re already reading this book, you’re probably finding that quite difficult, but this is of course a world you once knew, albeit when you were rather younger, probably before you started school.

For most adults, the written word takes up a significant proportion of our lives, whether we be reading a novel or daily newspaper, consulting an instruction manual, updating our Facebook status, catching up with the latest Twitter feed or texting a friend. If you’re at university or college, the written word soon becomes a prime focus: you *read* for a degree, which may well involve writing notes at lectures, where you may be

given handouts, and you'll be asked periodically to commit your thoughts to paper in the form of written essays. Writing is all around us, and modern life and the technological advances we take for granted would be impossible without it.

For linguists, however, writing takes second place to speech. Linguists are not uninterested in the written word: indeed, written material, particularly from earlier, pre-mass media eras, can offer important clues to language structure and linguistic change. Linguists working in the field of literary stylistics devote much of their time to the analysis of written texts. But generally linguists follow the principle of according primacy to speech, for a number of very good reasons:

- 1 All the world's existing and extinct **natural languages** have had native speakers, but only a minority of them have ever had a written form.

While languages such as English, Mandarin, Hindi or Russian all have a long written tradition, many others, particularly those with small numbers of speakers, do not. Many African languages (e.g. Ewe, Wawa, Lugbara), Australian aboriginal languages (e.g. Dyirbal, Warlbiri, Guugu Yimidhirr) and native American languages (e.g. Arawakan, Hopi, Miskito) are not generally used for writing. We know little of the Gaulish language, which was spoken in what is now France before Roman occupation, because Gauls had no written system, and much of what we do know about the language comes from attempts to transcribe it using Latin characters, which were not designed for Gaulish.

Speakers of minority languages in unsympathetic nation states have often been taught that writing is acceptable only in the dominant or 'official' language, making it harder for their supporters to develop an accepted written standard if and when those same states later adopt more tolerant attitudes.

Cockney, Brummie, Geordie and Glaswegian (see Case study on next page) have no written form and their speakers are dependent on the conventions of standard English for writing. Estimates put at around 6,000 the number of different languages spoken throughout the world, of which only a fraction have a written form: it would seem perverse – not to say 'unscientific' – for linguists to limit their inquiry to this group.



Case study: Dialect or language?

One might object here that Geordie, Cockney, Glaswegian and Brummie are dialects rather than languages. But this argument is a difficult one to sustain, as linguists are unable to find a watertight distinction between the two. One criterion might be mutual intelligibility: while we wouldn't expect to understand another language, we might well understand a different dialect of a language we do speak. But this criterion soon poses problems. The 'dialects' of Chinese (e.g. Mandarin, Hokkien, Cantonese) share a writing system but are mutually unintelligible, whereas the Scandinavian 'languages' Swedish, Danish and Norwegian are similar enough to be mutually comprehensible (sometimes with a little effort). The difference in practice is generally determined on socio-political rather than linguistic grounds: we tend to associate languages with nation states where they are spoken. Or, as cynics would have it: 'a language is a dialect with an army and a navy'. To avoid problems of this kind, linguists talk of language **varieties**.

2 Even where a writing system exists, not all adults acquire it.

Few advanced societies come close to Finland's near 100 per cent literacy rate. But almost everyone learns to speak at least one language from a very early age, and children's remarkable ability to make sense of oral language data is a puzzle which has long fascinated linguists, particularly those working within the generative paradigm (see Chapter 8).

3 Writing derives from speech (not the other way round), but is rarely a faithful or consistent representation of it.

In **ideographic** writing systems, for example Egyptian hieroglyphics or modern Chinese characters, the symbols used offer no clue to pronunciation, but even where alphabetic systems are employed, in which letters or **graphemes** purport to correspond to speech sounds, the relationship between writing and speech is a complex one.

Writing is so ubiquitous and familiar that we rarely even notice its conventions and oddities. If you learned to write in English,

for example, you'll expect a capital letter at the start of every sentence, but only occasionally elsewhere. so this Sentence Looks a bit odd. If your mother tongue is German, you'll expect nouns to have initial capitals as well, e.g. *das Tier* (the animal). More significantly, there is often a mismatch between the way we write and the way we speak. Why, for example, is the *h* of *hope* pronounced, but not that of *hour* or *honest*? Why is *night* spelt with a *gh* sequence which isn't pronounced? It is precisely these anomalies that are most obvious to us as children learning to write, and discovering that it's far from a simple matter of converting speech sounds to letters.



Spotlight: Spelling and speech

The relationship between spelling and speech can be ridiculously idiosyncratic, as seen in this example from English:

- | | | | | | |
|---|-----------------|------|---|-----------------|------|
| 1 | <u>ought</u> | [ɔ:] | 6 | <u>hiccough</u> | [ɪp] |
| 2 | <u>through</u> | [u:] | 7 | <u>though</u> | [əʊ] |
| 3 | <u>cough</u> | [ɔf] | 8 | <u>drought</u> | [aʊ] |
| 4 | <u>thorough</u> | [ə] | 9 | <u>rough</u> | [ɹf] |
| 5 | <u>Lough</u> | [ɔx] | | | |

All nine words contain the same orthographical sequence *ough*: in every case its pronunciation (indicated in **International Phonetic Alphabet**, or **IPA**, symbols, which will be explained in Chapter 3) differs, and in *no* case is the *g* or *h* ever pronounced, at least not in standard English. Worse, the variation seems largely arbitrary, so if you're a non-native speaker attempting to learn English from a book, you'll have little to go on when a new word, say, *trough*, *bough* or *chough* (pronunciations 3, 8 and 9 respectively), comes along. A visiting Martian, informed that the woefully inconsistent sound-symbol relationship demonstrated above forms part of the accepted written convention for the modern world's most powerful and prestigious language, might reasonably conclude that humans had taken leave of their senses.

French spelling has few of the illogicalities of English (though one might mention in passing the case of *aulx* – ‘heads of garlic’ – which has four letters, but only one sound ‘o’ [o], which doesn’t appear in the word!). It does, however, have a number of arcane grammatical spelling conventions, which few French citizens ever completely master. A case in point is the preceding direct object agreement rule, which requires past participles to agree in **number** and **gender** with a **direct object** (not an **indirect** one), but only if it precedes, so *J’ai vu la montagne* (‘I saw/have seen the mountain’) but *Je l’ai vue* (‘I saw/have seen it’), with a final *e* to indicate that the pronoun *l’* (elided form of *la*) is feminine, because it refers to *la montagne*. The complexity of this rule, which takes up four full pages of the French grammarians’ bible *Le Bon Usage* (plus a further 12 pages on special cases), is compounded by the fact that in most cases it has no effect on pronunciation. In his book *Talk to the Snail: Ten Commandments for Understanding the French*, Steven Clarke bravely attempts to explain to a layperson why *J’adore les chaussures que tu m’as offertes* (I love the shoes you gave me) requires an agreement in *es*, and warns his readers:



In France, you can’t ever throw away your school grammar book. It would be like taking the airbag out of your steering wheel. You never know when it might save your life.

[Clarke 2006: 103]

This observation is true enough, no doubt, for the prescriptive written language, but French people have no more trouble *talking* to each other than any other nationality does, as anyone who has witnessed heated intellectual debate in a French café can testify.

The above are, admittedly, extreme examples, but everyday inconsistencies in the relationship between speech and writing are not hard to find. The same letter (or grapheme) will often have more than one sound value (think about the pronunciation of *c* in *code* and *ice*) or, conversely, the same vowel or consonant may be represented by different letters or letter combinations

(take for example the ‘k’ sounds in *cabbage*, *back*, *charisma*, *Iraq*, *flak*, *accord*, *bacchanalia*, *extent*, *mosquito*, *Khmer*, *biscuit*). Little wonder that the sequence *ghoti* has been facetiously proposed as an alternative spelling of ‘fish’: *gh* as in *rough*, *o* as in *women* and *ti* as in *nation*.

English is far from alone in its poor fit between speech and writing: all languages with alphabetic writing systems present inconsistencies of this kind to a greater or lesser degree. The reason, in a nutshell, is that pronunciation changes too rapidly for spelling to keep up, with the result that writing systems are often a better guide to the way languages *used* to sound than to the way they are spoken now. The initial *k* of *knave*, for example, reflects an earlier state of English in which it was actually pronounced (it still is in its German cognate *Knabe*, ‘lad’). Other oddities, too, give clues to previous states of the language. The first vowel of *mete* sounds more like the vowel in *ski* than that of *led* because spelling hasn’t yet caught up with changes that occurred during the Great Vowel Shift of the fourteenth and fifteenth centuries, which we’ll consider in Chapter 13 on language change.

The seductively linear nature of writing can also engender some false assumptions about speech. We tend, for example, to think of ‘words’ as things separated by convenient orthographical gaps, as they are on a page. The reality, of course, is that in speech, whatwesaysisrolledtogetherinsequenceslikethis (only robots in low-budget science fiction movies actually mark a pause between words when they speak). As we’ll see in Chapter 6 on **morphology**, from the spoken language perspective, watertight definitions of ‘words’ prove elusive. Is *blackberry*, for example, one word or two? What about *Jack-in-the-box*: one word, or four? Do short, unstressed items like *a* or *the* qualify as words at all? When we consider such questions, as we usually do, from the perspective of the written word, they seem quite trivial, but they are important for our understanding of how children break down and make sense of the language data they hear when learning their mother tongue. It’s easy to forget, as adults, that we were at our most successful as language learners when we were infants, and there wasn’t a grammar book, verb conjugation table or dictionary in sight.

For a variety of reasons, then, linguists accord primacy to speech, and work primarily with spoken language data. This will often require speech sounds (rather than letters or graphemes) to be noted down, a task for which, as we've seen, conventional orthographies are clearly ill-suited. To address this problem, the IPA, first published in 1888 and regularly updated since, provides a common set of symbols which enables linguists to transcribe the sounds of all languages precisely and consistently (conventionally between square brackets, as for the *ough* examples above). As we'll see in Chapter 4, this demands a strict principle of one-to-one correspondence between sound and symbol: what you see is *always* exactly what you get and, unlike with conventional spelling, a change in pronunciation necessarily entails a change in transcription. Fortunately, IPA symbols are mostly familiar and easily learned, because they have been largely taken from the Western alphabets with which its founders were most familiar.

When the focus of enquiry is shifted from writing to speech, as linguists argue it must be, many of our common-sense assumptions about language are called into question. For example, most English speakers, if asked the question 'How many vowels are there in English?' will probably answer 'Five: *a, e, i, o, u*' (some might add a sixth: *y*). But this is a statement about the number of vowel *letters* in the English alphabet, not the number of vowel sounds. In fact, the number of vowel contrasts used by English speakers to distinguish words is considerably higher. Consider, for example, the different pronunciations represented by *a* alone in *cart*, *cat* and *Kate*, or the eight different vowel sounds rendered by the sequence *ough* above. In total, there are 21 vowel **phonemes**, i.e. sounds which are used to contrast words, in Received Pronunciation (RP), the standard British English accent favoured by BBC newsreaders, though not all English speakers use all of them: Northern English speakers of English do not contrast *put* and *putt*, for example, while Southern speakers do; many British English speakers no longer contrast *paw* and *pore*.



Key idea: Spoken language first

Without the principle of primacy of the spoken language, modern linguistics could never have developed as a serious academic subject.

Principle 2: Linguistics is descriptive, not prescriptive

The above statement can be found in many an introductory linguistics textbook, and enjoys a status akin to Article One of the Faith among linguists. But why is it so important? Once again, a thought experiment may help here.



Spotlight: The problem of value judgements

Picture yourself for a moment back in the bookshop where you (demonstrating great wisdom and intelligence) decided to purchase this volume. But imagine that the book you thumbed through on the shelf had been called *Astronomy: A Complete Introduction*, and that your eye had fallen on the following paragraph:

Some people behave as if it is perfectly acceptable for the moon to orbit the earth every 24 hours, but any sensible judge will tell you they are wrong. Nor should the earth's orbit of the sun take a slovenly 365 days: a 300-day orbit would be neater and more efficient. In fact, it's purely through idleness that the earth orbits the sun at all: early astronomers who saw the earth at the centre of the universe in fact had a very good idea of how things should be. The stars in the night sky are scattered disagreeably, and the less said about Jupiter's ugly moons, the better.

Clearly, no series editor would ever publish such drivel, but had one done so, there's little doubt that the book would have stayed on the shelf. You would quite reasonably have objected that, instead of describing the universe as it is, the author has chosen to tediously rehearse his personal prejudices about how it *should* be. Arbitrary aesthetic judgements are peddled ('Jupiter's ugly moons') and the universe is ascribed negative moral traits, like laziness or slovenliness, for which there can be no possible justification. This

work is grossly unscientific, you would surely have concluded, and cannot be taken seriously.

And yet, surprisingly, when it comes to language, we readily accept thinking of this kind. Prescriptive judgements are so common, in fact, that they often pass unnoticed. When we hear, for example, that 'standards of English are declining', or that a speaker has 'slovenly speech', we rarely stop to question the basis on which such judgements are made.

In Britain in particular, linguistic value judgements find expression in the entrenched view that some accents are 'better' than others. During the Second World War, the broadcaster Wilfred Pickles was asked, apparently in an attempt to confuse the Nazis, to read the news in his native Yorkshire accent rather than in RP. The experiment was soon ended when it became clear that listeners were objecting, and in some cases no longer trusting the information they were being given. As recently as 2006, Olympic gold medallist turned broadcaster Sally Gunnell left the BBC following criticism of her 'awful estuary English'.

In cases like these, the yardstick for acceptable speech is a social rather than linguistic one: speakers are condemned for using what are perceived to be low-status accents rather than the prestige standard pronunciation. But in linguistic terms, there is nothing inherently superior about RP, nor any reason to favour any one accent, or language variety, over another. Associated primarily with educated, middle-class speakers based in the Home Counties around London, the prestige of RP merely reflects the social advantages its speakers tend to possess. That wealth and power in Britain are largely centred around London is a matter of historical accident: had the UK capital been Gateshead, Dundee or Bristol, then British conceptions of 'correct' pronunciation would be very different, and what we now call 'Received Pronunciation' – if it existed at all – would be just another low-status accent which purists would enjoin us to avoid (or, for a small fee, offer to 'cure' us of).

That linguistic value judgements have a social rather than linguistic basis is quite simple to demonstrate. In what are termed ‘matched guise’ experiments, participants are asked to listen to recordings of speakers saying the same thing, but in different regional accents, i.e. as far as possible all factors except the speaker’s pronunciation are held constant. When native speakers of British English are asked to evaluate the accents of other Britons, whom they cannot see, in terms of intelligence, friendliness, trustworthiness, etc., there is a remarkable consistency in their responses. City accents, particularly those of London, Birmingham and Liverpool, are negatively evaluated, whereas those associated with less densely populated areas, notably the West of England or South Wales, are viewed more positively. Speakers of RP are generally seen to be the most intelligent, though not always as friendly as speakers of some regional accents.

When the same recordings are played to non-native speakers of English, however, this remarkable consensus evaporates, and there’s no agreement at all about which accents are ‘beautiful’, or connote friendliness, honesty or intelligence. Similar findings have been obtained elsewhere, notably in North America, and it’s hard not to conclude that informants are responding not to any linguistic qualities but to social and regional stereotypes associated with the accents in question.

‘Advanced’, ‘beautiful’ and ‘primitive’ languages

Just as some accents are evaluated more highly than others, many people believe that some languages are ‘better’ or ‘more beautiful’ than others. Many a French president has commented on the supposed ‘clarity’ and ‘precision’ of French, as if clear thinking could not be expressed equally well in another language. Others cite, for example, the richness of Shakespeare’s poetry as evidence for the supposed superiority or inherent beauty of English. Matched guise tests again refute claims that any one language is more beautiful than any other: when played to hearers unfamiliar with European languages, no consensus

emerges regarding the aesthetic superiority of any one language as opposed to another. More generally, arguments for the superiority of a given language tend to confuse the rhetorical or linguistic dexterity of some individuals with the qualities of the language itself. The obvious problem here is that speakers do not possess these skills in equal measure, as can be seen in the following examples:



Rarely is the question asked: Is our children learning?

George W. Bush (US President 2000–8) 11 January 2000



When you take the UNCF model that, what a waste it is to lose one's mind, or not to have a mind is being very wasteful, how true that is.

J. Danforth ('Dan') Quayle (US Vice-President 1988–92) 9 May 1989



So I think the basic point that it is necessary in order to have private capital in our industries to get the extra resources that we do want that you have to be privatized is not borne out by the facts, in other countries, and neither should we have it here also and if he's any doubts about that go and have a look at the reports that talk it.

John Prescott MP (UK Deputy Prime Minister 1997–2007) 18 May 1992

A language – *any* language – is as precise an instrument as its native speakers need it to be for the expression of complex ideas or feelings, and will be used more effectively by some speakers than by others. Don't blame the language if the thinking it expresses is muddled.

Another common belief is that there are 'primitive' languages, just as there are 'primitive' societies. Here again, a widely held perception has no basis in linguistic fact. Indeed, if our criterion were grammatical complexity, it might be easier to make the opposite case, namely that languages spoken in isolated,

‘primitive’ societies are often more complex than those used in technologically advanced societies which have been subject to high levels of contact (we’ll look more closely at the effects of contact and isolation on linguistic change in Chapter 13).

This is not, of course, to say that languages will be equally rich in all areas of their **lexicon**, or vocabulary. We would not expect a language such as Pirahã, spoken by a remote Amazonian tribe of about 250 people, to be as rich in information technology vocabulary as, for example, English: for now at least, Pirahã speakers have little need for such terms and consequently have not developed them to a high degree. But this does not mean that so-called ‘primitive’ languages spoken in less developed societies are unable to acquire new resources when they do need them: in fact they do so with remarkable ease, often by borrowing from other languages. A case in point is English following the Norman Conquest, which borrowed heavily from Norman French: estimates have suggested that around 30–40 per cent of modern English vocabulary is ultimately of French origin. It’s certainly true that English, French, Russian and Spanish are more widely spoken, and more prestigious, than Pirahã, Inuit or Guugu Yimidhirr, but again this reflects socio-political realities rather than any superiority in linguistic terms. To a linguist, all languages (and dialects) are equal.

Linguistic purism

So ingrained is the habit of making linguistic value judgements that it can be difficult to distinguish descriptive statements from prescriptive ones. To a linguist, a grammatical sentence is one that a native speaker either produces or accepts as possible in his/her language. Purists, on the other hand, see only a prestige or standard variety as acceptable, and condemn transgressions against its norms. Because purists often present prescriptive rules as if they were descriptive ones, statements like ‘X is not English’ can be ambiguous: they appear to mean ‘No English speaker would ever say X’, but often in practice mean ‘Some English speakers do say X, but I don’t think they should do’, which is a different claim entirely. Purists, moreover, often justify their strictures in terms that have little to do with language, as the following examples of prescriptive English rules will demonstrate.

► “He hasn’t got none” is ungrammatical.’

The word ‘ungrammatical’ here is immediately problematic, as there are clearly many English speakers whose **non-standard** grammars allow such constructions, which is why we regularly hear examples of constructions like this. The justification for this stricture in **standard** English, however, is that it employs a double negative, which amounts to a positive, so this really means ‘he does have some’.

Purists’ reasoning here is appealing: in mathematics, taking away a negative is the same as adding a positive, so the two negatives might be seen to cancel each other out in this sentence. And it’s certainly true that this sentence *could* be construed in that way, though this would normally require a marked stress pattern (He *hasn’t* got *none*). But this superficial logic in fact begs a number of questions. Are languages generally like mathematics? Should they be?

Unlike mathematics, grammar is riddled with idiosyncrasies that defy ‘logic’ in any conventional sense; grammatical rules, moreover, are subject to variation and change, whereas mathematical formulae express (or purport to express) logical truths that are universal and timeless (e.g. $A = \pi r^2$, where A = area of a circle, r = radius and π = approximately 3.14). So it’s odd, to say the least, that language should be evaluated according to mathematical criteria, and intuitively unlikely that a principle like ‘two negatives make a positive’ will have much importance cross-linguistically. In fact, the double negative construction turns out to be very common not just in non-standard English dialects, but also in the standard varieties of many major languages. No one complains about their use in French (*je ne sais pas*) or Spanish (*yo no tengo nada*), and double negatives occur regularly in Russian, Italian, Hungarian, Arabic, Breton and Portuguese, to give but a few examples. The double negative stricture is a good example of an arbitrary prescriptive rule being dressed up in logical clothes.

► ‘You can’t split an infinitive in English.’

The objection here is to placing an adverb between the two parts of an English infinitive, e.g. in *to generally agree*. Again,

such structures are commonly used, as *Star Trek* fans of a certain age will recall:

These are the voyages of the starship *Enterprise*. Its five-year mission: to explore strange new worlds. To seek out new life, and new civilizations. **To boldly go where no man has gone before!** (Emphasis William Shatner's.)

As Captain James T. Kirk opened each new episode with those immortal words, legions of prescriptive grammarians would rage in their armchairs at the incalculable damage inflicted on the nation's youth by such grammatical barbarism: 'boldly to go' or 'to go boldly', fine, but 'to boldly go'? Never.

The reason for their ire goes back to the eighteenth century, and an analogy drawn by grammarians between Latin and English. English infinitives supported by the preposition *to* were required to remain fused as single unit, like their one-word Latin counterparts, e.g. *amare* (to love). The grammar of English was for many years described using the same categories as those applied to Latin, and many of our prescriptive rules (e.g. that one should not end a sentence with a **preposition**, or that one should say 'It is I' rather than 'It is me') derive ultimately from Latin. But it's patently nonsensical to require one language to follow the rules of another, and English is very different from Latin in almost every respect. Unlike Latin, English doesn't have (among other things) noun gender, case marking of nouns (apart, arguably, from genitive 's), adjective agreement or a fully marked verb paradigm, so it seems perverse in any case to focus on this particular construction.



Spotlight: Changing norms

Did you notice the split infinitive ('to tediously rehearse') earlier in this chapter (p. 10) and did you mentally 'correct' it? If your answer to both questions is 'no', that's perhaps an indication of how linguistic norms change over time. Purists often identify and resist developments they dislike, but find themselves as powerless to stop them as Canute was to hold back the tide. Yesterday's 'slovenly speech' is often today's standard, and the split infinitive nowadays attracts far less condemnation than it used to.

Once again, the superficial logic behind a prescriptive rule is based ultimately on a failure to compare like with like: double negatives are condemned on the basis that ‘language should be like mathematics’, while split infinitives are ruled out on the grounds that ‘English should be like Latin’. Linguists prefer to focus on what native speakers of English or other languages actually *do* say, and to leave prescriptive judgements – and their often spurious justifications – to others.



Key idea: Descriptive or prescriptive?

You have learned in this chapter that linguists see their task as describing language and attempting to find explanations for real language data, rather than telling people how they should speak: **linguistics is descriptive, not prescriptive**. In this connection we saw that there are two kinds of rule. It's a **descriptive** syntactic rule of English that *the house* is grammatical, but not **house the*¹ (a structure which is fine in Swedish and Bulgarian), because no English speaker would naturally say this. Similarly it's a descriptive rule of English **phonology** that no word can begin with the sequence **vdr-*, which is a perfectly acceptable word-initial sequence in Russian.

Rules of the ‘don't split infinitives’ kind, on the other hand, are **prescriptive**, in that they set out what purists think speakers *ought* to do. Prescriptive rules are generally associated with the usage of a dominant or prestige group, and are generally reinforced by the formal education system: that they need to be, of course, is a sure indication that they are often transgressed. A linguist's first task is to describe the rules that a native speaker unconsciously obeys, whether or not these correspond to those of standard usage. In doing so, **linguists accord primacy to speech** because children acquire language through hearing and speaking before learning to read and write, and because conventional writing systems are at best an inconsistent and poor reflection of that speech. These two principles are fundamental to linguistics, and if you've grasped them, congratulations! You're starting to think like a linguist.

¹ By convention, forms which do not occur are marked with an asterisk.



Fact-check

- 1 Linguistics is ...
 - a about improving languages
 - b about teaching people how to speak their mother tongue properly
 - c about improving people's writing skills
 - d none of the above
- 2 Which of the following are linguists unlikely to believe?
 - a the only languages that don't change are dead languages
 - b Latin stands out above all others as a perfect language
 - c linguistics is a science
 - d spelling reform in some languages is desirable
- 3 Linguists often talk of 'language varieties' because:
 - a diversity is a good thing
 - b everyone speaks differently
 - c what constitutes a 'language' or 'dialect' tends to be decided on political rather than linguistic grounds
 - d some languages are more difficult to learn than others
- 4 Spelling and pronunciation are often out of step because:
 - a the written language rarely keeps pace with changes in speech
 - b spelling often reflects a standard usage used only by a minority
 - c spelling sometimes incorporates grammatical information not realized in speech
 - d all of the above
- 5 The International Phonetic Alphabet (IPA) is important because:
 - a it provides linguists with a means of accurately transcribing the sounds of all languages
 - b it underpins all modern spelling systems
 - c it enables speakers of different dialects to communicate with each other
 - d it's useful when spelling out words over the telephone

- 6** Prescriptive rules of English often derive from Latin because:
- a** Latin is an excellent template for all modern languages
 - b** English is closely related to Latin, and its grammar follows the same pattern
 - c** purists often had a Classical training and applied Latin strictures uncritically to English
 - d** English naturally acquired Latin rules during the Roman occupation, and has never lost them
- 7** How many vowels does English have?
- a** 5
 - b** 6
 - c** about 21, but not all speakers use the same set
 - d** 26
- 8** Which of the following is grammatically ill-formed in English?
- a** he ain't got none
 - b** the house beautiful
 - c** the chases dog a cat
 - d** all the above
- 9** Received Pronunciation (RP) is:
- a** a prestigious accent
 - b** grammatically correct English
 - c** an English dialect
 - d** accepted by most linguists as objectively the most beautiful English accent
- 10** Standards of spoken English are declining because:
- a** journalists and TV presenters think sloppy speech is trendy
 - b** children don't learn Latin in school any more
 - c** basic grammar is no longer valued
 - d** who says standards are declining? Languages change – live with it!



Dig deeper

The language myths discussed above, and many others, are entertainingly dissected in Bauer & Trudgill (eds) *Language Myths* (Penguin, 1998): see in particular Cheshire on double negatives, Giles and Niedzielski on 'beautiful' languages and Evans on 'primitive' ones. Milroy's chapter probes the often-implicit appeal to Latin in prescriptive grammarians' rules of English, as does the first chapter of Palmer's excellent *Grammar* (Pelican, 1971) and Chapter 9 of Trask's *Language: the Basics* (Routledge, 1995).

For a good recent introduction to the principles of the linguistic science, see Blake's *All About Language* (Oxford University Press, 2008), Chapter 1, or Chapter 1 of Fromkin, Rodman & Hyams, *An Introduction to Language* (10th edition, Wadsworth, 2013). The first two chapters of Lyons' *Language and Linguistics* (Cambridge University Press, 1981) also address many of the issues raised here in greater detail.

The *ghoti* for *fish* proposal is often attributed to the playwright George Bernard Shaw, a strong advocate of spelling reform, but in fact has been traced back to 1855, a year before his birth: for details, see <http://language-log.ldc.upenn.edu/nll/?p=81>.

Wilfred Pickles' use of a Yorkshire accent in broadcasting is reported by L. Mugglestone, *'Talking Proper': The Rise of Accent as Social Symbol* (2nd edition, Oxford University Press, 2003), pp. 270–2.

For more on matched guise experiments, see Wardhaugh's *Introduction to Sociolinguistics* (6th edition, Blackwell, 2010), pp. 110–12, or Fasold's *The Sociolinguistics of Society* (Blackwell, 1984), pp. 152–8.

2

A brief history of linguistic thought

To appreciate the methods and assumptions of modern-day linguistics, we need to understand how people have reflected on language in the past, and what has motivated them to do so. For Aristotle, for example, analysis of grammatical categories such as gender, number and case in his *Rhetoric* served primarily to illuminate a wider discussion of good style. Descriptions of non-European languages were often compiled by missionaries seeking to spread what they saw as the word of God in parts of the world where European languages were not spoken. Emerging nation-states promoted national standard languages (see Chapter 12), and with them came the publication of prescriptive works, which held up the usage of a social elite as the only acceptable norm for speech and writing.

Our brief review of linguistic thinking through the ages reveals some remarkably contemporary themes. The notion of arbitrariness, which underpins modern structuralist approaches, emerges in Plato's work; a twelfth-century treatise on Icelandic spelling reform shows a very modern approach to phonology, and debates between rationalists and empiricists over innate ideas and universal grammar find twentieth-century echoes in Chomsky's clash with the Descriptivists who preceded him, as we will see in Chapter 8.



But the Lord came down to see the city and the tower that the men were building. The Lord said, 'If as one people speaking the same language they have begun to do this, then nothing they plan will be impossible for them. Come, let us go down and confuse their language so they will not understand each other.' So the Lord scattered them from there all over the earth, and they stopped building the city. That is why it was called Babel – because there the Lord confused the language of the whole world.

Genesis 11: 5–9

The story of the Tower of Babel in the epigraph above is one of many such myths in which 'confusion of tongues' is seen as divine retribution for human hubris. Within such narratives, the natural processes of change to which all languages are subject are equated with decay, prompting the search for an original, 'uncorrupted' pre-Babelian tongue from which all others are held to derive (see Case study below).



Case study: National language myths

Writing in the fifth century BCE, Herodotus (*History* 2:2) recounts how Pharaoh Psammetichus of Egypt had set out to discover the original language of mankind by ordering that two children should be raised in isolation by a shepherd, who was forbidden to speak to them. After two years, the children's first word was similar to *bekos*, the Phrygian word for bread, from which the Pharaoh was forced to conclude that the Phrygians, and not the Egyptians, were the most ancient people.

As Robins (1997: 153) points out, this tale has been recast with many different outcomes, revealing how the search for an 'original' language is often suffused with nationalist ideology. The 'language of Adam' has at various times been equated with Greek, Latin or Hebrew, and a real or imagined association with an ancient language has often been spuriously advanced to promote the cause of a contemporary one. A treatise published in 1569 by the Dutch scholar Goropius Becanus, for example, argued that the oldest language was Cimmerian, traces of which, he claimed,

could be found in the Brabantic Dutch dialect. In the same year, Henri Estienne published an impassioned defence of the French language, at that time emerging as a serious rival to Latin in France and a competitor, notably with Italian, for international prestige, on the grounds of it being allegedly closer to ancient Greek than other European languages.

Early linguistic scholarship

Early linguistic scholarship was often motivated by the need to preserve sacred and ancient texts for future generations. We owe much of our grammatical meta-language to the descriptions set out for Greek, which were designed to facilitate reading of the Homeric texts, dating from around the eighth century BCE; our knowledge of Sanskrit likewise derives largely from descriptions designed to preserve religious texts from the Vedic period (1200–1000 BCE). In the Europe of the Middle Ages, the teaching of Classical Latin for liturgical purposes grew in importance as the Romance languages (e.g. Spanish, French, Italian, Portuguese) moved ever further from their Latin parent.

Throughout history, debate has raged between two approaches, which might be labelled **empiricism** and **rationalism**. Very broadly, empiricists were (and are) concerned with the recording and analysis of observable facts of language structure as revealed in speech and writing, while rationalists seek to account for language in terms of innate abilities or ideas. Linked to the latter is a concern with finding universals, i.e. features common to all languages rather than just to individual ones. Where the Port-Royal Grammars of the seventeenth century (see below) proposed universal linguistic categories on the basis of those found in the Classical languages, the North American Descriptivists of the twentieth century celebrated linguistic relativity, i.e. the view that each language conceptualizes the world in its own way. The pendulum was to swing back in favour of universalism with the publication of Chomsky's *Syntactic Structures* in 1957 (see Chapter 8), heralding the emergence of the generative paradigm, which started from the belief that human beings are

innately equipped to learn language, and that therefore at an underlying level all languages must be structurally similar.



Key idea: Rationalists v. empiricists

Rationalists linked language to innate mental structures, while empiricists denied the existence of these structures and saw language as moulded by sensory experience.

A final important theme is that of linguistics as a science. The scientific model for linguistics has, however, varied over time, from comparisons to geology or natural history in the nineteenth century, with its focus on regularities in sound changes, to an emphasis on ‘mathematical’ descriptive rules in the twentieth. Part of the requirement for treating linguistics as a science, as we saw in Chapter 1, was that language be studied on its own terms: in Saussure’s words, ‘en elle-même et pour elle-même’ (in itself and for itself).

However, it ultimately proved impossible to view language in isolation from other aspects of human life. Language variation, for example, cannot be divorced from social factors such as class or regional origin with which it correlates. Part of speakers’ unconscious knowledge of their mother tongue is clearly of a social nature: English speakers, for example, can make informed judgements about a person’s regional origins or social background on the basis of his/her speech. The relationship between language and society is explored in the subdiscipline of **sociolinguistics** (see Chapters 11 and 12). Similarly, meaning cannot be properly understood in isolation from context and the knowledge shared by participants in an interaction, which form the subject matter of **pragmatics** (see Chapter 10).

The emergent fields of **psycholinguistics**, **neurolinguistics** and **biolinguistics** all attest to the interaction of linguistic study with other fields of scientific enquiry, while the branch of linguistics known as **stylistics** uses theories of language to illuminate the study of literature.

Classical and medieval linguistics

Greek linguistic scholars were profoundly to influence their Latin successors, whose thinking, as we saw in Chapter 1, exerts a profound influence on prescriptive English grammar even today. The achievement that was to have the greatest impact on Europe and the wider world, however, was the development of a **phonemic** writing system, i.e. one based on the key sound contrasts used by the language. As early as the second millennium BCE, a syllabic writing system now known to archaeologists as ‘Linear B’ was used by the Myceneans, and in the first millennium BCE the first alphabet in the modern sense of the term was adapted by the Greeks from Phoenician script. The Phoenician ‘alphabet’ had consisted essentially of consonants: vowels, which in Semitic languages are largely predictable from word structure and context, did not generally need to be marked (see Spotlight below).

The Greeks introduced vowel symbols, sometimes adapting them from Phoenician characters: Phoenician *aleph*, for example, which indicated a glottal stop (see Chapter 4), eventually became *alpha*, representing the /a/ phoneme (the word *alphabet* is derived from *alpha* and *beta*, the first two Greek letters). The alphabetic system was borrowed initially by the Etruscans of central Italy, and subsequently adapted to become the Latin alphabet, which forms the basis for most modern European writing systems.



Spotlight: The ancient origins of text-speak?

Given the consonants of the word root k_t_b, an Arabic speaker can deduce the vowels and their position from context and easily determine whether the word is *kitab* (book) or one of its cognates, *katib* (writer) or *kataba* (he wrote). This works less well in English and other non-Semitic languages: given *bldr*, for example, it is not immediately clear whether the word is *bolder*, *boulder*, *builder* or even *balder*, and similar problems beset Greek. But it has often been pointed out that, even in English, sentences in which the vowels have been omitted are still relatively easy to decipher:

Th qck brwn fx jmpd vr th lzy dg

while those in which the consonants have been left out are impenetrable:

e ui o o ue oe e a o

(The quick brown fox jumped over the lazy dog.)

This essential insight informs modern shorthand systems, conference interpreters' note-taking and, of course, txt msgng!

Homer's *Iliad* and *Odyssey*, written probably in the eighth century BCE, held a quasi-scriptural status in ancient Greek education, and Homeric scholarship from the sixth century BCE onwards shows acute awareness of how the Greek language had changed in the intervening period. The 'problem' of linguistic change is also explored in Plato's *Cratylus*, the theme of which is the fit between the essence of an object or concept and its rendering in language. Socrates and the eponymous Cratylus himself argue for linguistic **naturalism**, i.e. the view that names or words belong naturally to the objects or concepts they identify: in Cratylus' view these were laid down by the gods themselves, though the connection between a word and its essence may have become opaque as a result of linguistic change.

The counter position – **conventionalism** – is advanced by Hermogenes, who sees no connection between words and concepts, arguing that they have come about purely as a result of convention. The naturalist perspective of Cratylus in particular reflects a purely hellenocentric world view. The ancient Greeks were generally uninterested in languages other than their own, speakers of which were dismissed as *bárbaroi* (from which the English *barbarian* derives), and the question of why, if words are divinely ordained, languages express similar concepts in so many different ways is simply not raised. But what is interesting about this dialogue is the debate it prefigures about **arbitrariness** in language, which will be central to Saussure's thinking in the early twentieth century (see Chapter 3).

A grammatical description of the Greek language was provided by Aristotle, whose *Rhetoric* offers a rudimentary categorical description of Greek words into **nominal** (*onoma*, Gk) and **verbal** (*rhema*, Gk) elements, together with a third class of

functional elements he called *syndesmoi*, and which included conjunctions, articles and pronouns. This was developed by Dionysius Thrax (c. 100 BCE) in Alexandria, whose *Techne grammatike* ('Art of Grammar') set out the basis for the 'parts of speech' of traditional grammar. His eight word classes included nouns, verbs, participles and articles, but not yet adjectives: at this stage these are seen to form part of the noun class.

Later Roman writers largely adopted Dionysius's categories and applied them to Latin: Varro's *De Lingua Latina* ('On the Latin language'), composed in the first century BCE, introduces the notion of derivational and inflectional formation (or **morphology** in modern terms: see Chapter 6); Priscian's 18-volume *Institutiones Grammaticae* ('Foundations of Grammar'), written some six centuries later, presented some minor modifications to Dionysius' system – omitting for example the word class of articles, which Latin did not possess – and also addressed pronunciation and syllable structure. The continuing importance of Latin as a lingua franca throughout Europe for education and, more importantly, the Christian church ensured that Priscian's work remained influential throughout the Middle Ages and beyond (see Case study below). Descriptions of other languages (e.g. Welsh, Irish, Provençal), which appear in the early medieval period, are often based on Priscian's model or are designed to illuminate the study of Latin: Aelfric says of his *Latin Grammar*, composed around the turn of the eleventh century and believed to be the first grammar of Latin in a **vernacular** (or low-status) language, that it would serve as a good introduction to English, even though this was not its primary purpose.



Case study: Charlemagne and the law of unintended consequences

History is littered with examples of top-down intervention in linguistic matters that have not had the desired effect, and there is none better than Charlemagne's disastrous attempt to reintroduce classical Latin to the Carolingian Empire, over which he reigned from 800 to 814.

Following the fall of Rome, spoken Latin had fragmented quickly into what became known as Romance varieties. By the eighth century, many of these had diverged so far from classical Latin norms that the laity could no longer understand scripture. The problem was most acute in the north, where the priests' tacit response had been to align their pronunciation as far as possible with local vernacular usage to ensure comprehensibility. Fearing dilution of the religious and linguistic unity of his empire, Charlemagne attempted to stamp out this practice, decreeing that the Mass must be delivered *literaliter*, i.e. according to classical Latin norms. These norms were not, however, well known in the Carolingian Empire, so Latin scholars, among them Alcuin of York (whose Latin had always been a foreign tongue and therefore unaffected by ongoing changes in Romance), were brought in from outside to school the clergy in classical Latin pronunciation.

The consequence was chaotic non-communication between clergy and laity. The crisis was partly resolved in 813 by a compromise reached at the Synod of Tours, which allowed sermons to be preached in local vernaculars while insisting that the liturgy itself be conducted in classical Latin. Charlemagne's attempt to strengthen the position of classical Latin had had precisely the opposite effect: in historical terms the Synod of Tours compromise represented the thin end of an extremely long wedge. The diglossic relationship between Latin and the vernaculars (see Chapter 12) had started to 'leak' in favour of the latter, with local vernaculars now fulfilling a function formerly reserved for Latin.

The retreat of Latin would continue remorselessly over the centuries, with one of these vernaculars, that of Paris, gradually usurping all its main functions. This variety, known as *français*, or French, became the official language of the French nation that would later emerge. In the nation states which developed elsewhere in the former Roman Empire, Latin would similarly be replaced in its High or H functions by standard varieties of other Romance languages: for example, Italian, Spanish and Portuguese.

While much medieval linguistic scholarship starts from the teaching of Latin, or bears the imprint of a Latin model, one twelfth-century work, which has become known as *The First Grammatical Treatise*, stands out for highlighting the inappropriateness of Latin as a model for other languages. The anonymous author (generally referred to as ‘The First Grammarian’) sets out a compelling case for spelling reform in Icelandic, for which, he argues, the Latin alphabet as it stands is ill-suited:



I have composed an alphabet for us Icelanders as well, both of all those Latin letters that seemed to me to fit our language well, in such a way that they could retain their proper pronunciation, and of those that seemed to me to be needed in (the alphabet), but those were left out that do not suit the sounds of our language. A few consonants are left out of the Latin alphabet, and some put in; no vowels are left out, but a good many put in, because our language has almost all sonants or vowels.

‘The First Grammarian’, 12th century (translated by Haugen, 1972)

Striking about this work, which was unknown outside Scandinavia until the nineteenth century, are the First Grammarian’s detailed knowledge of early Icelandic phonetics and his grasp of phonological principles, which would not be fully developed until the twentieth century. He proposed the use of diacritics on Latin vowel symbols to mark contrastive features such as length and nasality, and noted the distinction in Icelandic between short and long (or geminate) consonants, suggesting the use of capital letters to mark the latter, for example P to represent /pp/. In its use of **minimal pairs** to determine phonemic oppositions, that is the substitution of different sounds in the same environment to produce words with different meaning – see Chapter 5 his approach seems very modern:



Now I shall place these... letters... between the same two consonants, each in its turn, and show and give examples how each of them, with the support of the same letters (and) placed in the same position... makes a discourse of its own, and this way give examples, throughout the booklet of the most delicate distinctions that are made between the letters.

'The First Grammarian', 12th century (translated by Haugen, 1972)

His examples were often humorous and (for the twelfth century at least) occasionally racy:

'Mjök eru þeir min *frámér*, er eigi skammask at taka mina konu *frá mér*.' ('Those men are *brazen*, who are not ashamed to take my wife *from me*')

A similarly modern resonance is found in the work of the thirteenth and fourteenth century Modistae, or speculative grammarians, who began, as languages other than Greek and Latin were becoming better known in Europe, to question the philosophical basis of grammar. Roger Bacon and others argued that grammar was universal, and that differences between languages were merely superficial. The theme of universal grammar was developed further by Lancelot and Arnauld in their Port-Royal Grammar (*Grammaire générale et raisonnée contenant les fondemens de l'art de parler, expliqués d'une manière claire et naturelle*, 'General and Rational Grammar, containing the fundamentals of the art of speaking, explained in a clear and natural manner') first published in 1660, which viewed grammar as the product of innate mental processes. This rationalist position was rejected by the British empiricist philosophers Locke, Hume and Berkeley, who denied the existence of innate ideas and held that knowledge was a product of sensory experience.

Drawing on examples from Latin, Greek, Hebrew and the modern vernacular languages of Europe (but not beyond) the Port-Royal Grammar presented the six-case structure of Latin noun declension as a universal framework, realized in a variety of ways by different languages (in the Romance languages, for example, much of the grammatical work which had been done

by Latin case-endings was now performed by prepositions). The belief in language as a window to universal logic or laws of reason, exemplified by the Port-Royal Grammar, prompted a search for fundamental roots from which words are derived. This led in turn to some fanciful and often unsustainable etymologies, exemplified for example in the work of Horne Tooke, whose two-volume *The Diversions of Purley* was published in 1786 and 1805. Culler (1976: 56) notes Tooke's tenuous speculations on the nature of the word *bar*:



A bar in all its uses is a defence: that by which anything is fortified, strengthened or defended. A barn is a covered enclosure in which the grain, etc. is protected or defended from the weather, from depredations, etc. A baron is an armed, defenceful, or powerful man. A barge is a strong boat. A bargain is a confirmed, strengthened agreement.... a bark is a stout vessel. The bark of a tree is its defence...

Culler (1976: 56)

The belief that linguistic signs have a rational basis, obscured by phonetic change, is, as we have seen, an enduring one, but it became increasingly untenable as the diversity of human language became better understood. It was not, however, until the twentieth century and the work of Saussure (see Chapter 3) that the essential arbitrariness of the sign finally became a central tenet in linguistic thought. The age-old conflict between empiricism and rationalism, however, has continued in different guises to this day, and finds new expression in the debate between proponents of universal grammar within the generative paradigm and their critics.



Key idea: Linking form to meaning

The quest for a fundamental link between form and meaning, obscured by language change, led to some fanciful etymologies.

The prescriptive tradition

As new standard languages began to replace Latin in the nations of Europe, a flourishing market emerged for manuals of 'good' speech and writing. This prescriptive tradition, over which Latin cast a long shadow, was especially strong in France and Great Britain. In France, battle lines were drawn from the sixteenth century between those who equated good usage with that of a social elite (the Royal Court) and members of an intellectual elite, trained in Classical languages, who saw themselves as the proper arbiters of linguistic correctness. The interests of the former largely prevailed, and Vaugelas' *Remarks on the French Language* (*Remarques sur la langue française*), published in 1647, became a veritable bible for social climbers anxious to learn the secrets of the 'good' courtly speech.

The book's preface is very revealing of the nature of prescriptivism. The usage of even a narrow social elite is found to be heterogeneous: not all courtly usage is acceptable, and Vaugelas is interested only in the 'healthiest part' (*la plus saine partie*) of the Court, which he does not define. His prescriptions are therefore based on circularity (good speech is to be found in the healthiest part of the Court, which itself is recognized by...good speech) and are both arbitrary and idiosyncratic. In a country hungry for prescriptive rules, this mattered little, and many of Vaugelas' strictures have been accepted as 'correct' French ever since.



Key idea: The Latin model

As nation states emerged in Europe, the need to develop national standard languages became keenly felt. Prescriptive linguistic works condemned all but the usage of a narrow social elite. Grammars of European languages generally followed the Latin model of Priscian, for which in many cases they were unsuited. Many modern prescriptive rules of English derive ultimately from Latin grammar.

From the sixteenth century onwards, prescriptive works in Britain largely follow Priscian's Latin model. Bullokar's *Bref Grammar for English* (1586), for example, takes the eight

Priscianic word classes set out in William Lily's *Grammar of Latin in English* (c.1540) and applies them to English; the prescriptions of Robert Lowth's *Introduction to English Grammar* (1762) are likewise informed by Latin, and even by 1795, Lindley Murray's *English Grammar* was arguing for three nominal cases (nominative, genitive, accusative), justified on the model of Latin, in spite of the fact that English – then as now – only regularly distinguishes nominative and accusative in pronouns (*he saw me* vs. *I saw him*). While prescriptive grammarians of English are no longer as in thrall to Latin as they once were, many complaints about 'bad' English, as we saw in Chapter 1, start from assumptions about Latin grammar. Simon Heffer's *Strictly English: The correct way to write... and why it matters*, published in 2011, still condemns the use of split infinitives, though its author seems more relaxed than his predecessors about ending sentences with prepositions (p. 89).



Case study: Grammar and morality

The preface to Lindley Murray's *English Grammar* reveals the author's intention to 'promote the cause of virtue as well as learning'. Murray was neither the first, nor the last, to equate 'good' English with moral virtue, as these 1985 comments by Norman Tebbit, the former Conservative cabinet minister, demonstrate:

'If you allow standards to slip to the stage where good English is no better than bad English, where people turn up filthy ... at school ... all those things tend to cause people to have no standards at all, and once you lose standards there's no imperative to stay out of crime.'

Similar sentiments expressed by Prince Charles, John Rae and Jeffrey Archer (Cameron 1995: 85–94) attest to the remarkable persistence of such attitudes wherever what Milroy and Milroy (1985) have called 'the linguistic complaint tradition' is strong. Across the Channel, attempts to reform French spelling were criticized in 1990 by Danielle Mitterrand, wife of then President François Mitterrand, on the grounds that they represented an unacceptable weakening of standards:

'Loosening standards is a slippery slope: once you've let things slip with spelling, why shouldn't moral standards go the same way?' (Quoted by Ball 1997: 191; translation mine)

Madame Mitterrand would no doubt have been horrified by the Presidential communiqué announcing her death in November 2011, which contained no fewer than five spelling errors, provoking something of a media storm in France.

Nineteenth-century philology

What finally helped break the hold of classical Latin in Europe was the discovery, in the late eighteenth century, of the Sanskrit scholarship of India, and notably Pāṇini's grammar of Sanskrit, believed to date from the fourth century BCE, which described the language of ancient sacred texts dating from some eight centuries earlier. Thanks to such codification, Sanskrit had remained, like Latin in Europe, a high-status lingua franca in India long after it had died out as a mother tongue. Bloomfield (1933: 11) describes Pāṇini's grammar as the first example to Europeans of 'a complete and accurate description of a language, based not upon theory but upon observation', i.e. one unfettered by classical Latin or Greek models. It also brought to light some striking resemblances between Sanskrit and the more familiar language families of Europe, i.e. the Romance languages, the Germanic group (e.g. German, Danish, English, Dutch) and the Slavonic (e.g. Russian, Czech, Polish, Bulgarian). As the table below demonstrates, these similarities were far too common and regular to be the result of mere chance.

Table 2.1: Some Indo-European correspondences

Sanskrit	Latin	Ancient Greek	German	Russian	English
matar	mater	Mētēr	Mutter	mat'	mother
dvāu	duo	Dio	zwei	dva	two
mūṣ-	mūs	Mūs	Maus	myš	mouse
yugām	iugum	Zugón	Joch	igo	yoke
bhratar	frater	Phrātēr	Brüder	brat	brother

Such correspondences could only be explained, argued William Jones in a famous paper to the Asiatic Society in 1786, in terms of a common ancestor, which would later become known as Indo-European.



The Sanscrit language, whatever be its antiquity, is of a wonderful structure; more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to both of them a stronger affinity, both in the roots of verbs and the forms of grammar, than could possibly have been produced by accident; so strong indeed, that no philologer could examine them all three, without believing them to have sprung from some common source, which, perhaps, no longer exists; there is a similar reason, though not quite so forcible, for supposing that both the Gothic and the Celtic, though blended with a very different idiom, had the same origin with the Sanscrit; and the old Persian might be added to the same family.

William Jones, 1786

Establishing links between languages of the Indo-European family became the prime focus of scholarly linguistic activity for most of the nineteenth century, and drew, as Friedrich Schlegel anticipated in his short 1808 work *Über die Sprache und Weisheit der Inder* ('On the Language and Wisdom of the Indians'), on the model of natural history:



Comparative grammar will give us entirely new information on the genealogy of language, in exactly the same way in which comparative anatomy has thrown light upon the natural history.

Friedrich Schlegel, 1808

Where biologists found similar physical features in a number of different organisms, they concluded that, in all probability, they had been inherited from a common ancestor, even where

no direct evidence for that ancestor was available. In similar vein, where **philologists**, working from historical written sources, found correspondences between basic lexical items that were unlikely to have been borrowed, they posited a common ancestor in Indo-European. Of course, no written evidence for Indo-European, widely believed to have been spoken some 6,000 years ago, was available, but on the basis of regularities between its descendant languages, explained in terms of sound laws, a partial reconstruction known as **Proto-Indo-European** (PIE) was developed.

The best-known example of such correspondences is **Grimm's Law**, named after Jakob Grimm, but drawing on the observations of Schlegel, Kanne and Rask, which explains a number of correspondences between Latin, Sanskrit and Germanic in terms of sound changes from Indo-European. In many words where Latin has [p], the Germanic languages have [f], as in the examples below.

Table 2.2: P/f correspondences in Latin and Germanic

Latin	English	Swedish	German
plenus	full	full	voll*
piscis	fish	fisk	Fisch
pedis	foot	fot	Fuss
pater	father	fader > far	Vater

*Note that the letter v has the value [f] in German

Grimm explained this in terms of PIE voiceless stops [p, t, k] becoming fricatives [f, θ, x/h] in Germanic, but not in Latin, Greek or Sanskrit (compare Latin *canis*; Greek *kýōn* but German *Hund*; English *hound*). Related changes saw PIE voiced stops [b, d, g] become voiceless [p, t, k] (hence Latin *duo*, but English *two*; Swedish *två*).

From these regular patterns of sound change, August Schleicher developed the family tree model (which owed much to botanical classification methods developed by Linnaeus), tracing the 'parentage' of living languages back to PIE. One version of the Indo-European family tree can be seen in the following diagram:

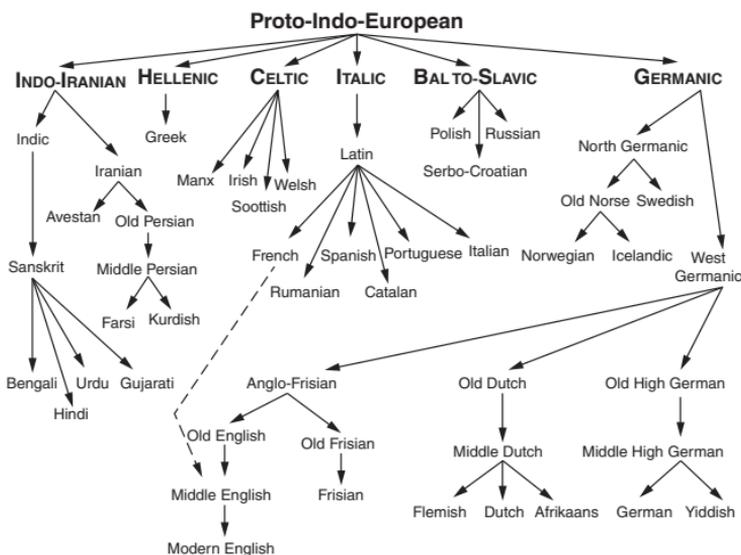


Figure 2.1: The Indo-European language family

Key idea: A common ancestor

Parallels between Sanskrit, Latin and Greek led philologists to posit a common ancestor, which was reconstructed from historical evidence as Proto-Indo-European. Family trees show historical relationships between languages, but fail to account for the effects of language contact.

