ROUTLEDGE ENGLISH LANGUAGE INTRODUCTIONS

Practical English Phonetics and Phonology

A RESOURCE BOOK FOR STUDENTS

Beverley Collins, Inger M. Mees and Paul Carley

Fourth edition

COMPANION @ WEBSITE

Practical English Phonetics and Phonology

Routledge English Language Introductions cover core areas of language study and are one-stop resources for students.

Assuming no prior knowledge, books in the series offer an accessible overview of the subject, with activities, study questions, sample analyses, commentaries and key readings – all in the same volume. The innovative and flexible 'two- dimensional' structure is built around four sections – Introduction, Development, Exploration and Extension – which offer self-contained stages for study.

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- ❑ presents the essentials of the subject and their day-to-day applications in an engaging and accessible manner;
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- ❑ incorporates classic readings from key names in the discipline;
- ❑ outlines the sound systems of six key languages from around the world (Spanish, French, Italian, German, Polish and Japanese);
- ❑ is accompanied by a brand-new companion website which hosts a collection of samples provided by genuine speakers of 25 accent

varieties from Britain, Ireland, the USA, Canada, Australia, New Zealand, South Africa, India, Singapore and West Africa, as well as transcriptions, further study questions, answer keys, links to further reading and numerous recordings to accompany activities in the book.

This edition has been completely reorganised and new features include: updated descriptions of the sounds of modern English and the adoption of the term General British (GB); considerable expansion of the treatment of intonation, including new recordings; and two new readings by David Crystal and John Wells.

Written by authors who are experienced teachers and researchers, this best-selling textbook will appeal to all students of English language and linguistics and those training for a certificate in TEFL.

Beverley Collins (1938–2014) held lectureships in phonetics at the universities of Lancaster and Leiden, and was Visiting Professor at Ghent University. He was also a regular lecturer at the UCL Summer Course in English Phonetics.

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Paul Carley has held posts at the University of Applied Sciences Utrecht and the universities of Bedfordshire and Leicester. He is a regular lecturer at the UCL Summer Course in English Phonetics.

ROUTLEDGE ENGLISH LANGUAGE INTRODUCTIONS

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Praise for the first edition:

'*Practical Phonetics and Phonology* gathers together a far wider range of topics than other books on English phonetics. Many more accents of English are discussed, and we really learn about English as a world language. Experienced teachers of English and beginning students will all profit from this book.'
Peter Ladefoged, *University of California, Los Angeles, USA*

Praise for the third edition:

‘This is a book that I have used in teaching with great success. I am delighted to welcome this new and extended edition.’
John Wells, *Emeritus Professor of Phonetics, University College London, UK*

‘The book is carefully planned, diligently structured and clearly written. The contents are up to date; they are geared to the needs of newcomers to phonetics and phonology. There is a strong emphasis on the practical side: the reader’s understanding is tested repeatedly throughout the book with more than 120 activities. Many sound samples are provided for close listening and analysis. A highly recommendable book!’
Petr Rösel, *University of Mainz, Germany*

Praise for the fourth edition:

‘This book cleverly combines the details of English phonetics with a first look at sounds in other languages. Its real strengths are the exercises provided at every step of the way and its brief but unequalled survey of accents of English (using recordings on the companion website). It will remain the best all-round introduction to phonetics.’
Alan Cruttenden, *The University of Oxford, UK*

‘This classic text just keeps getting better. It is one of very few books that I keep constantly at my side as I author my own materials. It is rich in information, clearly written and easy to read. Most importantly, it is accompanied by audio recordings which exemplify the points made.’
Richard Cauldwell, *Speech in Action*

Practical English Phonetics and Phonology

Fourth Edition

A Resource Book for Students

BEVERLEY COLLINS, INGER M. MEES AND PAUL CARLEY

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How to Use this Book

The *Routledge English Language Introductions* offer key information and a set of resources that you can use to suit your own style of study. The books are divided into four sections:

A Introduction – sets out the key concepts for the area of study.
B Development – adds to your knowledge and builds on the key ideas already introduced.
C Exploration – provides examples of language data and guides you through your own investigation of the field.
D Extension – offers you the chance to compare your expertise with key readings in the area. These are taken from the work of important writers, and are provided with guidance and questions for your further thought.

Most books in the *Routledge English Language Introductions* series are designed to be read either straight through (like a traditional textbook), or across the numbered units to allow you to follow a thread in depth quickly. For *Practical English Phonetics and Phonology* we have retained the four-section structure. However, the nature of phonetics requires a cumulative build- up of knowledge; so you first need to read all the units in Sections A and B fully and in sequence before going on to the accent samples in Section C, and the extension readings in Section D.

The glossary/index at the end, together with the suggestions for further reading, will help to keep you orientated. The textbook has a supporting website with extra commentary, suggestions, additional material and support for