The family tree model is a useful presentational tool which has been successfully applied to other language groups, for example Eskimo-Aleut, Sino-Tibetan or Austro-Asiatic, but it is nonetheless misleading in a number of respects. Firstly, it takes far too little account of language contact (see Case study on next page): the dotted arrow in the diagram above is an attempt to represent the very strong lexical influence of (Norman) French on Middle English, which belong to quite separate branches of the Indo-European trunk. The branching works well where there is a physical separation between speaker groups, allowing varieties to develop independently, as in the case of Afrikaans and Dutch, but in most cases the picture is rather messier, with branches often confusingly intertwined.

The model also presupposes relatively homogeneous varieties separating into dialects, which appear at the end branches of the tree, ignoring the fact that all languages are internally variable. Labelling a single branch as, for example, ‘English’ suggests that a homogeneous variety of that name emerged first, from which dialects were to branch off later. In fact, historically the very opposite was true: the dialectal divisions were present all along, and the codified standard language we now call ‘English’ emerged from contact between a number of them.



Case study: Meet the family

From the language family tree, it can be seen that English is ‘genetically’ (the use of this biological metaphor is common in describing the relationships between languages) part of the West Germanic branch, and that its closest relative is **Frisian**, a language spoken in the north-west Netherlands, which has recognized minority language status and its own language academy (*Fryske Akademy*, founded in 1938). The close family relationship between the two languages should not be taken too literally: they have diverged from each other considerably and have had very different contact histories. English vocabulary was hugely influenced by Norman French as a result of the Norman conquest of 1066, while the Frisian language has seen extensive lexical borrowing from Dutch. But nonetheless, close similarities to English are still evident in the following examples, taken from the Virtual Linguist website:

Bûter, brea, en griene tsiis is goed Ingelsk en goed Frysk	<i>Butter, bread and green cheese is good English and good Frisian</i>
Ik ha in wurdboek op myn tabel.	<i>I have a dictionary (wordbook) upon my table.</i>
Wy had in floed oer de nacht. De grun steit is wiet. De rein was dien by de moarn.	<i>We had a flood over the night. The ground is still wet (literally ‘The ground’s state is wet’). The rain was done by the morning.</i>
Winter is kald, simmer is hjit. Ik lyk de waarmte en myld weder de best.	<i>Winter is cold, summer is hot. I like the warm and mild weather the best.</i>

The practitioners of comparative linguistics in the nineteenth century recognized that if their discipline were to be taken seriously as a science, it required testable laws and hypotheses

akin to those of geology or physics. The *Junggrammatiker* or Neogrammarian hypothesis, which emerged in the last quarter of the century, was very much a response to the perceived need for scientific rigour. The hypothesis held that changes to a particular sound in a particular environment simultaneously affect all cases where that environmental condition is satisfied. Sound laws were held to be exceptionless, unless such exceptions could be explained either by other laws (Verner's Law, for example, explained a number of apparent exceptions to Grimm's Law) or by **analogy** (changes in one word form to match another: see Chapter 13 for examples). The best-known formulation of the hypothesis is found in Osthoff and Brugmann's *Foundations of Language*, published in 1878 (translation by Lehmann, 1967: 204):



First, every sound change, inasmuch as it occurs mechanically, takes place according to laws that admit no exception. That is, the direction of the sound shift is always the same for all the members of a linguistic community except where a split into dialects occurs; and all words in which the sound subjected to the change appears in the same relationship are affected by the change without exception.

Osthoff and Brugmann, 1878

This position statement in what some have called the Neogrammarian 'manifesto' has been often criticized, not always fairly. Evidence from Gilliéron's monumental *Atlas Linguistique de la France* (*Linguistic Atlas of France*: see Chapter 11), painstakingly compiled in the last decade of the nineteenth century, seemed to belie the neat, exceptionless laws of the Neogrammarians, and led the author to conclude that 'every word has its own history'. But the differences between these apparently opposed positions were essentially ones of emphasis: it is possible to observe the general regularities of patterns of sound change while acknowledging (as the caveats in the above quotation clearly attempt to do) the specific circumstances of individual lexical items which may not have followed the general pattern.

Where the neogrammarians emphasized historical regularity, dialectologists stressed the micro-etymologies of individual items. Both, however, focused on changes which had already happened: not until the advent of variationist sociolinguistics in the 1960s would change in progress be observed, and found in some cases to be **lexically diffused**, i.e. affecting some sets of words before others, and in others to be influenced by sociological, psychological or aesthetic factors, adopted at different rates by different groups. We will examine their findings in Chapter 11.



Key idea: Sound changes

The Neogrammarian hypothesis held that sound changes were subject to laws that applied without exception in given environments.



Fact-check

- 1 What is Plato's *Cratylus* ultimately about?
 - a The nature of good speech
 - b Repairing the damage wrought by sound change
 - c The arbitrariness of linguistic signs
 - d The superiority of Greek over other languages
- 2 What view did rationalists hold about language?
 - a It was linked to innate ideas
 - b It derives from external sense impressions
 - c All languages derive from Indo-European
 - d The written system of Latin is not suited to all languages
- 3 What characterizes a phonemic writing system?
 - a It is based only on consonants
 - b It uses symbols to represent syllables
 - c It uses symbols that reflect the meaningful sound contrasts in a language
 - d It has a one-to-one relationship between sound and symbol
- 4 What is the *First Grammatical Treatise* about?
 - a The origins of Latin
 - b Spelling reform in Icelandic
 - c Universal grammar
 - d Correspondences between Latin and Greek
- 5 Standard languages are usually ...?
 - a The creation of intellectuals
 - b Varieties with the strongest links to the Classical languages
 - c A good indicator of personal morality
 - d Languages modelled on the speech of a social elite
- 6 What is the Proto-Indo-European language?
 - a The ancestor of all languages
 - b A language reconstructed from the historical evidence of its descendant languages
 - c The ancestor of Finnish, Hungarian and Basque
 - d A contact language used by Asian immigrants in Europe

- 7** What is the Neogrammarian hypothesis?
- a** An early language teaching method
 - b** Grammar linked to personal morality
 - c** A theory that every word has its own history
 - d** A theory that sound laws apply without exception
- 8** What does Grimm's Law explain?
- a** Correspondences between Sanskrit and Latin
 - b** Sound changes involving [p], [t], and [k] sounds in Proto-Indo-European
 - c** How Latin words changed when they were borrowed by Germanic
 - d** Why some German words use v and others f for the same sound
- 9** Why can the 'family tree' model be misleading?
- a** It fails to allow for internal variability in language
 - b** It fails properly to allow for language contact
 - c** It assumes that dialects are recent outgrowths from homogeneous languages, whereas the reverse may in fact be true
 - d** All of the above
- 10** Which of these is not true?
- a** Rumanian, Polish and Russian all come from the same branch of Proto-Indo-European
 - b** English, Dutch and German are all West Germanic languages
 - c** Afrikaans is more closely related to English than Spanish is
 - d** Greek has no sister languages



Dig deeper

L. Bloomfield, *Language* (Holt, 1933), Chapter 1

L. Campbell, 'The history of linguistics', in M. Aronoff & J. Rees-Miller (eds), *The Handbook of Linguistics* (Blackwell, 2001), pp. 81–104

R. Harris & T. Taylor, *Landmarks in Linguistic Thought: The Western Tradition from Socrates to Saussure* (Routledge, 2001), esp. Chapters 1, 8, 10, 12 & 16

R. Robins, *A Short History of Linguistics* (Longman, 1997), esp. Chapters 3, 6 & 7

G. Sampson, *Schools of Linguistics: Competition and Evolution* (Hutchinson, 1980), Chapter 1

Online sources

The Frisian examples and their English translations on p. 38 have been taken from the Virtual Linguist website: http://virtuallinguist.typepad.com/the_virtual_linguist/2008/11/frisian.html

An outline of the history of linguistics (continuum books.net) is available at http://mcgregor.continuumbooks.net/media/1/history_outline.pdf

On the link between morality and language, see S. Johnson (1999), 'From linguistic molehills to social mountains? Introducing moral panics about language', Lancaster University Centre for Language in Social Life, Working Paper No. 105. Available online: <http://www.ling.lancs.ac.uk/pubs/clsl/clsl105.pdf>

3

Structural linguistics

If the nineteenth century was an era of comparative and historical philology, the twentieth century saw a decisive shift in favour of descriptive or synchronic linguistics. Where German scholars had led the way in the previous century, the emergent twentieth-century academic discipline was to be dominated by Americans. But the man often seen as the father of what became known as structural linguistics, our focus in this chapter, was in fact a Swiss. The work of Ferdinand de Saussure, whose thinking underpins most work undertaken in this century and the last, merits consideration in some detail, as many of the dichotomies with which he is associated – *langue/parole*; syntagmatic/paradigmatic; *signifiant/signifié* – have become part of the conceptual toolkit not just of linguistics but also of structuralist approaches to literature and social sciences.

In this chapter we examine the *Course in General Linguistics* with which Saussure is associated, the concepts it introduced and their relevance to contemporary linguistic thought. We then consider the legacy of Saussure's thinking in the work of the North American Descriptivists, who established linguistics as a respectable academic discipline partly by breaking away from universal models based on Classical European languages and treating each language as a system in its own right. From this relativist position emerged what became known as the Sapir-Whorf hypothesis – the suggestion that languages actually mould the world view of their speakers to a very significant degree – which we assess at the end of the chapter.

Saussure and the *Course in General Linguistics*

Saussure was born in Geneva in 1857, and entered the University of Geneva in 1875 as a student of physics and chemistry, before switching his attention to Classical languages and later moving to study Indo-European at Leipzig where, aged just 21, he published his dissertation ‘Memoir on the Primitive System of Vowels in Indo-European Languages’, to considerable acclaim. Thereafter he enjoyed further success in Paris, where he stayed until 1891, when he returned to Geneva to take up a Chair.

The work for which Saussure is best known, however, was not published in his lifetime, nor indeed written by Saussure himself. *The Course in General Linguistics* (henceforth *Course*), which has been likened to a Copernican revolution in the discipline, opens with a brief summary of the history of linguistics, in which Saussure identifies three stages:

- ▶ The first, beginning with the Greeks, he defines as the ‘grammar’ stage, which he sees as essentially prescriptive and unscientific.
- ▶ The second, ‘philological’ stage he dates from the work of Friedrich Wolf in 1777, and again sees as not purely linguistic in intention, focused as it was on elucidating texts written in different periods.
- ▶ The third, and for Saussure the most interesting stage (the first two are dismissed in little more than a page), is that of comparative philology, which he dates from the work of Franz Bopp in 1816. Saussure’s critique of the comparative school, as he calls it, echoes the concerns raised in his letter to Meillet (see Case study on next page): it had failed to define the nature of its study, and in its endeavour to establish relations between languages had paid scant attention to the nature of words as representative signs.



Figure 3.1: Ferdinand de Saussure



Case study: Genesis of the *Course*

In spite of his success as a philologist, Saussure shows signs of dissatisfaction with the contemporary methods and even the terminology of linguistics from an early stage. In the frustration he expresses in a letter to the eminent French linguist Antoine Meillet in 1894, we see the germ of the work that would make him famous (see Culler 1976: 15):

'but I am fed up with all that, and with the general difficulty of writing even ten lines of good sense on linguistic matters. For a long time I have been above all preoccupied with the logical classification of linguistic facts and with the classification of the points of view from which we treat them; and I am more and more aware of the immense amount of work that would be required to show the linguist what he is doing...

'The utter inadequacy of current terminology, the need to reform it and, in order to do that, to demonstrate what sort of object language is, continually spoils my pleasure in philology, though I have no dearer wish than not to be made to think about the nature of language in general. This will lead, against my will, to a book in which I shall explain, without enthusiasm or passion, why there is not a single term

used in linguistics which has any meaning for me. Only after this, I confess, will I be able to take up my work at the point I left off.'

The book to which Saussure refers was eventually published, but only after his death. Compiled posthumously by Saussure's students from his Geneva lecture notes from three courses taught between 1906 and 1911, and edited by two of Saussure's colleagues, Charles Bally and Albert Sechehaye, in collaboration with Albert Riedlinger, the *Course in General Linguistics* (*Cours de Linguistique Générale*) was published in 1916, three years after his death, and has had far-reaching repercussions for linguistic study ever since.

The nature of the linguistic sign

Saussure defines language as a system of **signs**, his conception of which takes up much of Part I of the *Course*. The sign for Saussure consists of two elements: a **signifier** (*signifiant*) and a **signified** (*signifié*), both of which are **arbitrary**. The arbitrariness of the signifier is not a difficult concept to grasp. As a native speaker of English, when I see an animal barking I call it a *dog*, but there is no reason why it *should* be called a *dog*: if there were, all languages would have discovered this and given this animal the same name, rather than selecting such different terms as *ci* (Welsh), *perro* (Spanish), *Hund* (German) or *mbwa* (Swahili).



Figure 3.2: The linguistic sign (*Course*, p. 66)

The absence of any link between the word and its referent in the real world is almost universal, the one class of exceptions being **onomatopoeic** words, where a word echoes a sound associated with the referent in question, as for example in *cuckoo*. Even for onomatopoeic words, however, there is a large measure of arbitrariness: *cuckoos* are called 'cuckoos' only in English, and to return to our canine example above, there is a remarkable divergence cross-linguistically even in the way

barking is represented in print: English dogs go *woof! woof!* while French ones go *ouah! ouah!* and Russian ones *gav! gav!* in spite of the fact that there are no linguistic differences (to the best of our knowledge) between dogs of different nationalities. (This observation has spawned a number of websites and even a Wikipedia page, which you may like to check out for yourself.)



Key idea: The signifier and the signified

The linguistic sign unites an arbitrary signifier (*signifiant*) with an arbitrary signified (*signifié*).

The arbitrariness of the signifier, however, is only part of the story: Saussure stresses that the signified too is arbitrary, as each language divides up the world in its own way. A consequence of the conceptual arbitrariness of the signified is that precise translation between languages often proves impossible. Swedish, for example, has no single word for grandmother, making a distinction between *mormor* ('mother mother') and *farmor* ('father mother'), which English does not. Some concepts seem to elude translation altogether (see Case study on next page) and, as we shall see in Chapter 9, even concepts as familiar as colour terms turn out to be highly language-specific. A second consequence of arbitrariness is that both signifier and signified are subject to change: the silent letters of *know* or *though* in English attest to a time when the pronunciation of both words was different; Old English *þing* once meant 'discussion' but came to mean *thing*, while the word *man* originally meant 'person' but acquired the meaning 'male person', an etymology which leads some people to object to terms such as *chairman* as gender-exclusive.



Key idea: Synchronic v diachronic

Saussure insisted on the separation of synchronic facts (describing the language at a particular point in time) from diachronic ones (relating to changes which have taken place in the language), on the grounds that a native speaker does not need to know the history of his/her language to speak and understand it.

While the study of language change, a major preoccupation of the nineteenth-century comparative philologists, is of interest and value in itself, Saussure warned against confusing **synchronic** approaches (studying the language as a system at a single point in time) and **diachronic** ones (focusing on changes in the language system). Saussure accorded priority to the former, using a chess analogy to distinguish the two perspectives.



Case study: *Gezelligheid* and the arbitrariness of the signified

The Dutch term *gezellig* [xə'zɛləx] is frequently cited as an example of a concept which cannot be translated. The website DutchAmsterdam.com attempts thus to convey its meaning to anglophone visitors:

Locals and foreigners alike will tell you that the word cannot be translated. Its meaning includes everything from cozy to friendly, from comfortable to relaxing, and from enjoyable to gregarious. According to Wikipedia, 'A perfect example of untranslatability is seen in the Dutch language through the word *gezellig*, which does not have an English equivalent.

Literally, it means cozy, quaint, or nice, but can also connote time spent with loved ones, seeing a friend after a long absence, or general togetherness.'

However, to the Dutch it goes way beyond 'cozy'. You'll hear the word a lot when you visit Amsterdam, so here are some tips how to understand and use it:

Gezellig* vs. not *gezellig

A brown café is *gezellig*. A dentist's waiting room is not – though it can be *gezellig* if your friends accompany you, particularly if they are *gezellig*. An evening on the town with friends is *gezellig*, especially if you have dinner at a *gezellig* restaurant, see a good movie, and finish with a drink at a *gezellige* pub. Trying to entertain the in-laws from hell is definitely not *gezellig*.

For Saussure, Grimm had failed to distinguish between diachronic changes and the functions given to new elements in the resulting language system. Thus the vowel alternations *foot: feet; goose: geese; tooth: teeth* emerged as the result of a purely phonetic change which was used by the system to designate singular and plural: it did not happen in order to represent the plural, as if ‘plural’ were a slot to be filled and the language developed a new form in order to fill it. Sound changes are ‘blind’ but have consequences for the system as a whole: for example, the change in British English which saw the *wh*-sound [ʍ] pronounced like [w] had the consequence that such word pairs as *which/witch, whales/Wales* and *while/wile* are no longer distinguished by most British English speakers.



Spotlight: Saussure and chess

On two occasions in the *Course*, Saussure likens language to a game of chess. Highlighting the difference between synchrony and diachrony, he invites the reader to imagine a game in progress, and notes that a person who recalls the moves that led to the current state of play has no advantage, in playing the game, over a person who has turned up in the last two minutes. In the same way, a speaker does not need to know about previous states of his/her mother tongue to speak it fluently. Saussure suggests, however (*Course*, p. 89), that the analogy breaks down in one important respect: while chess moves result from the volition of a player trying to secure a win, no such **teleology**, or change directed towards a particular outcome, is at work in the case of language change. In Saussure’s words, ‘language premeditates nothing’.

In another chess analogy, Saussure points out that the different chess pieces in themselves are unimportant: it matters little if the two rooks or bishops are not of identical shape, provided they are sufficiently different from other pieces to be distinguished from them. If, say, the knight were lost, he says, ‘even a figure shorn of any resemblance to a knight can be declared identical provided the same value is attributed to it’ (p. 110). In fact, a problem would only arise if the figure chosen were insufficiently *different* from another piece – say, a bishop – to be distinguished from it, in which case the game would be fundamentally altered.

Saussure also stated, famously, that ‘language is form, not substance’, and that language is a system of relations with no positive terms, only differences. To understand Saussure’s insights here, it is worth dwelling on these claims, both of which stem from our earlier principle of the arbitrariness of the sign:



it is understood that the concepts are purely differential and defined not by their positive content but negatively by their relations with the other terms of the system. Their most precise characteristic is in being what the others are not.

Course, p. 117



Everything that has been said up to this point boils down to this: in language there are only differences. Even more important: a difference generally implies positive terms between which the difference is set up; but in language there are only differences without positive terms.

Course p. 120

To illuminate the notion of linguistic entities without an essence of their own, Saussure asks us to consider a railway timetable. We are prepared to accept, he says, that the 8.25 Geneva to Paris express which leaves each day is ‘the same train’ in spite of the fact that its coaches, driver and locomotive are probably not the same each day: we would continue to call it the ‘8.25 Geneva to Paris’ train even if it left a few minutes late now and again. We do so because the inherent qualities of the train itself do not matter: what matters is the fact that this train is *not* the 10.25 to Paris, or the 8.25 to Bern.

Saussure’s concept of linguistic values is based on differences: if we wish to learn the meaning of the word *blue* we need to know how it differs from *red*, *green*, *yellow*, etc.: there is no inherent concept of ‘blueness’ which will leap out at us and enable us to understand the concept. Similarly, we can only understand *dog* by virtue of its contrast with *cat*, *horse*, *elephant*, etc., without

which *dog* would mean little more than *animal*. The importance of difference is even clearer in the case of speech sounds. There will almost certainly be slight differences each time we produce a *b* sound in a word like *bit*, and differences again between our own pronunciation and that of others. Yet all these different realizations will be recognized by English speakers as ‘the same’, in the same way that a teacher will recognize the many different handwritten *b*’s he/she might see in 30 Year 6 homework assignments as ‘the same letter’. It matters not if a Year 6 child occasionally puts a smiley in the round part of the ‘b’, gives it a moustache or draws sunglasses on the stalk: it will remain recognizably *b* unless and until it ceases to be distinct from other letters and starts to be confused with, say, *d*, with the result that the pairs *bid/did*, *bad/dad*, *big/dig* and so on are no longer distinguishable.



Key idea: The structuralist perspective

From a structuralist perspective, language has no positive terms: it depends at every level on meaningful contrasts or oppositions.

If in language ‘there are only differences’, then it is the relations between elements in the system, rather than the elements themselves, which are meaningful, and Saussure suggests that these relations are of two kinds. The first, **syntagmatic** relations, represent the combinatorial possibilities a language permits: adjectives may qualify nouns in English, for example (*a green coat*) but not verbs (**to green try*); adverbs may qualify verbs (*go boldly/boldly go*) but not nouns (**boldly tree/*tree boldly*).

Paradigmatic relations, by contrast, concern the range of elements that can be substituted in the same environment. For example, in the sentence *John built a house* we could replace *John* with another proper noun such as *Peter* or *Mary*, by a noun phrase such as *the little old man* or (in a fictional parallel universe) *the giant slug in evening dress*. Similarly, we could replace *built* with *build*, *constructed*, *destroys*, *is destroying*, *admires* and so on. At the phonological level, the first sound /p/

of *pit* stands in opposition to all the other sounds which could replace it to produce other words, e.g. *kit, sit, mitt, fit, lit, nit*.

A final important dichotomy for Saussure was that of *langue* and *parole*, meaning respectively the abstract language system and the concrete instantiation of that system in speech. For Saussure, the real object of study for the linguist was *langue*, but our only access to it is via *parole*, with all its hesitations, slips of the tongue, false starts and so on. He saw the difference between the two exemplified in the contrast between **phonetics**, the study and description of speech sounds, and **phonology**, the study of sound systems in language (which we explore in Chapters 4 and 5 respectively). Strongly influenced by the sociologist Emile Durkheim, Saussure saw *langue* as a social phenomenon, implanted in the individual, who may through his/her own *parole* initiate or adopt change in *langue*.



Key idea: The language system

Langue (the language system) is based on relations of two kinds:

- ▶ syntagmatic, or combinatorial relations between elements
- ▶ paradigmatic relations, involving items of the same category which can be substituted for each other in a given environment.

The North American Descriptivists

Saussure's emphasis on language as a structure, rather than on its individual elements, led to the adoption of the term **structuralism**, the importance of which in modern linguistic thinking is difficult to overemphasize. Robins (1997: 225) has gone so far as to say that 'the structural approach to language underlies virtually the whole of modern linguistics'. His concept of distinctive oppositions, and notably that of the **phoneme** as a distinctive speech unit (see Chapter 5), was later developed and refined in the 1920s and 1930s by the Prague School Linguists, including Nikolai Trubetzkoy and Roman Jakobson. They also explored the causes of sound change, on which the Neogrammarians had been largely silent, from a structural point of view: phonemic mergers might, for

example, be seen to decrease complexity within the system and thereby reduce effort from the speaker's point of view (though the question of *why* a change happens at a particular time would not be addressed until the advent of variationist sociolinguistics: see Chapter 11).

It was, however, in the United States, between the 1920s and 1950s, that linguistics became established as an autonomous academic discipline. The direction for the subject was set by a group which came to be known as the North American Descriptivists, whose major figures include Leonard Bloomfield, Martin Joos, Henry Gleason, Charles Hockett and Zellig Harris; two important contemporaries, Edward Sapir and Franz Boas, came to linguistics from an anthropological background. Bloomfield above all is credited with achieving respectability for linguistics as a science, a central Descriptivist concern. His seminal 1933 work *Language*, which remains a highly readable introduction to the subject even today, attempts to bring the scientific rigour of the natural sciences to linguistics through detailed description of methodology and discovery procedures, and reflections on corpora and sample sizes.

The need to justify linguistics as a science resulted in an emphasis on those aspects of language which could readily be described and presented in terms of rules (notably at the **phonological** and **morphological** levels: see Chapters 5 and 6), and a consequent downgrading of those which could not, notably **semantics**, in which Bloomfield saw no imminent prospect of scientific progress:



The study of language can be conducted without special assumptions so long as we pay no attention to the meaning of what is spoken.

[Bloomfield 1933: 75]

Where nineteenth-century linguists had taken their inspiration from advances in natural history, the Descriptivists looked to the logical rigour of mathematics in the description of rule-governed linguistic behaviour:



But of all the sciences and near-sciences which deal with human behavior, linguistics is the only one which is in a fair way to becoming completely mathematical, and the other social scientists are already beginning to imitate the strict methods of the linguists.

[Joos 1957: 350]



Mathematics is a good place to turn for analogs of structures... A good many mathematical systems are characterizable wholly or partly as consisting of elements for which certain relations are defined.

[Hockett 1957: 394]

For the Descriptivists, a scientific approach demanded reliance on publicly observable linguistic data, the goal at this stage being to describe rather than to explain.



We do not answer 'why' questions about the design of a language... we try to describe precisely; we do not try to explain. Anything in our description that sounds like explanation is simply loose talk... and is not part of current linguistic theory.

[Joos 1957: 349]

The emphasis on description reflected a desire to shed some decidedly unscientific prejudices from the past, notably the assumption that all languages were, in essence, structured along similar lines to the Classical languages (or, worse, that they *ought to be*). Such beliefs were flatly contradicted by the material with which the Descriptivists generally worked: an aspiring doctoral student in the interwar years would typically be required to provide a description of the grammar and phonology of an (often obsolescent) native American language, for which a Classical or European language model was of little help. The Descriptivists' approach, which stems directly from Saussure's conception of language as a system of relations, was to establish

observable regularities of form within their data sets or **corpora** (singular: **corpus**), and describe the distribution of each element:



...the total of all environments in which it occurs, i.e. the sum of all the (different) positions or occurrences of an element relative to the occurrence of other elements.

[Harris 1951: 15–16]

THE SAPIR-WHORF HYPOTHESIS

The Descriptivists dismissed anything but the description of languages in their own terms as unhelpful speculation – ‘loose talk’ in Joos’s words – and emphasized linguistic diversity rather than universal principles. From this firmly relativist position emerged what became known as the **Sapir-Whorf hypothesis**, after Edward Sapir and his student Benjamin Lee Whorf, though it was not actually formalized in their lifetimes. This hypothesis held that languages were not only all structurally different, but that individuals’ fundamental perception of reality is moulded by the language they speak. Consider an early statement to this effect from Sapir:



...the ‘real world’ is to a large extent unconsciously built up on the language habits of the group. No two languages are ever sufficiently similar to be considered as representing the same social reality. The worlds in which different societies live are distinct worlds, not merely the same world with different labels attached.

[Sapir 1929: 209]

He would later describe language as something that ‘defines experience for us’ and talk of the ‘tyrannical hold that linguistic form has upon our orientation in the world’. Sapir’s student, Benjamin Lee Whorf, claimed that the Hopi language of Arizona encoded a very different world view from that of what he called the ‘Standard Average European’, notably with respect to the expression of time. Hopi, he claimed, ‘may be called a timeless

language': its verbs lacked tense marking comparable to that of European languages, and there were neither terms for countable temporal units (*days, hours, minutes*) nor spatial metaphors to express time reference (cf. *between the sheets/between 8pm and 10pm; in the water/in the afternoon*). All this reflected for Whorf a concept of time that was radically different from those with which Standard Average Europeans are familiar. Echoing his mentor, he famously concluded:



We dissect nature along lines laid down by our native language. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscope flux of impressions which has to be organized by our minds—and this means largely by the linguistic systems of our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way—an agreement that holds throughout our speech community and is codified in the patterns of our language

(Whorf 1956: 212–13)

Critics of Whorf have noted that his claims as they stand are not testable: the Hopi concept of time might in fact be similar to those of Europeans, but merely expressed in a very different way. Another objection is that it is difficult to see how a world view shaped by one's language can change, because individuals would not be able to think outside the categories that language provides. Yet human beings can and do change their perspectives on the world, understand concepts from other languages and create new ones. We are hardly, then, 'prisoners' of our language, as the hypothesis would have us believe:



Sapir and Whorf underestimate the ability that individual men possess to break conceptual fetters which other men have forged.

(Sampson 1980: 102)

Other objections challenge the relativist position of Sapir and Whorf, according to which each language must be viewed strictly on its own terms. They argue instead for innate or universal conceptual categories (see Chapter 8). But while most linguists would now, for a variety of reasons, reject the strong version of the hypothesis, many would nonetheless accept a weaker version, which sees language as subtly influencing our modes of thought (see Spotlight on next page). The highly developed system of honorific registers in Japanese, for example, reflects a socially stratified society in which relative social status is important, but it *may* also lead one to think of that social organization as in some way ‘natural’, or at least, disincline one to question it. Speakers of a language that insists on feminine and masculine personal forms may be more accepting of gender roles in society than speakers of a language which does not. Wierzbicka notes that attempts by Polish communist governments to discourage use of the gendered address forms *pan/pani* (‘sir/madam’) in favour of the second person plural *wy* foundered because the genderless form sounded cold and impolite:



To the Polish ear, it sounded cold, impersonal and discourteous. (...) I presume that the ‘personal’ character of pan/pani is due partly to its singular form, and possibly also to its sex differentiation, whereas the ‘impersonal’ character of the form wy is due partly to its plural and genderless form. Polish courtesy stresses respect for every individual as an individual, and is highly sex-conscious.

[Wierzbicka 2003: 58]



Spotlight: Sapir-Whorf and 'verbal hygiene'

The weak version of the Sapir-Whorf hypothesis is an important driver of debates over verbal hygiene, or what some call 'politically correct language'. Consider the following advertisement for a job at a fictional university:

Lecturer in Linguistics – University of Histown

The University of Histown Department of Linguistics seeks a full-time Lecturer in Linguistics. The successful candidate will take up his duties at the start of the next academic year, and he will be expected to take a full part in the teaching, administration and research activities of the department. His remuneration will be determined on the basis of his responsibilities and experience.

The pronouns and possessive adjectives (*he*, *his*) are all masculine forms, which have traditionally been used in a gender-neutral way in formal English (e.g. everyone took *his* place) and do not therefore imply that only male candidates will be considered. Nonetheless, the consistent use of masculine forms subtly suggests that Histown University is something of a 'boys' club' in which women are not welcome, and this might well deter able female candidates from applying for the post. Furthermore, as has often been pointed out, some supposedly 'gender-neutral' forms are in fact nothing of the kind: 'Some men are female' sounds odd, while 'Some human beings are female' does not; 'Each applicant is to list the name of his spouse' is similarly strange and sounds better with 'his or her'.

For this reason, job advertisements like the one above are largely a thing of the past. Employers are required to use gender-inclusive language wherever possible, and terms like *fireman*, *barman* and *stewardess* are generally being replaced by *firefighter*, *bartender* and *flight attendant* (though not everyone accepts *postie* for *postman*); many actresses now prefer the gender-neutral *actor*.

Many European languages have what is known as a T/V distinction in which the second person singular form (e.g. *tu* in French, *du* in Swedish) is used with familiars and intimates while its plural equivalent (*vous* French; *ni* Swedish), when used with a single addressee, is more formal. The social values which the T/V distinction encodes vary considerably, however: using *tu* to a stranger in France would be perceived as rude, while the use of *ni* to one person in Swedish would generally appear odd or old-fashioned. These values are, moreover, subject to change: a famous paper by Brown and Gilman showed how the use of *tu* and *vous* in French had shifted considerably in the post-war years, with *vous* increasingly marking social distance rather than social superiority. Non-reciprocal T/V usage (a boss might once have demanded *vous* from staff while giving *tu*) was increasingly avoided in favour of reciprocal T or V use. A society aspiring to greater egalitarianism had begun to signal this by using its linguistic signs differently: the language had not prevented its members from conceiving an alternative social structure. The categories of our language may *incline* us to perceive the world in a certain way, but they do not *make* us do so and we can choose to see things differently. We need to be vigilant, in other words, in identifying the ‘conceptual fetters’.



Key idea: Language and world view

The Sapir-Whorf hypothesis holds that our view of the world is dictated by the categories of our mother tongue. Few linguists today would accept it in its strong form, but a weaker version of the hypothesis has influenced the drive for non-discriminatory language.



Fact-check

- 1 What do paradigmatic relations involve?
 - a The combinatorial possibilities of language elements
 - b Substitutability between forms of the same category
 - c Verb conjugation tables
 - d The declension of adjectives
- 2 What does arbitrariness apply to?
 - a Signifiers
 - b Signifieds
 - c Both
 - d Neither
- 3 What is the Sapir-Whorf hypothesis?
 - a That all languages have a common structure
 - b That all languages are fundamentally different
 - c That language must be reformed to eliminate sexist or racist concepts
 - d That humans can only conceptualize the world in terms of their native language
- 4 In Saussure's terminology, what does *langue* denote?
 - a The language system
 - b Speech
 - c French
 - d An individual's mother tongue
- 5 The North American Descriptivists saw which level of linguistic analysis as least susceptible to scientific analysis?
 - a Morphology
 - b Phonetics
 - c Syntax
 - d Semantics
- 6 What are meaningful contrasts in language known as?
 - a Phonemes
 - b Oppositions
 - c Syntagms
 - d Signifiers

- 7** What is diachronic analysis concerned with?
- a** Language change
 - b** The description of a language at one point in time
 - c** The interaction between linguistic levels, e.g. morphology and syntax
 - d** The comparison of two structurally similar languages
- 8** What are onomatopoeic words?
- a** Entirely arbitrary
 - b** Partial exceptions to the arbitrariness of the linguistic sign
 - c** Naming words for animals
 - d** Language-specific and entirely arbitrary in form
- 9** Where does Saussure's chessboard analogy break down?
- a** Language change is not teleological
 - b** The state of a chess game is constantly changing
 - c** Speakers do not change language
 - d** Chess players remember past moves, but speakers don't generally know about previous states of their language
- 10** Which of these claims is not associated with Saussure?
- a** In language, there are no positive terms
 - b** We dissect nature along the lines of our native language
 - c** Both signifier and signified are arbitrary
 - d** Diachronic and synchronic data should be treated separately.



Dig deeper

J. Culler, *Saussure* (Fontana, 1976 or Cornell University Press, 1986), Chapters 1–3

R. Hudson, *Sociolinguistics* (2nd edition, Cambridge University Press, 1996), Chapter 3

T. Moore & C. Carling, *Understanding Language: Towards a Post-Chomskyan Linguistics* (Macmillan, 1982), Chapter 1

R. Robins, *A Short History of Linguistics* (Longman, 1997), Chapters 8 & 9

G. Sampson, *Schools of Linguistics* (Hutchinson, 1980), Chapters 2–4

Online sources

http://en.wikipedia.org/wiki/Linguistic_relativity

On the cross-linguistic onomatopoeia of dog barking, see

http://en.wikipedia.org/wiki/Cross-linguistic_onomatopoeias#Dog_barking

4

The building blocks of language: describing speech sounds

Phonetics, the study of speech sounds, has three main branches:

- 1 **Articulatory phonetics** explores the way in which speech sounds are produced by the vocal organs.
- 2 **Auditory phonetics** examines the way in which speech sounds are identified by the hearer.
- 3 **Acoustic phonetics** studies the physical properties of sound waves produced by the activity of the vocal organs.

Of these, articulatory phonetics is the longest established. Because the most familiar descriptions of speech sounds are based on their articulation, we shall focus primarily in this chapter on the articulatory description of the sounds of English.

We will familiarize ourselves with the symbols of the IPA, and learn the bases for the description of vowels and consonants in any language, before considering suprasegmental phenomena such as stress and intonation, which go beyond individual speech sounds.



According to an ancient Hindu myth, the god Indra, in response to an appeal made by the other gods, attempted for the first time to segment speech into its separate elements. After he accomplished this feat, according to the myth, the sounds could be regarded as language. Indra thus may be the first phonetician.

V. Fromkin & R. Rodman, *An Introduction to Language*
(6th edition, Harcourt Brace College Publishers, 1998), p. 214

The vocal tract

Speech sounds are produced by the organs of the vocal tract, which modify the airstream from the lungs. In the **larynx** or ‘voice box’, situated at the top of the windpipe, are the vocal cords, the gap between which is called the **glottis**. When these cords are kept close enough together and made to vibrate as air passes through the glottis, the sound produced is **voiced**; where there is no vibration the sound is **voiceless**. All vowels in English are voiced; consonants may be voiceless or voiced.

Speech sounds may also be oral or nasal, depending on whether or not the **velum** (or soft palate) is lowered to allow air to pass through the nose as well as the mouth. English has only oral vowels, but nasal and oral consonants; French, Portuguese and Polish have nasal vowels as well as nasal consonants. Consonants are produced by full or partial obstruction of the airstream, while vowels are produced by positioning the tongue in different configurations which do not impede the flow of air. The distinction, however, is not a clear-cut one and some sounds classified as consonants have vowel-like qualities.

You might find it helpful to think in terms of a continuum or **sonority hierarchy** with highly vocalic or ‘vowel-like’ sounds like [a] (as in British English *rat*) at the top and strongly consonantal sounds like [p] in *pip* at the bottom. Stressed **syllables** in English must have a vowel as their head or **nucleus** (see Chapter 5), while Slovak, for example, allows sounds further down the sonority hierarchy, such as [r] in the place name *Brno*, to occupy this position.



In general, consonantal sounds show greater constriction of the vocal tract than vocalic sounds and have less prominence.

[Clark and Yallop 1995: 36]



Spotlight: The International Phonetic Alphabet (IPA)

First published in 1888, and revised several times since (most recently in 2005) in the light of new discoveries, the International Phonetic Alphabet provides a notational standard for the phonetic representation of all languages. The IPA uses symbols representing speech sounds, which are conventionally placed in square brackets. Unlike conventional written characters or **graphemes**, IPA symbols have a constant value, so while the letter *g* is pronounced differently in *gap*, *gnaw* and *beige*, the symbol [g] always represents a voiced velar plosive, i.e. the sound in *gap*.

The founders of the International Phonetic Association were French and British linguists, so it is not surprising that IPA symbols are heavily influenced by those languages. Many of the symbols are taken from Latin script and the cardinal vowels chosen as anchor points correspond fairly well to those of standard French. Other symbols have been drawn from other writing systems, for example [θ] (the first consonant in **think**) is taken from Greek, while its voiced equivalent [ð] (as in *this*) is the letter *eth* from Icelandic. Diacritics on symbols provide further precision where required: [ɔ̟], for example, indicates a vowel more open than [o] but closer than [ɔ]; a straight diacritic below a consonant indicates that it is syllabic, as for example for the second syllable in *listen* [lɪsɪŋ̩].

As the phonetics of less familiar languages have become better known, entirely new symbols have had to be created. Some Southern African languages, for example, have **clicks** produced by a sucking action in the mouth. A dental click [ǀ] (or [ǁ]) represents the *tut, tut!* sound used in English to convey disapproval, while the lateral click [ǁ] (or [ǂ]) is the sound often used by English speakers to get a horse to move. The symbol for a bilabial click [ɔ̜] reflects the lip-closure akin to kissing with which this sound is produced.

The consonants of English

Try pronouncing the word *rapid*, and then say *rabid* (to rhyme with *rapid*). Say these words together a few times, and pay particular attention to the middle sound in each case. You'll notice that your lip and tongue positions are exactly the same for both words, but they are nonetheless quite distinct. The other sounds are not significantly different, so in what way are the consonants different? To answer this question, try saying just the *p* and *b* sounds, conveniently transcribed in IPA as [p] and [b] respectively, rapidly several times in succession, holding your larynx (or Adam's apple) between thumb and forefinger as you do so. (Don't be shy: you're doing this for linguistic science.) Now do the same for *t* and *d* ([t] and [d] in IPA). You'll feel your larynx vibrating for [b] and [d], but not for [p] and [t], because the former are **voiced** sounds, while [p] and [t] are **voiceless**.

We can therefore distinguish a number of pairs of speech sounds (or **phones**) on the basis of whether they are voiceless (like [p], [t] and [k] or voiced (like [b], [d] and [g]). We can now subdivide them further on the basis of their **place of articulation**. The [p] and [b] sounds you produced earlier, for example, are produced by the lips coming together and being released: the tongue is not really involved at all. These sounds are therefore **bilabial**. By contrast, for [t] and [d] the tongue touches the back of the teeth and the alveolar ridge to produce a **dental-alveolar** sound, while contact between tongue and soft palate produces the **velar** sounds [k] and [g]. Other English consonants are **labio-dental** (bringing bottom lip and top teeth together), **palatal** (the tongue meets the hard palate), **alveolar-palatal** (closure is made at the point where hard palate and alveolar ridge meet) or **glottal** (involving full or partial closure of the glottis). The full set of English consonants, with examples, is shown on the next page:

		bilabial	labio-dental	dental	dental-alveolar	alveolar-palatal	palatal	velar	labial-velar	glottal
stop	plosive	p pit b bit			t tip d dip			k cap g gap		
	nasal	m map			n nap			ŋ ring		
fricative			f fat v vat	θ thigh ð thy	s sue z zoo	ʃ shore ʒ beige				h hat
affricate					tʃ chest dʒ jest					
approximant					r road l load		j yacht		w wide	

Figure 4.1: The consonants of English

The final parameter for the description of consonants is **manner of articulation**, of which five kinds are relevant to English. When you produced [p] and [b] earlier, you felt a build-up of air pressure behind your lips, which was suddenly released to produce the sound. Similarly, the consonants [t, d, k, g] are produced by releasing pressure behind the tongue. Sounds like these are called **plosives**. Plosives are literally small explosions in the vocal tract, and therefore cannot be extended. They are very different, therefore, from the [f] and [v] sounds in *five*, which you can extend for as long as you have enough breath. For these sounds, the airstream passes through the articulators to produce audible friction, hence the name **fricatives**. As was the case for the plosives, the fricatives come in voiceless/voiced pairs: [f] and [v] are voiceless and voiced labio-dental fricatives respectively; the other English fricative pairs shown in the diagram above are [ʃ, ʒ] [s, z] and [θ, ð]. Some consonants, known as **affricates**, combine a plosive and a fricative at the same place of articulation, as in the case of [tʃ] and [dʒ] in English.

The plosive sounds we identified earlier involve a complete closure of the vocal tract: they are, in other words, kinds of **stop** consonants. But not all stops are plosives: another set of consonants involves complete closure but these consonants are nonetheless continuous sounds: these are the **nasals** [m, n, ŋ], which are produced by allowing air to pass through the nasal cavity.

A final group of consonants, known as **approximants**, do not require closure of the vocal tract at all: the sounds are produced

instead via the passage of air between articulators, which are close but not touching. Try producing the sound at the start of *leap*, and you'll notice that the tip of the tongue touches the roof of the mouth around the alveolar ridge, but the passage of air which produces the sound actually passes along the sides of the tongue: for this reason this sound [l] is known as a **lateral approximant**. For most English speakers, the *r* sound in *road* is also an approximant, but this time the sides of the tongue are raised and the air passes through the gap between to produce a **central approximant** [ɹ] (see Spotlight below).



Spotlight: *r*-sounds

Cross-linguistically, there are a lot of different types of *r* sound. The Scots **trilled** *r* [r], for example, is produced by repeated beating of the tongue tip against the alveolar ridge in intervocalic positions; the French *r* is usually a **uvular fricative** [ʁ], produced by bringing the base of the tongue close to the uvula at the back of the soft palate (a similar variant is used in some Northumbrian English accents). Some Scots use a **flapped** or **tapped** *r* [ɾ], produced by rapidly striking the hard palate with the tongue tip, in intervocalic positions, e.g. in *very*: many Americans have the same sound in *better* or *motor*.

Many British English speakers have the **labio-dental approximant** pronunciation [ʋ] associated notably with TV chat-show host Jonathan Ross and football manager Roy Hodgson: this sound is produced by bringing the bottom lip close to the upper teeth, as for [f] and [v] but not quite letting them touch. This sound does not, as is sometimes thought, result from a speech impediment, unless one believes that an epidemic of speech defects have emerged in the UK in the last 30 years for no apparent reason: this pronunciation is in fact one of the most rapidly advancing changes in British English and there are even credible claims that it's becoming the majority usage among younger speakers in some English urban areas.

This pronunciation does not appear to have made any headway in North America, though the US singer Billy Joel clearly uses it in the original recording of his 1977 hit *Just the Way You Are*. It's not clear why he uses this form, but it may be significant that Bronx-born Joel has the traditionally **non-rhotic** pronunciation of working-class

New York (i.e. he does not pronounce the *r* sound in *clever*, *colour* or *hair*): the labio-dental variant is rare among rhotic speakers, and most Americans are rhotic. Joel is also of Jewish heritage, and the pronunciation was identified by Wells (1982: 303) as having once been closely associated with the Jewish community in London. We will have more to say about the New York *r* in Chapter 11.

A third approximant, the **palatal approximant** [j], is formed by the passage of air between the tongue blade and the hard palate to produce the first sound in *yacht*, *yew*, *unit*. Lastly, the first sound in *water* and *wish* is produced by rounding the lips and raising the back of the tongue towards the velum, hence the name **labial-velar approximant**. As with the nasal consonants, all approximants in English are voiced, so the indication of voicing in the consonant description is redundant.

We now have a framework for describing consonants along three parameters: [p] for example is a **voiceless bilabial plosive**; its voiced partner is [b]; [z] is a **voiced alveolar fricative**, and so on. The fundamental economy of the consonant system, which makes it relatively simple for a child to learn, is evident from the diagram above: the consonants are quite few in number and involve a small number of places and manners of articulation. Most consonants come in voiceless/voiced pairs and three positions have voiced, voiceless and nasal articulation.

The consonants of English, of course, represent but a small subset of those used cross-linguistically. The same places and manners of articulation can be combined in other ways: Scots, Dutch and Russian, for example, have a **velar fricative** [x] (as in Scots *loch*), while Cockney and many other non-standard varieties of English have a **glottal stop** [ʔ] pronunciation in, for example, *waʔter*. Other places of articulation are used, too: Arabic, for example, has a **uvular stop** [q], which is often represented by *q* orthographically in English (e.g. in *Qatar*, *Iraq*).



Key idea: Speech sounds

Speech sounds are generally described in articulatory terms. Consonants are described in terms of voicing where relevant, place of articulation and manner of articulation.

Describing vowels

Whereas consonants can generally be described in terms of the nature of the closure in the vocal tract, vowels present a challenge in that there is no full contact between articulators, so we are left with the task of describing tongue position in vocal space. To address this problem, phoneticians have identified a number of anchor points in relation to which vowels may be located in phonetic space: these are known as **cardinal vowels**, and they correspond, as we will see, fairly well to the main vowels of standard French.

These cardinal vowels are located within an idealized version of the vocal tract known as the **vowel quadrilateral** (shown in the diagram on the next page). These vowels are numbered for ease of reference: phoneticians refer to the **primary cardinal vowels 1–8**, shown in bold, and the **secondary cardinal vowels 9–16**, shown in brackets.



Figure 4.2: Cardinal vowels

Cardinals 1–4 are all pronounced with the tongue raised at the front of the mouth, and for this reason are called **front vowels**. Try producing the vowel in *ski*, keeping your tongue perfectly still (imagine the French or Scottish pronunciation): you'll notice that your tongue is raised almost as far forward and as close to the roof of your mouth as it can go without actually making contact. The vowel you're producing, [i] (Cardinal 1), is therefore a **close** (or **high**) **front** vowel. By contrast, the vowel [a] in RP *cat* for which the mouth is generally wide open and the tongue raised at the bottom of the vocal tract, is an **open** (or **low**) **front** vowel. The two intermediate vowels, [e] and [ɛ], those of French *thé* and *belle* respectively (and similar to the vowels in Scots English *cake* and English English *head*), are known as **half-close** (or **high-mid**) and **half-open** (or **low-mid**).



Key ideas: Vowels and tongue position

- Vowels are described in terms of their backness (front/back), tongue height (close, half-close, half-open, open) and lip-rounding (unrounded/rounded).
- The 16 cardinal vowels provide a set of reference points for the location of vowels in the vocal tract.
- These vowels are located on the periphery of the vowel quadrilateral, an idealized model of the vocal tract used by phoneticians for expository purposes.

Vowels 5–8 are **back vowels**, for which the tongue is raised at the back of the vocal tract. Cardinal 5, [ɑ], corresponds to the conservative pronunciation of the vowel in the French word *pas*, and is very close to that of *cart* in RP (see Spotlight on next page). Again, the lips are not rounded, so this is an **unrounded open back** vowel. Cardinals 6–8, however, are all rounded. Cardinal 6, [ɔ], is a half-open vowel, produced at the same tongue height as [ɛ]. This is the vowel in French *sotte*; RP has a longer version of this sound in *caught* [ɔ:] (note that the diacritic [ː] is used to indicate vowel lengthening; [˞] is used for half-lengthened vowels). Cardinal 7, [o], is the vowel

in French *beau* or Scots English (but not RP) *home*, while Cardinal 8, [u], brings us back to the same tongue height as for [i], but with the tongue raised at the back of the vocal tract and with lips rounded. This is the vowel of French *vous*; some conservative RP speakers have a vowel close to this in *goose*, but most English varieties use a more fronted vowel. (The RP vowel in *cat* has also changed: the prescribed pronunciation was once [æ], between Cardinals 3 and 4, but the vowel has lowered for almost all RP users since the 1960s).



Spotlight: Received pronunciation (RP)

RP is the socially prestigious but regionally unmarked pronunciation used predominantly by British newsreaders: while British English accents are regional, an RP speaker could come from anywhere within the UK, although RP's features are predominantly southern English in origin. For all the reverence accorded to this pronunciation, RP is an accent like any other and is subject to change: the speech of BBC newsreaders who used RP in 1940s and 1950s newsreels sounds very different from that of today's RP users. Where the latter would have the a vowel close to Cardinal 4 in *hat* [hat], for example, the former would have insisted on a vowel raised to somewhere between Cardinals 3 and 4 [hæt].

The secondary cardinal vowels 9–16 simply reverse the lip-rounding value of their primary counterparts; thus Cardinal 9, [y], which corresponds to the vowel in French *tu* or German *süss*, is simply Cardinal 1, [i], with firmly rounded lips. Likewise Cardinals 10 and 11, the vowels of standard French *feu* [ø] and *fleuve* [œ] respectively, are the rounded equivalents of 2 and 3. Cardinal 12, [œ], the rounded equivalent of [a], is rare cross-linguistically, but Cardinal 13, [ɔ], is used in RP *body* or *cot* (most US English varieties have an unrounded vowel here). Cardinal 14 [ʌ] is the conservative RP pronunciation of the *cup* vowel (most southern English speakers have a more fronted variant: see below). Cardinals 15 [ɣ] and 16 [ɯ] are less familiar to speakers of the major western European languages, but both occur in Scots Gaelic and Thai, and Cardinal 16 is an important vowel in Japanese.

Great prestige is still attached to this implicitly accepted social standard of pronunciation. Often called Received Pronunciation (RP), the term suggesting that it is the result of a social judgement rather than of an official decision as to what is 'correct' and 'wrong', it has become more widely known and accepted through the advent of radio. The BBC formerly recommended this form of pronunciation for its announcers mainly because it was the type which was most widely understood and which excited least prejudice of a regional kind. Indeed, attempts to use announcers who had a mild regional accent provoked protests even in the regions whose accent was used.

[Gimson 1980: 89]

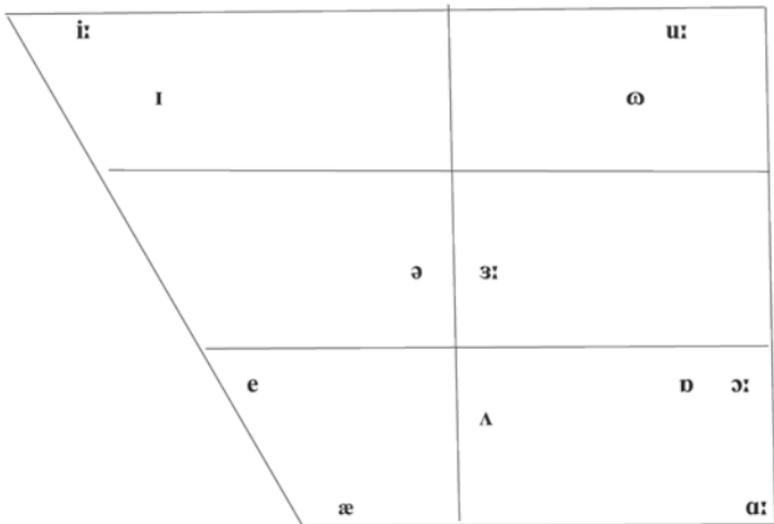


Figure 4.3: Positions of RP English monophthongs

Helpful though the cardinal vowels are as reference points, they do not correspond closely with the vowel positions of English, which are shown in the diagrams below. For the RP vowels in *push* [ʊ] (the older symbol [u] is also used) and *kick* [ɪ], for example, the tongue is retracted to a more central position from [u] and [i] respectively, and requires less muscular effort (for this reason these two vowels are sometimes called **lax** vowels). Confusingly, some of

the **phonemic** symbols for RP vowels (the concept of the phoneme is explained in the next chapter) no longer correspond to their modern pronunciation. Textbooks still refer, for example, to /æ/ and /ʌ/ in spite of the fact that, for most RP speakers, these vowels have moved to [a] and [ɐ] respectively. The modern positions of RP monophthongs can be seen in Figure 4.3.

i: <i>beat</i>	e <i>head</i>	æ <i>cat</i>	ɑ: <i>cart</i>	ɒ <i>cot</i>	ʌ <i>cup</i>
ɔ: <i>caught</i>	u: <i>boot</i>	ɪ <i>bit</i>	ɜ: <i>bird</i>	ə <i>ago</i>	ʊ <i>push</i>
eɪ <i>rate</i>	aɪ <i>right</i>	ɔɪ <i>poise</i>	aʊ <i>round</i>	əʊ <i>hope</i>	ɪə <i>pier</i>
eə <i>bear</i>	ɔə <i>bore</i>	ʊə <i>poor</i>			

Figure 4.4: RP English vowels

RP has one long central vowel, [ɜ:], the vowel in *bird*, which may bear stress, and another, **schwa**, [ə], which cannot. Generally, vowels produced at the centre of the vocal tract require least articulatory effort. When asked a question and needing a bit of thinking time, many speakers naturally start their reply with ‘Er...’, the sound produced with the tongue in the central rest position. Although schwa has no letter of its own in English orthography (Bulgarian uses the Cyrillic character Ъ, Turkish has *ı*), it is a very important sound in English and in many other languages. For most British English speakers it is the underlined vowel in each of the following words: *potoato*, *reader*, *banana*, *support*, *phonetic*. In both English and French it can, in some cases, be deleted altogether, so that in rapid speech, for example, *sport* and *support* can be homophonous.

DIPHTHONGS

The presence of a number of **diphthongs**, which show a change in vowel quality as the tongue travels between two points, is another reason why English does not fit the cardinal vowel schema particularly well.

Think about the vowel in *right* (and ignore the fact that the spelling still retains a *gh* sequence that is no longer pronounced). Try saying it slowly a number of times, and you'll feel your tongue travel quite a distance. In RP the vowel begins somewhere near [a] but moves to the position of the *kick* vowel [ɪ], and it is this trajectory that gives the sound its distinctive quality. The *right* vowel is therefore transcribed [aɪ], the convention for diphthongs being to transcribe their beginning and end points. The trajectory for the RP vowel in *house* is even wider, starting from a similar point but ending near the *push* vowel [ʊ]. The starting point for the *blow* vowel in RP is different: for most speakers the tongue starts in schwa position and moves to the [ʊ] position of the *push* vowel again. Two further vowels, those of *boy* [ɔɪ] and *bay* [eɪ], make up the set of closing diphthongs in English, all of which have a close vowel as their end point, as can be seen in the figure below.

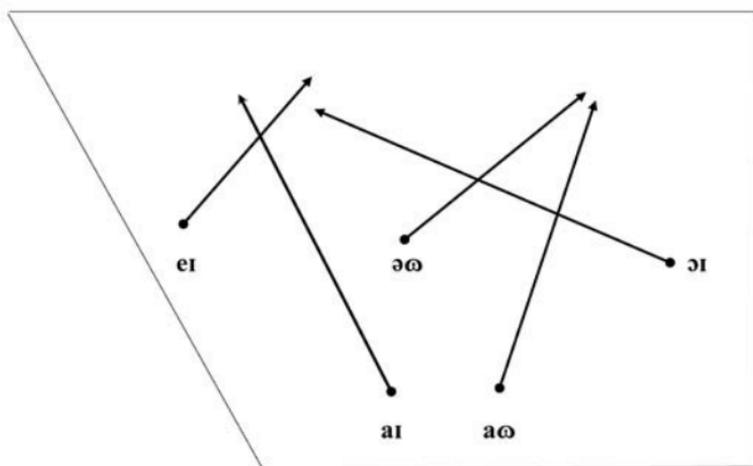


Figure 4.5: Closing RP diphthongs

Another set of diphthongs, all of which end in schwa [ə], are known as **centring diphthongs**. These are the vowels in RP *beer* [ɪə] and *square* [ɛə]. Some RP speakers also have a centring diphthong in *poor* [ʊə] and in *pore* [ɔə], while others do not, pronouncing both words identically to *paw*.

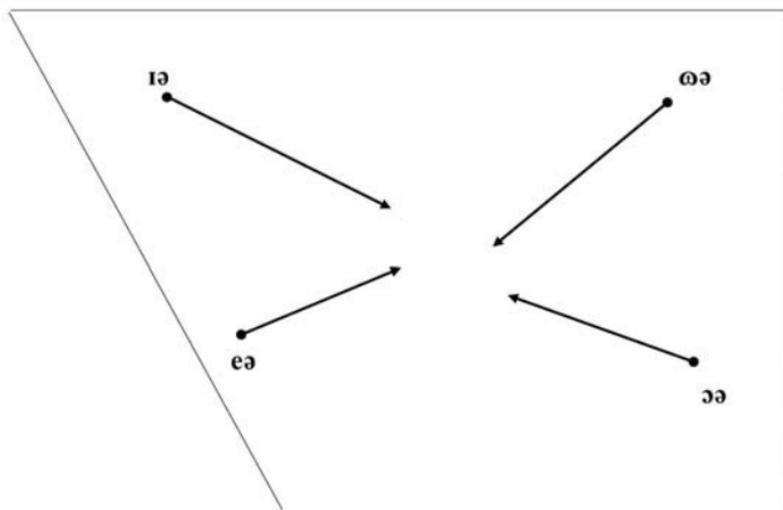


Figure 4.6: Centring RP diphthongs

Note also that where a centring diphthong occurs, an *r* generally is present in the spelling, which in RP and many other varieties of English has been replaced by schwa. In what are known as **rhotic** areas (for example, North America and the west of England), this *r* has never been lost, and there is consequently no diphthong.

Suprasegmentals

The descriptors and symbols introduced so far provide a good basis for analysing the sounds of any language. The IPA enables us, moreover, to divide up connected speech into individual sounds, or **segments**, which we can present in ordered sequence, for example:

- ▶ The mouse ran up the clock

[ðəmaʊsɹanəpðəkɪk]

But the neat boundaries between phones that such sequences imply are something of a fiction. Speech sounds roll into one another, and one sound can significantly influence its neighbours. Take the vowel in *ran* in the example above, for instance, which for most British English speakers sounds slightly

different from that of *rat*, having a slight nasal quality that the latter lacks. This is because speakers generally lower the velum in readiness for the nasal consonant [n] well before the vowel has completed, with the result that nasality affects both segments and cannot be seen as the exclusive property of the consonant, as the broad linear transcription above suggests. A number of other phenomena can only be analysed above and beyond the level of the segment: these are known, appropriately enough, as **suprasegmentals**.



Key ideas: Segments of speech

- Speech is continuous and does not divide neatly into discrete sounds, in the way that written words and sentences are built from individual letters and spaces. For this reason phoneticians refer to their divisions of the speech chain as segments.
- IPA symbols can be used to represent the segments of a speech chain on the page, e.g. *cat* [kæt].

One type of suprasegmental is **stress**, which refers to the relative prominence of one **syllable** (see Chapter 5) over another in a word. In English, for example, the sequence of segments in the noun *increase* and its corresponding verb *increase* is the same, but the two forms sound different because a different syllable (underlined here) is stressed in each case. An unstressed vowel is sometimes **reduced** in quality, being given less prominence and articulatory effort. The first syllable in *photograph* for example has the diphthong [əʊ], but in unstressed position in *photography* this reduces to [ə]. Stress is generally indicated by a raised diacritic before the stressed syllable, so for the examples above *photograph* [ˈfəʊtəɡrɑːf] but *photography* [fəˈtɒɡrəfi]. Stress is a relative concept, referring to the prominence of one syllable with respect to another, and involves a combination of **pitch** (stressed syllables have a higher frequency or pitch than unstressed ones), loudness or **intensity** and possibly vowel **length**. Length itself is also a relative rather than absolute concept, or an inherent quality of a speech sound itself. The vowels [ɔː] *caught* and [ɑː] in *cart*, for example,

are viewed as long vowels because English speakers generally pronounce them longer than vowels such as [ɒ] and [a], but it is important to remember here that one speaker's [ɔ:] may be shorter than another's [a].

Other important suprasegmental phenomena include **intonation** and **tone**, both of which involve changes in pitch within a word or sentence. For example, a simple English sentence like *You see him every Saturday* would be pronounced with a falling intonation if uttered as a statement, but with a rising intonation at the end if intended as question (*You see him every Saturday?*). Orthographically, question marks can provide a rough and ready indication of rising intonation, but in most cases readers have to deduce the appropriate intonation for themselves, as conventional writing lacks the resources to make intonation patterns clear. Linguists generally indicate only as much information as the context demands, either via intonation contour lines above the speech string or arrows after the relevant sequence to show the intonation pattern involved, for example a fall ↘; a rise ↗, or a rise–fall ↗↘. In **tone** languages word-level intonation is important for distinguishing meaning. In Thai, for example, the same sequence of segments uttered with a level, falling or rising tone will have a completely different meaning, as this example (taken from Blake 2008: 139) illustrates:

Table 4.1: Examples of tones in Thai

Mid-level tone	k ^h a:	1. to be stuck
	k ^h a:	2. a species of grass
High-level tone	k ^h á:	to trade
Low-level tone	k ^h à:	galangal (aromatic rhizome used in cooking)
Rising tone	k ^h ǎ:	leg
Falling tone	k ^h â:	1. price
		2. (a) slave, servant (b) I, me



Fact-check

- Which of these is the IPA symbol for a voiceless velar plosive?
 - [ð]
 - [k]
 - [ø]
 - [ʒ]
- What is the vowel [y]?
 - Cardinal 7
 - Back, half-open, unrounded
 - Front, close, rounded
 - Back, close, rounded
- What is the consonant [m]?
 - Bilabial nasal stop
 - Bilabial plosive
 - Labio-dental nasal stop
 - Labio-dental approximant
- What is the IPA symbol for the back, half-open rounded vowel (Cardinal 6)?
 - [o]
 - [ʏ]
 - [a]
 - [ɔ]
- What is a labio-dental approximant?
 - The phonetic name for the sound [f]
 - A speech impediment
 - The voiced sound at the start of *very*, *vat* and *vole* in English
 - A variant pronunciation of the r sound in words like *rat*, *road* and *very*.
- Which of the following is a closing diphthong?
 - [ɪə]
 - [aɔ]
 - [ɛə]
 - [i]

- 7 Which of the following statements is NOT true of RP?
- a It is unchanging
 - b It is the majority pronunciation in England
 - c It is different in northern and southern England
 - d All of the above
- 8 Which of the following is untrue?
- a [n] is a stop consonant
 - b All plosives are stops
 - c [p] is a stop consonant
 - d All stops are plosives
- 9 What do affricates combine?
- a A plosive and a fricative from different places of articulation
 - b A stop and an approximant
 - c A plosive and a fricative from the same place of articulation
 - d A fricative and an approximant from the same place of articulation
- 10 The distinction between [θ] and [ð] is one of:
- a Voicing
 - b Tongue position
 - c Manner of articulation
 - d Place of articulation



Dig deeper

- A. Cruttenden, *Gimson's Pronunciation of English* (7th edition, Routledge, 2013), Chapters 1, 4, 5, 8 & 9
- V. Fromkin, R. Rodman & N. Hyams, *An Introduction to Language* (10th edition, Wadsworth, 2013), Chapter 5, 'Phonetics: the Sounds of Language' (Chapter 3 or 4 in some earlier editions)
- P. Ladefoged (& S.F. Disner), *Vowels and Consonants* (3rd edition, Blackwell, 2012), Chapters 4, 6, 11, 12 & 14
- A. McMahon, *An Introduction to English Phonology* (Edinburgh University Press, 2002), Chapters 3, 6 & 7
- G. Yule, *The Study of Language* (4th edition, Cambridge University Press, 2010), Chapter 3

5

Laying the foundations: sound systems in language

While the phonetician studies the articulatory, auditory or acoustic properties of speech sounds, the **phonologist's** task is to understand how these sounds are organized in languages. In any language, a relatively small number of contrastive speech units, known as **phonemes**, are responsible for distinguishing all real and potential words, and native speakers quickly learn which distinctions matter for this purpose and which do not; they are also aware of the rules by which these phonemes may or may not be combined. In this chapter, we will look in detail at the concept of the phoneme, and consider some tests by which they may be identified.

Two speakers of the same language may have slightly different **phoneme inventories**, or they may use the same set of phonemes in different ways. We will learn how we as speakers recognize these accent differences, and how phonologists attempt to model what speakers unconsciously 'know' about the sound system of their mother tongue. We will also consider syllable structure, which proves a very important factor in determining how the sounds of a language are organized.

Phonemes and allophones

If two native English speakers were asked to say the sequence [bat] ten times, it is likely that none of their [b]s, [a]s or [t]s would sound exactly the same, but a third English speaker would nonetheless understand the same word, *bat*, every time. This is because speakers quickly learn to distinguish the differences that matter in their language from those that do not. An English-speaking child will very soon learn when a [p] sound, if voiced, may become a [b] and that this difference is important because *pull* and *bull*, *pat* and *bat*, *path* and *bath* and so on mean different things. And if the voicing distinction is important for [p]/[b], then it is likely also to be important for [k]/[g], [t]/[d] and so on.

The child will soon realize, however, that other differences are functionally unimportant in this sense. For most British English speakers, for example, the sounds represented orthographically by *l* at the end of *cool* and the beginning of *leap* are quite different, but speakers think of them as ‘the same’ sound. Many Cockney or Glaswegian speakers use a glottal stop [ʔ] intervocally in words like *water* or *matter* and yet the words will be perfectly well understood as if the speaker had produced a [t] (indeed, even RP speakers often use glottal stops in words like *Gatwick* or *fortnight*, where they generally pass unnoticed). Speakers home in, then, on the distinctions (or **oppositions** as they are known) which are crucial for doing what speech sounds ultimately need to do in language, i.e. distinguish words, and ignore those that do not.



Case study: Lewis Carroll and the art of English phonotactics

As we saw in Chapter 4, languages demonstrate remarkable economy in using a small number of resources to produce all the words they need, not just for their existing lexicon (or stock of words), but also for an ever-growing number of new words: *quidditch*, *satnav*, *website* and *selfie* were all unknown 30 years ago, but have settled comfortably into the English language. This creativity is not haphazard but rule-governed: English speakers

would not similarly have accepted new words like *bzork*, *thlick* or *drailx*, even though they use familiar English sounds. The nonsense words of Lewis Carroll's famous poem *Jabberwocky*, on the other hand, pose no problem:

*'Twas brillig, and the slithy toves
Did gyre and gimble in the wabe:
All mimsy were the borogoves,
And the mome raths outgrabe.*

No native English speaker – probably not even Carroll himself – can say what *brillig*, *gyre*, *wabe* or *borogoves* mean (though some online have had a stab at doing so), but the poem works because all these words, and the many other unfamiliar inventions elsewhere in *Jabberwocky*, could exist in English: they just happen not to. They represent what linguists call **accidental gaps** in the lexicon. Carroll's creations all respect the phonotactics of English, i.e. the constraints on the way its speech sounds can be combined.

Phonotactics are highly language-specific. While English allows words to begin *sp-*, *st-* or *sk-*, for example, Spanish does not, and Spanish learners of English often struggle with these forms initially ('I espeak Spanish', etc.). English, by contrast, rules out initial sequences such as *vzd-* or *vn-*, which present no difficulty to Russian speakers in such words as *vzdor* ('nonsense') or *vnuk* ('grandson').

The distinctive speech units of a language are known as **phonemes**, and these provide the essential building blocks from which all well-formed words (or **lexemes**) in that language are produced. Phonemes can therefore be thought of as the atoms of a language, and just as atoms have subatomic particles, so phonemes divide into smaller units known as **allophones**.

Let's look again at the *leap* and *cool* examples above. For most (but not all) British English speakers, the two sounds are 'clear' *l* [l] in the former and 'dark' *l* [ɫ] in the latter. These sounds do not have the potential to distinguish words: pronouncing *cool* with 'clear' *l* results in a pronunciation which might correspond to that of Irish or Welsh English speakers (who generally use clear *l* in all positions) but the same word, *cool*, will be understood.

Using ‘dark’ *l* in *leap* likewise might make your pronunciation sound slightly Russian (Russian does not have clear *l*), but the meaning would be unchanged. If, by contrast, we were to replace the [l] of *leap* with a [h], a [k] or a [p] sound, then different words (*heap*, *keep* and *peep*) would be understood.

Clearly there’s something more important from an English speaker’s point of view about swapping [l] for [h] than [l] for [ɫ] in this environment. A phonologist would say simply that [l] and [ɫ] are **allophones** of the phoneme /l/, which English speakers perceive to be in some sense ‘the same’. It is important to realize that languages can organize the same sounds in different ways: in Polish, for example, the distinction between clear and dark *l* is phonemic, i.e. they do have the potential to distinguish words, as for example in *luk* ‘skylight’ and *łuk* ‘bow’.



...our native phoneme system tends to get in the way when we try to learn other languages. It is perhaps unsurprising that we should find it difficult at first to produce sounds which do not figure at all in our first language. However, it is just as difficult, and sometimes worse, to learn sounds which are phonemically contrastive in the language we are learning, but allophones of a single phoneme in our native system. For instance, there is no contrast between aspirated [t^h] and unaspirated [t] in English: we can predict that the former appears only word-initially. In Chengtu Chinese, however, /t/ contrasts with /t^h/, as we find minimal pairs like [t^hou] ‘a unit of dry measure for grain’ versus [t^hou] ‘to tremble’.

(McMahon 2002: 20)

Two points need to be made here. Firstly, you may have noticed a subtle notational change in the previous paragraph. When we referred to ‘the *phoneme* /l/’, the square brackets we have consistently used for speech sounds were replaced by slants. This is because, when we talk of a phoneme, we refer not to a speech sound but to an abstract unit. The phoneme /l/ might be pronounced or **realized** [l] or [ɫ], according to the context, and since the phoneme /l/ doesn’t necessarily mean the sound [l], we could in principle use any symbol we liked between the slants, for

example /☺/, /☹/ or /👁/. In practice, however, linguists generally use an IPA symbol which corresponds to one of the more common allophones. This can occasionally cause confusion, as in the case, for example, of the phoneme /æ/ in words such as *hat*, *pack* and *map*. Here /æ/ was chosen because it corresponded to the (now rather old-fashioned) RP pronunciation that was *de rigueur* for BBC newsreaders until around the 1960s. These days, of course, most English speakers say [hæt] rather than [hæt̪], but textbooks retain /æ/ by convention to indicate the vowel which distinguishes *hat* from *hot*, *hit*, *hut*, *height*, etc., even though the phoneme is realized in a variety of ways and relatively rarely as [æ].



Key idea: The minimal pair test

The distinctive speech units of a language are called phonemes: phonemes may have several realizations, or allophones. Phonemes and allophones can be determined by the minimal pair test: if commuting two sounds in a word results in a change of meaning, then the sounds are in phonemic opposition; if they do not, the sounds are allophones of the same phoneme.

Secondly, in those varieties that use both allophones it is possible to predict the range of environments or **distribution** of each. Clear *l* [l] occurs prevocally at the start of a syllable, while dark *l* [ɫ] occurs in postvocalic positions. Because the two sounds cannot occur in the same environment for these speakers, they cannot contrast words. As more than one linguist has put it, they are a bit like Superman and Clark Kent: never seen together in the same place, because each is one part of the same whole. This is known as **complementary distribution**.

To take another example, try saying *copy* and *kitchen*, paying particular attention to the two initial consonants. For most English speakers, it's highly likely that your tongue will leap forward for the second word, and although they sound similar, it should be evident that the two consonants are in fact distinct: the first is a velar plosive, pronounced at the soft palate at the rear of the vocal tract, while for the latter the sound is produced further forward, at the hard palate behind the alveolar ridge. Using the terminology we learned in Chapter 4, the sounds are therefore

voiceless velar and palatal plosives respectively, with the IPA symbols [k] and [ç] (the wrong way round from the point of view of the spelling!): their voiced equivalents, heard in *got* and *give* respectively, have the symbols [g] and [ʝ]. The distribution is therefore **phonetically conditioned**, in that the fronted consonants [ç] and [ʝ] occur before front vowels such as [i] while [k] and [g] occur before back vowels such as [ɒ].

One can see how this might make life easier for the English speaker: by advancing the tongue in readiness for a front vowel and retracting it for a back one, a little articulatory effort is saved. But not all languages work in the same way: in Hungarian, for example, the palatal/velar contrast is phonemic, rather than allophonic as in English. To determine whether two sounds are phonemes, phonologists apply the **minimal pair** test: can we identify two different words that differ only by virtue of one sound? On this test, /k/ and /t/ are phonemes of English on the strength of *kick/tick*, *pick/pit*, *school/stool* and many other pairs. Clear and dark *l* on the other hand have no pairs in which they contrast, because they never occur in the same environments (and, as we saw, if we force the issue by switching them in their respective environments, we do not get a change in meaning), so these sounds are both allophones of /l/.



Key idea: Complementary distribution

Where allophones are in complementary distribution, they occur in different environments and are therefore unable to be contrastive.

For a final example of complementary distribution, you'll need a single sheet of paper. Hold it about 3–4 cm in front of your mouth and say *pip* several times, and then *bib*; now do the same thing with *kick* and *gig*. You will notice that the paper moves considerably for *pip* and *kick* but less so for *bib* and *gig*, and (since the vowel is unchanged) you might suspect that this has something to do with the consonants involved. What matters here is whether the first consonant is a voiceless plosive like /p/ or /k/: these are pronounced with greater articulatory force than their voiced counterparts – hence the alternative terms **fortis** and **lenis** ('strong' and 'weak') for voiceless and voiced

consonants respectively – and at the start of stressed syllables are accompanied by a small outbreath or **aspiration**, represented in narrow transcription by a superscript [h].

Now try the paper experiment again, this time with *pin* and *spin*: this time the paper moves in the former but not the latter case. This is because aspiration of /p/, /t/ and /k/ does not happen after /s/, so *pin* is realized [p^hɪn] but *spin* is [spɪn]. Again, it is an arbitrary fact about English that aspiration is non-phonemic, i.e. cannot be used to distinguish words, as it can in Thai:

- ▶ [paa] ‘forest’
- ▶ [p^haa] ‘to pound’
- ▶ [tam] ‘to split’
- ▶ [t^ham] ‘to do’

In some cases, the differences between allophones of a given phoneme may be quite wide. The distance in articulatory terms, for example, between the closure of the glottis required for a glottal stop [ʔ] and the closure formed between tongue and teeth or alveolar ridge for [t] could hardly be greater, but Cockney, Glaswegian and many other English speakers perceive them as being ‘the same sound’ in that one may say *water* as [wɔ:tə] or [wɔ:ʔə] and mean the same thing (see Case study below).



Case study: Free and not-so-free variation

As we saw, [t], [t^h] and [ʔ] are all allophones of /t/. There is, however, an important difference here between the distribution of [t] and [t^h] on the one hand, which are in complementary distribution and cannot occur in the same environments, and [ʔ] on the other, which appears (at least in some environments) to substitute freely for [t], as in the *water* example above: many speakers in fact switch between the two. Similarly, in Spanish, which does not have a phonemic opposition between /b/ and /v/, the word *Vale!* (‘Ok!’) can be pronounced [bale], [vale] or [βale] ([β] is the IPA symbol for a voiced bilabial fricative), and be understood in the same way in each case. Alternation of this kind, which is unconstrained by phonetic environment, is known as **free variation** and was long dismissed by linguists as being of little theoretical interest – a case of ‘You

say *tomayto*, and I say *tomahto*', if you like – and scarcely worthy of comment ('...so let's call the whole thing off'). There is, however, a very important difference between *water* as [wɔ:tə] and as [wɔ:ʔə], namely that the latter pronunciation, in British English at least, is of considerably lower status than the former, something of which most speakers are acutely aware. The variation, then, is socially rather than phonetically conditioned.

Linguists long chose to ignore this obvious fact on the grounds that social data should not be allowed to intrude upon linguistics if it were to establish itself as an autonomous discipline and be taken seriously as a science (see Chapter 2). This consensus was challenged in the 1960s by sociolinguists who argued that no satisfactory explanation of language change could be provided without taking account of social factors. As we shall see in Chapter 11, their findings have forced us to revise our view of how 'free' so-called free variation actually is.



Instead of calling this 'free' or 'sporadic' variation, and abandoning the field, we will pursue the matter further, using every available clue to discover the pattern which governs the distribution. (Labov 1972: 9)



Spotlight: *Friends*, aspirate stops and 'stage spitting'

Aspiration of voiceless stops is not merely an accidental fact of English pronunciation, it's a very important cue which helps English speakers to distinguish /p/ and /b/, /k/ and /g/ and /t/ and /d/. In the theatre, normal aspiration may be difficult for the audience to hear, and needs to be projected.

In the US sitcom *Friends*, series 7 episode 23 (see <http://www.youtube.com/watch?v=0ISJS4gSBh0>), inexperienced actor Joey Tribbiani (Matt Le Blanc) and his illustrious co-star Gary Oldman nearly come to blows over the latter's spitting on stage. This is only averted when Oldman explains that this is the theatre trick of 'enunciation by spitting', which exaggerates the natural aspiration of the voiceless stops /p/, /t/ and /k/ for an audience who may not otherwise be able to hear it from the stage.

The phoneme: problems and solutions

We have seen a number of examples of complementary distribution, in which allophones of the same phoneme occur in different environments and therefore lack the potential for functional contrast. In some cases, however, we can identify sounds whose distribution is certainly complementary, but which, for other reasons, we would not wish to consider as members of the same phoneme. The most celebrated example of this kind is that of [h] and [ŋ] (generally represented by the digraph *ng* in conventional orthography), which have very different, and certainly complementary, distributions:

- ▶ *hear ring*
- ▶ *hope singing*
- ▶ *Henry singer*
- ▶ *ahead long*
- ▶ *ahoy! alongside*

While [h] only occurs syllable-initially, [ŋ] is only to be found syllable-finally. These sounds seem to meet the criteria for conditioned allophones, and there are no minimal pairs like *hope! *ngope* or *ring! *rih*, so one might want to suggest that they are members of a single phoneme (which we can call ‘heng’ for convenience).

In fact, there are good reasons for rejecting ‘heng’. Firstly, the two sounds, a glottal fricative and a velar nasal, seem very different in kind: in other words, they fail the test of **phonetic similarity**. But as our /t/ example showed earlier, allophones can be very dissimilar, so it would be dangerous to give undue weight to this criterion alone. A more important consideration is that there is a natural class of consonants, nasals, to which one member belongs but the other does not, and that this grouping shares a number of properties which [h] does not. Like /n/ and /m/ (but unlike [h]), [ŋ] has fortis and lenis oral equivalents, and although its distribution is restricted when compared to /n/ and /m/ (both of which can occur syllable-initially or syllable-finally in English), it behaves exactly like the other nasals, notably with regard to the homorganicity rule for nasal+oral stop sequences, as we will see later.

None of these things are true for the glottal fricative [h], and no meaningful generalizations about [ŋ] can be framed which could include [h]. It therefore seems intuitively and practically more sensible to view these sounds as separate phonemes /h/ and /ŋ/, with restricted distributions in English. The ‘heng’ question does raise an important problem in linguistics, however: where two competing explanations of the same data are available, how should one choose between them? Generally the principle of **Occam’s Razor** is applied in such cases, namely that descriptively economical theories should be favoured until simplicity can be traded for greater explanatory power. Positing a ‘heng’ phoneme appears descriptively elegant in that it captures a distributional fact about the two sounds involved, but it fails to capture a range of other properties which one putative ‘allophone’ shares with another group of English phonemes.

An assumption we have made thus far, but not stated directly, is that allophones must belong only to a single phoneme: this is known as the **biuniqueness condition**. It is not difficult to see that if allophones could belong to several phonemes, the ensuing ambiguities would make language much more difficult to process. But the important working principle that allophones belong to one and only one phoneme encounters some notable problems. Consider the following examples from German:

- ▶ *Das Rad* [rɑt] ‘wheel’
- ▶ *Der Rat* [rɑt] ‘council’

Both words are pronounced with final [t] sound, but the difference in spelling here has a rational basis rather than being simply a historical quirk, as is evident from their plural forms: in the plural of *Rad* (*Räder*) the [d] sound is restored, while in that of *Rat* (*Räte*) the final [t] remains. This is not merely a fact about *Rad* and *Rat*: a whole range of singular/plural pairs have a voiceless word-final consonant which becomes voiced when a suffix is added; the same pattern is observed too for some imperative and infinitive pairs:

- ▶ *Bad* [bɑt] – *Bäder* [bedə] bath/s
- ▶ *Lied* [li:t] – *Lieder* [li:də] song/s
- ▶ *Dieb* [di:p] – *Diebe* [di:bə] thief/ves

words, is **homorganic** with the following oral stop. Because the nature of the nasal consonant is entirely predictable from the following consonant, the phonemic contrast between /n/, /m/ and /ŋ/ is neutralized in this environment, which we can indicate via a nasal **archiphoneme** N in this position (archiphonemes are conventionally represented by capital letters). This phenomenon explains the restricted distribution of /ŋ/ which we discussed above. /ŋ/ occurs in sequences represented orthographically by *ng*, representing syllable-final N+g sequences, where our homorganicity rule would predict that N is realized [ŋ] before the velar consonant. In most varieties of English, final /g/ in this environment was lost, leaving /ŋ/ in syllable-final position, but not available in other positions (in some varieties this change did not happen: in north-west England, for example, *thing* is still realized [θɪŋg]). But what of the nasal consonant in *invade*? /v/ is a labio-dental consonant and our rule predicts, correctly, that the nasal will accordingly be the labio-dental [ɱ]. [ɱ] is not a phoneme of English because it occurs only in this position, where no contrasts with other nasals are possible.



Key idea: The biuniqueness condition

The biuniqueness condition states that allophones must belong to one and only one phoneme. In some environments, however, a phonemic contrast or opposition may be unavailable, or **neutralized**. Phonologists may refer in such cases to **archiphonemes**, conventionally indicated by a capital letter.

Comparing accents

When a person is described as ‘having an accent’ the phrase usually has prescriptive connotations: the implication is that their speech deviates from standardized pronunciation. In fact, *everyone* ‘has an accent’, but what does this mean in phonological terms? Essentially, differences between accents amount to differences in phonological systems, which can be of three principal kinds:

- ▶ inventory differences, involving the presence of a phonemic opposition in one accent, but not the other
- ▶ distributional differences, in which the accents have the same phonemes but use them differently
- ▶ realizational (or phonetic) differences, in which the phonemic contrasts available in both accents are identical, but the phonemes are realized differently.

INVENTORY DIFFERENCES

The stock of phonemes a speaker uses is known as his/her **phoneme inventory**. As we saw in Chapter 4, an RP speaker has around 21 vowel and 24 consonant phonemes, but the precise number may vary: not all RP speakers use all the centring diphthongs, for example. An important difference in phoneme inventory distinguishes northern and southern varieties of English English: because of a historical vowel split which happened in the south, southern varieties have an additional phoneme /ʌ/ which northern varieties lack. This means that southern speakers have a /ʌ/–/ɔ/ phonemic contrast for pairs such as *cud/could*, *putt/put*, which are homophonous for northerners ([kʊd] and [pɔt] respectively). Scottish English varieties have an additional consonant phoneme /x/ which English English varieties lack, meaning that *loch* [lɔx] and *lock* [lɔk] are generally distinguished north of the border, but not south of it ([lɔk] in both cases).

DISTRIBUTIONAL DIFFERENCES

Two varieties may share the same phonemes, but distribute them differently. Again, the north-south linguistic divide in England provides a good example. Both northern and southern varieties have the /ɑ:/ and /a/ phonemes in their inventories, but they do not always agree on where they are used:

Table 5.1: Distribution of /ɑ:/ and /a/ in southern and northern English varieties of English

Lexical set	Southern	Northern
<i>ah, cart, spa</i>	/ɑ:/	/ɑ:/
<i>cat, pal, trap</i>	/a/	/a/
<i>past, laugh, dance</i>	/ɑ:/	/a/

Northern and southern varieties agree for the first two lexical sets, but another set of words, generally involving a following front consonant, have /ɑː/ in the south and /a/ in northern England.

An important distributional difference between North American and southern hemisphere English varieties is **rhoticity**: both have /r/ but the former retain it in non-prevocalic positions while the latter do not, e.g. US *car* /kɑːr/ v. Australian *car* /kɑː/.

REALIZATIONAL/PHONETIC DIFFERENCES

The English /r/ phoneme also provides a good example of a **realizational** or **phonetic** difference, which does not affect the system in any way. Although all varieties of English have the /r/ phoneme, there is a wide difference, as we saw in Chapter 4, in the way speakers pronounce it, from [ɹ] or [ʊ] in England to [r] in Scotland and [ʁ] in parts of Northumbria. Unlike the inventory and distributional differences above, these have no implications for the range of oppositions a speaker can make: whether *rat* is realized [ɹat], [ʊat], [rat] or [ʁat] the available contrasts with *vat*, *sat*, *cat*, *mat* and so on remain exactly the same.

Underlying representations

We have seen how the final [ɹ] sounds of *Rad* and *Rat* in German can be understood as underlyingly ‘different’ although pronounced identically. In many other cases too, we can only account for the facts of what a native speaker ‘knows’ about his/her language by appealing to an **underlying representation** of the words he/she utters. While phonologists (and linguists generally) are sometimes accused of over-abstraction and/or abstruse terminology, there are occasions where explanation at an abstract level can yield valuable insights, as the following two examples will demonstrate.

Most varieties of British and southern hemisphere English are non-rhotic, i.e. they only have /r/ before vowels. Rhotic areas like North America, or the west of England, by contrast, do allow /r/ in other positions. The normal pronunciation of the following words in non-rhotic Essex, therefore, differs from that of rhotic Somerset (note that West Country accents use the retroflex /r/ variant [ɻ]):

Table 5.2: Non-pre-vocalic /r/ in Essex and Somerset

	Essex	Somerset
car	[kɑ:]	[kɑ:ɹ]
Arthur	[ɑ:θə]	[ɑ:ɹθəɹ]
park	[pɑ:k]	[pɑ:ɹk]

In spite of the fact that Essex speakers do not pronounce the /r/ in these words, many phonologists would argue that their **underlying representations** of each of these words is the same as that of their Somerset counterparts, i.e. that even for an Essex speaker *car* is underlyingly /kɑ: r/, but Essex speakers have an /r/ deletion rule which Somerset speakers do not. But does this not simply defy common sense? How can it be helpful to posit an underlying /r/ which simply isn't there?

A phonologist might respond that, even for non-rhotic speakers, the /r/ actually *is* there, in some circumstances: even for non-rhotic speakers, it reappears before a vowel:

- ▶ *car /r/ of the year*
- ▶ *Arthur /r/ and Jim*
- ▶ *beer /r/ and sandwiches*

Non-rhotic Essex speakers may not use the /r/ when these words are pronounced in isolation but they 'know' which words have an underlying /r/ which appears intervocalically, and which do not: no one would say *tree* */r/ *on the hill* for example. Not only does the abstract representation and /r/-deletion rule analysis account for a fact about the speaker's knowledge of his/her language, it also captures a diachronic fact about English: non-prevocalic /r/ used to be pronounced in all varieties, but a change occurred in some, but not others, which led to its deletion. To account for these data otherwise would require specification of a complex /r/ rule for non-rhotic speakers setting out in detail the environments in which it can and cannot occur: positing an underlying /r/ in the representation looks altogether neater and more elegant. Some phonologists, it should be pointed out, would reject the underlying /r/ analysis in favour of

some important facts about French phonology. In spite of the fact that ‘mute *e*’ is not pronounced, many phonologists would suggest that *vase* is underlyingly /vazə/, and *trop* underlyingly /tʁop/, with a deletion rule being applied to delete the final segment in each case.

Once more, a seemingly counter-intuitive approach captures a number of important generalizations. Firstly, we know that the final mute *-e* is an orthographic holdover from a time when word-final schwa *was* pronounced: [vazə] was once the normal pronunciation, and remains so in many parts of southern France today. So, rather like our earlier /r/ example from English, our underlying representation captures a **synchronic** fact about French and a **diachronic** one. Secondly, even for speakers who don’t normally pronounce the final schwa, there are occasions when this consonant reappears, typically to break up sequences of three consonants, so *Jacques est le maître* [mɛtʁ] but *Maître Jacques* [mɛtʁɛzak]. Similarly, many words have latent word-final consonants which appear before a vowel in what is known as *liaison*, thus *les gens* [lɛʒɑ̃] ‘people’ but *les amis* ‘friends’ [lɛzami]. But why is the final consonant deleted in some cases, but not in others? One answer would be that the final [z] of *vase* is always pronounced because in its abstract representation it is non-final, and the underlying final schwa ‘blocks’ the deletion rule. The abstraction is arguably therefore a price worth paying for a richer analysis of what French speakers ‘know’ about their language, namely that some word-final consonants are always pronounced, but others are only pronounced in certain environments.

DISTINCTIVE FEATURES AND NATURAL CLASSES

In some of the examples above, we have seen that certain groups of sounds have similar properties, or tend to behave in similar ways. One set of consonants was affected, for example, by a rule involving word-final position in German, which we could identify by a series of rules:

- ▶ /b/ → /p/ /_ ##
- ▶ /d/ → /t/ /_ ##
- ▶ /v/ → /f/ /_ ##

These rules should be read as ‘/b/ becomes /p/ in the environment of a word boundary’ and so on, and we could in principle set out similar rules for all the consonants affected by the devoicing rule, but such an approach misses an obvious generalization about all these consonant pairs, namely that those to the left of the arrow are all voiced and those to the right are all voiceless. We could therefore restate the rule rather more economically in terms of a single **distinctive feature** ±[voice].

- ▶ $C_{[+voice]} \rightarrow C_{[-voice]} /_ ##$

The sounds affected by this rule form part of the **natural class** of voiced consonants. We can define a natural class as a group of speech sounds which share the same specification for one or more features. Natural classes often share properties cross-linguistically. Dutch, Russian and Polish, for example, all have a word-final consonant devoicing rule, as do some French dialects. Another natural class is nasals, the feature [+nasal] being shared by /m, n, ŋ, ɲ, ŋ, ð, ɛ /, among others. We can extend the principle further and establish feature matrices for phonemes, as for example in Table 5.3 for the velar consonants of Scots English. The feature ±[continuant] distinguishes oral and nasal stops [-continuant], for which the airflow in the vocal tract is blocked, from all other sounds, which allow continuous airflow and are therefore [+continuant]:

Table 5.3: Feature matrix for velar phonemes in Scots English

	x	k	g	ŋ
Velar	+	+	+	+
Voice	-	-	+	+
Continuant	+	-	-	-
Nasal	-	-	-	+

The four phonemes form part of a single class by virtue of sharing the feature specification [+velar]. Note that the specification [+voice] is redundant for /ŋ/, as all nasals are voiced in English, but this feature is distinctive for /k/ and /g/. The feature ± [aspirated] is not included in our matrix because aspiration is not distinctive in English: its presence or absence in certain environments for voiceless plosives is entirely predictable and not a property of the phoneme itself, as it would be in Thai, where aspiration is phonemic.

Attempts have been made to establish a universal feature set from which the phonemes of all the world's languages could be defined. A first set was proposed in 1952 by Jakobson, Fant and Halle and was refined for the description of English by Chomsky and Halle in 1968. This set has since undergone a number of changes, with putatively universal features such as ±[diffuse] or ±[compact] having been largely abandoned. Some have criticized the emphasis in most feature systems on binarity: it is not entirely clear that ± features are appropriate for vowels, or that they are well equipped to deal with phonemic tone in languages such as Hokkien or Vietnamese. But there is no doubt that features have a role in identifying natural classes, and in capturing important cross-linguistic generalizations.



Key idea: Identifying natural classes

Phonemes can be broken down into their distinctive features.
Phonemes that share the same specification for one or more features are said to belong to a natural class.

Syllable structure

We have already seen evidence that syllable structure has important phonological consequences. This was notably the case for the **liquid approximants** /l/ and /r/ in English: allophonic variation for /l/ depends on position in the syllable, while /r/ is often deleted syllable-finally, but never syllable-initially. Cross-linguistic evidence suggests that syllables (conventionally represented by a lower case Greek sigma σ) have a hierarchical structure consisting of an **onset** and a **rhyme**:

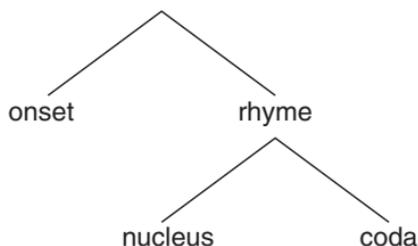


Figure 5.1: Syllable structure

Of these elements, only the **nucleus** is obligatory, and it must be filled either by a vowel or by a sound sufficiently sonorous to occupy the nuclear or head position. This would include, for example, the liquid /l/ in some English unstressed syllables (e.g. in the second syllable in *bottle*) or indeed /r/ or /l/ in some Czech stressed ones (e.g. *prst* ‘finger’; *vlk* ‘wolf’). The nucleus together with the **coda** form the **rhyme**: a phonological definition of the verb ‘to rhyme’ as conventionally used might therefore be ‘to have an identical nucleus and coda’, e.g. *bend/trend*, *ash/smash*, *cold/bold*, etc.

On either side of the nucleus, onset and coda position are occupied by less sonorous items on the **sonority hierarchy** (see Chapter 4) than the nucleus, so vowels are not permitted but approximants and other consonants can occur in these positions. *I*, *oh* and *a* are examples of English monosyllabic words which consist entirely of a nucleus; *he*, *you* and *three* are examples of syllables with onset and nucleus, but no coda; and finally *ill*, *elf*, *asked* all have nucleus and coda within the rhyme, but no onset.

Key idea: Syllables

Syllables consist of an onset and a rhyme. The rhyme is made up of an obligatory nucleus and a coda. Some languages have obligatory onsets, or rule out codas, but no language has obligatory codas.

Languages constrain this basic structure in different ways: English allows up to three consonants in onset position, but is strict about the three-consonant combinations it permits: the first must be /s/, the second a stop, and the third a liquid (e.g.

sprint, scroll, splash); Russian, by contrast, allows much greater flexibility, e.g. /vdruɡ/ ‘suddenly’; /sɣvatit/ ‘seizes’. While there are languages which require onsets (e.g. Arabic) or rule out codas (e.g. Hawaiian), there are none that require codas, supporting the view that the basic syllable structure cross-linguistically is Consonant+Vowel (CV).

Further evidence for the primacy of the CV structure comes from the **Maximum Onset Principle**, which states that, whenever consonants can be assigned to either onset or coda position, as many as possible should be assigned to the onset, subject to the phonotactic constraints of the given language. So, for example, in the case of a word like *express*, the proper syllable division is /ɛk+/sprɛs/, because */ksp/ is not an acceptable syllable-initial cluster in English, while /sprɛss/ is well formed and meets the requirement that the maximum number of consonants be assigned to the onset.

As April McMahon (2002: 110–12) points out, this principle explains a number of otherwise puzzling phenomena. Why, for example, do non-rhotic speakers pronounce the /r/ in *carry*, even though it follows a vowel, but not in *orchard*? The answer is that, by the Maximum Onset Principle, the syllable divisions are /kɑ+rɪ/ and /ɔ:r+tʃəd/ respectively: in the latter case English rules out */rtʃ/ as an initial syllable sequence, so the /r/ is assigned to coda position in the previous syllable, where non-rhotic speakers delete it (rhotic speakers, of course, maintain /r/ in both onset and coda positions). Likewise, it might seem surprising that *wool* for most British English speakers has a dark /ɫ/ [ɫ], but its derivative *woolly* has a clear one [l]. Again, the Maximum Onset Principle assigns the /l/ in *woolly* to onset position /wɔ+lɪ/ and thereby predicts, correctly, that clear [l] will be selected.



Fact-check

- 1 What characterizes aspiration?
 - a It is non-distinctive in English, but distinctive in Thai
 - b It is a distinctive feature of Thai and English voiceless stops
 - c It is a non-distinctive feature of voiced stops in English
 - d It is only present when a stop consonant is preceded by /s/

- 2 What is the pronunciation of *month*, *cup*, *bug* in northern and southern English accents an example of?
 - a A distributional difference
 - b An inventory difference
 - c A realizational difference
 - d Southerners being difficult

- 3 What sound is represented by n in *inferior*?
 - a [n]
 - b [ŋ]
 - c [m]
 - d [ŋ]

- 4 What must all syllables have?
 - a An onset
 - b A coda
 - c A nucleus
 - d None of the above

- 5 What does neutralization mean?
 - a That a sound change has left a silent letter in the written language
 - b That a sound is deleted in certain environments
 - c That a choice of phonemes is always available
 - d That a phonemic contrast is not available in certain environments

- 6 Which of the following is not a continuant?
 - a [p]
 - b [ɹ]
 - c [ω]
 - d [f]

- 7** What is 'Bristol l'?
- a** A perfectly normal assimilation process involving loan words ending in -a
 - b** A stereotype
 - c** A distributional difference with respect to other English accents, involving a small lexical set
 - d** All of the above
- 8** In English, what onsets do syllables allow?
- a** A maximum of two consonants
 - b** A single vowel
 - c** /s/+stop+liquid sequences
 - d** /s/+stop+fricative sequences
- 9** Which is the correct syllable division for starstruck?
- a** /stɑ: +strʌk/
 - b** /stɑ: s +trʌk/
 - c** /stɑ: st +rʌk/
 - d** /stɑ: str +ʌk/
- 10** What does the biuniqueness condition state?
- a** That all languages have a unique phoneme inventory
 - b** That allophones must be assigned to a single phoneme
 - c** That the same allophone can be assigned to more than one phoneme
 - d** That phonemes may be realized in two different ways



Dig deeper

B. Hayes, *Introductory Phonology* (Blackwell, 2009), esp. Chapters 2, 3, 4 & 6

F. Katamba, *An Introduction to Phonology* (Longman, 1989), Chapters 2–5

R. Lass, *Phonology* (Cambridge University Press, 1984), Chapters 1–3

A. McMahon, *Introduction to English Phonology* (Edinburgh University Press, 2002), esp. Chapters 4, 5, 8 & 9

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6

Building words: morphology

In the two previous chapters we have considered the basic building blocks of language (phonemes) and the ways in which they can be combined in speech. Our focus in this chapter and the next will be on grammar, which linguists have traditionally seen as comprising the two sub-disciplines of **syntax**, the arrangement of words in a sentence, which we explore in Chapter 6, and **morphology**, the internal structure of words, which we examine here. We begin by introducing the concept of the **morpheme**, which often proves a more helpful analytical tool than the **word**, a satisfactory definition of which proves elusive. We then review the traditional division between **derivational morphology** (or word formation) and **inflectional morphology** (the marking of grammatical categories), and look at attempts to classify languages on the basis of their morphological structure. We close the chapter by looking more closely at **grammatical categories** such as number and gender and their **values**, which prove extremely variable cross-linguistically and often differ greatly from those which are familiar to us as English speakers.

Words and morphemes



Languages differ more in morphology than in syntax. The variety is so great that no simple scheme will classify languages as to their morphology. One such scheme distinguishes analytic languages, which use few bound forms, from synthetic, which use many. At one extreme is a completely analytic language, like modern Chinese, where each word is a one-syllable morpheme or compound word or phrase-word; at the other, a highly synthetic language like Eskimo, which unites long strings into single words (...) This distinction, however, except for cases at the former extreme, is relative; any one language may be in some respects more analytic, but in other respects more synthetic, than some other language.'

(Bloomfield 1933: 207)



Key idea: Morphology: the study of word structure

Derivational morphology is concerned with the creation of new words.

Inflectional morphology involves the marking of grammatical categories (for example number, tense or gender).

The distinction between morphology and syntax as sketched above would seem to presuppose a clear definition of the term *word* but, as we shall see, 'words' prove problematical on a number of levels. If asked 'how many words there on this page?', we'd probably count the number of items with blank spaces either side (would contractions like that 'we'd' in the previous clause count as one word or two?) and ignore the fact that some words (e.g. 'the') are used more than once. But if asked instead how many words there are in the *Oxford English Dictionary*, or how many words of Spanish we know, our criteria would change: 'words' in this case would imply *different* words as cited independently in the dictionary, and would not include inflected forms predictable by rule, i.e. we would treat *dog/dogs* or *read/reads/reading* as the same 'word' in each case. i.e. *dog+s dogs*, or *read+ing reading*.

For *word* in this second sense, linguists generally use the term **lexeme**, and the scope of lexemes includes items made up of more than one word (e.g. *set up*; *windscreen wiper*), and even idioms like *to penny pinch*, *to keep tabs on*, where the meaning cannot be broken down into the component parts. Where the distinction is important, by convention linguists use small capitals to refer to lexemes, so READ refers to the verb *to read* and all its inflected forms.

To add yet a further complication, words can have more than one function: in a sentence like ‘He is thinking about Mary’ the word *thinking* is a verbal participle, indicating an action which is ongoing; in ‘Bill was overly fond of thinking’ the same form is a **gerund**, i.e. it functions as a noun (we could substitute, for example, ‘football’ or ‘jam’ for ‘thinking’ and the sentence would remain grammatical). Here we need to distinguish a third sense of **word**, i.e. a **grammatical** or **morphosyntactic word**.

Even allowing for these qualifications, deciding what counts as a ‘word’ and what does not proves surprisingly tricky. The definition we routinely apply in everyday life, namely calling something a ‘word’ if it is separated by orthographical spaces on the page, is unsatisfactory on a number of counts. Firstly, this seems an arbitrary basis for definition in the absence of pre-existing criteria for separation: these ‘gaps’ do not after all correspond to pauses or breaks that are actually made in speech (if they did, there would be no need for the comma I’ve just used to indicate that a pause should be made, nor for the full stop with which this sentence will end). Secondly, as we saw in Chapter 1, only a minority of present and past languages have a writing system in any case, so in most instances we have no orthographic conventions to help us.

One criterion offered by Bloomfield is that a word should be a **minimal free form**: *John*, *houses*, *riding*, *hopeless*, for example, all qualify as ‘words’ because they could occur as one-word answers to a question (‘What are you doing?’ – ‘Riding’; ‘How’s your arithmetic?’ – ‘Hopeless!’). But this poses problems because some items which we would probably like to think of as words fail this criterion. In English, these would include ‘functional’ items such as the articles *a* and *the*, or the subject pronouns:

► Who's there?

- Me.

- *I

More awkward still from this point of view is French, which requires nouns to have articles, so for example 'I want bread' is 'Je veux du pain': on the minimal free-form criterion not only *pain* (bread) but almost all nouns would be ruled out. A more promising criterion is **separability**: *the dog* should be seen as a sequence of two words because adjectives, for example, can be interspersed between them, e.g. *the great big lovable old dog*. But this criterion proves no more watertight: *broad beans*, for example, looks like two words because *broad* and *beans* can both occur independently in other contexts (it's as **broad** as it's long; 'Mum! I managed to sell the cow for some magic **beans!**'), but we cannot separate the two elements (*broad big beans; ?how broad are your beans?¹), suggesting that they form a single lexical unit.

Furthermore, in informal language, we do encounter interspersed elements at points where there is clearly no word boundary (*abso-bloody-lutely!*). A final criterion might be **stress**: *blackbird*, for example, is one word rather than two because, unlike *black bird*, it carries only one main stress. This will work for a whole range of items, including *thorough*, *achieve*, *resist*, but would rule out a number of items which would not normally bear stress, for example *a*, *the*, *he*, *it*, and so on, and in any case, not all languages have word-level stress: stress in French for example is borne by the last syllable of the rhythm group, which may consist of several 'words' on other criteria.

The criterion of 'potential pause' has even been advanced, unconvincingly, to align linguistic and orthographical word criteria: while we do not normally pause between words, we could – potentially – do so (as I've attempted to indicate here by dashes). But this criterion soon proved to be an impostor: how can we distinguish a hesitation in mid-word from a pause at a word boundary? Only, of course, by knowing in advance

¹ A question mark placed before an item conventionally indicates that it sounds odd to a native speaker, or is grammatically marginal, without being categorically ill-formed in the given language.

where the word boundaries are, in which case the definition becomes circular.



Spotlight: Human lexeme-inators?

Derivational morphology is part of a native speaker's linguistic knowledge. An understanding of its functioning allows speakers to be extraordinarily creative in coining new terms. Evil Dr Heinz Doofenshmirtz, from Disney Channel's *Phineas and Ferb* is not only a prolific inventor of [woefully ineffective] devices, he's also a great coiner of new [and very short-lived] nouns using the suffix *-inator* (cf. terminator), e.g. *audience controlinator*, *drillinator*, *media erasinator*, *giant baking-soda volcanoinator*. Children's ability to recognize 'inator' in this context as a nominalizing suffix with the meaning 'device used to achieve a specified aim' makes these unfamiliar words readily comprehensible even though they're unlikely to make it into any dictionary, or indeed survive longer than a single episode.

By whatever criteria we apply, then, some meaningful linguistic items look more like 'words' than others: for this reason it is often more productive to look at meaning-bearing elements or **morphemes**. A word like *internationalization*, for example, seems naturally divisible into five elements:

inter+nation+al+iz+ation

The second, [nəʃən], derives from a **free morpheme**, namely the noun *nation* [næʃən], which can occur independently (*a powerful nation*, etc.). The rest are **bound morphemes**, which can only occur as parts of bigger units and not on their own: *inter-* is a prefix conveying the notion of 'between' in a range of adjectives (*interactive*, *interpersonal*, *interplanetary*), verbs (*interpose*, *interact*) and nouns (*interpol*, *interface*); *-al* is a grammatical suffix frequently used to derive adjectives from nouns (*structural*, *financial*, *orbital*); *-ize/ise* is a verbal suffix used to derive verbs, while *-ation* is an abstract noun suffix (*rationalization*, *penetration*, *realization*). **Morphemes**, then, are minimal meaning-bearing units, uniting an arbitrary form and meaning or grammatical function. As we have seen, a distinction is usually made between **inflectional** morphemes and **derivational** morphemes.

Derivational morphology

All living languages need constantly to renew and update their lexical stock. They may do so in two different ways: the first, **lexical borrowing**, involves taking words from another language and assimilating them according to the phonological and morphological rules of the ‘borrower’ language. All of these English words, for example, have been borrowed from other languages: *robot* (Czech); *shampoo* (Hindi); *kangaroo* (Guugu Yimidhirr: North Queensland, Australia); *entrepreneur* (French); *rucksack* (German). They are, for the most part, now so well assimilated that we no longer notice that they are borrowings: indeed, some estimates suggest that around 30 per cent of English words are ultimately of French or Norman French origin, the vast majority of which pass unnoticed.



Key ideas: Derivation

- Languages may either borrow new lexical items from other languages, or create them from existing resources (derivation).
- Derivation involving bound morphemes is called affixation; word creation using free morphemes is known as compounding.

Alternatively, new words can be created or **derived** using the language’s existing lexical resources, whether this involves bound morphemes (**affixation**), or free ones (**compounding**); the lexical resources deployed are known as **derivational morphemes**. The morphemes most commonly used in affixation are **prefixes** and **suffixes**. English is rich in both:

Table 6.1: Some English affixes

Prefixes	Suffixes	Examples
un-		unready; unprepared, unskilled; unattractive; undo; unfasten; unravel
pre-		pre-existing; prenuptial; precondition; preschool
trans-		transnational; transaction; trans-Siberian; transplant
pan-		pan-European; pantheistic; pancultural
	-ize, -ise	empathize; realize; anaesthetize; bowdlerize
	-er, -or	adviser; captor; equalizer; thinker; bowler

Table 6.1: Some English affixes (*Continued*)

-ist	pianist; classicist; realist; esperantist; perfectionist
-er; est	wiser, wisest; bigger, biggest; slower, slowest
-wise	workwise; timewise; lengthwise; anticlockwise



Spotlight: Gates and burgers

The creative potential of derivational resources is such that affixes may emerge from the most unlikely sources. At the time of writing the UK government was embroiled in a difficulty labelled 'Plebgate' in the popular press, in which the suffix *-gate* was attached to the derogatory term 'pleb' (plebeian). This followed *Irangate*, *Sachsgate*, *Bigotgate*, *Debategate*, *Dianagate* and numerous other '*-gates*' in which a scandal, and the subsequent alleged cover-up, have made headline news.

There's no connection, obviously, between 'gate' meaning 'opening or door' and the notion of scandal or cover-up, but the association was cemented by the Watergate bugging scandal which eventually brought down US President Richard Nixon in 1973, since when the suffix 'gate' has been applied to any number of scandals. *Plebgate* involved accusations that a minister called a police officer a *pleb* in Downing Street when told he was not allowed to take his bicycle through the Downing Street gate, which led to the affair being dubbed, perhaps inevitably, *Gategate* by some commentators. (For an extensive list of *-gate* scandals, see http://en.wikipedia.org/wiki/List_of_scandals_with_%22-gate%22_suffix.)

The suffix *burger* has a longer history, and is based on a false derivation *ham+burger*. In fact, as any schoolchild knows, hamburgers contain beef, not ham, and the original derivation in German was *Hamburg+er*, 'native of Hamburg', and by extension the hot snack associated with that city. But the misderivation has spawned a range of new lexemes, including *cheeseburger*, *veggieburger*, *chickenburger* and *beanburger*.

English generally does not use **infixes**, inserted within words, but there are some informal expletive or emphatic uses, e.g. *a-whole-nother story*, *abso-bloody-lutely*. In Russian, the

verbal infix *-vy-* carries the nuance that an action happens on a regular basis, e.g. *arestovac* (to arrest); *arestovvyvac* (to arrest repeatedly). Note that these affixes are subject to selectional restrictions: *un-*, for example (see Spotlight on previous page), can be used with adjectives (*unclear*, *unreasonable*) and verbs (*unfasten*, *undo*), but not with nouns (barring one or two marginal exceptions, such as *unconcern*). The comparative and superlative suffixes *-er* and *-est* can normally only be used with gradable antonyms (e.g. *warm-warmer-warmest*, but not *pregnant-*pregnanter-*pregnantest*), and not with adjectives of more than two syllables (**marvellouser*, **incrediblest*).

Prefixes in English, unlike suffixes, almost never change word class: there are a few, generally unproductive, exceptions such as *a-* which derives the adjectives *ablaze*, *awash* and *abuzz* from the nouns *blaze*, *wash* and *buzz*, and the verbal prefix *en-* in *enrage*, *enamour*, *entangle*. Not all languages restrict the functions of prefixes in this way. In Zulu, for example, the prefix *um-*, coupled with a change of final vowel, is used to derive nouns from verbs:

Table 6.2: Affixal nominalization in Zulu

Verb	Noun
<i>gamba</i> 'invent'	<i>umgambi</i> 'inventor'
<i>thenga</i> 'buy'	<i>umthengi</i> 'buyer, customer'
<i>hamba</i> 'travel'	<i>umhambi</i> 'traveller'

In **polysynthetic** languages, strings of bound morphemes can be combined to form words which would correspond to clauses or sentences in languages such as English, as in this example from the Australian language Tiwi, cited by Blake (2006: 591):

Pitiwuliyondjirrurlimpirrani

Pi-ti-wuliyondji-rrurlimpirr-ani.

3PL-3SG.FEM-dead.wallaby-carry.on.shoulders-PT.HABIT

'They would carry the dead wallaby on their shoulders.'

In the case of **compounding**, the elements combined are free rather than bound morphemes, but the meaning is often not reducible to that of the combined elements. Examples from English include *freefall* (vb), *double-dip* (adj.), *firewall* (n.), but Germanic languages are well known for using compounds to a much greater degree than would be acceptable in English, for example Swedish *järnvägsstation* (literally ‘iron way’s station’) ‘railway station’, or German *Arbeitsbeschaffungsmaßnahme* (literally ‘work creation measure’) ‘job creation scheme’.



Spotlight: Un-stoppable?

George Orwell’s famous novel *Nineteen Eighty-Four* presents a world in which the state conditions thought through control of language. The hero Winston Smith is charged with rewriting documents in ‘Newspeak’, a version of English in which the words to express opposition to the all-powerful Big Brother simply do not exist. Part of this involves removal of antonyms; thus ‘bad’ becomes ‘ungood’ and heretical statements beyond ‘Big Brother is ungood’ become all but impossible:

‘After all, what justification is there for a word which is simply the opposite of some other word? A word contains its opposite in itself.

Take “good”, for instance. If you have a word like “good”, what need is there for a word like “bad”? “Ungood” will do just as well — better, because it’s an exact opposite, which the other is not.’

Fortunately, language is far too complex, and human beings far too creative in its use, for top-down control ever to be possible. *Ungood* may never have caught on, but *uncool* has, and *unfriend*, while ruled out as a noun, has emerged as a verb with the advent of Facebook. What Orwell appears to have grasped is the flexibility with which English speakers apply this prefix to create antonyms:

► But I’ve already booked a table!

- Well, unbook it!

I have even heard a speaker, known for his fondness for British understatement (litotes), observe that: ‘this actor doesn’t *unremind* me of a young Robert Redford’!

Our derivational inventiveness stems in part from the fact that we associate morphemes with a particular meaning, and learn those meanings in the same way we do those of full lexemes. But there is an interesting subset of derivational morphemes with no apparent meaning outside the isolated lexemes in which they occur. These have become known as **cranberry morphemes** after their most celebrated example:

- ▶ *straw+berry*
- ▶ *black+berry*
- ▶ *goose+berry*
- ▶ *blue+berry*
- ▶ *cran+berry*

All of these cases appear to involve compounding of free morphemes, but *cran* has no independent meaning or function outside of the word *cranberry*. A slightly more marginal case is *lukewarm*, in which the first element *luke-* appears to qualify *warm* and is thought to derive from a Middle English word meaning ‘tepid’, but has no such meaning in any other lexeme.

Children learn not just a list of derivational morphemes, which enables them to understand new words like *giant-baking-soda-volcano-inator* (see the Spotlight box earlier in this chapter), but also the rules by which they may be combined. A child needs to know not just that prefixes can only be placed at the beginning of the word and suffixes at the end, but also that affixes attach to particular kinds of word-class.

The word *uncontrollableness*, for example, can be divided into four morphemes *un+control+able+ness*, but these morphemes have an internal constituent structure and are not simply juxtaposed. *Control* needs to combine first with *able* to form *controllable*, because the prefix *un-* can only attach to adjectives (*unwary*) and verbs (*undo*), but not nouns, ruling out **uncontrol*. The same restriction applies to the abstract noun *controllableness*, which suggests that, in spite of the fact that *controllableness* does exist, the proper constituent structure is *uncontrollable+ness* rather than *un+controllableness*. This can be illustrated by the following tree diagram.

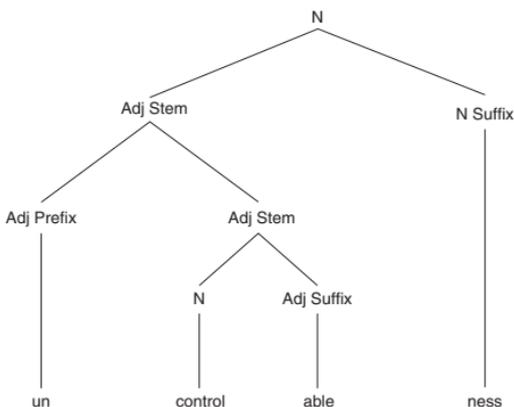


Figure 6.1: Derivational structure of uncontrollableness

In the above example, morphologists would distinguish between **root** and **stem** morphemes: the root noun (in this case) around which *uncontrollableness* is built is *control*, which is also the **stem** of *controllable*. But *controllable* itself is the stem of *uncontrollable*, and likewise *uncontrollable* is the stem that yields *uncontrollableness*.

While many aspects of derivational morphology reveal regular patterns, much has to be learned on an item-by-item basis. In the example above, the meaning of the *-ness* suffix used for coining abstract nouns is broadly synonymous with that of *-ity*, and many speakers prefer *uncontrollability* to *uncontrollableness* (prescriptive dictionaries allow both). A quick Google search gave around 25,000 hits for *uncontrollableness*, but 241,000 for *uncontrollability*, but *unfathomableness* gave 41,600 hits as opposed to only 10,700 for *unfathomability*. The same highly unscientific test suggested a preference for *unremarkableness* over *unremarkability* but a strong preference the other way for *predictability* over *predictableness*. Similarly, there is no obvious reason why the antonyms of *complete* and *capable* are *incomplete* and *incapable* while those of *conscious* and *comfortable* are *unconscious* and *uncomfortable*: this is simply an arbitrary fact about present-day English.

Derivational morphology reveals many grey areas in which form or meaning can vary and change. The suffix *-phobia*, for example, has acquired a generally pejorative meaning in *xenophobia* and

homophobia which it lacks in *claustrophobia* or *agoraphobia*, and while some speakers insist on the dictionary distinction between *disinterested* and *uninterested*, for many others the two words are now synonymous.

Inflectional morphology

We saw in the definition of lexemes above that in some cases different words are related by rule, and perceived to be forms of the same word. A dictionary would not, for example, list *book* and *books* separately, because the latter can be formed from the other. Furthermore, the meaning is entirely predictable: if you know what *book* is then you know what the plural form *books* means.

This kind of morphology, in which words are modified to express grammatical categories, is known as **inflectional morphology**. It does not involve the creation of new words, and the markings involved are subject to grammatical rule. Nouns, or more precisely count nouns, in English are marked for **number**, having generally a singular and a plural form, even if some of these forms are irregular (*child*, for example, has an irregular plural form: *one child, many children*). English verbs may be marked for **tense**, **aspect** and **person**: for the verb *decide*, for instance, we can identify four separate forms:

- 1 decide (infinitive; all present tenses except the third person)
- 2 decides (third person, present tense)
- 3 **deciding** (present progressive/present participle/gerund)
- 4 **decided** (past tense/past participle/passive participle)

The morpheme (marked in bold) which marks the particular grammatical function in question is often referred to as the **exponent**, thus *-ed* above is the exponent of <past> in English for *decide* and many other regular verbs.

Languages differ considerably in the richness of their inflectional morphology. **Isolating** languages, for example Mandarin or Vietnamese, have little or no inflectional morphology: the concept of 'plural' in Mandarin for example has to be deduced from context (*one dog, two dog, many dog* and so on) and is

not marked on the noun itself. Russian or Latin, by contrast, are examples of highly **inflecting** languages: both Latin and its daughter language, Portuguese, for example, have full verbal paradigms in which all persons in all tenses are marked by a suffix (compare English, which marks only third person singular in the present tense). In both Latin and Russian, nouns are additionally marked for **case**, indicating by means of a suffix their function within a sentence. English, which has lost most of its case marking except in pronouns (compare *she* as a subject or nominative form, and *her* as an accusative or object form), achieves this through word order (subjects tend to precede verbs, objects follow them), or by prepositions. In Russian, these endings vary according to the gender of the noun, and there is a separate plural form.

Table 6.3: Nominal inflection in Russian

	Masculine	Feminine	Neuter	Plural
Nominative	Stol ('table': subject)	sobaka ('dog')	ozero ('lake')	knigi ('books', fem)
Accusative	Stol ('table': object)	sobaku	ozero	knigi
Dative	stolu ('to the table')	sobakje	ozeru	knigam
Genitive	stola ('of a table')	sobaki	ozera	knig
Instrumental	stolom ('by means of a table')	sobakoi	ozerom	knigami
Locative	na stolje ('on the table')	v sobakje ('in the dog')	v ozerje ('in the lake')	v knigakh ('in books')

Note that the genitive plural form for a regular feminine noun like *kniga* contrasts with the rest by virtue of adding *nothing* to the stem *knig-*. Because it contrasts with realized suffixes in all the other cases, this 'nothing' is actually meaningful: in cases like this, it makes sense to talk of a **zero morpheme**. Similarly, for plurals such as *sheep*, *fish* or *deer* in English, there is a strong case, however counter-intuitive it might appear, for arguing that these are all in fact stem+ \emptyset (zero) sequences: this enables us to maintain our generalization that plurals in English are generally formed by addition of a suffix.

In practice, the classification of languages into ‘inflecting’ and ‘isolating’ types should not be thought of in absolute terms, but rather as a continuum in which English is rather less inflecting than, say, Russian, Latin or Basque, but more inflecting than Vietnamese or Tok Pisin. A third type of language, known as **agglutinating**, is, however, exemplified by Turkish, Hungarian, Aleut and Finnish. In agglutinating languages, words are built up from morphemic blocks, each of which has a single meaning or grammatical function.

Consider the verb ‘to make’ in Turkish:

- ▶ *yap* verb stem/imperative
- ▶ *yapmak* infinitive
- ▶ *yapıyor* present tense
- ▶ *yapıyorsun* ‘you make/are making’
- ▶ *yapıyorsunuz* ‘you (plural) make/are making’

The one-form to one-meaning relationship in Turkish is clearly exemplified here: *yap* provides the verb stem, *ıyor* marks present tense, *sun* second person and finally *uz* marks plural.

In an inflecting language, affixes often have more than one function, as illustrated by the past tense paradigm of the Spanish verb *hablar* (to speak):

- ▶ 1st pers. sg. *yo hablé*
- ▶ 2nd pers. sg. *tu hablaste*
- ▶ 3rd pers. sg. *el/ella habló*
- ▶ 1st pers. pl. *nosotros hablamos*
- ▶ 2nd pers. pl. *vosotros hablasteis*
- ▶ 3rd pers. pl. *ellos/ellas hablaron*

In each case a single suffix marks the categories of person, tense and number: thus *é* in *hablé* is the exponent of <1st person>, <singular> and <past>, and we cannot, as in Turkish, find a specific marker for each of these properties. In this case, the relationship between form and grammatical properties is one to

many, but the reverse relationship, in which a single grammatical property is marked more than once, is also common. A good example is negation in Turkish:

- ▶ geliyorum [geli'jorum] *I'm coming*
- ▶ gelmiyorum ['gelmiyorum] *I'm not coming*
- ▶ yapıyorsunuz [japə'jorsunuz] *you are making*
- ▶ yapmıyorsunuz ['japməjorsunuz] *you are not making*
- ▶ görüyor [gøry'jör] *he/she is seeing*
- ▶ görmüyor ['gørmjör] *he/she is not seeing*

In each of these examples, negation is realized by an infix *-m-*, but there is also a change of stress position, so the negation is doubly marked.



Key idea: Classifying languages

Linguists have informally classified languages on the basis of their morphological structure:

- Isolating languages (e.g. Chinese) have no bound morphemes.
- Agglutinating languages (e.g. Turkish) have words built from morphemes with a single meaning or grammatical function.
- Inflecting languages (e.g. Russian) use bound morphemes to mark several grammatical categories.
- Polysynthetic languages (e.g. Inuit) build 'sentence-words' out of bound morphemes rather than constructing sentences from free ones, as for example in English.

As with the analytic/synthetic distinction (see the Bloomfield quotation earlier in the chapter), differences between languages are relative rather than absolute, and languages may combine elements of more than category.

ALLOMORPHY

As we saw in Chapter 5, the same phoneme may be realized in different environments by more than one allophone. Interestingly, a single morpheme may likewise have several **allomorphs**. A good example is provided by regular plurals in English:

- ▶ bat+s ‘bats’
- ▶ dog+s ‘dogs’
- ▶ place+s ‘places’

At first sight, this looks like a highly regular pattern of inflection, in which plurals are formed by adding -s to the singular noun. But the orthography disguises the fact that the three endings here are different: /s/ for the first, /z/ for the second and /ɪz/ for the last. The three allomorphs are, furthermore, in complementary distribution: /s/ is used after voiceless consonants (e.g. *caps, bets, bricks, coughs*), /z/ after voiced ones (*beds, ribs, logs, lathes*) and /ɪz/ after the sibilants or ‘hissing sounds’ /s/, /z/, /ʒ/, /ʒ/, /tʃ/ and /dʒ/ (*mazes, wishes, matches*). We can describe /s/, /z/ and /ɪz/ as three **allomorphs** of the morpheme <PLURAL>, although we should note here that we are using ‘morpheme’ here in a slightly more abstract sense than hitherto: to avoid terminological confusion where the distinction is important some linguists reserve the term ‘morpheme’ for the abstract representation of a particular grammatical value (e.g. <PLURAL> for the category of ‘number’), and use the term **morph** (or allomorph) for its actual realization.

More serious problems do, however, beset the morpheme concept in the case of what are termed **discontinuous morphemes**. Consider the following irregular plurals in English:

- ▶ *mouse – mice*
- ▶ *foot – feet*
- ▶ *tooth – teeth*
- ▶ *man – men*
- ▶ *louse – lice*

Though this fact is somewhat disguised by the orthography in the case of *louse/lice* and *mouse/mice*, all these examples involve monosyllabic items in which a vowel change occurs in the nucleus position in the plural, but the onset and coda are left unchanged. One might therefore wish to posit a discontinuous root morpheme in each case, i.e. /m_s/ for *mouse* and /f_t/

for *foot*. Though this might appear to be stretching a point, it is not in fact implausible: in Semitic languages, for example, a number of related words share a common root in which the vowels change, as illustrated by the root k_t_b in Arabic:

- ▶ *kitāb* ‘book’
- ▶ *kutub* ‘books’
- ▶ *kātib* ‘writer’
- ▶ *kuttāb* ‘writers’
- ▶ *kataba* ‘he wrote’

Similarly, in German regular past participle forms involve a prefix *ge-* and a suffix *-t* (e.g. *gelernt*, from the verb *lernen* in ‘Ich habe gelernt’ – ‘I have learned’). But even if one is prepared to extend the morpheme concept to discontinuous elements, a problem remains with our English plurals, namely how are we to analyse <PLURAL> in these words?

A first, obvious difficulty is that there is no meaningful sense in which these forms can be analysed as a noun+plural marker sequence: the vowel change which marks plurality is not a suffix. Secondly, whereas with regular plurals a plural morpheme is added (we can include zero plurals here), these plural forms involve a change rather than an addition. One solution might be to describe the <PLURAL> allomorph in *mice* as a process /aɔ→aɪ/, but this seems to bend the original concept of the morpheme as ‘minimal meaning bearing unit’ beyond all recognition without any compensatory gains in terms of descriptive power or elegance. It seems better simply to view these plurals as a non-productive subset of English nouns – in fact a vestige of the *umlaut* process which survives in German, for example in *der Vogel* (sg. ‘the bird’) – *die Vögel* (‘the birds’).

The morpheme-to-meaning relationship also breaks down in the Celtic languages, where gender agreement is marked by **mutation** of initial consonants, as in the following examples from Breton:

- ▶ *ar paotr bras* ‘the big lad’
- ▶ *an daol vras* ‘the big table’
- ▶ *ul levr kozh* ‘an old book’
- ▶ *un gador gozh* ‘an old chair’

...the idea of morphemes with constant phonetic and semantic identity is fully appropriate only to the agglutinative languages.

Morpheme analysis, therefore, is essentially an attempt to mould all languages (including those that are inflectional) into the form of the agglutinative ones.

(Palmer (1971: 112))

A mutation known as **lenition** affects some (but not all) initial consonants of singular feminine nouns after articles (thus *taol* ‘table’ becomes *daol*; and *kador* ‘chair’ becomes *gador*, but the masculines *paotr* ‘lad’ and *levr* ‘book’ are unchanged), and the initial consonant of an adjective qualifying a feminine noun (contrast *bras/vras* ‘big’, and *kozh/gozh* ‘old’). Mutation in Breton exemplifies what is known as **non-concatenative morphology** in that, in contrast to the Turkish examples, nothing is actually added to a stem (calling *-aol* a ‘stem’ is an unsatisfactory solution because many other Breton words have initial consonants which are unaffected by mutation) and, as was the case for the exponents of <PLURAL> in the forms *feet*, *mice*, etc. in English, we cannot identify a morpheme which marks gender.

Key idea: The morpheme/allomorph distinction

The morpheme/allomorph distinction parallels that of phoneme and allophone at the phonological level. Allomorphs may, like allophones, be in complementary distribution, each occurring in a particular environment: this is the case, for example, for regular plural noun suffixes in English, the distribution of which is determined by the final consonant of the noun.

Grammatical categories

As we have seen in the examples above, inflection represents a morphological marking on items according to **grammatical categories** (for example tense, number or gender), which have a number of different **values** (e.g. **masculine** or **feminine** for gender). Categories relevant to English can have very different values and inflectional systems in other languages, as the brief survey of **number** and **gender** below will demonstrate.

Categories that are not manifested or that are marginal in English often play a significant role in the inflectional systems of other languages. **Animacy**, for example, is important in Navajo, in Basque and in Spanish, where animate direct objects are inflected with the preposition *a*:

- ▶ *está buscando una solución* *he is looking for a solution*
- ▶ *está buscando a su hermano* *he is looking for his brother*

For verbs, the category of **aspect** is marked more consistently than **tense** in Russian, the form of the verb indicating whether the action was perceived as ongoing or habitual (**imperfective**) or completed (**perfective**). Verbs may also be inflected for **mood**, the Romance languages notably having a full paradigm of inflections for the **subjunctive** mood, which marks the verbal action as hypothetical or in doubt, as in the following French examples:

- ▶ *Il est malade* He is ill
- ▶ *Je crains qu'il (ne) soit malade* I fear he may be ill
- ▶ *Je suis fatigué* I'm tired
- ▶ *Le fait que tu sois fatigué n'est pas important* The fact that you may be tired is not important

NUMBER

The category of number in English primarily affects nouns, and only minimally verbs (for example, in the *was/were* singular/plural opposition for the verb *to be*), and has the values **singular** and **plural**, the latter as we have seen being generally marked by a suffix to a nominal stem. From an anglophone perspective, it

2	lúban-titi	foofe
	lion.SINGULAR	watched.1.SINGULAR
	‘I watched a lion’	
3	lúban-jaa	foofe
	lion.PAUCAL	watched.1. SINGULAR
	‘I watched a few lions’	
4	lúban-jool	foofe
	lion.PLURAL	watched.1. SINGULAR
	‘I watched (many) lions’	

GENDER

The category of gender has long fascinated linguists and non-linguists alike, because it does not seem to serve any obvious linguistic purpose in the way that number or tense, for example, do. Moreover, it is something that non-native learners find particularly difficult to acquire. Its values, also called genders, are noun classes that affect the behaviour of other items in the sentence: Spanish adjectives, for example, are inflected for the gender of the noun they qualify.

In traditional terminology, gender is often associated with a real-world distinction between male and female: for example the genders of French are labelled masculine and feminine. The terminology is often misleading, however, as in many languages the classification is not based even in part on distinctions of sex. Even in languages where it is, there are frequent anomalies: the German word for ‘girl’, *Mädchen*, for example is neuter, not feminine. Insofar as gender applies to inanimates, its assignment often seems arbitrary: the word for ‘sun’, for example, is masculine in Spanish (*sol*), feminine in German (*Sonne*) and neuter in Russian (*solntse*). For this reason, some linguists prefer the term **noun classification** to gender, which we have used here.

Gender in English affects only the pronoun system in the third person singular, and is based on animacy: male animates are

helhim and females *shelher*. With one or two exceptions (large vehicles, ships and nations, for example, are often personified as *she*), all nouns referring to inanimates are assigned the pronoun *it*. Even the *he/she* distinction is not cross-linguistically universal: Finnish has a single subject pronoun *hän*, which means ‘he’ or ‘she’, as does Hungarian (where the pronoun *ő* has the same function).

In Italian, however, not only are humans gender-marked, but all inanimates are too, as in the following examples:

Table 6.5: Noun gender in Italian

Masculine	Feminine
l'uomo 'man'	la donna 'woman'
l'amico 'friend (male)'	l'amica 'friend (female)'
il libro 'book'	la rosa 'rose'
il gatto 'cat'	la casa 'house'
il tavolo 'table'	la fotografia 'photograph'

The Italian gender system is, for the most part, **formally motivated** in that, in the vast majority of cases, the word ending determines the gender: words ending in *-a* are feminine and those in *-o* are masculine. There are complications (nouns in *-ma* are generally masculine), and in some cases the semantic category of ‘sex’ can ‘trump’ the phonology, as in the case of *atleta* ‘athlete’, which is formally feminine by the above criterion but masculine when it refers to a male athlete.

As far as inanimates are concerned, however, semantics plays little part in gender assignment, and in other languages, the relationship between physical sex and grammatical gender is even more tenuous. Dutch, Danish and Swedish have all largely lost (but for some vestigial forms) the masculine/feminine distinction for inanimates and now have a two-way common (merged masculine and feminine)/neuter system instead.

Other gender systems are, however, **semantically motivated**. Tamil has three genders, broadly based on sex and animacy: the first class includes male humans and gods, the second female humans and goddesses, while the third includes inanimate objects. The Chichewa language of Malawi has ten genders,

or noun-classes, assigned on a combination of semantic, morphological and phonological criteria.

An interesting semantics-based system is that of the Dyirbal language of northern Queensland, as originally described by Dixon (1972); see also Corbett (1991: 16–17).

Table 6.6: Gender assignment in Dyirbal (see Dixon 1972: 307)

I (bayi)	II (balan)	III (balam)	IV (bala)
men	women		parts of the body
kangaroos	bandicoots		meat
possums	dog		
bats	platypus, echidna		
most snakes	some snakes		
most fishes	some fishes		
some birds	most birds		
most insects	firefly, scorpion, crickets		honeybees
crickets	hairy mary grub		wind
	anything connected with fire or water		yamsticks
storms, rainbow	shields		
boomerangs, some spears	some spears		some spears
	some trees	all edible fruit and plants which bear them	most trees and vines
			noises, language

Here, the semantic basis for gender assignment is that:

- ▶ class I includes male humans and non-human animates
- ▶ class II is females, water, fighting and fire
- ▶ class III is food other than meat
- ▶ class IV is a residue class for all other items.

Other principles, associated with the knowledge and belief systems of the Dyirbal speakers, account for apparent anomalies: many birds, for example, are included in class II because they are believed to be the spirits of dead human females; items believed to be harmful are included in class II, for example stinging trees

or nettles, which one might expect to be assigned to class IV. This fascinating gender assignment system, which is opaque to those unfamiliar with the world view of Dyirbal speakers, is discussed in a 1987 book by George Lakoff, the main title of which is taken from what seems to be the semantic basis of the second noun class: *Women, Fire and Dangerous Things*.



Key idea: Number and gender values

Inflectional morphology marks grammatical categories (e.g. tense, number or gender), the values of which vary according to language.

- **Number** in English has two values: singular and plural; many languages have more complex, multivalued systems.
- **Gender** in French has two values ('genders'), usually termed masculine and feminine; German has three (masculine, feminine and neuter), while Dyirbal has four.



Fact-check

- 1 Which of these is *not* a regular plural allomorph in English?
 - a [ən]
 - b [ɪz]
 - c [s]
 - d None of them is a regular plural allomorph

- 2 How is gender motivated in Italian?
 - a Formally
 - b Largely formally, but partly semantically
 - c Largely semantically, but partly formally
 - d As an inherent property of articles and adjectives

- 3 What characterizes derivational morphology?
 - a Concern with marking of grammatical categories
 - b It involves only affixes
 - c The creation of new words
 - d It marks agreement

- 4 What characterizes isolating languages?
 - a They are highly inflected
 - b They have little or no inflectional morphology
 - c They have only short words
 - d They build up words from morphemic blocks, each having a separate meaning or grammatical function

- 5 What is the role of the morpheme *ii* in the following examples from Kurdish?

aaqil 'wise' *aaqilii* 'forethought, wisdom'
garm 'warm' *garmii* 'warmth'
draiž 'long' *draižii* 'length'

 - a A nominal suffix
 - b An adjectival suffix
 - c A nominal prefix
 - d An agreement marker

- 6** How do inflecting languages differ from agglutinative ones?
- a** They have no derivational morphology
 - b** Inflectional morphemes often mark more than one grammatical category
 - c** Grammatical categories are often marked by more than one inflectional morpheme
 - d** They all have grammatical gender
- 7** Which of these is a regular past-tense allomorph of English?
- a** [ɪd]
 - b** [d]
 - c** [t]
 - d** All of the above
- 8** What characterizes prefixes in English?
- a** They rarely change word class
 - b** They are not used with nouns
 - c** They generally mark grammatical categories
 - d** They are entirely rule-governed in their distribution
- 9** Which grammatical categories are inflected in 'The girls were sitting on the table'?
- a** number, gender and tense
 - b** number, tense and case
 - c** gender and tense
 - d** number and tense
- 10** When do linguists sometimes posit 'zero morphemes'?
- a** When a language has no inflection
 - b** When a language does not mark plural
 - c** When the absence of marked inflection is meaningful
 - d** When they wish to be deliberately contrary and confuse people



Dig deeper

B. J. Blake, *All About Language* (Oxford University Press, 2008), Chapters 2 & 3

G. Corbett, *Gender* (Cambridge University Press, 1991)

G. Corbett, *Number* (Cambridge University Press, 2000)

F. Palmer, *Grammar* (Penguin, 1971), Chapter 3

A. Radford, M. Atkinson, D. Britain, H. Clahsen & A. Spenser, *Linguistics: An Introduction (2nd Edition)* (Cambridge University Press, 2009), Chapters 8–11

Online source

For a critique of Lakoff's 'Women Fire and Dangerous Things' classification, see K. Plaster, K. & M. Polinsky 'Women are not dangerous things: Gender and categorization', *Harvard Working Papers in Linguistics* 12 (2007). Available online: <http://dash.harvard.edu/bitstream/handle/1/3209556/Women%20are%20not%20dangerous%20things%20-%20Pol,%20M.pdf?sequence=2>

7

A grammar of sentences: syntax

The grammar of word structure, or morphology, was explored in Chapter 6; we turn now to **syntax**, which we might call the grammar of sentences, the largest units to which we can assign a grammatical description. Defining a sentence, however, proves no less problematical than defining a word did in the previous chapter. Early attempts to pin the concept down required that sentences have a **subject** and **predicate**, and we therefore begin by examining traditional and modern approaches to these two key notions.

We then take a closer look at the simple sentence, which, far from being a mere sequence of words, turns out to be a highly ordered and hierarchical structure. Relations between elements within sentences are often overtly marked: these patterns of **government** and **agreement** are explored next, and we close the chapter with a brief look at ways in which simple sentences can be combined to form **composite** ones.

Syntax and grammar

For many people, *syntax* – in their everyday use of the term – is synonymous with *grammar*, and equated with a prescriptive set of ‘dos’ and ‘don’ts’ for correct usage. They may even identify ‘grammar’ with a book such as *Fowler’s English Usage*, which they consult periodically to be reminded that a preposition is something that they shouldn’t end a sentence with. (And, of course, to not split infinitives.) Grammar in this prescriptive sense is of only peripheral interest to linguists: our principal focus is on grammar in the sense of a scientific description of the structures of a given language, which shows how to produce all its well-formed sentences and no ill-formed ones.

As we saw in Chapter 1, prescriptions about correct grammar are arbitrary and unsystematic in nature, they affect only a small set of constructions, and they generally do not correspond well with native speakers’ actual usage (which is why they make it into works like *Fowler’s English Usage* in the first place). A more technical use of the term *grammar* refers to the stored linguistic knowledge in the brain of an individual, which enables him/her to produce well-formed (i.e. grammatical) sentences in his/her mother tongue – though not necessarily in a standard or prestige variety. This is what Chomsky refers to as **competence** (see Chapter 8). For linguists, *syntax* means the study of the set of rules governing the way that morphemes, words, clauses and phrases are used to form sentences in any given language.

However, the distinction between ‘word-level’ and ‘sentence-level’ grammar is far from watertight, and there is a considerable grey area between the two. Linguists sometimes refer to **morphosyntax** when describing phenomena which straddle both levels: grammatical **gender**, for example, often manifests itself at word level in inflection, but may also affect relations between items within a sentence in the case of the syntactic phenomenon of **agreement** (or **concord**).

Subjects and predicates

Calling syntax ‘the grammar of sentences’ is all very well, but sentences prove as difficult to define as ‘words’ did in

the previous chapter. We are used, in literate societies with a written-language bias, to thinking of a sentence as something that generally begins with a capital letter and ends with a full stop, but this does not get us very far. A traditional definition of a sentence as ‘the expression of a complete thought’ is not helpful either: are *elderberry wine*, *exactly* or *good!* not ‘complete thoughts’? In traditional grammar, sentences were required to have a **subject** and a **predicate**, i.e. something we are talking about (the subject) and then something said about it (the predicate):

- 1 Dinosaurs existed.
- 2 Samantha is preparing for her bar examinations.
- 3 Paul gave a tip to the waiter.

Identifying the subject in Latin, Russian or Polish would be straightforward, because the nouns would be **case-marked**, i.e. inflected according to their function in the sentence. This is no longer true of English (though it used to be), but pronouns – with the exception of third-person singular *it* – do retain case-marked forms, so we can apply a substitution test. Thus in the list above, the subjects are *Dinosaurs*, *Samantha* and *Paul*, because they alone can be replaced by subject (or **nominative**) forms (*they*, *she* and *he* respectively). In traditional grammar, everything else in the sentence is the predicate.

There is nonetheless something unsatisfactory about this definition. Sentence 3, for example, simultaneously ‘says something’ about *Paul*, *a tip* and *the waiter*: why should we prioritize *Paul* among these? With the appropriate intonation, the focus of the sentence could be shifted to *a tip* (e.g. as a response to ‘What did Paul give the waiter?’) or to *the waiter* (in response to ‘To whom did Paul give a tip?’). Linguists and logicians would call *Paul*, *a tip* and *the waiter* in sentence 3 **arguments**, and define predicate more narrowly as expressing a property of an argument, as in sentence 1, or a relationship between arguments, as in sentences 2 and 3. A well-formed sentence must contain a **predication**.

The predicates in the sentences above are of three different kinds:

- ▶ In sentence 1, the single argument *dinosaurs* is the subject, and the **predicator** is the **intransitive** verb *exist*, which allows no other **complements**.
- ▶ Sentence 2 has both a subject (*Samantha*) and a **direct object complement** (*her bar examinations*), because the verb *prepare* has both an agent (doing the action) and a patient (something on the receiving end of the action).
- ▶ Sentence 3 has a subject (*Paul*), a direct object (*a tip*) and an indirect object (*the waiter*).



Case study: Pro-drop and 'dummy' subjects

A further difficulty for our subject+predicate definition is the fact that many languages allow sentences not to have a specified subject. This phenomenon is known as **pro-drop**, and is particularly common in the Romance languages:

Spanish	<i>hablo español</i>	(I) speak Spanish
Portuguese	<i>falamos português</i>	(we) speak Portuguese
Italian	<i>parlano italiano</i>	(they) speak Italian

It might be argued that the 'subject' in these examples is understood, and can in fact be deduced from the personal verb ending (see Chapter 6).

In non-pro-drop languages, some specified subjects have no obvious referent. What, precisely, is raining in *it is raining*, for example, and what does 'it' refer to in *it is clear that we need a new plan*? Likewise *there* in *There is a lot of confusion* has no referent and serves only to satisfy a requirement that English verbs have a specified subject. Subjects like these, which have a purely grammatical role, are generally known as **dummy subjects**.

Using a term borrowed from chemistry, syntacticians sometimes refer to the **valency** of a predicator, meaning the number of arguments associated with the predicate that it realizes. Thus a **one-place** predicate has a single argument (e.g. the verb *exist* in (1) above), a **two-place** predicate (e.g. Sentence 2) has two and a **three-place** predicate (e.g. Sentence 3) has three.

These arguments are said to be expressed by **complements** in the sentence, but note that terminology here is inconsistent, with some syntacticians viewing all constituents expressing a grammatical argument as complements, while others exclude subjects from this definition.

In the above examples, the predicator is a **finite** verb (i.e. one marked for tense), but prepositions, adjectives or nouns may also realize one or two-place predicates. The predicators in the following examples are *on*, *proud* and *friend* respectively.

Table 7.1: Types of one- and two-place predicates

one-place	two-place
The game is on!	The ball is on the table
He is proud	He is proud of his daughter
John is a friend	John is a friend of Paul

A requirement of English is that where the predicator is not a finite verb, the sentence requires the appropriate form of the verb *to be* for it to be grammatical: *to be* in this context is known as a **copula**, or linking verb. But not all languages have a copula requirement, as the following examples from Russian, which has neither articles nor a verb *to be* in the present tense, demonstrate:

- 1 *on inzhenjer* (lit. he engineer) ‘He is an engineer.’
- 2 *ona krasiva* (lit. she beautiful) ‘She is beautiful.’
- 3 *ja na zavodje* (lit. I on factory) ‘I’m at the factory.’

Key idea: Predicators and arguments

Sentences consist of a predicate and one or more arguments. The predicate expresses a property of an argument, or a relationship between arguments, and is realized by a predicator, often a finite verb but potentially also a preposition, adjective or noun.

The valency of a predicator is the number of arguments with which it is associated. An intransitive verb like *exist*, for example, realizes a one-place predicate, while the transitive verb *eat* realizes a two-place predicate in ‘John eats an apple’.

Parts of speech

As we saw in Chapter 2, much of our terminology for the different elements in a sentence, or what have traditionally been called the **parts of speech**, comes from the Latin model of Priscian, which was itself adapted from ancient Greek accounts. The definitions of these terms in traditional grammar were unsatisfactory in a number of ways. Nouns, for example, were – and often still are – seen as ‘naming’ words, which seems to work fine for ‘Paul’, ‘house’ or ‘dog’ but runs into difficulties with ‘naming words’ like *name* in ‘I name this ship ...’ or *christen*, both of which are verbs. Verbs themselves were similarly seen as ‘doing words’, but *action*, *busy*, or *task* are not verbs, and conversely there are a number of verbs which don’t appear to involve much ‘doing’ at all (at least in an active sense): *exist*, *suffer*, *know*, *understand*, *dream*.

A better basis for our definitions is needed, and following Saussure (see Chapter 3), linguists have preferred to define parts of speech in terms of the system of relations, syntagmatic and paradigmatic, into which they enter, i.e. their **distribution**. To determine whether a word like *cat* is a noun, we might subject it to a number of tests:

- ▶ Nouns, but not verbs, for example, can be modified by an article (*a cat* but not **a prevaricate/preoccupy/be/realize*), or by an adjective (*beautiful, big, clever, muddy cat*).
- ▶ Nouns may be the subject of a verb (*the cat purrs*), and may be marked for plural (*cats*).
- ▶ Nouns cannot, on the other hand, have pronoun subjects (**he cats/they cat*).

On the basis of properties like these, we can determine that *cat* passes all the tests for noun status and thus behaves in a similar way to a class of words including *house, dog, computer, table, sugar, sincerity*. A word need not pass *all* the tests we set up: in the above list, for example, *sugar* and *sincerity* do not have plural forms, but behave in most other respects like nouns. In such cases it may be fruitful to seek other items with similar properties and establish a sub-class. *Sugar*, for example, behaves like *jam, tea, water, wine* and so on in not normally having a

plural form (though see Chapter 9, p. 192), in requiring the quantifier *much* rather than *many* and so on. These nouns are accordingly labelled **mass** or **non-count** nouns; *sincerity*, like *honesty*, *faith*, *respect*, or *depth*, belongs to the class of **abstract** nouns with similar properties.



Key idea: Establishing word classes

Word classes can be established most reliably on the basis of distributional criteria.

The **pronouns** of traditional grammar were so called because they were seen as items that ‘stand for’ nouns. For example, ‘He’ can stand for ‘John’, or ‘They’ for ‘elephants’ in the following sentences:

- 1 John loves reading Chekhov.
- 2 *He* loves reading Chekhov.
- 3 Elephants are scared of mice.
- 4 *They* are scared of mice.

So far so good, but closer inspection of English syntax reveals that the term ‘pro-noun’ is in fact something of a misnomer. If we replace a noun by a pronoun in any of the following sentences, the result is ungrammatical:

- 1 The tap turns the water on.
- 2 *The it turns the it on.
- 3 Little John saved the day.
- 4 *Little he saved the it.
- 5 The man on the Clapham omnibus thinks the Conservatives will win the next election.
- 6 *The he on the it it thinks the they will win the next it.

To make these sentences grammatical, we need to replace not just the noun but all associated qualifiers as well, that is, the full **noun phrase** which forms a **constituent** of the sentence, and not just part of it:

- ▶ It (The tap) turns it (the water) on.
- ▶ He (Little John) saved the day.
- ▶ He (The man on the Clapham omnibus) thinks they (the Conservatives) will win it (the next election).

On distributional criteria, then, our ‘pro-noun’ is more accurately a ‘pro-noun-phrase’. While no one is proposing to change a term which is settled in people’s minds, it is an important property of English pronouns that they fulfil the role of a noun phrase constituent of a sentence and not that of a noun.

Anatomy of a sentence

When we look at a sentence on a page, we see little more than a sequence of words. However, the linear presentation of printed sentences belies their highly ordered and hierarchical internal structure. When we read a sentence aloud, we tend naturally to group certain items. Consider, for example, the simple English sentence below:

- ▶ The little girl with the red ribbon ate the large doughnut.

Here ‘The little girl’, or ‘with the red ribbon’ both seem to form natural groupings or **phrases**, while ‘girl with the’ or ‘ribbon ate the large’ do not. On this basis we can, provisionally, divide the sentence into three phrases:

- ▶ The little girl with the red ribbon ate the large doughnut.

These are not groupings of equals, however. Within each phrase, one item seems more important than the rest. Using traditional parts of speech, we can parse the first phrase, ‘The little girl’, in the following way:

- ▶ The little girl
- ▶ Art Adj N

Within this grouping, the noun (N) *girl* seems more important than the adjective (Adj) *little*: the sentence remains grammatical if we delete *little*, but not if we delete *girl*:

- 1 The girl with the red ribbon ate the large doughnut.
- 2 *The little with the red ribbon ate the large doughnut.

Deleting the article produces a sequence (or **string**) that is more acceptable than the second example above but is nonetheless odd:

3 ?Little girl with the red ribbon ate the large doughnut.

There are, however, other good reasons for seeing the article as in some sense secondary to the noun here. One can think, for example, of grammatical sentences beginning with nouns unaccompanied by articles, but there are none beginning with articles without nouns:

- ▶ Boys will be boys
- ▶ Sincerity is a virtue
- ▶ Paula missed the bus
- ▶ *The will be boys
- ▶ *The is a virtue
- ▶ *The missed the bus

Both the article and the adjective therefore seem subordinate to the noun *girl* in sentence 3 above. Phrases like these which have a noun as their **head** are known as **noun phrases** (NPs).

The phrase *ate the large doughnut* itself contains an NP (*the large doughnut*), headed by the noun *doughnut*. But this noun phrase itself seems to be subordinate to the verb (V) *ate*. Using the same test, deletion of the verb produces an ungrammatical sentence:

- ▶ *The little girl with the red ribbon the large doughnut.

While we cannot delete the verb, we can in this case delete the noun phrase *the large doughnut* and treat *ate* as a one-place predicate as defined above, or indeed substitute another verb in its place to produce a grammatical sentence:

- ▶ The little girl with the red ribbon ate.
- ▶ The little girl with the red ribbon listened.
- ▶ The little girl with the red ribbon played.

We conclude that this is a **verb phrase** (VP), headed by the verb *ate*, and consisting of a verb and a noun phrase.

In similar vein, the second grouping *with the red ribbon* can be construed as a prepositional phrase (PP), consisting of a preposition (P) *with* and a noun phrase *the red ribbon*. This prepositional phrase, however, seems less central to the sentence than the NP or the VP. We can delete it and the sentence remains grammatical:

- ▶ The little girl ate the large doughnut.

If we delete the first noun phrase, however, the sentence becomes ungrammatical, and if we delete the verb phrase, the result is grammatical but no longer a sentence:

- ▶ *with the red ribbon ate the large doughnut
- ▶ The little girl with the red ribbon

Furthermore, this prepositional phrase appears to form part of the noun phrase headed by *girl*. We have seen that pronouns can replace only full constituent NPs and, applying this substitution test to our sentence, we find that the pronoun *she* can substitute for *The little girl with the red ribbon* but not (in most varieties of English) for *The little girl* on its own:

- ▶ She ate the large doughnut
- ▶ *She with the red ribbon ate the large doughnut

We can therefore say that *The little girl with the red ribbon* is a complex noun phrase (NP), consisting of noun phrase (NP) and a prepositional phrase (PP), and headed by *girl*. In traditional terms, this NP forms the subject (or subject complement) and the VP the predicate, within which the NP *the large doughnut* forms the direct object complement.



Key idea: Sentence elements

A sentence (S) is a hierarchically structured sequence (or string). The immediate constituents of a simple English sentence are a noun phrase (NP) and a verb phrase (VP).

Phrase types are named after their most important elements, or heads: the head of an NP is a noun (N).

We can now present the structure of this sentence in full, using the **phrase-structure marker** or **tree diagram** below.

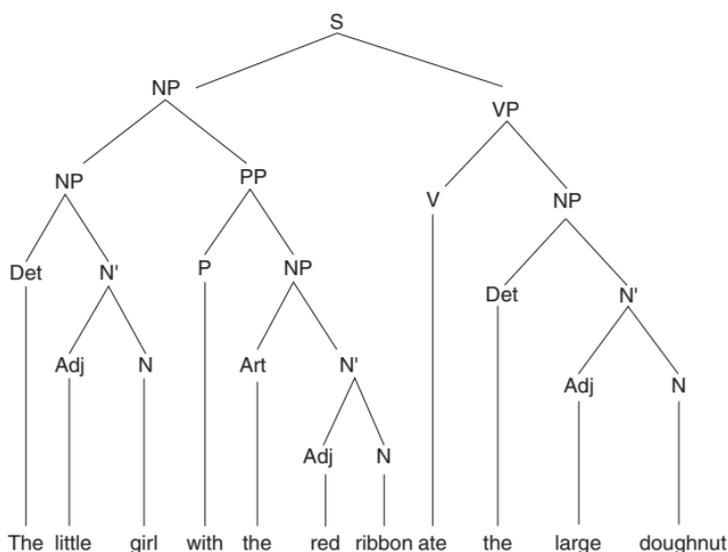


Figure 7.1: Phrase marker

The large NP and the VP are the two **constituents** of the sentence (S). The NP *the large doughnut* is a constituent of the VP, and the PP *with the red ribbon* is a constituent of the subject NP. Constituents like *the red ribbon*, which do not express arguments as we defined them in the previous section, are called **adjuncts**. Adjuncts generally provide additional information about time, manner or place and are therefore often adverbs, or adverbial phrases:

- ▶ The man lifted the boy **carefully**.
- ▶ Dinosaurs existed **many millennia ago**.
- ▶ Mary yawns **several times a day**.

Key idea: Adjuncts

Constituents that do not express arguments are known as adjuncts.



Spotlight: N-bars

The NPs in Figure 7.1 have an internal constituent generally known as 'N-bar' (N' or \bar{N}), which we have not yet mentioned. N-bars may consist solely of nouns or, as here, of nouns with qualifiers, excluding **determiners** (i.e. articles, demonstrative or possessive adjectives, or quantifiers such as *many*) and adjuncts. They need to be treated as sub-constituents of the NP by virtue of certain properties which they alone have. For example, in complex noun phrases, they can generally be replaced by the pro-form *one*, a property not lost on the writers of *Friends* in the 1990s. In each of these titles *one* can be replaced by, for example, 'episode', '*Friends* episode', or even 'weekly *Friends* episode':

- ▶ *The One with the Sonogram at the End*
- ▶ *The One Where Underdog Gets Away*
- ▶ *The One After the Ski Trip*

In addition to being hierarchically structured, sentences are **ordered**, though both the order of elements and their relative freedom of movement vary considerably between languages. Within the noun phrases, for example, we cannot place the article after the noun (**little girl the*), though articles may follow nouns in Swedish, at least when they are not qualified by adjectives, e.g. *flicka+n* ('girl-the'), *hus+et* ('house-the'). The order of phrases matters, too: *An apple ate the little girl* means something very different from *The little girl ate the apple*, just as *John loves Mary* does not – sadly for John – mean the same as *Mary loves John*.

In English, the position of the subject NP before the predicate VP is fairly fixed, and if we wish to modify it we have to signal that change by intonation or by a special construction, e.g. **passivization**, which turns an object into the subject of a sentence, or **clefting**, which signals to the listener/reader that the object has been removed from its expected place:

- ▶ John loves Mary.
- ▶ Mary is loved by John.
- ▶ It is Mary John loves.

Some languages use inversion of subject NP and VP to transform a statement into a **closed** (or yes/no) question, as these examples from Dutch demonstrate:

- ▶ U spreekt Nederlands. *You speak Dutch.*
- ▶ Spreekt u Nederlands? *Do you speak Dutch?*
- ▶ Hij gaat naar de kerk. *He goes to church.*
- ▶ Gaat hij naar de kerk? *Does he go to church?*

This once was the normal way to form closed questions in English, but its use in modern English is severely restricted, with only a small set of verbs known as **modals**, plus the auxiliaries *to be*, *to have* and *to do* allowing inversion:

- ▶ Has the Prime Minister taken leave of her senses?
- ▶ Could you lend me a pen?
- ▶ Must they always practise the drums on Sundays?

For all other verbs, the auxiliary *do*, which does allow inversion, must be supplied, as in the glosses of the Dutch examples above. This is known as **do-support**.



Spotlight: Flexible word order: Latin

Constituent order plays a more important role in determining argument structure in English than in many other languages. In Latin, for example, a rich system of **case marking** on nouns allowed for much freer order of subject and object NPs and VPs. The default or **unmarked** word order was subject–object–verb (SOV), but other orders, conveying the same information but with slightly different emphasis, were also possible.

In the examples below, the subject *lupus* ('wolf') is marked as **nominative** (subject), and the object *gallinam* ('hen') is marked as **accusative** (direct object), which allows the simple sentence 'The wolf sees the hen' to be expressed in six different orders:

- 1 Lupus gallinam videt. (**SOV**)
- 2 Gallinam lupus videt. (**OSV**)
- 3 Videt lupus gallinam. (**VSO**)

- 4 Videt gallinam lupus. (**VOS**)
- 5 Gallinam videt lupus. (**OVS**)
- 6 Lupus videt gallinam. (**SVO**)

Government and agreement

As we have seen, sentences are both ordered and hierarchically structured. In many languages, the relationships between elements within a phrase or sentence are formally marked. In English, for example, the form of the **demonstrative adjectives** *this* and *that* must agree with its noun for number:

- ▶ This dog
- ▶ These dogs
- ▶ That house
- ▶ Those houses

This marking of relationships is known as **agreement** or **concord**, and often affects items at some distance from each other in a sentence. In the following example, the third person singular form *requests* is required to mark agreement with the head of the complex subject noun phrase (*boy*):

- ▶ The **boy** with the long unwashed hair whom you met at a party last Friday **requests** the pleasure of your daughter's company.

Formal agreement marking in modern English is relatively limited: verbs, with the exception of *to be*, mark subject–verb agreement only for the third person singular of the present tense. But many other languages have rich and complex agreement systems. Hungarian verbs, for example, not only mark agreement with a subject but also indicate whether a direct object is definite or indefinite (data from Corbett 2006: 92):

- ▶ Egy könyv-et olvas-**nak**
a book-acc read-3pl-indef
They are reading a book

- ▶ Egy könyv-et olvas-sák
a book-acc read-3pl-def
They are reading the book

Note how the verbal suffix (in bold) changes when the object is definite.

A distinction needs to be drawn here between **agreement** and **government** (or **rection**). The difference can be illustrated with examples from Spanish:

- 1 El libro pequeño *The small book*
- 2 Los libros pequeños *The small books*
- 3 La casa pequeña *The small house*
- 4 Las casas pequeñas *The small houses*

In each case, the article and adjective are inflected for gender (masculine/feminine) and number (singular/plural). For number, this is a case of **agreement**: we are free to select either singular (1 and 3) or plural (2 and 4) for each noun phrase, and the noun and modifiers must be marked for the same number value. For gender, however, the values ‘masculine’ or ‘feminine’ are not a matter of choice: the value for this category is a fixed part of the lexical specification for Spanish nouns, which is then imposed on the modifiers. The noun is therefore said to **govern** the adjective for gender in Spanish. In similar vein, Latin verbs and prepositions were said to govern nouns for case: the preposition *in* (‘in’) governed ablative case when it referred to position, but accusative case when it indicated movement:

- ▶ Caesar in urbe (abl) habitat *Caesar lives in the city* (Location)
- ▶ Caesar in urbem (acc) ambulat *Caesar walks into the city* (Direction)

Both types of **government** involve inherent properties of the governing items, which have to be specified in the lexicon. In other words, a Spanish native speaker ‘knows’, albeit not necessarily in a conscious sense, that *libro* governs adjectives and determiners for masculine gender, just as speakers of Latin ‘knew’ that the preposition *in* governed nouns for accusative or ablative case.



Key idea: Agreement and government

Agreement (or concord) marks related items in a sentence for one or more grammatical categories. Verbs and subjects, for example, often agree for person and number.

Government (or rection) is a particular type of agreement, which marks the dependency of one item on another. In French and Spanish, for example, gender is an inherent property of the noun, with which adjectives must agree: nouns are therefore said to govern adjectives for gender.

Composite sentences

So far we have discussed relatively simple sentences involving a single finite verb. We can also identify other constructions in which there are two or more sentences or sentence fragments including a finite verb (i.e. **clauses**). In some cases, these are straightforwardly conjoined and of equal status:

- ▶ John read the paper and Peter mowed the lawn.
- ▶ Either the dog goes or I go.

Such sentences are known as **compound sentences**. Either of the two conjoined sentences within these two examples could function independently and there is no sense in which one is dependent on the other. On the other hand, in the following examples, one of the clauses is independent and would stand alone, while the other, in bold, is an a sense secondary or subordinate:

- 1 Steve knew **that his time was up**.
- 2 Peter, **who had never seen a gun before**, froze to the spot.
- 3 Jenny and Julie texted each other **while the band played *Rule Britannia***.

Sentences with at least one dependent or **subordinate clause** are known as **complex sentences**. In sentence 1, the subordinate clause is a complement of the verb *knew*, and fills a slot that might easily be taken up with an NP (e.g. *Julie, his place, the reason for his failure*). In sentence 2 the clause modifies, or

relates to, a single constituent in the sentence, i.e. *Peter*, and is known as a **relative clause**. Finally, the clause in sentence 3 is an adjunct, giving additional information about the manner in which the action described in the main clause took place: it could easily be replaced in this frame by an adverb or adverbial phrase (e.g. *frantically, expertly, all day, out of boredom*).

Relative clauses are used to modify nouns within the main clause, and thereby qualify them in the way that an adjective would (hence the term ‘adjectival clause’ from traditional grammar): they are introduced by **relative pronouns** such as *which, where, when* or, as in sentence 2, *who*. We need to distinguish two kinds of relative clause:

- ▶ **restrictive** relative clauses provide essential information about the noun to which they refer
- ▶ **non-restrictive** relative clauses are adjuncts, providing additional information about the noun in question (see Case study below).

Compound sentences are linked by **co-ordinating conjunctions** or **co-ordinators**. In English these include *and, or* (either on its own or in the combination *either... or*), *for, but* and *yet*. Complex sentences, however, are conjoined in a variety of ways: the subordinate clause is introduced in sentence 1 above by the **subordinating conjunction** (or **subordinator**) *that*; in sentence 2 by a **relative pronoun** (*who*); and in sentence 3 by a **temporal subordinator** (*while*).



Case study: Spot the commas! Restrictive and non-restrictive relative clauses

In writing, punctuation generally distinguishes **non-restrictive relative clauses** (e.g. 1 and 2 below) from **restrictive relative clauses** (e.g. 3 and 4). The former, as parenthetical adjuncts, are usually surrounded by commas or brackets, whereas restrictive relative clauses are not:

- 1 How can the French, **who invented joie de vivre, the three-tier cheese trolley and Dior’s jaunty New Look**, be so resolutely miserable? (*The Economist*, 21.12.2013, p. 56)

- 2 Mikhail Kalashnikov, **who was in his 20s when he created the AK-47 just after the Second World War**, died in his home city of Izhevsk. (*The Guardian*, 23.12.2013, p. 8)
- 3 Actually, calling Mandela a hero falls woefully short in adequately portraying the man **who fought apartheid...and changed the political landscape of his country**. (*Time*, 182/26, 23.12.2013, p. 109)
- 4 Offstage, the dancer **who once had a reputation for enjoying himself behind the scenes** has finally been called to heel. (*Radio Times*, 21.12.2013, p. 49)

In speech, we have to rely on intonation to distinguish the two types of relative clause. In cases of doubt, try the 'incidentally' or 'by the way' test: non-restrictive relatives generally sound natural if either is inserted after the relative pronoun, whereas restrictive relatives do not.

SUBORDINATE AND COMPLEMENT CLAUSES

The subordinate clause in composite sentence 1 above is a complement of the verb *knew*. In this case, the clause is an object complement, but subject complement clauses are also possible:

- ▶ **That Profumo lied to Parliament** caused a major scandal.

While subject complement clauses are possible in English, they are sometimes perceived as a little inelegant and can be replaced by nominalized variants in the subject NP position:

- ▶ **Profumo's lying to Parliament** created a major scandal.

Complement clauses may involve non-finite forms of the verb – an infinitive in the first example below and a gerund in the second:

- ▶ John wants **to get out**.
- ▶ Paul likes **playing games on his mobile phone**.

Present participles figure frequently in adjunct clauses, highlighting an important difference between prescriptive usage, in which they must have the same subject as the main verb, and everyday usage, which is more relaxed about a requirement of which even Shakespeare is known to have fallen foul:

- Now, Hamlet, hear. 'Tis given out that, **sleeping in my orchard**, a serpent stung me.

As many a pedant has noted, not even the Great Bard could make serpents able to sting (bite?) in their sleep!



Key idea: Composite sentences

Composite sentences are of two kinds:

- Compound sentences conjoin sentences of equal status by means of co-ordinating conjunctions.
- Complex sentences involve a main and at least one subordinate clause, linked by subordinators.



Fact-check

- 1 What characterizes pro-drop languages?
 - a They allow subjects not to be specified
 - b They use dummy subjects
 - c They can be learned without professional help
 - d They do not have three-place predicates
- 2 Which of these do not function as predicators?
 - a Intransitive verbs
 - b Transitive verbs
 - c Copulas
 - d Prepositions
- 3 Which of the underlined items is a 'dummy subject'?
 - a The man saw the dummy in the window.
 - b It was obvious that they'd put a dummy in the window.
 - c Put the hat on the dummy
 - d All of the above
- 4 Which of the underlined items is a verb phrase (VP)?
 - a The Elvis impersonator sang a few of the King's greatest hits
 - b The Elvis impersonator sang a few of the King's greatest hits
 - c The Elvis impersonator sang a few of the King's greatest hits
 - d The Elvis impersonator sang a few of the King's greatest hits
- 5 Which of the following realizes a three-place predicate?
 - a Nice guys always come third
 - b Moore passed the ball to Hurst
 - c The cat was on the bench
 - d The chair collapsed under the weight
- 6 What is the underlined item in this sentence? 'The policeman apprehended the burglar two minutes later.'
 - a An adjunct
 - b An argument
 - c A predicator
 - d A subordinator

- 7** Which of these is a non-restrictive relative clause?
- a** I saw that singer who you like on TV last night.
 - b** The boxer, who Muhammad Ali fought in 1977, was Ernie Shavers.
 - c** The boxer who Muhammad Ali fought in 1977 was Ernie Shavers.
 - d** The never-ending crowds of relatives who followed him everywhere were never satisfied.
- 8** In which of these sentences is there an example of government?
- a** These clothes don't fit me any more
 - b** The girl picked up her shoes.
 - c** The police officer was waiting in the hall.
 - d** Where have you put my shoes?
- 9** Why can the underlined element in this sentence not be replaced by 'she'? 'The tall woman from Huddersfield arrived late for the lecture.' (*She from Huddersfield arrived late for the lecture.)
- a** Because pronouns replace NPs, and it isn't an NP
 - b** Because pronouns replace nouns, and this is an NP
 - c** Because it is an adjunct
 - d** Because pronouns replace NPs which are immediate constituents of S, and this NP is a constituent of a larger NP
- 10** What is the head of this phrase? 'The very tall, impossibly handsome but slightly thick prince with the golden hair'
- a** 'slightly thick prince'
 - b** 'prince with the golden hair'
 - c** 'hair'
 - d** 'prince'



Dig deeper

B. Blake, *All About Language* (Oxford University Press, 2008), Chapters 5 & 6

A. Carnie, *Modern Syntax* (Cambridge University Press, 2011) Parts 1 & 2

V. Fromkin, R. Rodman & N. Hyams, *An Introduction to Language* (10th edition, Wadsworth, 2013), Chapter 3 'Syntax: The Sentence Patterns of Language' (Chapter 8 in some earlier editions)

F. Palmer, *Grammar* (Penguin, 1971), Chapters 1 & 2

A. Radford, M. Atkinson, D. Britain, H. Clahsen & A. Spenser, *Linguistics: An Introduction* (2nd edition, Cambridge University Press, 2009), Chapters 17 & 18

M. Tallerman, *Understanding Syntax* (3rd edition, Routledge, 2013), esp. Chapters 1–4

G. Yule, *The Study of Language* (4th edition, Cambridge University Press, 2010), Chapters 7 & 8 (Chapters 9 & 10 'Phrases and Sentences' and 'Syntax' in some earlier editions)

8

The Chomskyan revolution: generative grammar

It is no exaggeration to say that the publication in 1957 of a short volume entitled *Syntactic Structures*, by a then little-known scholar called Noam Chomsky, marked the start of a revolution which transformed modern linguistics. The approach which this book heralded, now known as **generative grammar**, set a new agenda for the discipline and remains the dominant paradigm in linguistics today. In this chapter we will consider the intellectual background to Chomsky's work and notably his rejection of behaviourism, his views on innateness and the generative approach which he launched, before examining some of the challenges he has faced from critics.

Whatever one's ultimate view of Chomsky's ideas and the agenda he has set for linguistics, his importance as a thinker cannot be denied. We begin with his critique of the Descriptivists, and his rejection of the prevailing orthodoxies of the first half of the twentieth century.

The influence of Chomsky

Avram Noam Chomsky was born to a middle-class Askhenazy Jewish family in Philadelphia in 1928. He studied under Zellig Harris at the University of Pennsylvania, obtaining a PhD in 1955, which formed the basis of his 1975 work *The Logical Structure of Linguistic Theory*. He is currently Professor Emeritus at the Massachusetts Institute of Technology, where he has worked since 1955. Named as the world's 'top public intellectual' in a 2005 poll, he is as well known for his trenchant views on United States foreign policy as he is for his often equally controversial views on language.

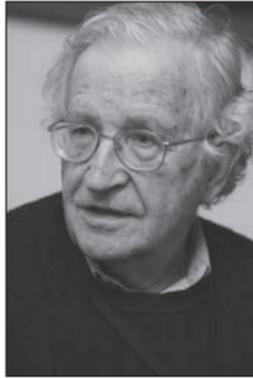


Figure 8.1: Noam Chomsky

Linguistics was originally a form of torture practised upon prisoners languishing in a dungeon (indeed, the word linguistics derives from the verb languish); the method of torture was to continuously recite Oscar Wilde quotations at the prisoner for hours on end. More recently, Noam Chomsky has modified the torture into a science. This science would disclose which exactly one of the quotations attributed to Oscar Wilde on Uncyclopedia is fake. This unsolved problem is the holy grail of modern linguistics, and those who pursue it are called linguists.

Uncyclopedia: the Content-Free Encyclopedia: Linguistics
(<http://uncyclopedia.wikia.com/wiki/Linguistics>)

That Noam Chomsky's name appears in the spoof online encyclopedia entry above for 'Linguistics' shows how closely this often-controversial figure has become associated with the discipline.

Chomsky and the North American Descriptivists

Although the influence of his mentor Zellig Harris is evident in much of Chomsky's early work, his books *Syntactic Structures* and *Aspects of the Theory of Syntax*, which followed in 1965, marked a decisive break with the Descriptivists in a number of respects. Where the Descriptivists had stressed discovery procedures, data collection methodology and the analysis of corpora, Chomsky saw the linguist's goal as the production of grammars to 'generate all and only the grammatical sentences of a language'.

Such a device would describe a potentially infinite number of sentences from finite means, i.e. it had to allow for **recursive** sentences of the 'House that Jack built' kind ('This is the cat that ate the rat that ate the corn', etc.), which could in theory, if not in practice, be extended indefinitely. It would also go beyond the Descriptivists' goal of accounting for a finite corpus of linguistic data, which would reach only the first of three levels of adequacy – **observational adequacy** – in Chomsky's eyes. To reach the next level, **descriptive** adequacy, a grammar would have to account not only for the observed data within a corpus but also for a native speaker's intuitions about grammaticality, or his/her **competence**. Native speakers of a language, Chomsky argued, are able to judge the grammaticality of a sentence that they have never heard before, irrespective of whether it is meaningful. His most famous example is cited below:

- 1 Colorless green ideas sleep furiously
- 2 Furiously sleep ideas green colorless

He claimed that (1) is perfectly grammatical, in spite of the fact that it is nonsensical and had probably not been uttered before. (While that was probably true in 1957, it has been a staple of linguistics textbooks ever since – I'd have felt I was letting you down if I had omitted it here.) An English speaker will read it confidently and with normal sentence intonation, whereas its reverse (2) is ungrammatical, and would be read haltingly as a list of words.

Grammaticality for Chomsky is not, therefore, based on **semantics** (i.e. meaning): nor, indeed, is it based on statistical probability. Completing the sentence frame ‘I saw a fragile_____’ with the word ‘whale’ or ‘of’ results in both cases in sentences with a zero probability of occurrence in English, yet native speakers accept ‘I saw a fragile whale’ as grammatical, while rejecting ‘*I saw a fragile of’.

Behaviourism

That speakers can make judgements concerning the grammaticality of sentences they have never heard reflects the creativity of the language system, which had been largely overlooked by the Descriptivists. Bloomfield, in particular, had been a strong advocate of **behaviourism**, which held abstractions such as the mind to be irrelevant in explaining the rational activities of human beings, whose behaviour could be explained purely in terms of responses to environmental stimuli. Laboratory rats, for example, could be taught to depress a lever (response) to obtain food (stimulus) and, in similar vein, Bloomfield, in his almost obsessive concern to limit the field of linguistics to the strictly observable, viewed language in the same stimulus-response terms. He offers the example of Jack and Jill:



Suppose that Jack and Jill are walking down a lane. Jill is hungry. She sees an apple in a tree. She makes a noise with her larynx, tongue and lips. Jack vaults the fence, climbs the tree, takes the apple, brings it to Jill, and places it in her hand.

Jill eats the apple.

(Bloomfield 1933: 22):

In behaviourist terms, the apple provides a **stimulus**, to which Jill’s speech is a **response**, which in turn serves a stimulus to Jack upon which he acts, bringing her the apple (**reinforcement**). But, as Chomsky pointed out in a devastating critique of leading behaviourist B.F. Skinner’s *Verbal Behavior*, behaviourist notions of stimulus and response leave many questions

unanswered. Firstly, the central concepts of stimulus, response and reinforcement as used in behaviourism appear well defined in the particular and artificial circumstances of laboratory rats in experimental conditions, but hopelessly ill defined or even circular in respect of normal human behaviour.



A typical example of stimulus control for Skinner would be the response to a piece of music with the utterance Mozart or to a painting with the response Dutch. These responses are asserted to be 'under the control of extremely subtle properties' of the physical object or event. Suppose instead of saying Dutch we had said Clashes with the wallpaper, I thought you liked abstract work, Never saw it before, Tilted, Hanging too low, Beautiful, Hideous, Remember our camping trip last summer?, or whatever else might come into our minds when looking at a picture (in Skinnerian translation, whatever other responses exist in sufficient strength). Skinner could only say that each of these responses is under the control of some other stimulus property of the physical object. If we look at a red chair and say red, the response is under the control of the stimulus redness; if we say chair, it is under the control of the collection of properties (for Skinner, the object) chairness, and similarly for any other response. This device is as simple as it is empty. (...) We cannot predict verbal behavior in terms of the stimuli in the speaker's environment, since we do not know what the current stimuli are until he responds. Furthermore, since we cannot control the property of a physical object to which an individual will respond, except in highly artificial cases, Skinner's claim that his system, as opposed to the traditional one, permits the control of verbal behavior is quite false.

[Chomsky1959: III, pp. 31-2]

Worse, the behaviourist model fails to account for the linguistic creativity we alluded to above. If the child's 'want milk' is a response to feeling hungry, is reinforced by its mother and consequently stored as an effective utterance, how is it that children rapidly learn to use and understand sentences that they have never actually heard before? How is it, as Pinker puts it (2002: 21-2), that human beings are smarter than rats?



Spotlight: The blank slate

The metaphor of the **tabula rasa** or blank slate, generally attributed to the philosopher John Locke (1632–1704), represents the empiricist view of a human mind without innate ideas or programming, and moulded entirely from experience. The blank slate denied innate or ‘God-given’ talents, and placed all human beings equal at birth. For critics of empiricism, however, its egalitarian promise degenerated all too easily into tyranny. These comments made in 1924 by the founder of behaviourism, John B. Watson (cited by Pinker 2002: 19), for example, were offered as a critique of an unequal social order, but their overtones of social engineering have a chilling ring in the aftermath of twentieth-century totalitarianism:

‘Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I’ll guarantee you to take any one at random and train him to become any type of specialist I might select – doctor, lawyer, artist, merchant-in-chief, and yes, even beggarman and thief, regardless of his talents, penchants, abilities, vocations and race of his ancestors.’

Innateness

While Chomsky’s critique of behaviourism was persuasive, not everyone was prepared to join him in what he saw as the next logical leap. Where the behaviourists started from the assumption of the mind as an infinitely malleable ‘blank slate’ (see Spotlight above), Chomsky argued instead for an innate predisposition to learn language. Only this, he claimed, would account for children’s remarkable ability to learn languages at an early stage of development and on the basis of ‘meagre and degenerate data’ (the ‘cootchy cool!’ of stereotypical parent-to-baby talk), and to use it creatively. If humans are innately predisposed to learn language, Chomsky argued, then it followed that at an underlying level – which he called **deep structure** – languages were fundamentally similar in important respects. The innate language blueprint with which the child is born, and which facilitates the task of language learning, he termed **universal grammar** (UG).

The ultimate goal of linguistics, in that case, was therefore to go beyond **descriptive adequacy** and achieve **explanatory adequacy** for grammars of natural language. Where two descriptively adequate grammars account for the same phenomenon, the one that should be selected, he argued, is the one most compatible with universal grammar (see Case study below). A grammar that achieves explanatory adequacy has the advantage of simplicity, because it strips away those rules which are already specified in universal grammar, and which a child does not therefore need to learn.



Key idea: Levels of adequacy

Grammars can achieve three levels of adequacy:

- **Observational** adequacy provides an accurate description of well-formed sentences in a corpus.
- **Descriptive** adequacy accounts for native-speaker intuitions.
- **Explanatory** adequacy selects the best available grammar in terms of its compatibility with universal principles.



Case study: Chomsky's three levels of adequacy

Smith and Wilson (1979: 241–2) provide a good example of Chomsky's three levels of adequacy. In the case of what is known as **WH-movement**, a noun following a WH- word can be moved to the front of a sentence:

1 Mary met some **tourist** on the street.

1b **Which tourist** did Mary meet on the street?

But this movement is not possible for a noun in a co-ordinated NP of the form 'X and Y':

2 Mary met a policeman and some tourist on the street.

2b *Which tourist did Mary meet a policeman and on the street?

An **observationally** adequate grammar would merely state that WH-movement does not allow extraction of a noun or noun-phrase from a co-ordinated structure, but in doing so it might miss a more important generalization, namely that the same constraint also

applies elsewhere. Movement from a conjoined NP is similarly ruled out in **topicalization**, for example:

3 I want to invite that boy to my party

3b That boy, I want to invite to my party.

4 I want to invite this girl and that boy to my party

4b This girl and that boy, I want to invite to my party

4c *That boy, I want to invite this girl and to my party.

A **descriptively** adequate grammar of English would therefore state that no rule of English – and, equally importantly, no possible rule of English – allows movement out of a co-ordinated NP. But an **explanatorily** adequate grammar of English would not specify the rule at all, because it seems to be a feature of universal grammar. Movement from co-ordinated NPs appears to be ruled out in other languages, with no known counter-examples:

French:

J'aime beaucoup ton frère et ta sœur 'I like your brother and your sister'

*Ta sœur, j'aime beaucoup ton frère et *'Your sister, I like your sister and'

Russian:

Ja vidjel Pavla i Sonju 'I saw Pavel and Sonya'

*Sonju ja vidjel Pavla i *'Sonya I saw Pavel and'

Nupe (Nigeria):

egi-zì gí yikā tò nâ? '(The) children ate fish and meat'

*nāk'â kíci egi-zì gí yikā tò o? *'meat which children eat fish and'
[*'Which meat did the children eat fish and?']

The evolution of generative grammar

Unlike the Descriptivists, who built their grammars 'upwards' from phonemes to sentences, Chomsky put syntax at the centre of his formal model, providing rules to generate well-formed

sequences from abstract syntactic units of the kind we saw in the previous chapter. The essential components of a sentence (S) of traditional grammar, namely subject and predicate, were reframed in these terms as NP and VP:

▶ $S \rightarrow NP VP$

These two constituents might then be rewritten as follows:

▶ $NP \rightarrow (Det) (Adj) N$

▶ $VP \rightarrow V (NP)$

In this rule notation, the bracketed items are optional but the non-bracketed ones are not, for the reasons outlined in Chapter 7: a noun phrase and a verb phrase must be **headed** by a noun and a verb respectively. Our simple NP rewrite rule generates such phrases as *the old man*, *this house* and *girls*, and our sentence rule generates a very large number of sentences, including Chomsky's own example from *Syntactic Structures*:

The man hit the ball.

which we can present either as a labelled bracket structure $S_{NP[Det[The] N[Man]] VP[V[hit] NP[Det[the] N[ball]]}$ or, more commonly, for ease of exposition, as a tree diagram:

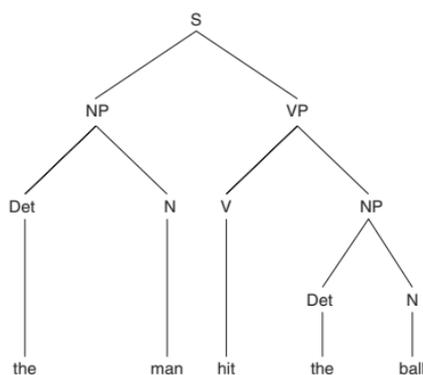


Figure 8.2: Phrase marker for 'The man hit the ball'

To generate an infinite number of grammatical sentences from finite means, the model has to allow for recursion, which is achieved by allowing constituents to occur within constituents of the same kind. In the example below, for example, S recurs as a **daughter node** of VP:

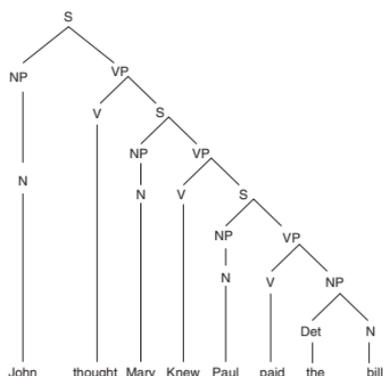


Figure 8.3: Recursion of embedded sentences

Recursions of this kind illustrate an important difference between what Chomsky calls **competence**, an individual's internalized grammar, and **performance**, its realization in speech. The capacity to produce infinitely long recursive sentences is a matter of competence, but limits are imposed by real world considerations of performance: overlong sentences are boring and difficult to process, you have a finite amount of breath, and your interlocutor may do you an injury if you do not stop after a reasonable amount of time.

Key idea: Recursion

Early generative grammars were framed in terms of **rewrite rules** of the kind:

$S \rightarrow NP VP$
 $VP \rightarrow V (NP)$

Recursion was made possible by allowing constituents to occur within constituents of the same kind, e.g.:

$S \rightarrow NP VP$
 $VP \rightarrow V (S)$

The partial grammar of English above rules out sentences that do not conform to its phrase-structure (PS) rules, for example:

- 1 *Clever girl the questions answered
- 2 *Exists house
- 3 *The brown cat ate yellow

It would, however, require some refinement in order not to generate ungrammatical sentences like the following:

4 This green cats eat a mice

5 John exists a banana

Modifications to the grammar, for example agreement rules in (4) and a specification in the lexicon that *exist* cannot take an object NP in (5), are easily introduced. But Chomsky draws our attention to a more fundamental problem of phrase-structure grammars, namely that they fail to account for relationships between sentences, for example this active/passive pair:

1 The cat ate the mouse

2 The mouse was eaten by the cat

The relatedness of the this pair is not evident from their structural description, but Chomsky argues that the passive (7) is derived from the active (6) by what at this stage he calls a **transformation**, which he sets out thus:

'If S_1 is a grammatical sentence of the form

$NP_1 - Aux - V - NP_2$

then the corresponding string of the form

$NP_2 - Aux + be + en^1 - V - by + NP_1$

is also a grammatical sentence.'

By positing a transformational component allowing constructions in **surface structure** to be derived from others in **deep structure**, Chomsky accounts for complex structural ambiguities. In (1) below, for example, the structural ambiguity comes from the different constructions in deep structure (2) and (3) from which (1) is derived:

¹ **en** (as in *hidden*) denotes the past participle marker, and was chosen conventionally in preference to the more common **-ed**, which also marks past tense.

- 1 The shooting of the hunters
- 2 The hunters shot (someone/something)
- 3 (Someone/something) shot the hunters

Note that, in early models of generative grammar, surface structure is not to be equated with output: the latter is generated from surface structure by the phonological component.



Key idea: Transformations

In early generative models, constructions in **deep structure** can be transformed in **surface structure**. For example, deep structure active sentences become passive in surface structure via the **passivization transformation**.

For all its theoretical attractions, a major problem with the transformational component of the model was that it was largely unconstrained. Transformations could not introduce new meaning-bearing elements, but they could move constituents (for example both NP2 and NP1 move in the passivization transformation), add elements (*by*) or, on occasions, delete them. In other words, they could do practically anything, which sat awkwardly in the context of a research programme aiming to capture the universal principles of grammar acquisition, which are purportedly simple and restricted in number. Later models have therefore set out to specify the constraints on transformations.

Transformations initially gave way to movement rules, and the label ‘Transformational-generative grammar’ (or ‘TG’) of the 1970s had become simply ‘Generative grammar’ by the 1980s. Deep and surface structure were renamed D- and S-structure respectively, and generativists talked of i-language (‘internal language’) and e-language (‘external language’) rather than competence and performance. Rules specifying grammaticality in individual constructions gave way to **principles**, which set out conditions on grammaticality applicable to *all* constructions in human language, and **parameters** which constrain their application according to their setting in a given language. As an example, the generalization that all phrases

have a **head** (see Chapter 7) is a principle, while the **head parameter** or **head-directionality parameter** (see Spotlight below) determines the position of that head with respect to complements within its phrase.



Key idea: Principles and parameters

Principles are conditions on grammaticality that are universally applicable. Parameters have a restricted choice of settings that a language may select, e.g. Japanese selects **head-final** for the head-directionality parameter.



Spotlight: The head parameter

A good example of a parameter within **Principles and Parameters Theory** is the head parameter, which determines the position of heads in a phrase. In a **head-initial** language like English, the head noun (N) of an NP comes before its complements:

- ▶ **leader** of the gang
- ▶ **cards** on the table

This is not just true for NPs: the head preposition of a PP also precedes its complements (**in** the bag, **under** the bridge), and verbs precede object complements in a VP (**read** a book, **answered** the question). The 'head-first' setting for this parameter therefore captures a number of independent facts about the syntax of English and of other languages with the same setting.

In Japanese, which is a **head-final** language, exactly the reverse pattern applies (data from Cook & Newson 2007: 44). It has postpositions, not prepositions, as heads of PPs:

- ▶ kabe ni 'on the wall'
wall **on**

Similarly, verbs come after their complements:

- ▶ Nihonjin desu 'I am Japanese'
Japanese **am**
- ▶ E wa kabe ni kakatte imasu 'The picture is hanging on the wall'.
picture wall **on** is hanging

Principles and parameters were incorporated in the 1980s in **modules in government and binding (GB) theory**, which set out universal structural conditions, and placed constraints on the one remaining transformation ‘move- α ’ (move alpha), which essentially meant ‘move anything anywhere’. One of the GB modules, **bounding theory**, ruled out, for example, movement of elements outside certain constructions called **islands** (see Cook & Newson 2007: 73 & 138–41). The **minimalist programme** aimed for still greater economy in the apparatus of generative theory by removing D- and S-structure altogether and allowing only very general constraints to interact with the abstract feature specifications of lexical items.

Chomsky’s generative paradigm has dominated theoretical linguistics and set the agenda for the subject for nearly six decades. But although it has been constantly updated and refined, it has never been uncontroversial, as we shall see in the next section.

Controversies



I have no time for Chomskyan theorizing and its associated dogmas of ‘universal grammar’. This stuff is so much half-baked twaddle, more akin to a religious movement than to a scholarly enterprise. I am confident that our successors will look back on UG as a huge waste of time. I deeply regret the fact that this sludge attracts so much attention outside linguistics, so much so that many non-linguists believe that Chomskyan theory simply is linguistics, that this is what linguistics has to offer, and that UG is now an established piece of truth, beyond criticism or discussion. The truth is entirely otherwise.

(Larry Trask, *The Guardian*, 6.6.2003, p. 32)

Chomsky has never been without his dissenters. Some, like Charles Hockett, whose 1968 critique, *The State of the Art* marked a break with generativism, have initially been sympathetic to Chomsky’s approach and goals. For others, such as Geoffrey Sampson and Larry Trask, Chomsky’s own break

with the Descriptivists simply represented a wrong turn from which the subject has never recovered. While we cannot do justice to all the controversies here, we will highlight some areas in which generativism has faced persistent criticism, and some of the responses its supporters have offered.

A recurrent strain of criticism focuses, unsurprisingly, on Chomsky's innateness hypothesis and the question of whether language learning is qualitatively different from other kinds of cognitive development. In particular, Chomsky has faced the accusation that his persuasive critique of behaviourism does not amount to evidence in favour of his own theory of a universal grammar. Generativists would counter that language acquisition is difficult to explain without some innate mental blueprint. It proceeds rapidly and at an early stage in development, irrespective of the child's cognitive abilities in other areas. And while children do make errors, these are generally of an 'intelligent' kind, involving overgeneralization of rules which they have deduced for themselves – for example, those of plural and past tense formation as shown here:

- ▶ I saw some sheeps on the hill.
- ▶ Mummy readed my book.

Equally important are the kinds of mistake that children appear *not* to make. Imagine, for example, a robot attempting to make sense of pronoun use in the English language. It might notice, for example, that in a sentence like 'Paul goes to London on Wednesdays', the first word 'Paul' can be replaced by 'he'. It might also learn that 'he' refers to male animates and 'she' to female ones. Applying a normal 'trial and error' approach to understanding the functioning of these two pronouns, it might then draw the obvious conclusion that the first word in a sentence can be replaced by a pronoun, a strategy which works well with proper names like *John*, *Mary*, *David* and so on in sentence frames like the one just quoted. But what if the subject is a noun phrase, as here?

- 1 The man goes to London on Wednesdays.
- 2 Our teacher goes to London on Wednesdays.
- 3 The tall man with a long beard and an umbrella goes to London on Wednesdays.

A similar approach would lead the robot, perfectly logically, to produce the following, ungrammatical sentences:

- 1 *He man goes to London on Wednesdays.
- 2 *He teacher goes to London on Wednesdays.
- 3 *He tall man with a long beard and an umbrella goes to London on Wednesdays.

Human children do not, however, behave like robots. They do not seem to make the ‘trial and error’ mistakes one might expect, quickly deducing instead that the underlined noun phrase in each case can be replaced by *he*. This suggests an early grasp of the complex notion of **structure dependency**, which for Chomsky is explicable only in terms of an innate understanding of how natural languages are organized. Evidence for the innateness hypothesis was provided by a famous experiment in which Neil Smith, Ianthi-Maria Tsimpli and Jamal Ouhalla (1993) worked with Christopher, a man whose development had been delayed with respect to normal cognitive abilities such as learning to walk, but who had shown a remarkable aptitude for language acquisition. The researchers presented him with unfamiliar natural languages, which he learned without difficulty. But an invented language, Epun, which displayed structure-independent operations not found in natural languages, proved beyond his capabilities.



Key idea: Universal grammar?

Children’s early grasp of structure-dependency has been advanced as evidence for an innate language faculty, or universal grammar.

Chomsky has also been criticized for ignoring semantics because it does not lend itself to the formalization his theory requires. Commentators have challenged notably the assumption that native speakers can judge grammaticality without reference to meaning. Chomsky’s claim, for example, that ‘Furiously sleep ideas green colorless’ is not accepted by English speakers seems to rest, as Moore and Carling (1982: 81) point out, on the assumption that strings of the kind

adv V N adj adj

are ill-formed. However, a structurally identical sequence such as ‘Always dye shirts greenish blue’ is likely to be accepted, suggesting that acceptability is not judged solely on the basis of grammar. Chomsky’s assumption that native speaker intuitions are based on competence has also been challenged. As Palmer (1971: 159) has pointed out, some speakers reject sentences like the following:

- ▶ He will have been being beaten.

It is not clear, however, on what basis this is rejected: competence or performance? In other words, are informants rejecting the combination of future marker *will* with perfect, progressive and passive on the grounds that the sentence is ungrammatical with respect to their internalized rule system (**competence**), or merely because the resulting sentence is complex and difficult to process (**performance**)? The basis for native speaker intuitions is certainly not as self-evident as Chomsky’s model suggests.



‘There are three things in life you must never run after: a woman, a bus, and a theory of transformational grammar – there will be another one along in a moment’, remarked one well-known linguist.

[Aitchison 1978: 124]

The regularity with which Chomsky has proposed and then abandoned generative frameworks has frustrated many, as have his sometimes opaque style and shifting terminology. It is certainly true that Chomsky’s own work is not always an easy read, but his ideas do have powerful and articulate champions such as Stephen Pinker, who bring them persuasively to a wider audience, and a number of good, accessible introductions to Chomsky’s work are available. Nor is it necessarily a fair criticism that the model has changed so often: it is reasonable to expect any scientific endeavour to refine its assumptions in the light of new discoveries. Nonetheless, objections that the generative programme has become lost in its own obscure formalisms cannot lightly be dismissed.

As we saw above, the 1980s saw a decisive shift away from rules, and in favour of principles and parameters with greater explanatory power. By the early 2000s, however, as Newmeyer argued in an important article in 2004, the number of postulated ‘language parameters’ had mushroomed, and many were little more than ‘rules’ in disguise. Even the **head-directionality parameter** to which we alluded above turned out to be more problematical than first thought, as many languages are far from consistently ‘head-initial’ or ‘head-final’. Newmeyer concluded that parameters – an essential part of the generative framework for two decades – were in fact an unnecessary and unilluminating construct.

Critics have long argued that Chomsky was too quick to move to the deductive from the empirical phase of enquiry, i.e. that speculative theoretical edifices were built on knowledge of a few languages and that the staggering diversity of human language was ignored or dismissed as unimportant.



Some linguists believe that they will be able to discover in deep structure the universal features of language. My own view is that this is rather like the alchemists' search for the philosopher's stone and that just as chemistry turned away from this kind of speculation to the detailed examination of chemical substances, so too linguistics will concentrate in greater detail upon the phenomenon of language itself.

[Palmer 1971: 188]

Syntactic Structures in particular, which refers only to English, has been compared unfavourably to Bloomfield's *Language*, which draws on a vast range of natural languages for exemplification. As typologists have consistently identified exceptions to putative linguistic universals, an obsession with formal models is seen to have diverted attention from the real business of linguistics, namely the study of languages:



And certainly nothing in Chomsky's argument for rationalist theory justifies the way in which, for a decade or more, the energies not just of a few enthusiasts but of almost an entire discipline have been diverted away from the task of recording and describing the various facets of the diverse languages of the world, each in its own terms, towards that of fitting every language into a single, sterile formal framework, which often distorts those aspects of a language to which it is at all relevant, and encourages the practitioner to overlook completely the many aspects of language with which it is not concerned. This has simply been a wrong track taken by linguistics.

[Sampson 1980: 164–5]

A widely quoted 2009 article by Evans and Levinson attempted to refocus linguistic inquiry on the diversity, rather than the supposed universality, of language structure, arguing that there are ‘vanishingly few’ linguistic universals in the sense of features shared by all languages, and that those that can be found are not particularly illuminating:



Instead, diversity can be found at almost every level of linguistic organization. This fundamentally changes the object of enquiry from a cognitive science perspective. This target article summarizes decades of cross-linguistic work by typologists and descriptive linguists, showing just how few and unprofound the universal characteristics of language are, once we honestly confront the diversity offered to us by the world's 6,000 to 8,000 languages. (...) Although there are significant recurrent patterns in organization, these are better explained as stable engineering solutions satisfying multiple design constraints, reflecting both cultural-historical factors and the constraints of human cognition.

[Evans and Levinson 2009]

Alternatives to universal grammar have also been advanced as explanations for Evans and Levinson's ‘vanishingly few’ universals, among them the concept of **convergent evolution**,

i.e. a common adaptation to similar conditions in unrelated languages, comparable to the independent development of flight in insects, bats and birds which secured an evolutionary advantage for all three species.

The criticism that generativism ignores linguistic diversity (or, worse, is exclusively anglocentric), however, is no longer a fair one: its proponents draw increasingly on a wide range of languages, of vastly different genetic make-up. In fact, as the world's languages die at an alarming rate, the need to study and document linguistic diversity is taking on a new urgency, keenly felt by generativists and non-generativists alike. This opens up new and fascinating questions for research: why, for example, does linguistic diversity appear to mirror biodiversity, with more languages spoken around the equator than in more temperate regions? (Papua New Guinea alone is home to some one in seven of the world's languages.) Why do some languages have highly inflected grammars while others have apparently simpler systems and, indeed, is linguistic complexity in one area of the grammar always balanced by simplicity in another, as has traditionally been assumed (the **equi-complexity hypothesis**: see Chapter 13)? These are questions to which, at present, we can only offer partial answers.



Fact-check

- 1 What did 'Colorless green ideas sleep furiously' prove for Chomsky?
 - a That native speakers reject meaningless sentences as ungrammatical
 - b That Americans can't spell 'colourless'
 - c That judgements of grammaticality are not based on meaning
 - d That semantics is central to judgements of grammaticality
- 2 What had behaviourism seen language acquisition in terms of?
 - a Responses to the environment
 - b Innate ideas
 - c Universal grammar
 - d Linguistic creativity
- 3 What is competence?
 - a A gift for learning foreign languages
 - b Awareness of good grammar
 - c A native speaker's internalized grammar
 - d Realization of a speaker's internalized grammar in speech
- 4 Which of these noun phrases is *not* generated by the rewrite rule below?

NP → [Det] [Adj] N

 - a Little children
 - b The clever girl
 - c Little green martians
 - d This sceptred isle
- 5 Why were behaviourist conceptions of language problematical?
 - a Language users are creative
 - b The stimuli are poorly defined or understood
 - c Human beings are smarter than laboratory rats
 - d All of the above
- 6 What is universal grammar?
 - a A basic vocabulary with which children are born
 - b An innate predisposition to learn language
 - c Esperanto
 - d Child language in its early stages

- 7** What is the difference between a principle and a parameter?
- a** Parameters only affect head position in a noun phrase
 - b** Parameters are unavailable in some languages
 - c** Unlike parameters, principles do not apply to all constructions
 - d** Principles apply to all natural language constructions, but parameters have language-specific settings
- 8** In the earliest generative models, what characterized transformations?
- a** They only allowed movement rules
 - b** They could add meaningful elements
 - c** They explained relations between sentences in terms of deep and surface structure
 - d** They were tightly constrained and few in number
- 9** What is a grammar that accounts for native speaker intuitions?
- a** Descriptively adequate
 - b** Observationally adequate
 - c** Inadequate
 - d** Explanatorily adequate
- 10** What have later generative frameworks aimed to do?
- a** Rename rules as 'parameters'
 - b** Introduce levels between deep and surface structure
 - c** Allow for greater language specificity in phrase markers
 - d** Constrain or remove the transformational component



Dig deeper

A. Carnie, *Modern Syntax – A Coursebook* (Oxford University Press, 2011), Parts 1 & 2

V. Cook & M. Newson, *Chomsky's Universal Grammar* (3rd edition, Blackwell, 2007), Chapters 1, 2 & 5

S. Pinker, *The Language Instinct: The New Science of Language and Mind* (HarperCollins, 1994), esp. Chapters 1–4

A. Radford, M. Atkinson, D. Britain, H. Clahsen & A. Spenser, *Linguistics: An Introduction* (2nd edition, Cambridge University Press, 2009), Part 3

A. Radford, *Syntax: A Minimalist Introduction* (Cambridge University Press, 1997), Chapters 1–4

9

Semantics: the meaning of 'meaning'

We are all, in a sense, walking dictionaries. In addition to a set of grammatical rules which tell us, for example, that the article comes before the noun in English and not after it (as in Danish), we have a mental dictionary or **lexicon** which stores the form of a **lexeme**, any irregularities associated with it (for example that the past tense of *bring* is *brought* and not **bringed*), its syntactic properties (e.g. that the verb *give* realizes a three-place predicate) and its meaning. But linguists are noticeably less confident about offering rules and generalizations in the area of meaning than they are about grammar or phonology, and have long regarded **semantics**, the study of linguistic meaning, as the 'weak point' in our understanding of language.

This chapter addresses the thorny problem of meaning in language. We will examine ways in which linguists have attempted to understand meaning through an analysis of sense relations and semantic features, and have grappled with types of meaning which go beyond the propositional content of the words a speaker utters.

The 'weak point' in linguistics?

No two speakers have exactly the same lexicon. My own active lexicon, for example, does not include *ontological*, because I'm not convinced I actually have a clue what the word means, but a philosopher friend uses it quite regularly. Some speakers have a bigger lexicon than others, though we need to be careful here not to confuse size of lexicon with breadth of standard language vocabulary – many people have an extremely rich non-standard or dialectal lexicon, but struggle to express themselves in a standard variety, and may find themselves stigmatized by mainstream society as a consequence.



Key idea: The lexicon and lexemes

The lexicon is the mental word bank in which we store lexemes, together with their form, meaning, syntactic properties and any specific features not predictable by grammatical rule.

Lexemes may consist of single words, or full phrases where the meaning cannot be reduced to that of its component parts. For example, the colloquial expression *to kick the bucket* may be viewed as a **phrasal lexeme** or **idiom** by virtue of the fact that its meaning cannot be reduced to that of its component parts – taken together, this idiom means 'to die'.

What do we mean by 'meaning'? Philosophers and linguists agree that the concept is extraordinarily difficult to pin down:



The statement of meanings is therefore the weak point in language study, and will remain so until human knowledge advances very far beyond its present state.

(Bloomfield 1933: 140)

Nearly eight decades later, Paul Elbourne seems equally pessimistic:



Despite 2,400 years or so of trying, it is unclear that anyone has ever come up with an adequate definition of any word whatsoever, even the simplest.

[Paul Elbourne 2011: 1]

There are a number of reasons why meaning seems less clearly structured and less susceptible to scientific investigation than other areas of language. Firstly, Bloomfield claimed that our knowledge of the world was quite simply deficient, and not readily susceptible to the scientific analysis he craved:



Actually our knowledge of the world in which we live is so imperfect that we can rarely make accurate statements about the meaning of a speech-form. The situations (A) which lead to an utterance, and the hearer's responses (C), include many things that have not been mastered by science.

[Bloomfield 1933: 74–5]

He also notes the very rough-and-ready way in which meanings are often learned. In some cases a definition will work, but in other cases it proves impractical. Rather than attempt to define, say, the word *apple* to a child, for example, we are likely simply to reach for an apple, show it to the child and hope that he/she can extrapolate from that example what all apples have in common and, more importantly, what distinguishes them from *pears*, *grapes*, *plums* and so on. This is often the only way to explain word meanings – young children cannot after all reach for the *Oxford English Dictionary* or equivalent for their definitions – and generally it *seems* to work.

But if meanings are often acquired by little more than supported guesswork, how can we be sure that the meaning of a given lexeme as stored by one individual is identical to that of another? The short, and easy, answer to that question is that if our internalized meanings were radically different, then communication would be impossible: I might be talking perhaps

about ‘soccer’ and imagining a game involving 22 players and a round ball, while another person would hear that term and understand what I mean by ‘blue cheese’, and yet another would access my meaning of ‘saucepan’. That clearly does not happen, and I’d be wasting my time writing this book if it did, as any attempt to communicate ideas would be futile. But we cannot be sure that our internalized meanings correspond *exactly*: is my definition of *cup* the same as yours, for example? At what point does *cup* become *mug* for you, and is that point the same for me?

For some philosophers, notably Wittgenstein, the meaning of any word eludes abstract definition and is entirely dependent on its use. It is therefore constantly modified and reshaped by its users. The word *colour*, for example, has a very different meaning for a painter and a snooker player: for the latter it contrasts with *red* and includes *black*, but not *white*, whereas no such restrictions apply for the former. In Part I of his *Philosophical Investigations* (1953), Wittgenstein argues that any attempt to find a common meaning for the word *game* in all its uses ultimately ends in failure. He observes that not all games have a competitive element (compare chess and solitaire); some, but not all, involve the amusement of children (catch, ring-a-ring-o’-roses); while some involve skill (tennis, chess) and others chance (dice). Our knowledge of the ‘meaning’ of the word *game* is therefore based not on some idealized notion of what a ‘game’ is, but on our ability to use the word in different contexts. Others would argue that a common ‘core’ meaning can be identified which is shared in all contexts (I know of no one who doesn’t think cups can contain liquids, for example), but that there is a significant amount of ‘fuzziness’ or semantic indeterminacy around that core. Indeterminacy is particularly evident with new lexemes, whose meanings are often contested (see Case study below).



Case study: The semantics of ‘Chavs’

In 2011 the journalist Owen Jones published a book entitled *Chavs: The Demonization of the Working Classes*, which was the subject of this withering critique by Rod Liddle in the *Sunday Times* (12 June 2011):

'The author, an Oxford graduate from Stockport, has based it upon this demonstrably false premise, that working-class equals chav. And that, further to this, the deployment of the word "chav" is part of a conspiracy by the ruling class and especially the Tories to keep the lower orders in their place. And while he concedes that working-class people themselves do sometimes describe those they despise as "chavs", this is but part of the "divide and rule" strategy employed by the bourgeoisie to maintain their economic and cultural hegemony. Yes, this is a book written by the bastard offspring of Private Eye's Dave Spart and Sue Townsend's Adrian Mole, a sustained rant devoid of nuance and wit, one part Socialist Worker editorial and one part undergrad history essay.'

Underpinning the political/ideological critique is an argument about semantics. In Liddle's view, Jones treats *chav* as a pejorative **synonym** of 'working-class individual': whereas Liddle himself views the relationship as one of **hyponymy**: all *chavs* are working-class, but not all working-class people are *chavs*. At the time of writing a lively debate was ongoing on internet forums about (a) whether *chavs* are necessarily white, and if so (b) whether the term is not only pejorative, but also racist. Not everyone, however, even agrees that the term is pejorative: Labour MP Stephen Pound sees it as a term of envy, no different in kind from style labels such as *Teddy Boy* or *Mod*, used to identify groups in the past.

Semantic relativity

Studying semantics would be more straightforward if concepts could be taken as 'given' and simply assigned different labels by different languages, e.g. *dog* (English), *Hund* (German), *Ci* (Welsh) and so on. Such equivalence is, however, the exception rather than the rule, as anyone who has ever attempted a translation, even of a very basic kind, will know: languages divide up the world conceptually in different ways. French, for example, has no word for 'shallow' – the nearest equivalent is something like 'not very deep' (*peu profond*); on the other hand, French has two terms covering the semantic range of English *cupboard*, requiring the speaker to specify whether the item is wall-mounted (*placard*) or free-standing (*armoie*). The Japanese verb *suu* covers both 'to smoke' and 'to sip' in English.

Words which look very similar can have very different connotations: on the political spectrum *liberal* in British English is usually complimentary, implying tolerance and openness, but in the United States the same word is often used pejoratively, implying an over-readiness to accept fashionable left-of-centre ideas and extend the scope of the state at the expense of personal freedom, while in French *libéral* has exactly the opposite connotations, implying an over-readiness to dismantle the state and extend the free market.

Colour terminology offers a good example of lexical non-equivalence between languages, as can be seen in the examples of English and traditional Welsh below:

Table 9.1: Colour terms in English and Welsh

English	Welsh
green	gwyrrd
blue	glas
grey	
brown	llwyd

The semantic range of Welsh *glas* overlaps partly with that of English *green*, *blue* and *grey*, while *llwyd* overlaps partly with *grey* and *brown*. Russian, by contrast, has two words covering English *blue*: *goluboi* corresponds broadly with *sky blue* or *light blue* while *sinii* is *dark blue*. Many languages, including Vietnamese, Kurdish and Kazakh, do not distinguish *blue* and *green* as English does.

The semantics of colour has been a focus of scholarly attention since the publication in 1969 of Berlin and Kay's *Basic Color Terms: Their Universality and Evolution*. Setting aside complex colour expressions (*pea-green*, *sky-blue-pink* and so on) and focusing only on basic terms, Berlin and Kay examined a sample of 98 languages spoken across the world and argued for a universal hierarchy, acquired by languages in chronological sequence. A very small number of languages, for example Dugum Dani, spoken in western New Guinea, are still at the first stage, in which only two colours are distinguished:

prototypically ‘white’ and ‘black’, but covering the semantic area of ‘light-’ and ‘dark-’coloured respectively. The next stage is the acquisition of ‘red’ as a third colour term, followed by ‘green’ and/or ‘yellow’, and then ‘blue’. Russian and Italian have most basic colour terms, with 12; English has 11.

Berlin and Kay’s hierarchy has been modified and refined since the publication of *Basic Color Terms*, but some critics have challenged their universalist claims, viewing colour as a culture-specific concept. These critics argue that a bias towards western assumptions and perceptions underpinned much of their methodology.

Sense relations

While native speakers are often able to offer clear and unambiguous judgements of *form* (e.g. “I have readed” isn’t English’, “They are big ones” is correct but “they are bigs ones” isn’t’), they are less confident (and less likely to agree) on judgements of word meaning, or lexical semantics. To understand word meaning, therefore, we need to look at the concrete evidence provided by the **sense relationships** into which lexemes enter. An important distinction needs to be drawn here between **denotation**, or the relationship between a lexical item and the world, and **sense**, its relationship with other lexemes. Thus *starling* denotes a subset of the set defined by *bird* and having the properties of being small, black and speckled in appearance, and enters into **sense relations** with words such as *robin*, *sparrow*, *bird* and so on.



Key idea: Identifying word sense

We can identify the sense of a word by examining its relations with other words, the most basic forms of which are **antonymy**, **synonymy**, **hyponymy** and **hypernymy**.

Following Saussure (see Chapter 3), we can identify both paradigmatic (or substitutional) relationships between lexemes, involving their interchangeability in a particular context, and syntagmatic ones, involving their collocational possibilities: for example, one may *toast* bread in English but *grill* meat,

despite the fact that the activity involved – exposure to heat – is essentially the same. Many of the terms used by semanticists to describe these sense relations are familiar, but employed in a more precise or specialized sense.

Sense relations between lexemes can be determined by specifying the **truth conditions** of the sentences in which they occur, i.e. the set of conditions that must necessarily be met for a sentence to be declared true. Consider, for example, the following two statements:

- ▶ The cat ate the starling.
- ▶ The cat ate a bird.

The first is true if – and only if (for which one writes, conventionally, *iff*) – the second is true also. This is an implicational (or one-way) relationship of **entailment**, from which we can deduce that all starlings have the property of being birds. Entailments must hold true *in all possible worlds*, and not just in a particular set of contexts. (We will explore context-dependent, or **pragmatic**, meaning in the next chapter.) One can possibly imagine a science-fiction novel being written in which, as a result perhaps of a bizarre radioactive accident, all starlings were green, or had four legs, but it is impossible to imagine starlings not being birds. In cases of entailment of this kind, we can say that *starling* is a **hyponym** of *bird*, and that *bird* is the superordinate term or **hypernym** of *starling*, *robin*, *jackdaw*, *ostrich*, *penguin* and so on.

In many cases, psycholinguistic evidence suggests that a superordinate term is associated in a speaker's mind with a **prototype**, i.e. a typical member of the category in question. For the superordinate term *bird*, for example, English speakers are more likely to think of robins as being typical of the bird class than, say, ostriches or penguins (see Spotlight below).



Spotlight: Testing prototypicality

Radford et al. (2009: 181) offer the ingenious 'technically' or 'strictly speaking' test as a way of establishing prototypicality in such cases:

- (a) Strictly speaking, a penguin is a bird.
- (b) Strictly speaking, a robin is a bird.
- (c) Technically, a whale is a mammal.
- (d) Technically, a trout is a fish.

While all of the above sentences are grammatically well formed in English, there's something slightly odd about (b) and (d), which seem to labour the obvious, because *robin* and *trout* are prototypical hyponyms of *bird* and *fish* respectively, while *penguin* is not a prototypical bird, nor *whale* a prototypical mammal.



Key idea: Specifying truth-conditions

Sense relations can be established by specifying the **truth-conditions** of well-formed sentences in which lexemes occur. In the case of **entailment**, an **implicational relationship** implies in that if X is true, then Y must be true also, but the reverse relationship does not hold (i.e. if Y is true, then X need not be).

Another kind of sense relationship is **synonymy**, which involves identity of lexical meaning. Semanticists would argue that **total synonymy** is rare, if indeed it occurs at all in language. *Hide* and *conceal*, for example, might appear to be synonyms, because of their substitutability in a wide range of contexts, e.g.:

- 1 Was Saddam hiding/concealing weapons of mass destruction?
- 2 He's been hiding/concealing the truth for some time.
- 3 They hide/conceal their secrets very well.
- 4 Finally he found the stolen necklace, hidden/concealed in an old musical box.

But the interchangeability is not total: *conceal* can't be used, for example, as an intransitive verb (*the kids are hiding/*concealing in the understairs cupboard*), and no child ever asks to play *conceal and seek*.

Occasionally, two words with a technical meaning may be described as fully synonymous (*tetanus* and *lockjaw*, for example)

but, even here, one form is likely to have different connotations from the other (*lockjaw* is a lower register, i.e. more informal, term than *tetanus* in this example), and it is a sign of efficiency within language systems that where two lexemes fulfil exactly the same role one will tend to oust the other. Perhaps for this reason *lockjaw* is an old-fashioned term these days, the medical term *tetanus* having largely prevailed in everyday usage.

Partial synonymy, on the other hand – as demonstrated by *conceal* and *hide* above, which overlap in many of their senses – is quite common: in some cases, different lexemes of similar or identical meaning are associated with different registers. While *child* might be preferred to *kid* except in informal situations, the more elevated term *minor* (or *youth*) might be appropriate in a formal or legal context.



The only words for semantic relatedness in general use in our language are synonym (word of the same meaning) and antonym (word of opposite meaning). But even the very simple illustration I have given shows up the inadequacies of this terminology, particularly in regard to contrasts of meaning. The proportions above show that there is no one answer to the question: 'What is the antonym of woman?': girl and man are equally suitable candidates. The trouble is that the word 'antonym' encourages us to think that words contrast only on a single dimension; whereas in fact they may contrast with other words on a number of dimensions at once.

[Leech 1974: 99]

ANTONYMS

Antonymy involves opposition of meaning, which can take a variety of forms. In the case of **gradable antonyms**, for example *long* and *short*, to affirm one member of the pair is to negate the other:

- ▶ X is short entails X is not long
- ▶ X is long entails X is not short

An important property of gradable antonyms is that negation of one does not entail the other, i.e. ‘not tall’ does not entail ‘short’: it is perfectly possible to be neither. They can be used in sentence frames of the ‘X is Y-er than Z’ type, and are distinguished from **non-gradable antonyms** or **complementaries** (e.g. *alive/dead*; *true/false*) in that, for the latter, negation of one **does** entail the other:

- ▶ X is not true entails X is false
- ▶ X is not dead entails X is alive

Another kind of antonymy involves what are known as **relational opposites**. If I *give* you something, then you *receive* it; if John is Paul’s *teacher* then Paul is John’s *pupil*, and so on. Finally, there is the antonymy of **reversives**, in which one form means not the negative of the other, but its reverse: examples here include *enter/exit* (or *entrance/exit*), *remember/forget*, *tie/untie* and so on.



Spotlight: Gradable antonyms

In the case of gradable antonyms, one member of the pair is generally perceived as the unmarked or default option in expressions of degree, e.g. ‘20 miles long’ not ‘20 miles short’. In 2010 the American comedian Joan Rivers was unimpressed by her host’s use of a stylistically marked choice to reveal her age, and responded with one of her own:

‘I met Vanessa Feltz and she said: “Here’s Joan, she’s 77 years young,” and I wanted to say “And here’s Vanessa Feltz and she’s 350 pounds thin.”’

HOMONYMS

The term **homonym** will be familiar in its common meaning – ‘word pronounced or spelled in the same way as another’ – but the term is used with greater precision by linguists, for whom only words with identical pronunciation, also known as **homophones**, count as homonyms. Homonyms may or may not be spelled identically: *see* as a verb meaning to apprehend by vision and *see* meaning the diocese of a bishop are both **homonyms** and **homographs**, while *gate* and *gait* are homonyms but not homographs.

A related concept here is **heteronym**, which refers to homographs which are pronounced differently, e.g. ‘bow’ in *to bow politely* and in *he adjusted his bow tie*. Homonymy needs to be distinguished from **polysemy**, which refers to a single word having multiple meanings, for example *set* meaning a group of things with something in common, to prepare as in *to set a trap* or a *set* as in a part of a tennis match.

In practice, separating homonymy and polysemy can be a challenge and the boundaries are not always clear. Should we, for example, regard the two uses of *foot* in *he hurt his foot playing football* and *she found it at the foot of the bed* as separate lexemes *foot*₁ and *foot*₂, i.e. homonyms, or as a single, polysemous word *foot*? It’s fairly clear that in this case, the criterion most lexicographers would invoke is relatedness of meaning: while *foot*₂ does not denote a part of the body, it shares with *foot*₁ the notion of being at the end of something, and it is indeed where one’s feet go when sleeping. For this reason, most dictionaries would regard *foot*₂ as a secondary, but related, meaning of *foot*₁.

A secondary criterion is **etymology**, i.e. a word’s origins and history, though it is important not to confuse synchronic and diachronic analysis because, as we saw in Chapter 3, a native speaker does not need to know the history of his/her language to speak it fluently. For example, the term *right* as the antonym of *left* (*right*₁) and in its meaning of ‘correct’ or ‘proper’ (*right*₂), is often viewed by lexicographers as an example of polysemy rather than homonymy, on the grounds that right-handedness and the right side used to be associated with moral virtue (e.g. in the expression *seated at the right hand of the Father*), in contrast to the negative connotations of the word *sinister*, which retains its historical meaning of ‘left’ in heraldry. The historical link argues for a polysemic interpretation, even if few people maintain such prejudices today. Relatedness of meaning generally trumps etymology in such judgements, however: *pupil* as ‘schoolchild’ and in the sense of ‘part of the eyeball’ are in fact historically related, but the meanings have now diverged to the point where no English speaker readily makes a connection between the two.

METONYMS AND MERONYMS

The example of *foot*₂ above illustrates a particular kind of sense relation, in which a word associated with another is used to stand for it: this is termed **metonymy**, and the relationship here is between a part and its whole (cf. *the head of the company*, or indeed *the head of a phrase*). In other cases, the relationship is between a symbol and the institution, place or person it represents, for example *the White House* for the US President or *Downing Street* for the UK Prime Minister. Other relationships of metonymy might involve, for example, a container and its contents, as in *he was overly fond of the bottle* meaning ‘he was partial to the bottle’s alcoholic contents’. A metonym generally has a symbolic relationship with what it denotes (a head of department is not a literal ‘head’, obviously), but the term **meronym** refers to something which constitutes a part of something else, e.g. *arm* is a meronym of *body*.



Spotlight: Homonymy- and polysemy-based humour

Homonymy and polysemy have always been a rich source of humour. Jokes based on homonymy are known as ‘puns’, and English, with its wealth of homonyms, provides plenty of potential for humorous word play. Puns tend to elicit laughs or groans, but rarely a neutral response: some people like being awakened to sense relations in language while others do not. One of the leading exponents of pun-based humour is Milton Jones, whose work draws on surprising or unexpected connections between homophonous (or near-homophonous) words, or different senses of polysemous ones:

‘I phoned up the spiritual leader of Tibet, and he sent a large goat with a long neck. Turned out I’d phoned Dial-a-Llama.’

‘If they make it illegal to wear the veil at work, bee-keepers are going to be furious.’

‘The pollen count. That’s a difficult job.’

‘Incredible to think, isn’t it, that every single Scotsman started off as a Scotch egg.’

‘Years ago I used to supply filofaxes to the Mafia. I was involved in very organized crime.’

Semantic features

The terminology above provides a useful toolkit for the description of sense relations between lexemes, but does not amount to anything resembling a theory of semantics or to an understanding of how meaning is constructed at the lexical level. We have seen how sentences can be broken down into constituents, morphemes, and ultimately phonemes: might meaning, too, be analysed in terms of more basic semantic components? This is the principle behind an approach to semantics known as **componential analysis**, which starts from the assumption that meanings can be decomposed into bundles of binary semantic features, comparable to the distinctive features of phonology (see Chapter 5). For example, *dog* and *puppy* might be distinguished by their specification for the feature \pm [ADULT], *dog* being +[ADULT] and *puppy* –[ADULT]; similarly, the distinction between *dog* and *bitch* could be captured by a feature \pm [MALE] or \pm [FEMALE]. These features could be used to distinguish *man/woman/boy/girl*; *father/mother*; *duck/drake/duckling* and so on, while \pm [HUMAN] could be used to differentiate *man*, *woman*, *grandmother* from animals, all of which could be distinguished from non-living things, such as *book*, *lamp*, *car*, by \pm [ANIMATE].

A partial feature matrix based on these features is illustrated below. Note that +[HUMAN] entails +[ANIMATE], and only items marked +[ANIMATE] can have a specification for +/-[ADULT] or +/-[MALE]. The symbol \emptyset indicates that a lexeme is unspecified for a particular feature.

Table 9.1: A partial semantic feature matrix

	lamp	puppy	girl	woman	man
Animate	-	+	+	+	+
Human	-	-	+	+	+
Adult	\emptyset	-	-	+	+
Male	\emptyset	\emptyset	-	-	+

This approach has a number of theoretical attractions. Firstly, it offers a technical definition for many of the sense relations we explored earlier. A **hyponym**, for example, can be said to contain all the features of its **hypernym**, and some more besides: while *person*, for example, is +[ANIMATE], +[HUMAN],

woman is additionally –[MALE] or +[FEMALE] according to the feature system employed. Features can also capture common relationships between sets of lexemes in the same way as distinctive features in phonology (as we saw in Chapter 5) capture the relationships between pairs of sounds. So, just as the members of the pairs /b/-/p/, /g/-/k/, /d/-/t/ differ in their specification for the feature ±[VOICE], so *dog-puppy*, *woman-girl*, *horse-foal*, *pig-piglet* differ in their specification for the semantic feature ±[ADULT], the former of each pair having a positive and the latter a negative value.

Semantic features can help refine our grammatical description, too. Consider the examples below:

- 1 *Much coins
- 2 ?Two muds
- 3 The pelican read the newspaper.

The ungrammaticality of the first example could be explained by a requirement that the quantifier *much* can only collocate with nouns having a negative value for the feature ±[COUNT]. Similarly, for example 2, nouns marked –[COUNT] cannot normally be collocated with numerals, or with *many*. Where they are, as in this case, the hearer will try where possible to reinterpret the noun itself as +[COUNT] and meaning ‘type of’ (hence ‘two good wines’, ‘my three favourite cheeses’). Finally, example 3 is perfectly grammatical according to the syntax of English, but pragmatically odd. The oddity could be explained by positing a specification for the verb *to read* that its subject will be marked +[HUMAN]: this requirement could only be overridden in a fictional or hypothetical world in which pelicans can and do read newspapers.

Similarly, we could posit within a grammar of English a feature ±[SOLID] associated with nouns such as *timber*, *wood*, *paper*, *glass*, and require of verbs like *cut*, *sever*, *rip*, *knock*, *tap* or *drill* that they collocate only with nouns with a positive value for this feature, thereby ruling out **he severed the water* or **he knocked on the gas*. Regularities between verbs such as *kill*, *cultivate*, *incite*, *inspire* might be explored using a meaning component ±[CAUSE]: *kill*, for example, has been analysed as +[CAUSE] +[COME ABOUT] –[ALIVE]. Hopes were raised that, as in

phonology, meaning might be reducible to a basic set of semantic features or **meaning primes**, applicable to all natural languages.

For all their initial promise, semantic features soon proved to be limited in their theoretical scope. Let us return again to nouns in our table above, which we noted were only partly specified. *Puppy* is +[ANIMATE], –[HUMAN], –[ADULT], but this specification would do also for *kitten*, *duckling*, *foal*, *cub*, and the young of other animals. Likewise, the specification –[ANIMATE], –[HUMAN], for *lamp* would fit any inanimate object we cared to name. To distinguish, for example, *puppy* and *kitten* we have to posit a specific feature for each, perhaps ±[CANINE] or ±[FELINE], but these begin to look more like *ad hoc* creations for the relevant lexical sets (*dog/mongrel/bitch/spaniel...* and *cat/tabby/moggy/tiger...* respectively), rather than genuine semantic primes with explanatory power outside a restricted domain.

In similar vein, a partial feature analysis for the verb *assassinate* might be +[CAUSE], +[COME ABOUT] –[ALIVE] as suggested above for *kill*, but we would have to specify that its object be marked +[IMPORTANT PUBLIC FIGURE] or suchlike to capture, however approximately, the difference between the two verbs, which again looks a little contrived and is not obviously generalizable to other lexical items. More complex still would be a feature specification to distinguish the connotative meanings of *sweat* and *perspiration*, for example, or the distinction between the verbs *demand*, *ask* and *request*.

Extending the concept of semantic features beyond a promising but small number of putative semantic ‘primes’ leads to a proliferation of features applicable only to individual lexical items, and a feature set which is in fact almost as large as the lexicon itself. We are, in effect, doing little more than offering fancy formal definitions for the words involved. Semantics ultimately seems too culture-specific for a universal feature set to be applicable and semantic features which are important in one language may not be in another. As we saw in Chapter 6, Dyirbal has a semantically motivated noun class for ‘women, fire and dangerous things’, while in Navajo, a native American language spoken in Southern USA, verbal suffixes vary according to whether the noun object is + or –[FLEXIBLE].



Key idea: Componential analysis

Componential analysis breaks down lexemes into their meaning components, e.g. man as +[ADULT] +[HUMAN] +[MALE].

Other types of meaning

Not all meaning conveys propositional content, i.e. information or an opinion about the state of the world. For example, when Kermit the Frog uttered the immortal words: ‘Good grief! The comedian’s a bear!’ his opening exclamation ‘Good grief!’ conveyed no meaning which can be expressed in terms of truth conditions, but rather an **expressive** (or **affective**) meaning, indicating his feelings about the event he is reporting.

Arguably, most if not all utterances carry an element of expressive meaning, which is not always easy to disentangle from the propositional meaning. ‘He’s running for President’, for example, looks like a statement, but uttered with a rising tone at the end and perhaps a stress on the final word, it might convey incredulity or disbelief on the part of the speaker (‘He’s running for PRESIDENT?!’).

Another kind of meaning is what many linguists call **phatic communion**, which encompasses those seemingly meaningless pleasantries which in many societies are important ways of signalling shared membership of a community. When someone asks ‘How are you?’ in most cases he/she is not looking for a detailed account of your current state of health: it’s simply a social ritual designed to show that you matter as a human being.



Key idea: Affective and social meaning

Some types of meaning do not lend themselves readily to analysis in terms of semantic components. These include expressive or **affective** meaning (a speaker’s feelings about what is said), and **phatic communion** (social rather than propositional meaning).



Fact-check

- Entailments define the sense relationship of what?
 - Hyponymy
 - Metonymy
 - Synonymy
 - Antonymy
- Which of the following pairs are not gradable antonyms?
 - High/low
 - Bright/dull
 - Male/female
 - Thin/thick
- Which of the following is an antonym of man?
 - Woman
 - Boy
 - Neither
 - Both
- Which of the following is a hyponym of fish?
 - Perch
 - Animal
 - Bird
 - Whale
- For which of the following sense relationships is it true that 'not X entails Y'?
 - Gradable antonyms
 - Synonyms
 - Complementaries
 - Reversives
- Help* and *aid* are what?
 - Antonyms
 - Total synonyms
 - Partial synonyms
 - Meronyms

- 7 Which of these is an example of metonymy?
- a The White House has vetoed the proposal
 - b Time flies like an arrow
 - c The long and winding road
 - d He has an inflated opinion of himself
- 8 Which of these has the partial feature specification –[ADULT] –[MALE]?
- a Granddaughter
 - b Daughter
 - c Girl
 - d All of the above
- 9 Which of the gradable antonyms in bold below is stylistically marked?
- a **long**/short
 - b empty/**full**
 - c **old**/young
 - d high/low
- 10 Which of the following best illustrates phatic communion?
- a Good heavens above!
 - b You must be joking!
 - c Good morning!
 - d Delighted to hear your news!



Dig deeper

P. Elbourne, *Meaning: A Slim Guide to Semantics* (Oxford University Press, 2011) is clear, accessible and illustrated with excellent examples and good humour.

J. Hurford, B. Heasley & M. Smith, *Semantics: a Coursebook* (2nd edition, Cambridge University Press, 2007 – previous edition as Hurford and Heasley, 1983), esp. Parts 1–3

G. Leech, *Semantics* (Pelican, 1974) esp. Chapters 1–4, 6 & 11

F. Palmer, *Semantics* (2nd edition, Cambridge University Press, 1981), esp. Chapters 1, 2, 4 & 5

J. Saeed, *Semantics* (3rd edition, Blackwell, 2009), esp. Chapters 1, 3, 4 & 9

Online sources

Wikipedia article on 'Linguistic relativity': http://en.wikipedia.org/wiki/Linguistic_relativity

Colour terms

The question of colour terminology is analysed in depth in Berlin and Kay's classic work *Basic Color Terms* (1969); excellent more recent studies include V. Loreto, A. Mukherjee & Francesca Tria (2012) 'On the origin of the hierarchy of color names', *Proceedings of the National Academy of Sciences* (PANS), 109(18), 6819–24. Available online: www.pnas.org/content/109/18/6819. See also M. Dowman (2007) 'Explaining Color Term Typology With an Evolutionary Model', *Cognitive Science* 31: 99–132. [Available online: www.lel.ed.ac.uk/~mdowman/explaining-color-term-typology.pdf]

10

Pragmatics: saying what you mean

The hypothetical Martian visitor to whom we alluded briefly in Chapter 1 would no doubt be bemused by many aspects of language: not least its complexity and diversity, and the amazing skill demonstrated by young humans in acquiring it. But perhaps most perplexing of all would be the very nature of interactions in which language is used. In spite of the fact that conversation is riddled with non-sequiturs, apparently uninformative contributions and blatant irrelevance, human beings appear to communicate very well.

The way in which meaning is produced and understood in context is the subject matter of **pragmatics**. As we will see in this chapter, we all use conversational ‘short cuts’ to make interaction more efficient. Since these short cuts can only work if we share an assumption that conversation is a co-operative exercise, we will consider models of co-operation and politeness which help us understand how successful interaction takes place.

As we will see, there is much more to conversation than the simple communication of factual information. We use language to perform actions, too: *I promise*, or *I bet you*, for example, by their very utterance imply a commitment on the part of the speaker; many people find it difficult to say *I’m sorry*, because much more than mere words is involved. The model of **speech acts** we present later in the chapter outlines the conditions required for such utterances to be successfully made.

Meaning in context

Consider the following exchanges:

(1) Paul: Can you put the washing out?

Sarah: It's raining!

Paul: OK.

(2) Sally: Has Sarah revealed her takeover plans?

Lynn: She's keeping her cards close to her chest.

Sally: Ah, I suspected as much.

(3) Sarah: You can't sack your own brother-in-law!

Alan: Business is business!

(4) Steve: Could you tell me the time?

Claire: Yes, it's twenty past four.

(5) Dad: Were you born in a barn?

Daughter: (*Closes the door*)

If you're a native speaker of English, none of these exchanges will seem particularly odd: it is only when we stop and think about them that their strangeness becomes apparent. In the first two examples, the response appears to bear no relation to the question actually posed, yet Paul accepts Sarah's response in (1) as an answer to his request, while in (2), Lynn's apparently irrelevant reply, about a card game which has not even been mentioned, is interpreted by Sally as a helpful contribution. Alan's reply to Sarah in (3) is a tautology, and therefore appears to convey no information whatsoever. We probably don't even notice that Claire's response to Steve's question in (4) does not actually address the question posed ('*Could* you tell me...'), which formally seems to require a yes or no answer. Finally, communication appears to have broken down completely between Dad and Daughter in (5), where Dad's question receives no answer at all, Daughter choosing to close a door instead.

How can meaningful communication emerge from what seems to be chaotically disorganized interaction? And why is communication so often oblique, when more direct alternatives

are available? (For example, if you want someone to close a door for you, as in (5), why not simply use the imperative verb form, designed specifically for this purpose, and say ‘Close the door!?’).

Conversational ‘short cuts’ of the kind illustrated above all ultimately serve to make interaction more efficient, by exploiting speakers’ shared knowledge and experience. They can only work because of a simple assumption that humans share in conversation, namely that they are engaged in a co-operative exercise. We will examine the consequences of this **co-operative principle** and look more closely at **speech acts**, in which language is used (as in (4) or (5)) not merely to communicate information but to achieve a particular purpose.

Co-operation generally prospers when participants in an interaction endeavour not to offend each other, i.e. they try to be polite. Later in the chapter, we will consider a model of politeness developed by two linguists, Penelope Brown and Stephen Levinson, and its consequences for our understanding of language in context. But we begin with the work of the philosopher Paul Grice, whose co-operative principle provides a framework for understanding many of the mysteries of conversation.

Grice’s theory of implicature

Much of Grice’s work explores different kinds of meaning, and in particular the difference between what a speaker says and what he/she **implicates**. What Grice termed **implicatures** go beyond what is actually said: for example in (5) above, what appears to be a question about a person’s birthplace is interpreted (correctly) by the hearer as meaning ‘close the door’. Implicatures can be inferred from a general principle of conversation, which he set out as follows:

THE CO-OPERATIVE PRINCIPLE

‘Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged’.

The principle can be broken down into four **maxims of conversation** (though Grice suggested that this might not be an exhaustive list):

▶ 1 The maxim of quality

Try to make your contribution one that is true, specifically:

do not say what you believe to be false

do not say that for which you lack adequate evidence.

▶ 2 The maxim of quantity

Make your contribution as informative as is required for the current purposes of the exchange.

Do not make your contribution more informative than is required.

▶ 3 The maxim of relevance (or relation)

Make your contributions relevant.

▶ 4 The maxim of manner

Be perspicuous, and specifically:

avoid obscurity

avoid ambiguity

be brief

be orderly.



...[We] need first to get clear on the character of Grice's maxims. They are not sociological generalizations about speech, nor are they moral prescriptions or proscriptions on what to say or communicate. Although Grice presented them in the form of guidelines for how to communicate successfully, I think they are better construed as presumptions about utterances, presumptions that we as listeners rely on and as speakers exploit.

[Bach 2006: 5]

It is important to understand what the principle and its maxims are and, equally importantly, what they are not. They are not rules, like grammatical rules: it is possible to violate them – sometimes deliberately and ostentatiously so – and our **utterance** (the term employed to signify a spoken contribution in

context) will still be understood. Nor are they social imperatives of the ‘don’t forget to say please and thank you’ kind, though they are a kind of social convention which we unconsciously acquire as we learn to use language.

What the principle and maxims amount to is a very robust set of assumptions that participants make about the conversation in which they are engaged, which are often maintained even in the face of evidence that co-operation has broken down. So even where, for example, a speaker’s contribution to an interaction appears irrelevant, a hearer will generally assume that it was *intended* as relevant, and strive to find an interpretation which fits the purposes of the current exchange. Similarly, it hardly needs saying that speakers do not always speak the truth as the maxim of quality requires, but conversation nonetheless proceeds on the assumption that contributions are truthful, unless and until that assumption becomes untenable (see Case study below).



Key idea: The co-operative principle

According to Grice’s co-operative principle, conversation can only proceed while participants assume each other to be co-operating. This assumption is so strong that they will endeavour to interpret each other’s contributions as co-operative, even when superficially they appear not to be.



Case study: Good cop, bad cop

A staple of TV detective dramas is the ‘good cop, bad cop’ interrogation, in which two police officers interview a young, and usually naive, petty crook implicated in a major criminal enterprise. The good cop typically offers to help him avoid jail in return for evidence against the criminal masterminds, while the bad cop reminds him of the predicament in which he finds himself, as in the following dialogue (which unfortunately did not quite make it to *The Sweeney* in the late 1970s):

Good cop: Well now, Tommy: you’re in a bit of bother...

Tommy: I don’t know what you’re talking about.

Good cop: Why don't you tell me about 'Mr Big'?

Tommy: Never heard of him.

Good cop: Come, come, Tommy: let's not play games. You know we've got you on CCTV, and we've got three witnesses who saw you with him the night of the robbery.

Tommy: Sorry, I wish I could help you, but I don't know a thing. Honest.

Good cop: This is getting us nowhere, Tommy...

Bad cop: With your previous, you're looking at six years inside....

Good cop: But play nicely, and we can make all this go away.

Tommy (*sweating*): Look... I'd like to help...it's just that... Mr Big...he knows where my mum lives...

In Gricean terms, such dialogues are about maintenance of the co-operation principle. The hapless interviewee attempts to convince his interrogators that he is adhering to the maxims of quantity and quality ('I don't know a thing. Honest. '), but the evidence against him makes this pretence unsustainable. The good cop reminds him that dialogue is in his interests, but can only continue if the assumption of co-operation can be maintained ('This is getting us nowhere'). The bad cop, meanwhile, stresses the negative consequences of it breaking down ('six years inside...'). Faced with an unpalatable choice, the interviewee may change tack, as here, by suggesting that he would *like* to co-operate, but has good reasons for not being able to. What is remarkable is that, even in adversarial interactions, all parties strive to maintain at least the illusion that they are co-operating.

Grice's formulation of the maxims is rather terse, so it is worth looking at how each works in practice. The **quality** maxim, as we saw above, does not make the ridiculous claim that human beings do not lie: it simply means that conversation can only proceed if participants can work on the assumption that both parties are telling the truth, or at least, *can sustain a convincing pretence that they are doing so*. The second sub-maxim means that both parties need to be able to assume that their interlocutor is not saying anything which he/she has does

not have good reason to believe is true, but conversation may break down because interlocutors disagree on what constitutes 'adequate evidence'. For this reason, speakers may choose to use **hedges**, to warn their interlocutors that they do not believe themselves fully able to satisfy the requirements of the quality (or of another) maxim.

In the exchange below, for example, David's use of the common maxim hedge 'Well' sends an advance signal to John that he is not sure he can properly answer John's question, but that he has *some* evidence that offers a partial answer:

John: Has Fiona recovered from her illness?

David: Well, I saw her at a party on Saturday.

The maxim of **quantity** amounts to a requirement that we provide just enough information (and no more) for the purposes of the talk exchange in which we are involved. So, a reply to question 'What did you do yesterday?' which begins:

'I got up at 7.52 and 30 seconds and got out of bed to go into the bathroom where I had a shower, wearing a shower cap to keep my hair dry and then dried myself off with a large towel with a map of Lanzarote on it and came downstairs at 7.57 and 44 seconds and put some toast in the toaster while putting the kettle on for a cup of tea. I went into the hall to pick up my newspaper and read the sports pages at the breakfast table, and then I put a 1-mm layer of orange marmalade on my toast and drank my coffee with no milk and two sugar cubes in it...'

would generally be excessive, though there are contexts (for example, when making a statement to the police) where some of this detail might be appropriate. The common cry of 'Too much information!' uttered when a person has offered excessive, inappropriate or embarrassing detail, is a good illustration of how conversational misjudgements are informally policed, reminding participants to observe the norms of the quantity maxim in a way that others find acceptable.

The meaning of the maxim of **relevance** (or **relation**) appears simple and self-explanatory, though of course we do not have a

watertight definition of what ‘relevance’ actually means, which perhaps explains why interlocutors will strain to interpret contributions as relevant even when superficially they appear not to be. Speakers may also disagree, or pretend to disagree, on what constitutes ‘relevance’ for the purposes of the current exchange (see Case study overleaf). Conversation will quickly break down when a participant signals his/her inability, or unwillingness, to offer a relevant contribution, as any parent who has tried to prise information from children about what they have done at school today will know.

Finally, the maxim of **manner** simply requires participants to be as clear as they are able to be. Part of that clarity is being brief (an interlocutor will assume that if ‘John’ and ‘the man from the council who inspects hygiene standards in fast food outlets and is also my grandfather’ are one and the same person, you will choose ‘John’ unless you have good reason for not doing so) and being orderly, i.e. reporting events or actions in the appropriate order. For example, the two sentences below convey exactly the same information, and are grammatically well formed, but the second seems pragmatically odd (indicated conventionally by a preceding question mark), because the assumption is that the actions should take place in the order they are given, even though this is not explicitly stated:

- ▶ *To make chips, peel your potatoes, cut them into long strips and fry them in cooking oil heated to 180°C.*
- ▶ *?To make chips, fry your potatoes in oil heated to 180°C, cut them into strips and peel them.*

The sub-maxim ‘Be orderly’ offers a good illustration of the difference between **entailments**, which, as we saw in the previous chapter, are aspects of meaning which are true in all possible worlds, and **implicatures**, which are a context-dependent overlay on semantic meaning. The semantics of both the above sentences are the same, but the order of the actions is an **implicature** that flows from the assumption that the speaker is observing the sub-maxim ‘Be orderly’.



Case study: The pragmatics of political interviews

The next time you hear a politician challenged to 'answer the question' in a television interview, you can be fairly sure that he/she is attempting to stretch the notion of 'relevant' beyond what the interviewer and audience are likely to find acceptable, by answering a different question to the one posed, and is being dragged back to observance of the maxim of **relevance** by the interviewer. In fact, the jousting match between a skilled interviewer and an experienced politician often amounts to an attempt by the former to force compliance with Grice's maxims on the latter.

While the politician may have a strong interest in violating the maxims (for example by being obscure or ambiguous about unpopular policies), he/she is also aware of the strong countervailing pressure to observe them, and therefore often attempts to convince the audience of his/her intention to do so. When a politician prefaces remarks with 'Let me be clear', for example, it's usually a sign that the maxim of **manner** is about to be violated. Many of the interviewer's stock responses, on the other hand, can be interpreted as demanding of the interviewee that the maxims be observed:

'But, Prime Minister, all the available evidence suggests this policy isn't working...' (quality)

'Your government does not seem to want to talk about unemployment' (quantity)

'I must press you to address the point the listener has made' (relevance)

'You haven't been clear, have you, Prime Minister, about who will actually benefit from this proposal?' (manner)

Politicians' words are a matter of public record and are regularly tested for their honesty and consistency. As this famous exchange between Jeremy Paxman and ex-Home Secretary Michael Howard demonstrates, a politician would therefore rather violate manner by being obscure than run the risk of openly violating quality by being untruthful. Paxman actually asked the same question no fewer than 14 times before coining the word 'obfuscommunication', which we

might define as 'persistent and deliberate failure to observe the quantity maxim'.

Paxman: Did you threaten Derek Lewis?

Howard: I was not entitled to instruct Derek Lewis and I did not instruct him. And –

Paxman: Did you threaten to overrule him?

Howard: The truth of the matter is that Mr Marriott was not suspended. I did not –

Paxman: Did you threaten to overrule him?

Howard: I did not overrule Derek Lewis.

Paxman: Did you threaten to overrule him?

Howard: I took advice.

Paxman: You're a master of obfuscommunication, Mr Howard.

A similar gap between entailment and implicature is evident in the logical and real-world use of numbers. Few people, for example, would argue with the statement 'If both teams score two goals, the result is a draw'. Yet, when presented with the (unlikely) scoreline 'West Ham United 6 Barcelona 2', all English speakers agree that this is *not* a drawn game on the above definition, even though both teams have, quite clearly, scored two goals (one of them with four more to spare). The entailment of 'two' ('at least two') differs from the implicature ('two and only two') which flows from observance of the quantity maxim: we assume that, if the speaker had meant 'at least two', he/she would have said so and that in normal circumstances 'two' means 'two and only two'.

An important property of implicatures is that, unlike entailments, they are **defeasible**, i.e. they can be cancelled:

Q: Did you give £50 to *Children in Need*?

A: Yes, in fact I gave £100.

?A: Yes, in fact I gave £49.

In the first reply, the implicature ('£50 exactly') is overridden by the 'in fact...' clause, but the entailment ('at least £50')

cannot be, so the second reply is pragmatically ill formed. The implicature that events follow the sequence in which they are uttered can be cancelled in a similar way:

I washed the floor, fed the cat, did the washing-up and watched TV, but not necessarily in that order.

Finally, Barry Blake (2008: 116) gives the example of Mr Brown meeting Mrs Jones for an illicit tryst at a hotel and being asked by the receptionist: 'Are you married?'. Both reply, truthfully, that they are: the implicature 'married *to each other*' is one which neither party has an interest in cancelling!



Key idea: Defeasible implicatures

Implicatures are context-specific meanings generated by observance (or deliberate flouting) of the four maxims of co-operation. They differ from **entailments** in that they are **defeasible**, i.e. they can be cancelled.



Spotlight: Comedy pragmatics

Much of our humour derives from violation or flouting of Grice's maxims. A celebrated example is the *Mrs Merton Show* interview with Debbie McGee, in which Mrs Merton (Caroline Aherne) asked: 'What was it that first attracted you to the millionaire Paul Daniels?'. By flouting the maxim of quantity ('Do not make your contribution more informative than required'), she invited the audience to look for an interpretation in which the additional superfluous information ('the millionaire') was in fact required for the purposes of the exchange (in this case something along the lines of 'Did you marry Paul Daniels for his money?'). Since this meaning was an implicature, it could of course have been plausibly denied.

In the scene in *Alvin and the Chipmunks* where the eponymous heroes first meet their carer Dave, humour arises not from a surfeit of information but from a lack of it, violating the quantity maxim in a different way. The three introduce themselves thus:

Simon: We're getting off on the wrong foot. Allow us to introduce ourselves. Hello. I'm Simon. The smart one. He's Alvin...

Alvin: ...the awesomest one!

Theodore: And I'm Theodore.

The first two introductions set up the expectation that, for the purposes of this exchange, a name and exceptional personal quality is required. The suggestion here is that Theodore is unable to observe 'quantity' here, because he cannot think of an exceptional quality to boast about!

Flouting the maxims

Thus far we have assumed that the co-operative principle and individual maxims are generally observed, with the risk that conversation will break down if they are violated. But the evidence with which we began the chapter suggests this is a gross oversimplification. Interactants frequently and blatantly infringe the maxims without negative consequences for communication, for example in (1) and (2) above, where the responses appear to violate the relevance maxim by bearing no relation to the question posed, or in (3), where the tautologous sentence appears to violate the maxim of quantity by being completely uninformative.

In cases like these, the maxims are not so much infringed as **flouted**: the speaker does not merely violate the maxim concerned, he/she does so ostentatiously and thereby actively sends a signal to an interlocutor that co-operation is in fact being maintained at a deeper level. Thus in (1) Paul interprets Sarah's seemingly irrelevant reply as meaning: 'I'm flouting the maxim of relation by referring to rain rather than washing. What connection about rain and washing do you draw, from our shared real-world experience, which might be construed as an answer to your request?' and infers the implicature 'I can't put the washing out, because it would get even more wet if I did so.'



As listeners, we presume that the speaker is being co-operative (at least insofar as he is trying to make his communicative intention evident) and is speaking truthfully, informatively,

relevantly, and otherwise appropriately. If an utterance appears not to conform to any of these presumptions, the listener looks for a way of taking it so that it does conform. As speakers, in trying to choose words to make our intention evident, we exploit the fact that our listeners presume these things.

[Bach 2006: 6]

Metaphor works in a similar way, as in (2) above:

Sally: Has Sarah revealed her takeover plans?

Lynn: She's keeping her cards close to her chest.

Lynn's response is obviously irrelevant, on a literal level, to the question posed, but the co-operation principle is robust enough to induce the hearer to interpret it as relevant by looking for common ground between the two contributions. Sarah's secret plans are likened to the cards held by a poker player, to be revealed, if at all, only at the moment of maximum advantage.

Finally, tautologous statements like Alan's reply in (3) 'Business is business' (compare 'Boys will be boys') advertise their own lack of informativeness so blatantly as to suggest that it must be a deliberate choice on the part of the speaker, which invites the addressee to look for ways in which they might at some level be co-operative. This particular tautology is conventionally interpreted as meaning something like 'The rules of successful business are unchanging and leave no room for sentiment', satisfying the quantity maxim obliquely.

Skilled speakers exploit the potential of flouts to achieve a variety of ends. In (6), below, manner (here the sub-maxim 'Be brief') is deliberately violated to cast doubt on John's culinary prowess:

(6) Paul: Did John cook you dinner last night?

Mary: He handed over a plate containing items which could be described as food, some of which had been heated in an oven. Some of it was edible.

The answer Mary appears to be groping for is 'Yes', but her wordy failure to offer it invites Paul to draw the appropriate conclusion.

The quality maxim is flouted in (7) to question the wisdom of the preceding contribution, while a relevance flout in (8) signals to Paul that Steve is in fact within earshot:

(7) Tony: I fancy England's chances at the next World Cup.

Phil: And I think the Monster Raving Loony Party will win the next election by a landslide (→ '*And your suggestion is equally daft*')

(8) Paul: Since Steve got elected to the council he's been a small-minded, irritating little jerk.

Amanda (spotting Steve): Did you see that Agatha Christie film on TV last night? (→ '*Watch out! He might hear you!*')

Grice has also suggested that some implicatures are conventionalized, applying irrespective of context. The difference between *and* and *but*, for example, is that the latter generates an implicature that two items are contrasted:

- ▶ Jenny was poor but honest. (cf. Jenny was poor and honest.)
- ▶ Paul's a nice guy but he votes Republican. (cf. Paul's a nice guy and he votes Republican.)

The implicature of contrast or incompatibility associated with *but* may be readable in all contexts, but it remains an implicature rather than an entailment, because it is defeasible, for example by means of a 'not that...' clause:

- ▶ Jenny was poor but honest – *not that you can't be both, obviously!*
- ▶ Paul's a nice guy but he votes Republican – *not that I have anything against Republicans, of course. (In fact, some of my best friends are Republicans...)*



Key idea: Maxim flouts

Maxim flouts are deliberate and ostentatious violations of the maxims of co-operation, which signal to an addressee that co-operation is being maintained in an indirect way, and generate particular implicatures.

Speech acts

In most of the sentences we have looked at so far, language has been used to make statements or to comment upon the world in some way. But we use language for a range of other purposes too, for example to get people to do things ('Get out of my sight!'; 'Open fire!'). Some utterances, in fact, seem to constitute actions in themselves:

- 1 I bet you £10 that Australia beat England.
- 2 I expect you to be home by 10 pm.
- 3 I dare you to walk out without paying.
- 4 I declare you husband and wife.
- 5 I order you to pay a fine of £5,000.

The properties and behaviour of such sentences were first explored in J. L. Austin's beguilingly titled book *How to do Things with Words*, first published in 1962, which starts by pointing out that there is a difference between verbs of stating, or **constatives**, and **performative** verbs, like those underlined above, by which a **speech act** is performed. **Performatives** share a number of properties: they are receptive, for example, to use of the simple present tense with present meaning, which is uncommon in English in declarative sentences (compare 'I order you to leave this minute' with '?I read a book this minute'); many of them take 'to + infinitive' or 'for + Vb + ing' complements ('I order/warn/urge/dare you to X', 'I apologize/excuse you/pardon you for Xing') and, perhaps most significantly of all, they all pass the 'hereby' test: the adverb 'hereby' can be placed before a performative verb but not a constative one ('I hereby declare you husband and wife' cf. '?I hereby turn the television on').

As Austin's book continues, however, the distinction between performative and non-performative utterances is gradually undermined, so that *all* utterances become viewed as speech acts in some sense. In Austin's terms, all utterances have a particular 'force'. 'Force', however, is not something that can be analysed in terms of truth-conditions. As Levinson (1983: 245) points out, the same propositional content (that the interlocutor is to

go home, in the examples below) can be associated with a range of very different speech acts:

- 1 I predict that you will go home.
- 2 Go home!
- 3 Are you going to go home?
- 4 I advise you to go home.



Once we realize that what we have to study is not the sentence, but the issuing of an utterance in a speech-situation, there can hardly be any longer a possibility of not seeing that stating is performing an act. Moreover, comparing stating to what we have said about the illocutionary act, it is an act to which, just as much as to other illocutionary acts, it is essential to 'secure uptake': the doubt about whether I stated something if it was not heard or understood is just the same as the doubt about whether I warned sotto voce or protested if someone did not take it as a protest, &c. And statements do 'take effect' just as much as 'namings', say: if I have stated something, then that commits me to other statements: other statements made by me will be in order or out of order.

[Austin 1962: 139]

Austin suggests that there are three kinds of force, associated with the nature of the speech act performed (see Levinson 1983: 236):

- ▶ **locutionary act** – uttering a sentence with a determinate sense and reference
- ▶ **illocutionary act** – uttering a sentence which performs an action (advising, promising, declaring, etc.) by virtue of the conventional force associated with it
- ▶ **perlocutionary act** – the bringing about of effects on the audience by means of uttering the sentence, such effects being special to the circumstances of the utterance. (Note that the perlocution performed may well not be the one speaker intended or wished.)

The distinction between the second and third type may be difficult to draw in practice. Austin offers the following concrete example:

Shoot her!

Here, he suggests, the utterance may have the **illocutionary force** of ordering, urging or advising the addressee to shoot someone, but the **perlocutionary force** of persuading, forcing or frightening the addressee into shooting her (and also of frightening the intended victim). The perlocutionary force is the most obviously context-dependent aspect of the speech act, the illocutionary force being often conventionalized within the sentence type. In the above example, the illocutionary force of ordering is conventionally associated with a particular sentence type (imperative), but direct imperatives are often avoided in practice, for reasons we explore below, in favour of **indirect speech acts**. For example, instead of saying ‘Shut the door!’ one might use an interrogative form (‘Can/will you shut the door?’), or even a superficially declarative statement (‘Brr! It’s cold in here!’) in the hope that the interlocutor will take the hint.



Key idea: Using performatives

Verbs such as *promise, declare, bet, swear, order*, which constitute an action by virtue of being uttered, are called performatives. To be used appropriately, their relevant **felicity conditions** must be met, otherwise a **misfire** or an **abuse** will result.

Austin argues that, in the case of performative sentences, we need to look for the set of appropriate conditions that must be met for them to be uttered ‘feliculously’, i.e. for the sentence to work in context. These have become known as **felicity conditions**, and they fall into three main categories (see Levinson 1993: 229; after Austin 1962: 14–15):

A.

- (i) There must be a conventional procedure having a conventional effect.
- (ii) The circumstances and persons must be appropriate, as specified in the procedure.

B. The procedure must be executed

- (i) correctly and
- (ii) completely.

C. Often

- (i) the persons must have the requisite thoughts, feelings and intentions, as specified in the procedure, and
- (ii) if consequent conduct is specified, then the relevant parties must so do.

Austin distinguishes two types of violation of these conditions: violations of A or B result in what he calls **misfires** – the intended action simply fails to be realized: for example, a policeman cannot say ‘I am arresting you on suspicion of attempted murder’ if no suspect is present; nor (generally speaking) can a person who is not legally empowered to make an arrest utter these words felicitously.

It is important, too, that the addressee play his/her part: in Austin’s terminology there must be **uptake** where appropriate. For a marriage to take place, for example, to meet the two conditions under B the celebrant must offer the conventionally prescribed words for a church, civil or other ceremony and the partners must, each in turn, show that they accept what is being asked of them (usually by saying ‘I will’ or ‘I do’).

Violations of the C conditions are what Austin terms **abuses**, and are less obvious because the speech act itself appears to have been performed felicitously. However, if (for example) an apology or forgiveness offered is insincere, or if one party at a wedding ceremony says ‘I will’ without meaning it, the speech act has not been properly performed and the consequences are likely to come to light later on.

Politeness theory

We have seen how a very robust assumption of co-operation in conversation accounts for some important aspects of meaning in context. The underlying principle is that human beings, as co-operative creatures, have more to gain from working

together than being in conflict with one another, and that talk is generally a manifestation of co-operation which is mutually beneficial (hence Churchill's famous dictum that: 'To jaw-jaw is always better than to war-war'). One might consider co-operation in conversation as one manifestation of **politeness**, a topic explored by Brown and Levinson (1987) in an important work of the same name. The need to be polite, they argue, is an important driver of the way we express ourselves in most circumstances, from the use of indirect speech acts we alluded to above, to the insertion of conversational fillers such as 'I'm sorry...' or 'Not being funny, but...'

Central to Brown and Levinson's notion of politeness is the concept of **face**, of which they distinguish a negative and a positive kind. **Negative face** refers simply to an individual's desire to be free from imposition, while **positive face** refers to one's need to be viewed positively by one's peers and to be accepted as part of a group. In certain circumstances, speech acts can be seen as **Face-threatening acts (FTAs)**, the force of which speakers attempt in normal circumstances to minimize. One of the felicity conditions for using an imperative or an overt performative verb such as *command* or *order*, for example, is that the speaker be in a position of power or authority over the addressee, and thereby have the authority to require compliance from his/her. But the act of saying 'Get me a cup of coffee!' or 'I order you to get me a cup of coffee', threatens the addressee's face by underlining the difference in status and imposition upon him/her. The speaker may therefore wish to attenuate this status difference and thereby protect the latter's face, often at the expense of his/her own, by using an **indirect speech act**, e.g. 'Would you mind getting me a cup of coffee?' or 'May I ask you to get me a cup of coffee?' Although lacking the force of an order, a request similarly threatens the addressee's negative face: the addressee in turn will strive to avoid the dispreferred option of refusal, which would constitute a threat to the speaker's positive face (now you know why so many people complain 'I just couldn't say "no"!').

In some languages, the FTA implicit in a request is attenuated by the use of a conditional verb form:

- ▶ *Could you lend me a fiver?*
- ▶ *Would you do me a favour?*
- ▶ *Would you do me the honour of being my wife?*

Formally what is happening here is that the speaker is saying ‘I’m not actually asking you to lend me a fiver/do me a favour/marry me, because that would impose on you (i.e. threaten your negative face), but if I *were* to ask you, *would* you regard this imposition as excessive?’, but such constructions have become so conventionalized as to be immediately recognized for what they are: polite request formulae. Where a request or invitation has to be refused, addressees generally use set openings to mitigate the FTA, suggesting (whether truthfully or not) that they would have liked to accept, but that circumstances prevent them from doing so, e.g. ‘I’m sorry, but...’; ‘I’m afraid...’; ‘Regrettably...’. Conditional requests like these are, in effect, fossilized versions of the **pre-requests** speakers use when the request is of a sensitive nature and the potential threat to both parties’ face is significant (see Case study below).



Case study: Safety first: pre- (and pre-pre-) requests

In some cases, particularly where the nature of a request is sensitive, the threat to the face of the addressee, and potentially also that of the speaker in the event of a refusal, is perceived to be significant enough for the speaker to wish to avoid making the request directly. In such circumstances **pre-sequences** are common, allowing all parties to save face.

The question ‘Are you doing anything on Saturday night?’, for example, looks like a simple request for information, but may in practice mean ‘I’m working my way up to asking you out on a date’. It therefore functions as a **pre-request**, protecting both parties’ face by enabling them if needs be to maintain that no actual invitation was ever made: the response ‘Yes, I’m busy with my drama rehearsal’, for example, directly answers the question posed and allows the (positive) face-threatening ‘I don’t actually want to go out with you’ to be avoided.

But in the same way as 'polite' requests using conditional structures have become conventionalized, so pre-requests like the one above are in some cases equally transparent, and addressees will respond to them as if they were in fact direct requests ('I'm sorry, but I'm very busy'). It is not uncommon, therefore, for the conversationally wary to resort to **pre-pre-requests** for additional face protection:

Steve: I guess you must get bored of an evening, now that your boyfriend's been sent to prison? (pre-pre-request)

Paula: Well, yes, now you mention it the evenings do drag on a bit.

Steve: Are you doing anything this evening? (pre-request)

Paula: I don't think so...

Steve: Would you like to come to the cinema with me? (request)

Pre-sequences like these illustrate the complexity of conversation structure, a focus of scholarly attention in the branch of linguistic study known as **conversational analysis**, founded in the late 1960s and early 1970s, and associated notably with the sociologists Harvey Sacks, Emanuel Schegloff and Gail Jefferson.



Key idea: Positive and negative face

Participants in an interaction will generally try to protect their own and their interlocutor's face where possible. Positive face refers to an individual's desire to be viewed positively, while negative face is the desire to be free from imposition. Strategies to avoid or minimize face-threatening acts (FTAs) include recourse to indirect speech acts and pre-sequences.



Fact-check

- 1 What is the co-operative principle?
 - a A prescription for successful conversation
 - b A robust assumption of co-operation on the part of participants in an interaction
 - c A hypothesis that human beings generally tell the truth in one-to-one conversation
 - d A belief among conversationalists that their interlocutors are telling the truth, even though they themselves might not be

- 2 What would politicians generally prefer to do in an interview?
 - a Violate the quantity rather than the quality maxim
 - b Violate the quality rather than the relevance maxim
 - c Not violate the maxim of manner
 - d Lie through their teeth

- 3 'The Lone Ranger rode off into the sunset, got on his horse and put on his boots' is probably a violation of which maxim?
 - a Quality
 - b Quantity
 - c Relevance
 - d Manner

- 4 What are maxim flouts?
 - a Accidental violations of Grice's maxims
 - b Non-co-operative violations of Grice's maxims
 - c Ostentatious violations of Grice's maxims, signalling co-operation of an indirect kind
 - d Tactics used by politicians in particular to avoid answering questions

- 5 What characterizes performative verbs?
 - a They realize speech acts
 - b They are receptive to use of the present simple in English
 - c They can be used with 'hereby'
 - d All of the above

- 6** When do abuses of performatives occur?
- a** When they are not uttered sincerely
 - b** When they are performed by the wrong person
 - c** When the procedure is executed incorrectly
 - d** When there is no uptake from the addressee
- 7** A: Mary has two children – in fact, three.
B: Mary has two children – in fact, one.
Why does B sound less natural than A?
- a** A cancels an entailment, while B cancels an implicature
 - b** B violates the maxim of relevance
 - c** B violates the maxim of quality
 - d** A cancels an implicature, while B cancels an entailment
- 8** What can metaphors be viewed as?
- a** A kind of indirect speech act
 - b** Maxim violations
 - c** Relevance maxim flouts
 - d** Performatives
- 9** Why are maxim hedges used?
- a** To signal non-cooperation
 - b** To signal the speaker's perceived inability to satisfy one or more of the maxims
 - c** To confuse the addressee
 - d** To minimize an FTA
- 10** Why are indirect speech acts used in making requests?
- a** To minimize the threat to an addressee's positive face
 - b** To minimize the threat to an addressee's negative face
 - c** Because the conditional form is seen to be more 'polite'
 - d** To minimize the threat to the speaker's positive face



Dig deeper

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K. Bach (2006) 'The top 10 misconceptions about implicature', available at:

http://tu-dresden.de/die_tu_dresden/fakultaeten/fakultaet_wirtschaftswissenschaften/wi/wiim/die_tu_dresden/fakultaeten/philosophische_fakultaet/iph/thph/braeuer/lehre/implikaturen/Bach%20TopTen%20Misconceptions.pdf

Exploring variation in language

Given that all living languages are subject to variation, it is surprising that the subject was for so long ignored or downplayed by mainstream linguistics. In idealizing the ‘homogeneous speech-community’ for his own purposes, Chomsky (1965: 3), for example, was merely maintaining the prevailing assumption that variation was of little theoretical interest. Studying the relationship between language and society remained something of a taboo until the 1960s, when researchers in the emergent discipline of **variationist sociolinguistics** argued that no satisfactory account of linguistic change could be achieved without a proper understanding of how variation was structured.

Our focus in this chapter is on variation within a language, or **microvariation**, and we look first at the approach of nineteenth- and twentieth-century dialectologists. Their methodology and assumptions differed greatly from that of modern-day sociolinguists, whose work we examine later in the chapter. Armed with modern recording equipment and applying sociological concepts and methodology, sociolinguists have shown the close relationship between language and a range of **extralinguistic** or social factors.

Dialectology

Dialectology, the study of geographical differences within the same language, has a long tradition that predates modern linguistics. In the nineteenth century in particular, data from the local and regional dialects of Europe were collected with a view to establishing language families and identifying the branches of family trees (sometimes, it must be said, from nationalistic rather than purely scientific motives).

In the absence of reliable recording equipment, obtaining information about how language varied from one place to another was difficult, and researchers were often reliant on impressionistic data collated from non-specialists. Marburg-based dialectologist Georg Wenker's early attempts to document spoken dialect across Germany, for example, were based on some 45,000 questionnaires returned from schoolmasters between 1877 and 1887: the sheer volume of data meant that only a fraction of Wenker's corpus was ever properly exploited.

In the last decade of the nineteenth century Jules Gilliéron attempted to obtain more reliable first-hand data by training a grocer, Edmond Edmont, to conduct dialectological interviews with informants in 639 rural French villages, using a simple pre-IPA transcription system to record his results. Edmont's findings were published as the *Atlas Linguistique de la France* (ALF; 'Linguistic Atlas of France') between 1902 and 1910. Half a century later, a team of researchers led by Harold Orton at the University of Leeds used similar methodology to Gilliéron, and again focused largely (though not exclusively) on rural villages for the *Survey of English Dialects* (SED), published between 1962 and 1971. The detailed data on local variation in each of these surveys have been presented as dialect maps, and in some cases **isoglosses** have been drawn, separating areas using one form from areas using a different one for the same referent (see the example for the verb 'to peep' in Figure 11.1).

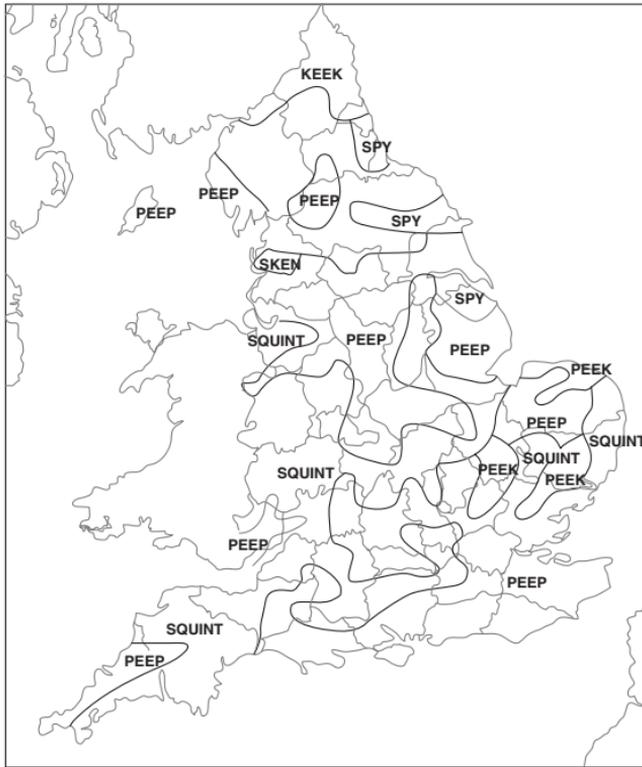


Figure 11.1: Isoglosses for 'peep' [vb] based on SED data (Upton, Sanderson & Widdowson 1987: 136)

It is important to remember that the primary aim of the dialectological surveys was to collect and record local variants before they died out, not to provide an accurate snapshot of variation throughout the country. The bias towards rural English villages in the SED, for example, was consistent with the aim of locating conservative speech forms, but entirely unrepresentative of a country which had been predominantly urban since the mid-nineteenth century. The informants selected, similarly, were anything but a representative cross-section of the English population at the time. Because of their associations with traditional (and often dying) trades, and the specialist vocabulary that went with them, NORMs (non-mobile older rural males) were targeted as ideal SED informants, as they had been by the ALF, for which only 60 out of some 700 informants were female.



Key idea: Dialectical studies

Traditional dialectology focused exclusively on the geographical dimension, while urban variationist studies have focused on a single city, and explored correlations between speech and extralinguistic factors (e.g. gender, social class).

It would be unfair to criticize traditional dialectological surveys for not being representative of the general population: they did not set out to be so. But we do need nonetheless to interpret their findings with caution for other reasons. Firstly, fieldworkers asked informants which forms they used, but self-reporting is notoriously unreliable. The form an informant offers a fieldworker may not in fact be the form he/she uses most often, even though he/she may sincerely believe that it is. The method, moreover, makes little allowance for intra-speaker variation: all speakers vary in their usage, and the language one feels appropriate for answering questions posed by a stranger undertaking fieldwork is likely to be different from that used with intimates.

For these and other reasons, the isoglosses of dialect maps need to be seen as an idealization of data in which there are gradual changes over geographical space rather than abrupt boundaries between uses. Dialectological surveys provided a wealth of information about variation on a single dimension, that of geography, while keeping all other variables (age, sex, education, etc.) broadly constant. Their findings often yielded insights into the direction of change, but sociolinguists seeking to understand *how* change occurs had to take essentially the reverse approach, i.e. to hold the geographical variable constant by taking informants from a single place, and vary the other social variables. This was the task that two pioneers of variationist studies, William Labov and Peter Trudgill, set themselves in the 1960s and 1970s.

Urban sociolinguistics: methodology and problems

William Labov's objective of investigating speech variation in a cross-section of speakers from New York City in the 1960s raised an immediate methodological problem: how could one gain access to the natural speech from informants who knew they were the subjects of investigation? How, in other words, could what became known as the **Observer's Paradox** be overcome? An ingenious early response can be seen in his pilot study, undertaken with a team of researchers in three New York department stores: Saks, Macy's and Klein's, which could be graded as high, middle and low status respectively on a number of external criteria (e.g. prices of similar display goods, range of goods offered, publications in which the stores advertised).

Labov focused on a single **linguistic variable** (i.e. a speech form known to be used variably within a community), namely non-prevocalic /r/, which may be deleted in New York. The variable (r) (sociolinguistic variables are conventionally placed in round brackets) therefore had two **variants**, labelled (r)-0 and (r)-1:

- ▶ (r)-0: [Ø]
- ▶ (r)-1: [r]



Case study: The speech community

In Labov's department stores experiment, speakers used more (r)-1 pronunciations as the prestige of the store increased, and individually they used more of these pronunciations when repeating the words **fourth floor**, i.e. when they were paying more attention to their speech. So while they didn't all speak in the same way, they did at least agree on how they felt they should try to speak in careful style. Labov says this type of agreement is indicative of a **speech community**: while usage may vary considerably across its members, the community nonetheless shares speech norms (1972: 120):

The speech community is not defined by any marked agreement in the use of language elements, so much as by participation in a set of shared norms; these norms may be observed in overt types of evaluative behaviour and by the uniformity of abstract patterns of variation which are invariant in respect to particular levels of language.

Interestingly, if a similar experiment were done in a rhotic area of England (i.e. an area in which non-prevocalic /r/ is still pronounced), it is likely that the pattern observed in New York would be reversed, i.e. the high status store would use least (r)-1 and speakers would tend to delete them more in careful speech, because /r/-deletion rather than /r/-retention is prestigious in England. Sociolinguistic variation, then, lends the best support to the dictum that England and America are 'two nations separated by a common language'.

The method adopted by Labov's team was to identify in each store items known in advance to be on sale on the fourth floor, and approach shop assistants to ask where they could be found. When the expected answer *fourth floor* came it duly provided two instances (or **tokens**) of (r) in two different environments, the first in preconsonantal position and the second word-finally. By feigning not to have heard, the researchers could then elicit a repetition of the two words in what Labov called **emphatic style**, in which, it is reasonable to presume, informants would be speaking more carefully to ensure they were properly understood. The researcher would then note the four tokens in two environments and two speech styles, from an informant completely unaware of having taken part in a sociolinguistic experiment.



Key idea: Rapid anonymous observation

Ingenuous techniques such as rapid anonymous observation were used in early variationist studies to overcome the Observer's Paradox, i.e. the problem of obtaining 'natural speech' from informants who know they are under investigation. Sociolinguists have now largely abandoned the notion of 'natural speech', on the grounds that all speech is designed with an audience in mind.

The results, when collated and analysed, showed a remarkable correlation between the status of the store and linguistic behaviour, with most use of the prestigious (r)-1 variants occurring, in both environments, in the high-status Saks store and fewest in the lowest-status store, Klein's. (r)-1 use increased consistently in the repeated 'emphatic' style, suggesting that speakers use more prestige variants when paying more attention to their speech (see Case study on p. 226).

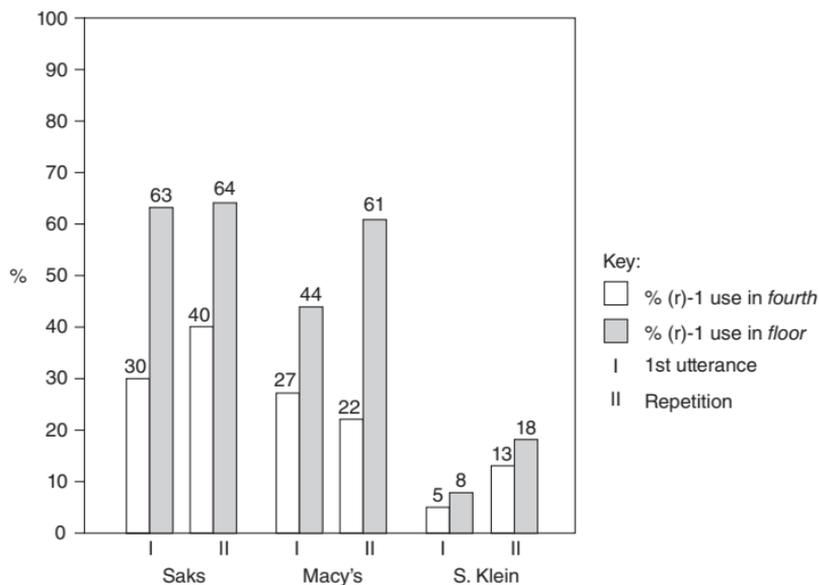


Figure 11.2: [r]-use in three New York department stores (Labov 1972: 52; adapted by Wardhaugh 1998: 162)

Labov's technique of **rapid anonymous observation** had overcome the Observer's Paradox and demonstrated a clear, quantifiable correlation between speech and social status. A question we need to ask here, though, is '*whose* social status?'. For all its advantages, rapid anonymous observation yields very little information about informants themselves, beyond that which can be reasonably guessed, for example sex and approximate age. We therefore know little about the shop assistants' own socio-economic status but, perhaps surprisingly, there is little reason to suppose that it actually corresponded to that of the stores where they worked:

indeed, on one criterion, that of pay level, Macy's rather than Saks employees were believed to be of highest status. In all likelihood, the shop assistants' speech was a better reflector of the status of their *customers' status* than of the assistants themselves. The assistants, in other words, seemed to be 'borrowing' the status of their customers by **accommodating** to them. As we shall see in Chapter 13, the concept of accommodation has important consequences for our understanding of linguistic change.

Urban surveys: New York and Norwich

The department store study was followed by two major urban surveys on either side of the Atlantic: by Labov himself in New York City, and by Peter Trudgill in Norwich. In both cases, a representative sample of people who had all lived in the city for some time was selected, on the basis of which informants were invited to take part in a sociolinguistic interview. Informants' age and gender were noted, and index scores for socio-economic class were established for each informant on the basis of scales for a number of criteria, such as education level, occupation and income.

The interview itself was structured in such a way as to elicit a range of speech styles, so that intra- as well as inter-speaker variation could be measured. The early part of the interview in which personal data were gathered, for example, was presumed likely to elicit speech styles at the more formal end of a speaker's **repertoire**, but rather less formal than those of reading styles, in which speakers' attention could be variably drawn to their speech. In Labov's minimal pair style, the informant is asked to focus very directly on the variables under investigation, e.g. *guard* and *God*, which are homophonous for some New Yorkers ([gɑ:d]); asking informants to read a word list maintained attention on individual words, but their capacity to self-monitor was reduced considerably when they were invited to read a passage of text, in which examples of the key variables had

been liberally inserted. But could access to natural vernacular ever truly be obtained in experimental conditions?

Labov and Trudgill were both clear that the Observer's Paradox could not be overcome as it had been in rapid anonymous observation, but argued nonetheless that it was possible to divert informants' attention away from their speech and thereby elicit something akin to a natural, or 'casual' style. This could be encouraged by interviewing informants with family or friends, allowing digressions or interruptions (e.g. from telephone calls), and by the famous 'danger of death' question (see Case study below).



Case study: Dangerous New York, tranquil Norwich?

Towards the end of the interview, Labov would ask his informants whether they had ever been in a situation where they had genuinely feared for their lives (Labov 1966: 107):

Have you ever been in a situation where you were in serious danger of getting killed (where you said to yourself, 'This is it!')?

The question subtly diverts speakers' attention away from their speech and directs it towards the telling of an exciting story: the speaker stands to look ridiculous if it turns out that there was in fact no real danger.

While not all New Yorkers had tales of this kind to tell, this approach generally worked well in New York, but failed dismally in Norwich, leaving Peter Trudgill to wonder whether Norvicensians simply led more uneventful lives than their New York counterparts. Trudgill's solution – asking informants whether they had had a good laugh recently – worked rather better, while similarly exerting gentle pressure on informants to tell a good story, and thereby diverting their attention away from their own speech. The underlying methodological assumption that formality of speech style increases with attention to speech became known as the **audio-monitoring hypothesis**, which Labov (1972: 208) sets out thus:

'There are a great many styles and stylistic dimensions that can be isolated by the analyst. But we find that *styles may be ordered along a single dimension, measured by the amount of attention paid to*

speech. The most important way in which this attention is exerted is in audio-monitoring one's own speech, though other forms of monitoring also take place.'

The methodology of the structured sociolinguistic interview has been challenged on a number of grounds, including the artificiality of the question-answer format, the non-comparability of scripted and unscripted styles, and the audio-monitoring hypothesis on which many of its assumptions rest. It is simply not true that speakers always use more formal styles when paying attention to their speech, and most sociolinguists would now argue that, since speakers are *always* tailoring their speech to a particular audience, the very notion of 'natural vernacular' is a misnomer. Nonetheless, the controlled experimental data which the New York and Norwich surveys produced are still noteworthy for the insights they yielded, for the first time, about the relationship between language and social factors, the most important of which we review below.

Variation by class and style

A striking finding of both surveys was the very clear pattern of class stratification in speech: use of prestigious or standard variants by each social class mirrors exactly the hierarchy determined by the criteria for the social class index. This is true, moreover, in all styles, though differences are less pronounced in formal styles. Figure 11.3 shows class stratification for the (ng) variable in Norwich, for which variation affects the present participle and gerund suffix *-ing*. Again, two variants were identified: the standard velar nasal [ŋ] ((ng)-1), and East Anglian vernacular [əŋ] or [ŋ̩] ((ng)-2) of *hunt'n*, *shoot'n*, *fish'n* stereotype. An index score for each speaker was then calculated on the basis of a score of 1 for tokens of (ng)-1, and 2 for each token of (ng)-2, the total being divided by the number of tokens. The results for each class in each style were then plotted on a graph:

Class	Style			
	WLS	RPS	FS	CS
I MMC	000	000	003	028
II LMC	000	010	015	042
III UWC	005	015	074	087
IV MWC	023	044	088	095
V LWC	029	066	098	100

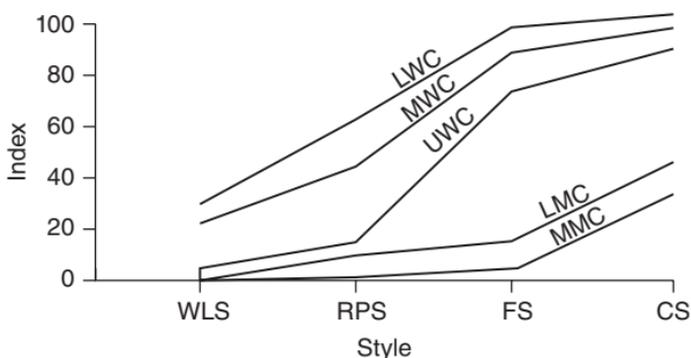


Figure 11.3: Norwich [ŋ] by class and style (Trudgill 1974: 92)

Aside from the clear pattern of stratification across the five social classes Trudgill identified in Norwich (lower, middle and upper working class; lower and middle middle class), two points are noteworthy from this graph:

- 1 The fact that the lines slope in the same direction is indicative that, for this variable at least, Norwich forms a **speech community** on the basis of shared norms (see Case study on p. 226). While the social classes differ in their behaviour, Norwich informants of all classes adjust their speech in the direction of more [ŋ] use in formal styles.
- 2 The graph lines are quite steep for this variable, indicating a significant difference between formal and informal styles: the Norwich speech community is clearly aware of the social significance of this variable, and when given an opportunity to monitor their speech, informants make an effort to avoid the non-standard variant.

A variable like (ŋ) which shows a high degree of social and stylistic variation is called a **marker**. In some cases, a

vernacular variant of a marker becomes so well known as to be the subject of overt mockery by outsiders: these stigmatized variants or **stereotypes** (for example ‘Bristol *l*’: see Chapter 5), are then avoided by all but lowest-status speakers. **Indicators** by contrast, show class stratification but relatively little stylistic differentiation. A good example, again from Norwich, is the (a) variable in words like *after*, *cart*, *path* for which the standard form is a back vowel, but vernacular variants are fronted:

- ▶ (a)-1: [ɑ:]
- ▶ (a)-2: [ä: - ä:]
- ▶ (a)-3: [a: - ā:]

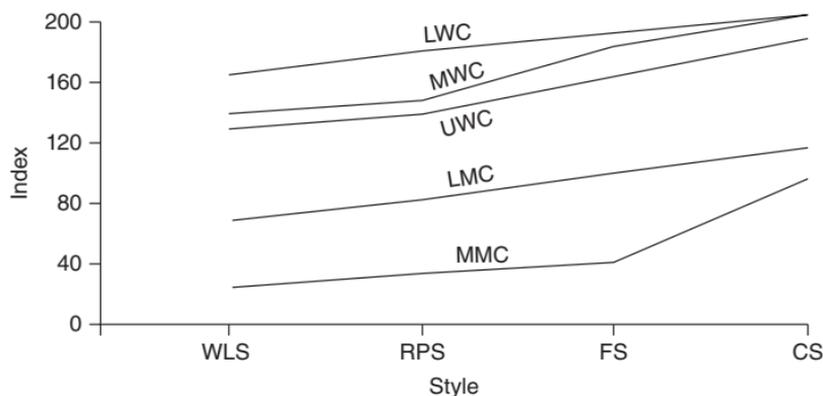


Figure 11.4: Norwich (a) by class and style (Trudgill 1974: 98)

As we can see from Figure 11.4, the variable (a) shows the familiar pattern of social stratification but the slopes are much flatter, because there is little difference between formal and informal styles. This suggests that, although the Norwich speech community agrees on what the ‘correct’ form is (the lines again all slope in the same direction), they do not perceive the variation to be socially significant in this case.

Case study: Martha’s Vineyard

Labov has sometimes been criticized for viewing speakers as ‘sociolinguistic automata’, whose linguistic behaviour is entirely moulded by extralinguistic factors such as age, gender and social

class. But as an early study from 1963 shows, he has always understood that variation and change could equally be driven by subjective factors.

The island of Martha's Vineyard lies three miles off the coast of Massachusetts, and had a permanent population of around 6,000 people, swelled by some 42,000 summer visitors who, in Labov's words, 'flood the island in June and July every year'. These visitors were, for the most part, rather more prosperous than the islanders themselves, whose traditional industries of fishing and agriculture were in decline. Labov describes the island as a very desirable place to live, but life was nonetheless difficult for Vineyarders: their county, Duke's, was the poorest in Massachusetts, and a fragile economy, coupled with island isolation, had produced high unemployment and living costs. It is hardly surprising, then, that there was resentment of wealthy 'summer people' who were buying up property on the island, and that Vineyarders themselves were torn between remaining on the island and seeking better economic prospects on the mainland.

A feature of Martha's Vineyard dialect had been the use of centralized diphthongs in the NIGHT and HOUSE lexical sets. The local *night* [nɛɪt] and *house* [hɛʊs] pronunciations appeared to have been losing ground to uncentralized mainland forms ([naɪt] and [haʊs]) for some time. Labov's investigation of what he called the [ay] and [aw] variables indicated, however, that the Vineyard forms were undergoing something of a resurgence, particularly among the 31–45 age group. The users of the centralized diphthongs were, however, predominantly people favourable to the island and who intended to remain there, in spite of the more limited opportunities it offered. This clear correlation between centralization and pro-Vineyard orientation can be seen in this table:

Table 11.1: Centralization and orientation towards Martha's Vineyard (after Labov 1972: 39, Table 1.6)

Persons		(ay)	(aw)
40	Positive	63	62
19	Neutral	32	08
6	Negative	09	08

Variation in this case was based not on class or gender, but on speakers' attitudes to the place in which they lived and worked. The local centralized forms had become, in McMahon's (1994: 242) words: 'the linguistic equivalent of wearing a T-shirt which says "I'm not a tourist, I live here".'

The variables we have examined so far show patterns of social stratification which align perfectly with the class hierarchy. But variables defying this alignment may be of particular interest. The New York (*r*) variable, for example, first explored in the department store study, showed an apparently anomalous pattern of stratification in the survey data:

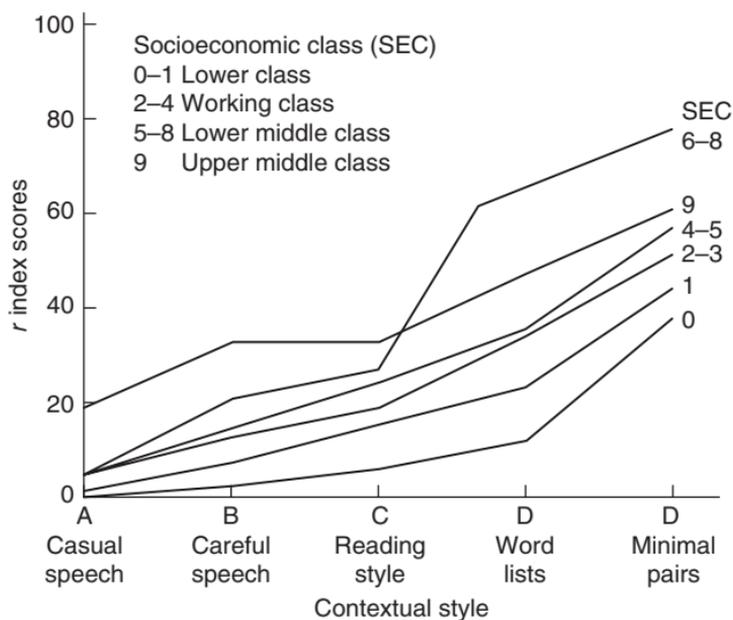


Figure 11.5: New York (*r*) by class and style (Labov 1972: 125, Fig. 4.2; adapted by Wardhaugh 2010: 171)

The surprise here is that the social classes just below the top of the hierarchy actually use more of the prestigious (*r*)-1 variants in formal styles than the classes above them. This unexpected pattern, in which intermediate social classes 'overreach' their social superiors, is called **hypercorrection** in one of its two meanings (see Spotlight on p. 237), and Labov has suggested that it may be indicative of ongoing **change from above**, i.e. in

the direction of an overtly prestigious norm. Such changes, he argues, are most likely to be led not by the highest social class but by the lower middle or upper working classes further down the hierarchy, i.e. precisely those who hypercorrect for the New York (r) variable above. Being acutely aware of their precarious position between the established middle and working classes, these groups are more sensitive to social variation than those in more secure or entrenched class positions. We shall consider an alternative explanation for the role of these apparently pivotal social groups in Chapter 13.



Key ideas: Stratification and hypercorrection

- Variation in urban studies has been found to be highly stratified, mirroring the class hierarchy.
- Cases of hypercorrection, in which intermediate social classes use more standard or prestige forms than the classes above them, have been seen to be indicative of change in progress 'from above' (i.e. from above the level of consciousness and in the direction of a prestige norm).

Language and gender

Of all the findings of modern sociolinguistics, none can have been more intensely debated than what has become known as the **sociolinguistic gender pattern (SGP)**, set out by Trudgill in the following terms:



In all the cases examined, it has been shown that, allowing for other factors such as social class, ethnic group and age, women on average use forms which more closely approach those of the standard variety or the prestige accent than those used by men.

Trudgill (2000: 70)



Spotlight: Hypercorrection

Another meaning of **hypercorrection**, and a frequent source of language-based comedy in popular drama, is the over-extension of a rule learned by a social climber to a linguistic environment where it does not apply. Before British English speakers were as aware as they are today of each others' regional accents, it was claimed, for example, that northern English speakers living in the south and aspiring to the prestigious RP accent would pronounce some words like *butcher* with the southern STRUT vowel, i.e. as [bʌtʃə] rather than [bətʃə], because they erroneously assumed that all instances of /ʌ/ could be replaced by /ʌ/ in RP. While this strategy works fine for *come* and *rub*, it does not for *butcher* or *pull*, where northerners and RP speakers have the same vowel.

Dramatists have seen comic potential in the propensity of Cockneys – traditional London English speakers – to drop *h* at the beginning of words. Fans of the cult 1960s TV adventure puppet show *Thunderbirds* will recall, for example, how Parker, an ex-jailbird now working as manservant to the aristocrat Lady Penelope, would attempt to use higher status speech by re-inserting the lost initial *h*'s of Cockney English, usually in the wrong places, e.g. 'I must apologize for the hunconventional entrance, m'Lady, but I 'ad to happre'end 'im some'ow'.

Trudgill is not, of course, claiming that women speak 'better' than men, nor, indeed, that men and women have different languages. Gender-based differences in speech, with the exception of those imposed by the grammar (for example, a male Russian says *ja sidjel* 'I sat' but a female would say *ja sidjela*), are generally a matter of more or less, with the genders using the same forms in different proportions. But women nonetheless consistently appear to use more prestige forms than men do. Macaulay's (1976) data for the (i) variable in Glasgow, for example, suggest that women's use of prestige variants corresponds broadly to that of men in the social class immediately above them:

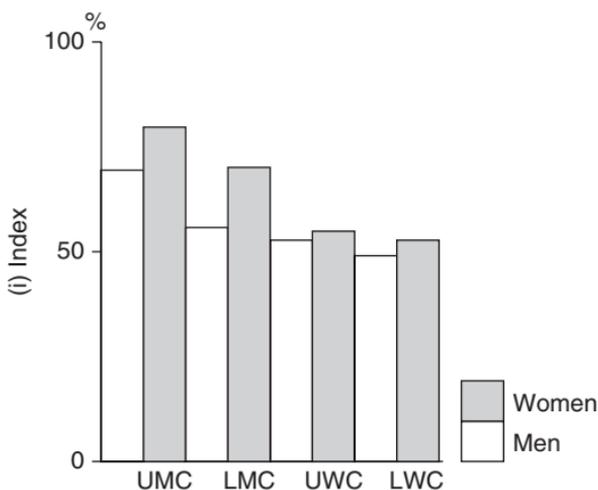


Figure 11.6: Glasgow (i) by class and gender (data from Macaulay 1976; see Coates 2013: 55, Fig. 4.7)

Explanations for this remarkably consistent finding have appealed variously to women's traditionally greater role in the rearing and education of children, to their purportedly greater need to assert status through language, given a generally subordinate social position, and to men's greater subjection to workplace vernacular norms.

A self-evaluation test from the Norwich survey suggested that attitudinal factors may also play a part. At the end of interview, Trudgill told his informants that he would say some words in two different ways, and asked them to identify (a) the 'correct' pronunciation and (b) the pronunciation they themselves used most of the time. Informants had no difficulty recognizing that [tʃu:n] rather than [tu:n] was the standard pronunciation of *tune*, for example, and were generally accurate in the identification of their own usage (determined by Trudgill on the basis of the form they had used more than half the time in casual style in the recorded interview).

But an interesting pattern obtained among those who, according to the available data, answered the second question wrongly: here the over-reporters – those who thought they used the standard form more than they actually did – were mostly female, while the under-reporters – who used fewer vernacular forms than they thought they did – were mostly male, irrespective of

social class. Trudgill suggested that many men genuinely believed they used these variants more than they did because, perhaps at a subconscious level since no deception seemed to be involved, they actually *liked* them, even though they were stigmatized low-status forms. These variants had **covert prestige** by virtue of their association with working-class speakers, the stereotypically ‘rough and tough’ nature of whose working lives was arguably more attractive to men than to women, who identified more strongly with overtly prestigious forms.

 **Key idea:** The sociolinguistic gender pattern (SGP)

Women have been found consistently to use more standard or prestige forms than comparable men: this finding became known as the sociolinguistic gender pattern (SGP).

None of the explanations for the SGP is unproblematical, and indeed Trudgill’s original rider ‘allowing for other factors such as social class, ethnic group and age’ raises a number of difficulties. It is particularly difficult to control for social class when, as at the time of the Norwich study, a significant proportion of women were not in paid employment, and were often assigned the same score as their husbands on occupational criteria. The one area of general agreement is that there is no biological basis for gender-based differentiation, and indeed, there is evidence that under certain social conditions, the SGP can be reversed.

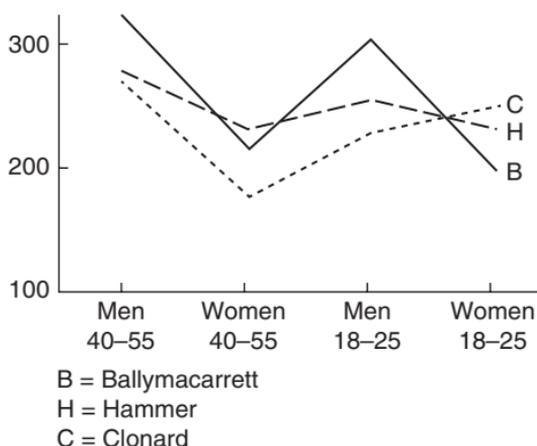


Figure 11.7: (a) index scores in three Belfast communities (after Milroy 1987: 124, Fig. 5.4)

In her seminal Belfast study, Lesley Milroy examined the use of the (a) variable, for which a wide range of local vernacular variants had been identified, in three Belfast communities: Ballymacarrett, the Hammer and the Clonard. As the graph above shows, in two of these communities the pattern was as expected for both younger and older speakers, but in the Clonard younger women had higher vernacular scores for this variable than younger men. Milroy explains this unexpected pattern in terms of changing **social network** structures. Significantly, the Clonard had been affected by unemployment in a different way from the other communities: here, younger women were more likely to be in stable employment than men. The workplace, which requires people to conform and show solidarity, acts as a powerful linguistic norm enforcement mechanism, to which men have traditionally been subjected to a greater degree than women.



...the young women in the Clonard contrast with the men in being fully employed, and have developed solidary relationships of the kind usually associated with men of the same age.

[Milroy 1987: 144]

The role-reversal among younger Clonarders left women rather than men subject to the normative pressure of the workplace, with the result that the women's social networks were more dense and their vernacular accordingly more **focused** in terms of regular use of 'broad' Belfast variants. The men's vernacular, by contrast, was more **diffuse**, that is to say they did not use these forms with anything like the same consistency. The importance of social networks for our understanding of linguistic change, to which we return in Chapter 13, cannot be underestimated.

More recent findings have prompted a re-evaluation of the sociolinguistic gender pattern by suggesting that, rather than favouring prestige forms per se, women are more likely than men to avoid highly localized variants, and in fact often lead change in the direction of non-local, non-standard norms. On

Tyneside, for example, younger middle-class women were found by Milroy et al. (1994) to be leading change away from the local glottalized ([t̚]) variant of /t/, and towards the glottal stop [ʔ], which is widely used in many urban British dialects. We are left with what has become known as the ‘gender paradox’, namely that women appear both to favour conservative prestige forms and to lead innovation in the direction of new non-standard forms.

Sociolinguists have, however, become less and less comfortable with viewing gender in a deterministic sense. Penelope Eckert has notably emphasized **speaker agency** in use of language to create and form identities, and seen gender less as something defining a person than as something which one ‘does’. The relative importance of gender in shaping a person’s identity may well change with age, and may vary for the same person according to situation: the use of particular variants may increase in situations where one wishes to assert a gender identity, and reduce in situations where that gender identity is less important.



Key idea: The ‘gender paradox’

More recent findings have suggested that women are likely to avoid highly localized forms, rather than actively choose prestige or standard ones. The ‘gender paradox’ emerged from evidence that women seem to favour conservative standard forms, while at the same time innovating in the direction of new non-standard ones.



Fact-check

- 1 Why do dialect maps not provide a representative picture of speech?
 - a They ignore variation on the social and stylistic dimensions
 - b They are often based on unreliable self-report data
 - c They often use unrepresentative informants, e.g. NORMS
 - d All of the above
- 2 What does an indicator variable show?
 - a Significant social and stylistic variation
 - b Significant variation on the style dimension only
 - c Significant variation on the social dimension only
 - d Significant variation according to gender
- 3 What is the Observer's Paradox?
 - a A consistent finding in sociolinguistics concerning class-based variation
 - b An explanation for covert attitudes to vernacular speech
 - c An occasional finding in sociolinguistics concerning gender differences in speech
 - d A methodological problem in sociolinguistics regarding data collection
- 4 What is covert prestige?
 - a Overuse of prestige or standard forms by lower-class speakers
 - b A mismatch between the 'objective' and 'subjective' class position of informants
 - c The adoption of older speech variants by upper-class speakers
 - d An apparently unconscious preference for low-status forms, which appears disproportionately to affect men
- 5 When does hypercorrection occur?
 - a Speakers over-extend a prestige pronunciation to environments where it is not used
 - b High-status speakers use low-status forms
 - c Some speakers apply prescriptive rules to correct the grammar of others
 - d Speakers revert to old-fashioned or obsolescent standard forms

- 6** What was the use of centralized diphthongs in Martha's Vineyard found to be?
- a** Obsolescent
 - b** Restricted to older speakers
 - c** An assertion of local identity and solidarity
 - d** Associated with middle-class speakers
- 7** Why has the audio-monitoring hypothesis been criticized?
- a** Speakers don't actually pay attention to their speech
 - b** Women audio-monitor more than men do
 - c** People do not always use more formal variants when monitoring their own speech
 - d** It is not possible to prevent speakers from audio-monitoring
- 8** What is the sociolinguistic gender pattern?
- a** A robust finding that men and women have different speech forms
 - b** A consistent finding that women use more standard or prestige forms than men
 - c** An occasional finding that women use more standard or prestige forms than men
 - d** A hypothesis that men and women acquire language differently
- 9** What was Labov's 'danger of death' question designed to do?
- a** Scare people into using more formal speech
 - b** Make sociolinguistic interviews more interesting for informants
 - c** Gain background information for the New York study
 - d** Divert informants' attention from their speech
- 10** Why did younger women have higher vernacular scores than men in the Clonard?
- a** Belfast English is a special case
 - b** The workplace had become an important vernacular norm-enforcement mechanism for younger women, but not men
 - c** Men were uniquely subject to pressures in the direction of RP
 - d** While unemployed, men paid little attention to their speech



Dig deeper

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12

Choosing your language: multilingualism and language planning

The focus of Chapter 11 was on variables within a single language, i.e. what is termed **microvariation**. But in many situations, the rules governing **macrovariation**, or the selection of one particular language or variety over another, are highly complex and an important part of what a competent speaker needs to 'know' in order to function properly in society.

In this chapter we will consider macrovariation from two perspectives: that of the individual, and that of the wider society, whether that be the speech community or the nation-state of which it may form part.

Bilingualism and diglossia

Viewed from the prism of the Anglo-Saxon world, monolingualism for many seems to be the normal state of affairs: we work, play, love, raise families, watch television, read introductory linguistics textbooks and do all the other things that human beings need or want to do through the medium of English, generally without giving a second thought to the language we use. The ‘languages’ menus on English language DVDs not infrequently offer only ‘English’, or ‘English for the deaf or hard of hearing’, as if no other languages were worth bothering about. This state of affairs is not, however, typical of all or even most societies across the globe: probably a majority of the world’s population needs to use more than one language on a regular basis.

An individual’s proficiency in two languages is known as **bilingualism** (likewise the terms **trilingualism** or **multilingualism** are used to denote a speaker’s competence in more than two languages). At the level of the nation state, again multilingualism rather than monolingualism is the norm, though the extent to which individuals within them control more than one language varies considerably. Within Europe, only Portugal and Iceland are generally reckoned to have no significant indigenous linguistic minorities (though, as we saw in Chapter 1, it all depends how one draws the distinction between ‘language’ and ‘dialect’). Switzerland has four official languages (French, Italian, German and Romansch); Belgium has three (Dutch, German and French), as does Finland, where Finnish, Swedish and Sami enjoy official status.



Spotlight: Bilinguals

A true bilingual is someone who has been raised from a young age to use two mother tongues and is equally proficient in both: the term does not normally extend to individuals who have an aptitude to learning languages at school or university, or who have lived for a long time in a country where a language other than their mother tongue is used. Such people may in some cases be able to approximate closely to native speaker competence in their new language, but cannot claim to have that language as a mother

tongue. Famous English-speaking bilinguals are Richard Burton (Welsh/English), Sandra Bullock (German/English), Charlize Theron (Afrikaans/English) and Mila Kunis (Russian/English).

Leaving aside the languages of recent immigration (around 300 are believed to be spoken in London alone), a patchwork of indigenous minority languages within the United Kingdom reflects historical patterns of settlement and displacement. Welsh, Irish and Scots Gaelic are still spoken in northern and western peripheral areas to which Celtic peoples were displaced following Anglo-Saxon invasions between the fifth and seventh centuries. Two other Celtic languages have been lost: Cornish, the language of Cornwall, died probably in the early nineteenth century but has since been revived and now has a number of speakers raised as modern Cornish–English bilinguals, while Manx in the Isle of Man died as a mother tongue with its last native speaker, Ned Maddrell, in 1974. In the Channel Islands, which became subject to the Crown after the Norman Conquest, Romance varieties similar to French are spoken by dwindling numbers of speakers: Jèrriais in Jersey; Guernésiais in Guernsey and Serquois in Sark; only a handful of Auregnais speakers now remain on Alderney. Norn, a descendant of old Norse, was spoken in Shetland and Orkney and Caithness until probably the early nineteenth century, following Scandinavian settlement from the ninth century onwards. The appearance of monolingualism in the British Isles therefore belies considerable linguistic diversity.

An important kind of arrangement in multilingual communities involves a functional separation between varieties known as **diglossia**. The term was first coined by Charles Ferguson in 1959, and originally defined as follows:



DIGLOSSIA is a relatively stable language situation in which, in addition to the primary dialects of the language (which may include a standard or regional standards), there is a very divergent, highly codified (often grammatically more complex) superposed variety, the vehicle of a large and respected body of written literature, either of an earlier period or in another speech community,

which is learned largely by formal education and is used for most written and formal spoken purposes but is not used by any section of the community for ordinary conversation.

(Ferguson 1959: 435)

Examples of diglossia include classical and spoken Arabic, High German (*Hochdeutsch*) and Swiss German (*Schwyzertütsch*) in Switzerland, or *katharevousa* ('Church Greek') and *dhimotiki* ('demotic Greek', or 'people's Greek') in modern Greece. In all these cases, Ferguson argued, the two related varieties continue to co-exist because each serves a particular set of functions. One, which can be labelled the High (H) variety, is used in a range of more formal settings and functions, while the other Low (L) variety is used in more familiar or intimate contexts. Ferguson illustrates this division of labour as follows:

Table 12.1: Functional separation of H and L varieties in diglossia (after Ferguson 1959)

Context	H	L
Sermon in church or mosque	x	
Instructions to servants, waiters, workmen, clerks		x
Personal letter	x	
Speech in parliament, political speech	x	
University lecture	x	
Conversation with family, friends, colleagues		x
News broadcast	x	
Radio 'soap opera'		x
Newspaper editorial, news story, caption on picture	x	
Caption on political cartoon		x
Poetry	x	
Folk literature		x

It is important to note that Ferguson's schema is indicative, and not all diglossic situations have an identical distribution of H and L functions; nor is the relationship between the two varieties hermetically sealed, as we will see below. Later definitions of diglossia have relaxed Ferguson's strict criterion that the varieties be related: Fishman (1967), for example, sees

a very similar functional separation in many settings where different languages are involved and H and L varieties can be identified. This broader definition encompasses English (H) and Welsh (L) in Wales; French (H) and Alsatian (L) in Alsace, eastern France or Spanish (H) and Basque (L) in the Basque Country, north-western Spain.

Diglossia may or may not involve individual bilingualism. In many diglossic situations, speakers control both varieties and use them according to the circumstances of the speech situation. Early-nineteenth-century Tsarist Russia, on the other hand, was a diglossic society with very little bilingualism: the French-speaking elite generally did not speak Russian (L) and the peasantry generally had little French (H). Brussels, by contrast, is a setting in which widespread French-Dutch bilingualism is not accompanied by a functional separation of varieties and, officially at least, both languages enjoy equal status. There can be little doubt, however, that French now dominates in Brussels, and Fishman has argued that bilingualism without diglossia tends to be a transitional state.



Without separate though complementary norms and values to establish and maintain functional separation of the speech varieties, that language or variety which is fortunate enough to be associated with the predominant drift of social forces tends to displace the other(s).

[Fishman 1967: 36]

In diglossic communities where most speakers control both H and L varieties, speakers may **code-switch** between the two. In **situational code-switching**, a switch may be triggered by a change of topic or situation, or in response to a change of interlocutor, and may exploit the symbolic value or associations of the varieties in question. In a famous 1972 study by Jan-Petter Blom and John Gumperz, party guests in the Norwegian town of Hemnesberget were found unconsciously to switch from the local dialect, Ranamål (L), to standard Norwegian (Bokmål; H) as the conversation turned from domestic or local topics to more

public or academic ones. Use of *Ranamål* seemed to emphasize what the researchers called local ‘team’ values.

In cases of **conversational code-switching**, however, there is most often no identifiable trigger for individual switches, which can occur with great frequency: it is the switching itself, rather than the symbolic associations of the varieties for the speakers concerned, which becomes an important marker of speech community identity. Labov offers a good example of Spanish-English switching from a Puerto Rican bilingual:



Por eso cada, you know it's nothing to be proud of, porque yo no estoy proud of it, as a matter of fact I hate it, pero viene Vierne y Sabado yo estoy, tu me ve haci a mi, sola with a, aqui solita, a veces que Frankie me deja, you know a stick or something, y yo aqui solita, queces Judy no sabe y yo estoy haci, viendo television, but I rather, y cuando estoy con gente yo me... borracha porque me siento mas, happy, mas free, you know, pero si yo estoy com mucha gente yo no estoy, you know, high, more or less, I couldn't get along with anybody.

[Labov 1971: 457]

Language shift and language death

Diglossia can be a stable, long-term arrangement, but in some cases social or economic change may affect the balance between the H and L varieties, causing one to ‘leak’ into the functions formerly reserved for the other and thereby set in motion a longer-term **language shift**. A good example is the Austrian border town of Oberwart (Felsőőr in Hungarian), studied by Susan Gal (see Case study below).



Key idea: Diglossia

Diglossia involves the use of two languages in a community, with a strict functional separation between the High (H) and Low (L) variety.



Case study: Language shift in Oberwart, Austria

After four centuries of stable German/Hungarian diglossia, the Austrian border town of Oberwart saw a decisive shift in favour of the H language, German, in the post-war period, as can be seen in the table below. The implicational scale of female speakers and interlocutors shows increased German use with all interlocutors among younger speakers, with only God still consistently addressed in Hungarian.

Table 12.2: Language choice by age and interlocutor in Oberwart: female informants (full scale in Gal 1978: 6)

		Interlocutors				
Informant	Age	1	2	3	4	5
A	14	H	GH	G	G	G
C	25	H	GH	GH	G	G
F	39	H	H	H	G	G
J	40	H	H	H	GH	G
N	60	H	H	H	H	G
Q	64	H	H	H	H	H

Key: G: German; H: Hungarian

Interlocutors: 1 = God; 2 = grandparents and their generation; 3 = parents and their generation; 4 = bilingual government officials; 5 = doctors

The shift in favour of German has been triggered by economic change. While German had become associated with the status of industrial worker, Hungarian was the traditional language of the peasant farmer. Until the Second World War, neither status dominated: while workers often had more disposable income, peasants enjoyed the security of land ownership. The post-war consumer boom, however, greatly improved living standards for salaried workers, undermining the relative prestige of the peasant farmer, whose lifestyle now acquired the negative associations of long hours of toil for relatively little reward.

As the two languages came to symbolize the changing statuses of the two lifestyles, bilingual speakers were able to exploit these associations metaphorically in language selection and

code-switching: explaining to a neighbour how to fix a car in Hungarian, for example, might be perceived as a friendly tip, while the same information in German, the language of modernity and sophistication, would be taken as expert advice. A switch from Hungarian to German when reprimanding a child would signal a more serious tone, and indicate that the parent was now demanding compliance.

Language shift in Oberwart has no implications for Hungarian across the border in Hungary, where it is healthy, but in cases where shift leaves a language without native speakers it is appropriate to talk of **language death**. In most cases, death is slow and follows a period of ‘leaky’ diglossia. Only in extreme circumstances – for example, the extermination of 250,000 speakers of the Tasmanian language in the nineteenth century – does it occur suddenly and not from gradual erosion of its functions. Cornish and Manx, for example, both died because speakers increasingly began to use English in domains formerly reserved for the Celtic language, until eventually bilingual speakers chose to raise their children only in English, leaving the threatened language with no new native speakers. Languages never die out because they are somehow ‘not good enough’: they die because their speakers’ economic or other needs induce them to use a dominant language in more and more domains, leaving the obsolescent language with fewer and fewer functions.



Key idea: Language shift and language death

Breakdown of stable diglossia occurs when the functions of one language are taken over by the other. This can lead ultimately to language shift, or language death in cases where the dying language has no native speakers elsewhere.

REVERSING LANGUAGE OBSOLESCENCE

For linguists, the loss of any language is to be mourned in the same way as a zoologist mourns the loss of a species. Many languages can indeed be likened to ‘endangered species’: only

around 10 per cent of the world's estimated 6,000 languages are thought sure to survive to the end of the twenty-first century. For activists, too, the loss of a language represents a loss of cultural heritage which must be resisted.

Arresting the decline of a language or language variety is known as **language revitalization**, and often begins with demands for its recognition by a nation state and for the granting of language rights to its speakers, for example the right to be educated or tried in that language in a court of law, or merely to have it included in the school curriculum. Noteworthy language revitalization success stories include Catalan, suppressed for decades under Franco in Spain, but now a first language for most Catalans (almost all of whom also speak Spanish), and enjoying co-official status with the national language in Catalonia, and Welsh, which has stabilized after years of decline.

All too often, however, activists face an uphill battle. Firstly, by the time a language has become threatened, both it and its speakers have generally become stigmatized as 'backward' or 'old-fashioned', while the dominant language is perceived to symbolize modernity by virtue of association with socially favoured groups. To speak the threatened language is then to identify with qualities which mainstream society presents as undesirable, reinforcing these negative associations in what quickly becomes a self-fulfilling prophecy. A second major problem is the lack of a standard or prestige variety. As we shall see below, standard languages tend to emerge because they are associated with a prestige or elite group, but in the case of a threatened language, those who would form such a group are generally among the first to abandon it as they rise in society.

The absence of a recognized standard removes normative pressure, leaving the language to fragment into microdialects, which are either mutually incomprehensible or, equally importantly, *perceived* to be so by speakers themselves, prompting recourse to the dominant language as a lingua franca. This in turn means that attempts to produce a standard language are less likely later on to be supported by the speakers themselves. This has important

consequences, because resources are generally too limited to support preservation of a multiplicity of obsolescent microdialects.

Activists may well see promotion of a standard variety as the best route to preserving a language, but a standard created artificially by intellectuals (e.g. Breton: see Case study below), may well encounter resistance, as indeed might a standard variety created on the basis of regional criteria, as in Ireland, where a standard Irish was based largely on Connacht usage, a central variety seen to bridge north and south. A final option is **polynomia**, i.e. a multiplicity of norms: in effect ‘anything goes’. This approach appears to have worked reasonably well in Corsica, an island community where linguistic and physical boundaries coincide, and internal communications are good enough for most Corsican speakers to be aware of other variants, but it would not appear a practical option in Brittany or in Gaelic-speaking Scotland, where dialectal fragmentation is coupled with isolation.



Case study: Standardizing a threatened language: Welsh and Breton

Welsh and Breton are Celtic languages spoken in the west of Britain and France respectively, both of which have struggled against more powerful and prestigious national languages. While Welsh has long been subject to dialectal fragmentation, it does at least have a recognized standard variety as a result of two historical factors. The first was the bardic tradition of coming together in an *eisteddfod* (literally ‘sitting’), for singing and poetry recital, in which the bards from different parts of Wales formed a spontaneous literary **koiné** (see Chapter 13), or mixed dialect, by selecting the forms most comprehensible to the widest range of speakers, rather than highly localized ones. This koiné became the basis for an early translation of the Bible into Welsh in 1588, and laid the foundations for a standardized language which was widely accepted, and is used in broadcasting, Welsh medium education and for other official purposes within Wales, which, notably since the creation of the Welsh Assembly in 1999, has been keen to promote Welsh-English bilingualism in the Principality.

In Brittany, however, where the Breton language was officially suppressed by the French Republic as a matter of post-Revolutionary national policy, no such standardization occurred, and the use of Breton became more an expression of localized identity at the level of the village than a 'national' variety for the Celtic peninsula. Attempts to create a standard have therefore been based on 'top down' efforts from activists, favouring either forms perceived to be the most widely understood (and thereby discriminating against the most divergent varieties) or those seen to be 'pure' Celtic forms rather than loans from other languages. The resulting hybrid appears to have pleased no one: a small minority of children are schooled in Breton-medium *Diwan* schools, but return home often to non-Breton-speaking parents, and grandparents whose 'village' Breton diverges so far from standard variety that it is, to all intents and purposes, a foreign language to them.

Language standardization



A variety is then selected as a standard (competing varieties might no doubt be selected by different parts of the community, yet only one of them might become the standard in the long run); this variety is now accepted by influential people, and then diffused geographically and socially by various means (official papers, the educational system, the writing system, discrimination of various kinds, both direct and indirect, against non-standard speakers).

(Milroy & Milroy 2012: 22)

While for linguists 'all languages are equal', it is certainly not the case that all languages enjoy equal prestige. In developed societies, a variety of high status, taught in schools and generally used for H functions, is known as a **standard** language, and the process by which it emerges and develops is called **standardization**. In his famous 1966 model, Einar Haugen saw standardization in terms of four interconnected processes, two social (selection of norms and acceptance) and two linguistic (elaboration of function and codification).

Selection of norms refers to the emergence within a speech community of a variety perceived to be superior to others. This variety begins as a consequence to acquire a wide range of roles befitting its new status: this is known as **elaboration of function**, and may require additional resources to be acquired, for example via lexical borrowing. This may in turn lead to calls for **codification** of the language, i.e. the setting out of clear rules for correct usage. There is thus a constant tension between elaboration, the goal of which is maximal variation in function, and codification, which strives for minimal variation in form (ideally a single grammatical, phonological or lexical variant deemed ‘correct’ for each function).



Finally, a standard language, if it is not to be dismissed as dead, must have a body of users. Acceptance of the norm, even by a small but influential group, is part of the life of the language. Any learning requires the expenditure of time and effort, and it must somehow contribute to the well-being of the learners if they are not to shirk their lessons. A standard language that is the instrument of an authority, such as a government, can offer its users material rewards in the form of power and position. One that is the instrument of a religious fellowship, such as a church, can offer its users rewards in the hereafter.

[Haugen 1966: 109–10]

The last process, **acceptance**, involves recognition – even by those who prefer not to use it in everyday life – that the standard variety enjoys higher status than others and is appropriate for use on formal occasions. Haugen’s four processes are well illustrated by the standardization of English, to which we now turn.



Key idea: Haugen’s model

Haugen’s standardization model involves four processes: two social (selection of norms and acceptance) and two linguistic (elaboration of function, codification).

THE EMERGENCE OF STANDARD ENGLISH

One consequence of the Norman conquest of 1066 was to make England a triglossic nation. The new Norman ruling class spoke a language similar to French, which had developed from the Latin spoken by Roman settlers in Normandy, and had been influenced by subsequent contact with Norsemen in the seventh and eighth centuries. This is called Norman French – or, with specific reference to varieties spoken in England, Anglo-Norman. By virtue of its association with the small but powerful ruling élite, Anglo-Norman became the prestige spoken language of England for at least two centuries, with Latin also enjoying prestige as a language of education, writing and religious practice.

English at this time was very much the ‘poor relation’ of the three in terms of prestige, and this lowly status of English post-Norman conquest finds echoes in the modern English lexicon. When people say: ‘He uttered an Anglo-Saxon expression’ as a euphemism for ‘he swore’, they do so with good reason: much of our modern earthy or taboo vocabulary carries the stigma of low-status English in medieval England, while its socially acceptable equivalents have generally been borrowed from Norman French. The social divide between the new ruling class and the subjugated English is also evident elsewhere in the lexicon. *Pork*, *mutton* and *beef*, delicacies available only to the Norman-speaking élites in the Middle Ages, are terms of Anglo-Norman origin, but the names of the animals which provide them, *pig*, *sheep* and *cow*, all come from Anglo-Saxon, the language of the farmers who produced the meat for the rulers’ table.

By the end of the thirteenth century, however, English had risen from its lowly status to become the favoured language within England, and Anglo-Norman was in decline. The factors favouring English over its prestigious rivals were, of course, social and economic rather than linguistic. For all its prestige as a lingua franca, classical Latin was a dead language, which had never in any case been widely spoken in Britain at the time of Roman occupation (first to fifth centuries AD). To learn Latin required an expensive education and/or a clerical background, and a significant investment in time. Anglo-Norman, on the other hand, was the living language of a very small élite,

deprived of their continental lands after the fall of Normandy to Spain in 1204 and forced to focus on their English possessions, and needing to work with – and increasingly marry – the numerically superior English-speaking population. In addition to its numerical advantage, English gained increasingly in prestige with the emergence of a growing and ever more prosperous anglophone mercantile class.

As the English experience shows, selection of norms is a continuous process, in which the relative statuses of languages can change quite radically. English was now emerging as a prestige language, but which variety of English would be selected as the standard? The variety which emerged as ‘first among equals’ in fifteenth-century England was the east Midlands dialect spoken in and around London, the prestige of which was boosted by Thomas Caxton, England’s first printer, who selected it for publication. Caxton discusses the motivation for his choice in the Preface to his *Eneydos* (a translation of the *Aeneid*). He first laments the rapidity of change, and diverse nature of the English language:



And certaynly our langage now used varyeth ferre from that whiche was used and spoken whan I was borne (...) And that comyn englysshe that is spoken in one shyre varyeth from a nother

His selection of the emergent London English koiné, infused with features from northern and midland dialects as the capital became a magnet for migrants, was merely a reflection of the socio-linguistic reality that the English of educated people within the London–Oxford–Cambridge triangle was already perceived as a desirable speech norm. Equally importantly, from the perspective of a publisher needing to sell books, it was a dialect that could be readily understood even outside that zone.



Case study: Anglo-Norman in modern Britain

Language shift happens by gradual replacement of one language by another in all of its functions. In England, the H language functions gradually shifted from Anglo-Norman to English over

the course of the thirteenth and fourteenth centuries, but Anglo-Norman retains some vestigial functions even today.

Towns associated with the Cinque Ports signpost this historical status in Anglo-Norman, and the highest order of chivalry within the British honours system, the Royal Order of the Garter, which dates from 1348, has an Anglo-Norman motto: *Honi soit qui mal y pense* ('Evil be to him who evil thinks').



Figure 12.1: Order of the Garter

When the British government presents proposals for Royal Assent, the responses on behalf of the Monarch are still given in Anglo-Norman, for example: 'La Reyne remercie ses bons sujets, accepte leur benevolence, et ainsi le veult' (The Queen thanks her good subjects, accepts their bounty, and wills it so) or 'La Reyne/Le Roy le veult' (The Queen/King wills it).

Once a standard variety had been selected, elaboration of function soon followed as English replaced Anglo-Norman as the language of record and of government, and increasingly ousted Latin from its pre-eminent position as the language of education. To fulfil its new roles, English borrowed extensively, notably between the fifteenth and seventeenth centuries, from Norman and central French, Greek and Latin.

Expansion of English predictably brought calls for codification, including proposals in the eighteenth century by the author Jonathan Swift, among others, for the establishment of an Academy along the lines of the Italian

Accademia della Crusca or the French *Académie Française* to serve as an arbiter for ‘correct’ usage. These were impractical, but this period saw a profusion of prescriptive grammars and the first authoritative dictionary, Samuel Johnson’s *A Dictionary of the English Language*, published in 1755. This remained the pre-eminent reference work on the English lexicon until publication of the *Oxford English Dictionary* nearly 150 years later. It is this codified variety of English, often referred to as the ‘Queen’s’ or ‘King’s’ English which became accepted as the variety taught in England’s public (i.e. private and exclusive) schools, and later used by the BBC and other public institutions.

The norms of standard English are not fixed, but constantly contested and subject to change. Lexical items such as *gay* or *wicked* have changed their meanings in the last 30–40 years, and pronunciations deemed unacceptable by the BBC in the immediate post-war years have become standard. Even RP users, for example, now tend to use glottal stops in preconsonantal position (e.g. *football* [fʊʔbɔ:ɪ], *fortnight* [fɔ:ʔnaɪt]), and the CAT vowel has now lowered to [a] from [æ]. A good way to stir up controversy is to say the word *controversy* on British broadcast media: its pronunciation provokes a flurry of animated comment from the self-appointed guardians of the language, some convinced that the first syllable should be stressed (CONtroversy), others equally adamant that the stress should fall on the second (conTROVersy). All this tends to confirm the suggestion by Lesley and James Milroy in *Authority in Language* that standardization is best seen as an ideology, in which the ideal of one correct form for one meaning is never actually achieved.



Case study: French, English and the ‘Allgood’ law

French has borrowed extensively in recent years from English, and examples are not hard to find: *le fast food*, *le self-service*, *le showbusiness*, *people*, *la musique funky*. But these loan words have not been universally welcomed. For many French politicians, these Anglo-Saxon incursions represent a threat to the French language, and indeed to the French way of life, and have prompted legislation.

The Bas-Lauriol law of 1975 proscribed the use of non-approved loans in certain contexts, notably in tendering for public contracts and in broadcast media, but foundered (ironically enough in Orwell's 'Newspeak' year, 1984) over the prosecution of a Paris furniture salesman, Hugues Steiner, for selling his merchandise from a place he called *Le Showroom* and not *La Salle d'Exposition* as required. The prosecution failed, and Steiner, an Auschwitz survivor, publicly compared what he saw as attempts to shackle his free expression to the language purification policies followed by Nazi Germany.

A more ambitious law, passed in 1994 by the then Culture minister Jacques Toubon (inevitably dubbed 'Monsieur Allgood' in the French popular press), proved equally controversial. Parties of the right and far left, for different reasons, approved the measure, but objections from centrists and the Socialist party were upheld by France's Constitutional court, on the grounds that the constitutional right to free speech could not be maintained if the state dictated the words in which it could be expressed. This left an awkward legal limbo in which public sector employees were obliged to use the prescribed terms, but restrictions were not extended to the private sphere. As Rodney Ball (1997: 214) points out, this means that a car salesman may vaunt the advantages of *un airbag*, but the official from the ministry of transport checking the specification of the same vehicle must refer to *un coussin gonflable*.

Language planning

For a number of reasons, intervention by the state in linguistic matters may be perceived to be necessary or desirable: this is called **language planning**. As we saw above, few societies are genuinely monolingual, and there is often a mismatch between national and linguistic boundaries. Deciding which language(s) should be recognized and accorded special status, i.e. **status planning**, can have important resource implications, particularly in highly multilingual countries such as Papua New Guinea, where over 800 languages are spoken, and can be fraught with practical and political difficulties. There may be good reasons why a **vehicular language**, i.e. one which serves as a lingua

franca, may not sit well as a national language. The perhaps surprising status planning solution adopted in Cameroon, a country of at least 200 languages, was to grant official status to the two former colonial languages, English and French, rather than choose from among 200 indigenous varieties.

Corpus planning involves decisions about what does and does not belong in a language which has been accorded special status; it may also involve decision-making with respect to a writing system, or correct spelling. In some cases, a language is regulated by an official body such as the *Accademia della Crusca* for Italian, or the *Académie Française* for French (even the Frisian language of the north-west Netherlands has had an academy since 1938), or by government itself. Demands for a regulatory body often reflect genuine fears that an uncontrolled language will change too rapidly, with the result that a document drafted today will be incomprehensible in a few decades. But corpus planning may also be a proxy for other political ends, as for example in the Nazis' attempts to 'purify' the German language of French loan words. France has passed two laws in the post-war period aimed at limiting the use of *franglais*, or recent English loan words (see Case study on p. 260), but neither has been conspicuously successful.



Key ideas: Language planning

Language planning is intervention by the state or public bodies in linguistic matters.

- Status planning concerns the granting of favoured or 'official' status to one or more varieties, e.g. as a national language for education purposes.
- Corpus planning involves selection of items for inclusion in the 'official' or 'standard' language, and the fixing or modernization of orthography.

PERSONALITY AND TERRITORY PRINCIPLES: BELGIUM

Multilingual nation states have generally framed language policies according to one of two principles. The **Personality Principle** allows citizens to choose their language in all circumstances, while

the **Territory Principle** requires public use of a single language in a given area, and offers services only in that language.



Figure 12.2: Bilingual street signs in Brussels

Unusually, Belgium applies both principles. In officially bilingual Brussels, street names and all public institutions are given in both official languages, French and Dutch, and all public services must by law be provided in both languages. Outside the capital, however, the Territory Principle applies, according to which French-speaking Belgians are required to use Dutch in the neerlandophone zone and vice-versa, with no official accommodation to the other language in either case.

Belgium's chequered linguistic history shows that neither principle, even when sensitively applied, is without difficulties. Dutch speakers resent the fact that French now dominates in the capital, a city squarely in the Dutch-speaking zone. They also complain of the *tache d'huile* (oil slick) effect, in which Brussels-based francophones take residence in officially Dutch-speaking suburbs, and turn them into *de facto* francophone areas. French speakers, on the other hand, resent being required to use Dutch in areas where they have become the majority language group.



Figure 12.3: Linguistic divisions in Belgium

Matters came notably to a head in the 1980s following the election of José Happart as *bourgmestre* (mayor) of the small town of Fourons/Voerons (pop. 4,000). Although designated as Dutch-speaking in the 1920s, Fourons had become a majority francophone community, and Happart, elected largely by francophone speakers, was unable, or unwilling, to take a Dutch language test as the law required. This provoked a constitutional crisis, and a lengthy political stand-off which was resolved by some rather messy compromises, in which Happart was allowed to serve as ‘first alderman fulfilling the functions of mayor’ (see Ball 1997: 35).

Key idea: Personality and Territory Principles

In multilingual states, the Personality Principle enshrines the right of a citizen to use whichever language he/she chooses, while the Territory Principle recognizes only one language in a given area.



Fact-check

- 1 What does diglossia require?
 - a State language planning
 - b Two languages on equal footing
 - c A strict functional separation between two languages
 - d Widespread individual bilingualism
- 2 When does a language die?
 - a When diglossia 'leaks'
 - b When its last native speaker dies
 - c When the state withdraws its official status
 - d When it loses prestige
- 3 Minority language activists are often hampered by what?
 - a The absence of a standard variety for the threatened language
 - b Negative associations of the threatened language
 - c Dialectal fragmentation
 - d All of the above
- 4 What does the territory principle state?
 - a Services in a given area must be provided in all the major languages spoken by its inhabitants
 - b Only one language is recognized as official in a given area
 - c Individuals are free to use whichever language they wish in a given area
 - d Monolingualism should be actively promoted in a given area
- 5 Why does language shift generally happen?
 - a Economic or social pressures make one language become more prestigious than another
 - b One language simply isn't good enough
 - c A hostile government tries to eradicate linguistic diversity
 - d A language loses state support as a result of pressures on resources
- 6 What does elaboration of function frequently lead to?
 - a The writing of dictionaries
 - b Lexical borrowing from other languages
 - c A perception that one variety of a language is 'superior'
 - d Competition between varieties

- 7** What does corpus planning involve?
- a** Deciding which language is to be given official status
 - b** A language purification policy
 - c** Creating a regulatory body, for example a language academy
 - d** Deciding what counts as acceptable or 'standard' for spoken and/or written purposes
- 8** Which of these situations is likely to be unstable?
- a** Diglossia with bilingualism
 - b** Diglossia without bilingualism
 - c** Bilingualism without diglossia
 - d** Neither bilingualism nor diglossia
- 9** Which of these is not a standardization process as defined by Haugen?
- a** Status planning
 - b** Selection of norms
 - c** Codification
 - d** Acceptance
- 10** When is situational code-switching likely to occur?
- a** When speakers have to switch language to make themselves understood
 - b** When bilingualism is common, and speakers can exploit the symbolic associations of the varieties involved
 - c** When the personality principle applies, and speakers may use the language they prefer
 - d** When language shift is taking place



Dig deeper

R. Fasold, *The Sociolinguistics of Society* (Blackwell, 1990), esp. Chapters 1, 2 & 7–10

C.A. Ferguson, 'Diglossia' (1959), *Word* 15: 325–40

J. Fishman, 'Bilingualism with and without diglossia; diglossia with and without bilingualism' (1967), *Journal of Social Issues* 23 (2): 29–38

S. Gal, 'Peasant men can't get wives: language change and sex roles in a bilingual community' (1978), *Language in Society* 7: 1–16

Also: *Language Shift: Social Determinants of Linguistic Change in Bilingual Austria* (Academic Press, 1979)

E. Haugen, 'Dialect, language, nation' (1966), *American Anthropologist* 68: 922–35; reprinted in J.B. Pride and J. Holmes, *Sociolinguistics: Selected Readings* (Penguin, 1972)

M. Jones and I. Singh, *Exploring Language Change* (Routledge, 2005), Chapters 4–6

R. Wardhaugh, *An Introduction to Sociolinguistics* (6th edition, Blackwell, 2010), esp. Chapters 4, 14 & 15

On **Breton**, see:

International Journal of the Sociology of Language, special issue 223 (September 2013), 'Breton: The postvernacular challenge'

13

Mechanisms of language change

All natural languages are subject to constant change. Our focus in this chapter is on understanding the types of change which can occur, and the conditions which may favour or inhibit them.

As we saw in Chapter 2, the late-nineteenth-century Neogrammarians attempted to bring scientific rigour to the study of sound change by developing hypotheses which were testable and falsifiable. Sound changes, they claimed, were subject to laws which applied without exception, and were in many cases triggered by factors internal to the language itself. These **internally motivated changes** were of more interest to the Neogrammarians than those which arise from contact between speakers, or **externally motivated changes**. Recent work in variationist sociolinguistics, however, focusing on changes in progress rather than on those which have already happened, has suggested that this neat dichotomy may in fact be oversimplistic. We will therefore reconsider the traditional division between internal and external factors from a variationist perspective, and explore evidence of a link between types of change observed and the social structure of the communities in which they occur.

Internally motivated change

Although independent of grammar, sound changes might well have important consequences for the grammatical system. A good example is the extreme erosion of final consonants in French, which has left singular and plural sounding identical in many cases. Labov (1994: 569) quotes a speech by Charles De Gaulle in Madagascar in which he states: 'Je m'adresse aux peuples français – au pluriel' ('I address the French peoples – in the plural'), clearly feeling the need to add 'au pluriel' because singular *au peuple* and plural *aux peuples* [oʁœpl] are homophonous.

While we cannot predict which changes will happen and when, some changes do appear to be more natural than others. **Internally motivated changes** of this kind often result in reduced articulatory effort on the part of the speaker, as in the examples below:

REDUCTION/LOSS OF UNSTRESSED VOWELS

Vowels in unstressed position often reduce, that is, they are pronounced with a weaker articulation. Compare *photograph* ['fəʊtəgrɑ:f] and *photography* [fə 'tɒgrəfi], in which the vowels closest to the stressed syllable reduce to schwa [ə], returning the tongue to its natural rest position. Similarly, unstressed final Latin syllables were lost altogether in the evolution to French. A consequence of this is that gender is far more difficult to determine from noun endings in French than it is in Latin. In the examples below, the masculine *-us* and feminine *-a* endings have eroded, leaving monosyllabic masculine and feminine nouns which end in consonant:

- ▶ Lt. *murus* > Fr. *murs* > *mur* [myr]
- ▶ Lt. *sala* > Fr. *salle* [sal]

ASSIMILATION

It is common for one sound to be affected by, or **assimilate** to, a neighbouring sound: we saw in Chapter 5, for example, that nasal stops are homorganic with a following oral stop, a case of **regressive assimilation**. In the examples below, the nasal consonant takes the place of articulation of the consonant that follows:

- ▶ in+box [ɪmbɔks] (bilabial)
- ▶ in+correct [ɪŋkɔʁɛkt] (velar)

The nasal vowels of French have all emerged from an assimilation process, namely nasalization of a vowel in readiness for a nasal consonant. The nasal consonants have subsequently been lost, but remain orthographically:

- ▶ daim [dɛ̃]
- ▶ son [sɔ̃]
- ▶ quand [kɑ̃]

SIMPLIFICATION OF CONSONANT CLUSTERS

Complex groups of consonants tend to simplify, particularly in rapid speech:

- ▶ handbag [handbæg] > [hambæg]
- ▶ sixth [sɪksθ] > [sɪkθ]
- ▶ textbook [tɛkstbɔk] > [tɛksbɔk]

WEAKENING OF INTERVOCALIC UNVOICED STOPS

Voiceless stops between vowels frequently become voiced, like the vowels before and after them, and may then become fricatives, allowing uninterrupted flow between vowels and saving articulatory effort. In some cases they may disappear altogether, as developments from Latin to Spanish and French demonstrate:

- ▶ Lt. *aqua* > Sp. *agua* [aɣua] [k > g > ɣ]
- ▶ Lt. *sapere* > Fr. *savoir* [p > b > v]
- ▶ Lt. *mater* > Fr. *mère* [t > d > Ø]

Systemic changes

Internally motivated sound changes may have profound consequences for grammar, as the De Gaulle example above illustrated, and in some cases, what the Neogrammarians identified as **analogy** repairs the damage, by aligning irregular forms with regular ones.



Analogy is therefore seen as a kind of housekeeping device, which resignedly picks up at least some of the mess made by the more impetuous sound change as it hurtles blindly through the grammar. (...) Analogy, however, is primarily concerned with the link between sound and meaning, which combine to express particular morphemes or meaningful units. The task of analogy is then to maintain this link by keeping sound structure, grammatical structure and semantic structure in line, especially when sound change might have made their relationship opaque.

[McMahon 1994: 70]

A good example of analogy is provided by plurals in Old English, the forms of which varied by gender and noun-class, e.g. *stanas* ‘stones’ (sg. *stān*; masculine) but *scipu* ‘ships’ (sg. *scip*, neuter).

As gender and case inflections were lost by the end of Middle English period (*stanas* > *stanes* > *stones*), final *s* was left as the only plural marker, and was extended to nouns like *ship* which had formed their Old English plurals in different ways. Something similar is happening with so-called intrusive *r* in English. As we saw in Chapter 6, word-final /r/ has been lost from many varieties of English in non-pre-vocalic positions, but not before a following vowel, so *a wine lover* /lʌvə/ but *a lover* /lʌvər/ of *fine wine*. This /r/ at word boundaries has been extended by analogy to many other words which never had /r/ in the first place:

- ▶ *law* /lɔː/ but *law* /r/ of *averages*
- ▶ *India* /ɪndiə/ but *India* /r/ and *Pakistan*

Another important internal process is **grammaticalization**, by which a full lexical word acquires a grammatical function. An example here is *back*, which in its original meaning refers to the rear of the human torso, a meaning lost in the complex preposition *at the back of*, meaning ‘behind’. Similarly, the negative particle *pas* in French originally had only its full lexical meaning of ‘step’, and was used to reinforce the negative *ne* with some related verbs, e.g. *il ne marcha pas* (‘He did not walk a step’). But gradually in negative contexts it lost

the meaning ‘step’ and became a general marker of negation, e.g. *Il ne parle pas* (‘He does not speak’, not ‘He doesn’t speak a step’). The loss of lexical meaning that accompanies grammaticalization is known as **semantic bleaching**; very often **phonetic reduction** is also involved as the item evolves from lexical to functional unit (see Case study below).



Case study: It’s grammaticalization, innit?

An interesting example of grammaticalization, affecting a particular kind of interrogative structure, is currently under way in London English. **Tag questions** are generally used to monitor whether the interlocutor has understood, or is following the conversation, by inviting feedback from him/her (generally a nod of assent will do):

*He does a good job, **doesn’t he?***

*They aren’t coming, **are they?***

*She has done it, **hasn’t she?***

These structures in English are many in number and surprisingly complex. As in the above examples, they involve negation of a modal or auxiliary verb, or removal of the negation if it is already negative, then inversion of subject and verb; there are also some irregular forms to contend with [**willn’t > won’t*; **amn’t > aren’t*]. The multiple tag questions of English contrast with one or two in German, which manages perfectly well with *oder?* (literally: ‘or?’) or *nicht wahr?* (literally: ‘not true?’). A fairly recent development in London English, however, is for one form, *innit?*, to be used in all cases:

*It’s true, **innit?** (< isn’t it?)*

*We saw him on Saturday, **innit?** (< didn’t we?)*

*They’re not staying here, **innit?** (< are they?)*

As a contraction of the most commonly used tag question *is it not? > isn’t it? > [ɪnɪt/ɪnɪʔ] innit?* displays the phonetic reduction typical of grammaticalization; the loss of its specific meaning ‘is it not?’ allows it to be used as both a negative and a positive tag question, and with modal and auxiliary verbs other than *to be*.

Innit, in other words, has been semantically bleached in this context, like French *pas* in the previous example. Although currently viewed as a low-status form in English, provoking indignation (or cardiac arrest) among purists, *innit?* appears to be following the path already trodden by *n'est-ce pas?* in French, which likewise reduced phonetically and lost its association with the verb *to be*, and ultimately became a perfectly acceptable standard construction ('Le Président est d'accord avec vous, **n'est-ce pas?**' – literally, 'The President agrees with you, innit?').

Many internally motivated grammatical changes can be seen to make life easier for the speaker by making the system as a whole more economical. This is notably the case when a language sheds grammatical or morphosyntactic complexity. Modern Swedish, for example, has largely lost personal endings on the verb, and now distinguishes two rather than three genders, masculine and feminine having merged into a 'common' gender contrasting with neuter. French provides a number of examples of **elimination of redundancy**, i.e. the removal in speech of repeated grammatical information, which is still required by the more conservative written norm:

- (a) *Les petites princesses blanches arrivent*. 'The little white princesses arrive'
- (b) *La petite princesse blanche arrive*. 'The little white princess arrives'

In (a) there are five suffixal plural markers (marked in bold), but phonetic erosion has left only one plural marker in speech, namely the article *les* [lə], which contrasts with singular *la* [la] in this frame (see (b)). Written French also maintains a distinction in the tense system which has been lost from speech:

- | | |
|---|--|
| ▶ <i>je fis</i> 'I did' | <i>j'ai fait</i> 'I have done' |
| ▶ <i>il rentra</i> 'He came back' | <i>il est rentré</i> 'He has come back' |
| ▶ <i>elles finirent</i> 'They finished' | <i>elles ont fini</i> 'They have finished' |



Spotlight: Did we lose the perfect tense already?

Although the fine distinction between simple past and perfect tense has been lost from spoken French, it generally survives in English, but may be neutralized in favour of the simple past in some US English varieties, as in:

Did you eat yet?

I told him already!

Often greeted with bemusement by British English speakers, such sentences generally pass without comment in the United States.

The simple past (or ‘past historic’) forms on the left locate an action entirely in the past, while the perfect tense forms on the right signal that a past action has present relevance. In spoken French, only the perfect tense is used, so *j’ai fait* now means both ‘I did’ and ‘I have done’, and the subtle distinction between the two, generally retained in English (see Spotlight above), has been lost from the tense system. The decline of the past historic is best understood once again in terms of structural economy. A separate verb form serving to locate an action entirely in the past is redundant when this information is usually either clear from context, or indicated elsewhere in the sentence by means of a temporal adverbial adjunct, e.g.:

- ▶ je le fis *hier* (‘I did it **yesterday**’)
- ▶ la guerre se termina *en 1945* (‘The war ended **in 1945**’)

Furthermore, the past historic has a full paradigm of personal endings and numerous irregular stems (e.g. *naître* ‘to be born’; *je naquis* ‘I was born’), so its loss from the system represents a gain in structural economy on two counts.

The functional principle of increased economy can also explain certain changes to the phonological system as a whole. Languages show a strong tendency to eliminate phonemic oppositions with **low functional load**, i.e. those which affect few pairs of words. A good example from English is the / m /-/ w / opposition, which used to distinguish words beginning *wh-* from those beginning *w-*

- ▶ *which* – *witch*
- ▶ *whales* – *Wales*
- ▶ *white* – *Wight*
- ▶ *where* – *wear*

Although the opposition is maintained in some areas, most English speakers now no longer use the /w/ phoneme. Reducing the number of phonemes in the inventory by one represents a gain in economy at relatively small cost: while some homonymic clashes do result, these are few in number and easily resolved in context (e.g. ‘**W**hales have been spotted off the coast of **W**ales’). The /w/–/w/ opposition, like that of the perfect and past historic tense in French, is a luxury the system can manage without.

Key idea: Changes to make life easier

Internally motivated changes are generally seen to promote reduced effort on the part of the speaker. This might be achieved by:

- reduced articulatory effort
- overall structural simplification (loss of inflections, smaller phoneme inventories etc.)

CHAIN SHIFTS

Chain shifts, which affect vowels, are a different kind of systemic change, which restore balance rather than promote economy. The best known example is the Great Vowel Shift (GVS) of English, which affected all the long vowels between the fifteenth and seventeenth centuries:

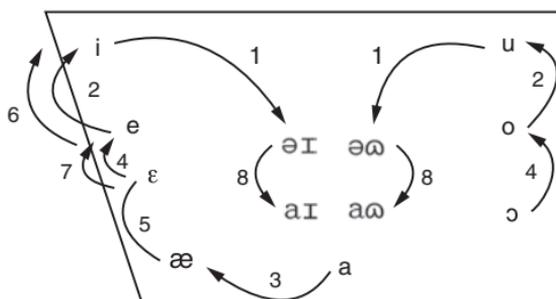


Figure 13.1: The Great English Vowel Shift (GVS)

The chain shift appears to have been triggered by a change in realization of the /i:/ vowel in words like *bite* and *side*, which would once have been pronounced [bi:tə] and [si:də], but diphthongized to [ɪɪ], and later [aɪ]; similar developments affected the back vowel /u:/ in, for example, *house* [hu:sə], and *mouse* [mu:sə], which diphthongized to [əʊ] (and later [aʊ]) This left a space in the area formerly occupied by /u:/ and /i:/, into which the vowels immediately below them, i.e. half-close /e:/ and /o:/ of *beet* and *boot* respectively, could move. This is called a **drag chain** effect, in that a movement in one position frees up space into which other vowels may move, but the converse **push chain** effects appear also to have been involved in GVS. The open front vowel /a:/ of *mate* ([ma:tə]) shifted initially to [æ:] and then to [ɛ:], forcing the vowel in the existing /ɛ:/ set (e.g. *beat*) to move up into the /e:/ position.

Similar developments affected long back vowels. The overall effect of these changes from a systemic point of view has been to maximize available space for vowel oppositions in the vocal tract, without changing the overall number of oppositions available. A consequence is the rather chaotic mismatch between sound and grapheme which we witness in English spelling. The letter *i* now represents /aɪ/ rather than /i:/ (except in words like *ski*, borrowed in this case from Norwegian, where the shift did not take place); *ee* represents /i:/ rather than /e:/ in *tree*, *free* etc.; *oo* represents /u:/ rather than /o:/ in words such as *loop*, and *cool* and so on.

Externally motivated change

Externally motivated changes arise from contact between speakers of different varieties. Normally the contact varieties are closely related, but contact between speakers of mutually incomprehensible languages has also in some cases led to significant structural change. An early study by Gumperz and Wilson showed how regular and prolonged contact between speakers of Kannada, Marathi and Urdu in Kupwar, India, brought about significant convergence between the languages at the syntactic level, even though their lexicons remained distinct.



Case study: Convergence in the Balkans

In the Balkans, what is known as a **Sprachbund** (from German: 'language union') has emerged between a number of superficially unrelated languages, whose grammars have converged in quite surprising ways. Albanian, Rumanian and Bulgarian (but not Greek) have acquired suffixal definite articles (e.g. Albanian *mik-u* 'friend-the'; Bulgarian *trup-at* 'body-the', Romanian *om-ul* 'man-the': data from Bynon 1990: 246–7), while all four languages use constructions involving a conjunction and a subjunctive verb form rather than an infinitive, as in most European languages outside the Sprachbund. The sentence 'give me (something) to drink', for example, would be rendered 'give me that I drink':

Romanian *da-mi sa beau*

Bulgarian *daj mi da pija*

Albanian *a-më të pi*

Greek *dos mou na pio*

Particular attention has been paid in recent years, however, to exploring the outcomes of contact between speakers of different varieties of the same language. This interest has been fuelled in part by increasing urbanization, which brings together speakers of different varieties in new and unfamiliar settings (the world's officially urban population crossed the 50 per cent threshold for the first time in 2009). In his groundbreaking work *Dialects in Contact*, Peter Trudgill observes that, where contact occurs between speakers of different varieties who are fairly well disposed towards one another, a likely outcome is **accommodation**, i.e. speakers will unconsciously begin to converge their speech in a variety of ways. The most obvious of these is **accent convergence**: one notices, for example, that many Britons living and working in the United States begin to replace their intervocalic [t] in words like *better*, *matter* with a flapped [ɾ].

Over time, accommodation can lead to long-term changes in linguistic behaviour. Of particular interest in this context are

settlements which have seen rapid and extensive migration (for example, so-called ‘new towns’ such as Basildon, Bracknell or Milton Keynes in the UK). What happens to the ensuing dialect mix as immigrants settle into their new environment, and how do their children negotiate the linguistically complex and heterogeneous world in which they find themselves?



Key idea: Accommodation

Accommodation, i.e. speakers’ tendency to converge their speech with that of interlocutors to whom they are favourably disposed, is an important driver of change in contact situations.

Trudgill argues that, in such contact situations, **reduction** is likely to occur, i.e. many of the competing lexical, phonological and morphological variants will be lost. Eventually a new, focused compromise dialect or **koiné** may emerge, containing some forms from the input dialects, and some new forms which were present in none of them. Reduction is driven primarily by two processes – both of which, in their different ways, reflect the difficulties encountered by post-adolescent learners in acquiring new varieties.

The first process, **levelling**, involves the selection of forms with the widest currency in the new setting. Where several forms are in competition, the one used by a majority of speakers or that occurs in most of the input dialects is more likely to prevail than one used by very few speakers. In the northern Swedish town of Burträsk, speakers have used both standard Swedish and a local dialect, *burträskmål*, for many years. As the town became integrated with its surrounding area for administrative purposes, however, contact with the wider region increased and a new compromise variety or Regional Standard emerged. Research by Mats Thelander revealed that this new variety combined *burträskmål* and standard forms, but that the local forms which survived in Regional Standard were those which were most widely used in the dialects of northern Sweden.

Similarly in Avion, France, most local dialect forms were found by Hornsby (2006) to be obsolescent, but those which were surviving best, for example, *alle* [a.l.] for the feminine third

person pronoun (Standard French *elle*), were those which were most widely represented among the dialects of northern France where Avion is situated.



In dialect contact and dialect mixture situations there may be an enormous amount of variation in the early stages. However, as time passes, focusing takes place by means of a reduction of the forms available. This reduction takes place through the process of koinéization, which consists of the levelling out of minority and otherwise marked speech forms, and of simplification, which involves, crucially, a reduction in irregularities.

Trudgill (1986: 107–8)

Simplification, on the other hand, favours forms which are morphosyntactically simple – by virtue for example of having less or more regular inflection – over those which are more complex and therefore present a greater challenge for post-adolescent learners. In the new Norwegian industrial town of Høyanger, contact between speakers of many dialects has led to erosion of irregularities in both standard Norwegian (Nynorsk) and western Norwegian dialects. A good example, reported by Omdal (1977; see also Trudgill 1986: 95–9) is the regularization of noun plural forms. Generally, masculine nouns take an *-ar* ending and feminines take *-er*, but there are a number of exceptions: masculine *benk* ('bench') pluralizes as *benker*, while feminine *byr* ('bog') has the plural *byrar*. As can be seen below, these anomalies have been removed in Modern Høyanger dialect, with masculines now consistently having the *-a* and feminines the *-e* ending, while the final /r/ deletion rule of North Vestland dialects has been retained:

Table 13.1: Regularization of plural forms in Høyanger Norwegian (after Trudgill 1986: 103)

	Original dialect	Nynorsk	Modern Høyanger
'horses' (masc.)	hæsta	hestar	hæsta
'benches' (masc.)	bænkje	benker	bænka
'songs' (fem.)	vise	viser	vise
'bogs' (fem.)	myra	myrar	myre



Key idea: Koinés

Koinés are new compromise varieties which emerge from contact between speakers of different varieties. Koinéization is driven primarily by two processes:

- **Levelling** – the retention of forms which are used by a large number of speakers
- **Simplification** – the retention of forms which are morphologically simple or more regular, and therefore easier for post-adolescent learners to acquire.

Two other contact outcomes need also to be mentioned. In the first, incomplete accommodation between speakers of different dialects results in the creation of **interdialect forms**. In northern France, for example, contact between speakers of dialect and standard French has produced new compromise regional French forms, which were present in neither:

Table 13.2: Interdialect forms in northern regional French (after Hornsby 2006: 106)

Picard	Standard French	Regional French
<i>bos</i> [bo]	<i>bois</i> [bwa]	<i>bois</i> [bwo] / [bwo]
<i>mos</i> [mo]	<i>mois</i> [mwa]	<i>mois</i> [mwo] / [mwo]
<i>fos</i> [fo]	<i>fois</i> [fwa]	<i>fois</i> [fwo] / [fwo]

A similar compromise is evident in the lexical interdialect form *take out*, used in north-western England and the Midlands for a meal bought to be consumed off the premises. This form combines one element of the southern variant *take away* and one from the Scottish/north-eastern form *carry out*.



The result of the focusing associated with koinéization is a historically mixed but synchronically stable dialect which contains elements from the different dialects that went into the mixture, as well as interdialect forms that were present in none.

[Trudgill 1986: 107–8]

Finally, instead of being lost in the reduction process, variants can be **reallocated** to a new status. Trudgill suggests that this has happened in Norwich with three different variants of the ROOM vowel, originally associated with different parts of Norfolk:

- ▶ [ru:m] – West Norfolk
- ▶ [rɔm] – South Norfolk
- ▶ [rʊ:m] – North/East Norfolk

The population of Norwich grew exponentially during the nineteenth century, drawing in migrants from the rural hinterland, and bringing all of these Norfolk variants to the urban dialect mix. None, however, won out over the others: instead they were reallocated as social status markers within the city. The west Norfolk [u:] form, which corresponds to that of RP, has the highest status of the three, followed by south Norfolk [ɔ] and finally the low-status north and east Norfolk form [ʊ:].

Rethinking internal and external factors

The basic dichotomy between internally and externally motivated change has long been recognized in historical linguistics but, as we shall see, it represents something of an idealization. Moreover it is often, in practice, difficult to disentangle internal and external factors involved. Even changes which appear historically to be internally motivated or ‘natural’ did not happen overnight: there must have been a period of variation, in which some people had adopted the change and others had not, and during which the ‘early adopters’ gradually passed on the change to the rest of the community, i.e. via contact, as in externally motivated change.

Much of our discussion of internally motivated change above assumed that certain kinds of change are more likely to occur or ‘natural’ than others because, either by reducing articulatory effort or making the system as a whole more economical, they make life easier for the speaker. But this apparently uncontroversial assumption in fact poses a number of problems. For example, if

change tends to favour overall simplification from the speaker's point of view, how and why did the language become 'complex' in the first place? Secondly, there is what William Labov has called the **actuation problem**: why does a change happen in a particular place at a particular time? Before addressing those questions, we should begin by noting that not all changes seem to go in the direction of simplification, as we have thus far presumed. Examples can be found of what have been termed 'abnatural' changes, which appear to promote additional complexity.

As we saw above, mergers often take place where phonemic oppositions have a low functional load. By this test, the southern English English /ɔ/-/ʌ/ *could-cud* opposition looks like a prime candidate for merger: it affects very few word pairs, and since southerners have absolutely no difficulty understanding northerners, who do not have it, it seems like a luxury the southern English system could easily manage without. One might therefore surmise that the merger has happened in the north of England but not (yet?) in the south. In fact, historically, exactly the opposite is true: the north-south divide resulted not from merger in the north, but from a **phonemic split** in the south. Both southern and northern varieties had only /ɔ/ until the seventeenth century when, for reasons which remain unclear, what the phonetician John Wells has called the FOOT-STRUT split (after the two lexical sets affected) left the south, but not the north, with an additional phonemic opposition. Equally puzzling are some changes observed in Faroese, where some words have acquired additional consonants, requiring increased articulatory effort:

- ▶ [ny] 'new' > [nudʒ]
- ▶ [ku] 'cow' > [kigv]

Neither of these developments is easy to square with what we have thus far assumed to be the natural direction of change. But might not the very notion of natural change, rather like that of 'natural speech' in Chapter 11, in fact be an impostor? There is some evidence that our perception of 'natural' is shaped by the kind of societies in which we live. Again, the example of Faroese is instructive here.

Faroese and Danish share a common ancestor in Old Norse, a north Germanic language spoken in Scandinavia and Viking settlements until about the thirteenth century. But the changes seen in the two languages in the intervening period have been very different in kind. Changes in Danish represent a radical simplification of Old Norse: its three genders have reduced to two; case-marking of nouns has been lost and the verbal paradigm has lost its personal inflections. Faroese, by contrast, retains much of the morphological complexity of Old Norse: the three-gender system and four-way case-marking system has remained, and the verb paradigm is still highly inflected. Compare the verb ‘to be’ in Old Norse, Faroese and Danish in the following table.

Table 13.3: The verb ‘to be’ in Old Norse, Faroese and Danish

Old Norse		Faroese		Danish	
Present	Past	Present	Past	Present	Past
ek em	ek var	eg eri	eg var	jeg er	jeg var
þú ert, est	þú vart	tú ert	tú varst	du er	du var
hann er	hann var	hann er	hann var	han er	han var
vér erum	vér várum	vit eru	vit vóru	vi er	vi var
þér eruð	þér váruð	tit eru	tit vóru	I er	I var
þeir eru	þeir váru	teir eru	teir vóru	de er	de var

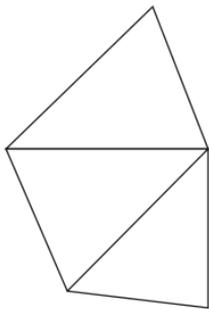
Although there has been some simplification of the Old Norse paradigm in Faroese (which no longer has distinct plural personal endings), changes in Danish have been far more radical, with the third person forms *er* and *var* extended to all persons. (To understand just *how* radical this change has been, try to imagine ‘to be’ in English as *I is, you is, he/she is, we is, they is*: some English speakers already extend *was* to plural persons in the past, notably football fans claiming ‘*we was robbed!*’). Why, then, has Danish undergone radical simplification, while Faroese has remained conservative with respect to Old Norse, and on occasions, as we saw above, even added to its complexity? The best explanation for the very different paths followed by Old Norse in Denmark and the Faroe Islands lies in the contrasting **social network structures** to be found in the two settings.

The concept of social network, first employed in sociolinguistics by Lesley Milroy in her 1980 Belfast study, was used to describe the nature of the bonds, or **ties**, between members of a community. In close-knit communities, network ties are invariably **dense** (many people know many others within the community) and **multiplex** (people know each other in more than one context, e.g. as kinsman, co-worker, member of the same church or sports team); by contrast, in loose-knit communities, networks are of lower density, with fewer people knowing many others within the community, and then perhaps interacting with them only in one context, as illustrated in Figure 13.2, in which each node represents an individual and the lines his/her ties to others in the community:

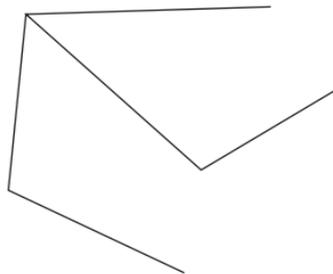


Key idea: Networks and rate of change

Externally motivated change is generally slow in communities where social networks are dense and multiplex, particularly in isolated areas where there are few weak ties to other networks. Conversely, in communities characterized by low-density social networks, change is more rapid because there are large numbers of weak ties between networks, which facilitate the transmission of new variants.



High-density network



Low-density network

Figure 13.2: High- and low-density networks (after Milroy 1987: 20)

Dense and multiplex networks have strong internal ties, but few external ones: they are typically found in relatively isolated areas. Low-density networks, by contrast, have high numbers of **weak ties**, i.e. casual links between its members and those of

other networks. Investment in these weak ties by either side is often minimal, but they are important nonetheless in providing the bridges between networks across which change can be transmitted. Low-density networks typify high-contact areas, notably major cities or areas of high population density where communications and transport infrastructure are good.

The relative conservatism of Faroese is best understood in terms of the isolation and village-based social structure of the Faroe Islands. With a population of around 50,000 people living on small, remote islands situated nearly 1,000 km from the kingdom of Denmark of which they form part, the Faroe Islands consist largely of close-knit communities with relatively few weak ties bringing in changes from outside. Changes are few in number, but where they do occur, they may preserve or even increase linguistic complexity because dense, multiplex social networks with few outsiders are better placed to support it than those with an abundance of weak ties to members of other networks, with whom unfamiliar forms have been negotiated.

By contrast, Denmark, a small and relatively densely populated country situated on the European mainland at a crossroads between Germany, with which it shares a land border, and the Scandinavian countries, with which it shares close economic and cultural ties, is far from isolated. Consequently, the changes witnessed in mainland Danish have tended to be of the simplifying kind associated with high-contact areas – for example, a gradual shift from a **synthetic** (highly inflected) structure to an **analytical** one (in which grammatical relations are more usually marked by free morphemes, e.g. prepositions). Trudgill has suggested a typology of changes associated with high- and low-contact situations, which can be seen in the following table.

Table 13.4: Changes in different contact situations (after Trudgill 1989: 231)

High-contact situations	Low-contact situations
synthetic > analytic structure	analytic > synthetic structure
reduction in redundancy	general increase in redundancy
increase in regularity	increase in morphological irregularity

Contact and isolation offer an alternative explanation for Labov's observation from the previous chapter that it is often the intermediate rather than upper social classes which lead change. Instead of interpreting this finding in ideological terms, i.e. in terms of the social insecurity or aspirations of these groups, it may simply be the case that these groups have greatest contact with members of other social groups, and therefore are most likely to adopt changes and pass them on (see Case study below).



Case study: Contact, change and class in post-war Britain

A good example of a middle-class led phonological change in British English is that of the vowel in a set of monosyllables ending in a front consonant including *off*, *cloth* and *lost*, which changed over the course of the twentieth century from /ɔ:/ to /ɒ/. The change worked its way outwards from the intermediate classes, but took longest to reach the peripheral classes at the very top and bottom of the hierarchy, who were most socially isolated, and retained the conservative /ɔ:/ pronunciation (stereotypically *Get off!*, *Oh Gawd!*) long after most people had switched to /ɒ/.

Few people still use /ɔ:/ in this context today, but progress of the change in the 1970s made for some unlikely bedfellows, with Harrow-educated equestrian commentator Dorian Williams using the same /ɔ:/ vowel as fictional working-class bigot Alf Garnett, played by Warren Mitchell in the popular sitcom *Till Death Us Do Part*.

We need, in conclusion, to use the term 'natural change' with great care. Processes that linguists have hitherto assumed to be natural may well only be so for the modern high-contact, urbanized societies with which they happen to be most familiar, but which historically have not been the norm. The effects of contact and isolation on linguistic change have led linguists in recent years to question the **equi-complexity hypothesis**, namely the axiomatic view that all natural languages are equally complex. Keen to dispel myths about 'primitive' or 'inferior' languages, which have no basis in fact, linguists have staunchly maintained that 'all languages are equal' and point out, for

example, that children across the globe acquire their mother tongue, whatever it may be, in roughly the same amount of time.

But languages may, in fact, be unequally complex *from the perspective of the post-adolescent learner*: Vietnamese, for example, is likely to pose more problems than Spanish for a native speaker of English, but the reverse may well be true for a Chinese speaker. Faroese and Danish may seem equally straightforward to their native speakers, but for outsiders Faroese undoubtedly presents additional challenges by virtue of its greater morphosyntactic complexity. Moreover, if we accept that some changes, typically those which occur in high-contact areas, do result in simplification, then the equi-complexity thesis can be maintained only if every change of the ‘simplifying’ kind is necessarily matched by a corresponding increase in complexity elsewhere in the system.



Key idea: Linguistic change in two directions

Linguistic changes of a simplifying kind are common in high-contact areas and were long assumed to be natural. But changes in the opposite direction – leading to greater complexity – have also been observed, particularly in areas which are relatively isolated.

As Trudgill points out, the historically atypical experience of educated, standard European language speakers tends to cloud our judgement of what is ‘normal’ in language. This needs to be modified if language diversity and change is to be properly understood:



Some years ago I was in conversation with a very eminent, intelligent and humane generative linguist. I asked him how he would handle, in his current theoretical model, the phenomenon of switch reference. He said something like: ‘I don’t know. That’s something you only get in exotic languages, isn’t it? I don’t know anything about exotic languages.’ Perhaps I am being unfair, but one implication could perhaps be drawn. If a phenomenon occurs only in a small faraway language which appears exotic to an academic speaker of a standard variety of a European language, it is not really worth bothering about.

In fact (...) these 'exotic languages' with their mature phenomena are actually, especially from a diachronic perspective, not exotic at all. They are normal. They are precisely what we should be bothering about. This is what all human languages must have been like throughout most of the tens of thousands of years of human history on this planet. It is the creoloids and koinés and creoles that have developed in the last two thousand years, and particularly in the last 500 years, that must be weird and unrepresentative.

(Trudgill 2011: 277–8)

If we are serious about understanding language change, then we need to turn our attention to low-contact and often poorly documented languages as well as those with which we are most familiar. And we had better get a move on: with only 10 per cent of the world's languages reckoned to be 'safe' for the remainder of this century, a wealth of potentially fascinating data is disappearing fast.



Fact-check

- 1 What have internally motivated changes been typically assumed to do?
 - a Occur without exception
 - b Make life easier for the speaker
 - c Involve phonetic reduction
 - d Result from contact with speakers of other varieties
- 2 What does analogy involve?
 - a Removal of irregularity
 - b Prescriptive grammars
 - c Elimination of redundancy
 - d Phonetic erosion
- 3 Generalization of *innit?* in London English is an example of what?
 - a Reduction
 - b Koinéization
 - c Grammaticalization
 - d A chain shift
- 4 Why has the phonemic opposition /**m**/ – /**w**/ has been lost in many varieties of English?
 - a It had a low functional load
 - b /**m**/ is difficult for English speakers to pronounce
 - c It was involved in too many contrasts
 - d The two phonemes sound too similar
- 5 Which of these is *not* a likely outcome of linguistic contact?
 - a Simplification
 - b Reduction
 - c Levelling
 - d Increased morphosyntactic complexity
- 6 What is a Sprachbund?
 - a An international language organization
 - b A group of languages which have converged through contact
 - c A small dog of German extraction
 - d A family of genetically related languages

- 7 What was the Great English Vowel Shift?
- a A prescriptive rule
 - b A chain shift involving short vowels
 - c A chain shift involving long vowels
 - d A major reform of English spelling
- 8 What does assimilation involve?
- a The influence of one sound on another
 - b Loss of unstressed vowels
 - c Simplification of consonant clusters
 - d Semantic bleaching
- 9 What does the equi-complexity hypothesis state?
- a Languages do not change their grammar
 - b All languages are difficult for native speakers to learn
 - c All languages are equally difficult to learn
 - d Changes lead inevitably to greater simplification
- 10 What are interdialect forms?
- a Forms which survive the reduction process
 - b Variants which are used by a majority of speakers in a contact situation
 - c Compromise variants which emerge from contact
 - d Morphosyntactically simple forms which are easy to learn



Dig deeper

M.C. Jones and I. Singh, *Exploring Language Change* (Routledge, 2005)

A. McMahon, *Understanding Language Change* (Cambridge University Press, 1994)

J. Milroy and L. Milroy (1985) 'Linguistic Change: Social networks and speaker innovation', *Journal of Linguistics* 21: 339–84

P. Trudgill, *Dialects in Contact* (Blackwell, 1986)

P. Trudgill, *Sociolinguistic Typology: The Social Determinants of Linguistic Complexity* (Oxford University Press, 2011)

Fact-check answers

Chapter 1

- 1 (d) and makes no reference to grammar (b) or lexicon.
- 2 (b)
- 3 (c) 10 (d)
- 4 (d)
- 5 (a)
- 6 (c)
- 7 (c)
- 8 (c) – (a) is non-standard but not grammatically ill-formed, as it frequently occurs in some English dialects; the word order in (b) is **marked**, i.e. not the default one of Adjective + Noun, but it does occur for example in *procurator fiscal*, *secretary general* and *attorney general*, and a monthly magazine entitled *House Beautiful* is published in the UK. Only (c), which places the verb *chases* between the article *The* and noun *dog*, is not a possible sentence in any variety of English.
- 9 (a) RP is not a dialect (c) because it refers only to a type of pronunciation

Chapter 2

- 1 (c)
- 2 (a)
- 3 (c)
- 4 (b)
- 5 (d)
- 6 (b) Finnish and Hungarian are part of the Finno-Ugric family; Basque is a non-Indo-European language isolate.
- 7 (d)
- 8 (b)
- 9 (d)
- 10 (a) Rumanian is a Romance language (descended from Latin); the other two are Slavic

Chapter 3

- 1 (b)
- 2 (c)

3 (d)

4 (a)

5 (d)

6 (b)

7 (a)

8 (b)

9 (a)

10 (b) – this is associated with Benjamin Lee Whorf

Chapter 4

1 (b)

2 (c)

3 (a)

4 (d)

5 (d)

6 (b)

7 (d)

8 (d)

9 (c)

10 (a)

Chapter 5

1 (a)

2 (b)

3 (b)

4 (c)

5 (d)

6 (a)

7 (d)

8 (c)

9 (a)

10 (b)

Chapter 6

1 (a) the *-en* [ɛn] suffix is used only in isolated cases, e.g. *oxen*, and arguably *children*. The other two suffixes are both regular and productive.

2 (b)

3 (c)

4 (b)

5 (a)

6 (b)

7 (d) – the distribution of the past tense allomorphs parallels that of the plural allomorphs discussed on pages 120–1

8 (a)

9 (d) – although *girls* refers to females, it has no explicit gender marking; English nouns are not case-marked either. The *s* suffix does, however, mark plural number as does *were*, which is also marked for past tense.

10 (c) (Shame on you if you answered (d) here.)

Chapter 7

1 (a)

2 (c)

3 (b)

4 (c)

5 (b)

6 (a)

7 (b)

8 (b) In (a) ‘these’ and ‘clothes’ agree because plural is selected; in (c) there is singular agreement in the verb form and noun and in (d) plural is selected, but agreement is not relevant as there is no plural form available for *my*. In (b) no choice is available for the gender of *girl*, which is lexically marked as feminine/female, and governs the possessive adjective *her*.

9 (d) The full NP constituent of S is ‘The tall woman from Huddersfield’, for which *she* can be substituted.

10 (d) This is a noun phrase, headed by the noun *prince*.

Chapter 8

1 (c)

2 (a)

3 (c)

4 (c)

5 (d)

6 (b)

7 (d)

8 (c)

9 (a)

10 (d)

Chapter 9

1 (a)

2 (c)

3 (d)

4 (a)

5 (c)

6 (c)

7 (a)

8 (c)

9 (d) For (c) the expression ‘glass half full... glass half empty’ suggests that neither term is marked, whereas for (d) ‘the building is 20 metres low’ sounds odd.

10 (c) All of these phrases might in context have a element of phatic meaning to them, but (c) as a conventionalized greeting is the best answer.

Chapter 10

1 (b)

2 (a) (half a point if you said ‘(d)’)

3 (d) specifically, the sub-maxim 'be orderly'

4 (c)

5 (d)

6 (a)

7 (d)

8 (c)

9 (b)

10(b)

Chapter 11

1 (d)

2 (c)

3 (d)

4 (d)

5 (a)

6 (c)

7 (c)

8 (b)

9 (d)

10(b)

Chapter 12

1 (c)

2 (b)

3 (d)

4 (b)

5 (a)

6 (b)

7 (d)

8 (c)

9 (a)

10(b)

Chapter 13

1 (b)

2 (a)

3 (c)

4 (a)

5 (d)

6 (c)*

7 (c)

8 (a)

9 (c)

10(c)

* Only kidding: it's (b). The dog is a *dachshund*. Don't get the two mixed up.

Taking it further

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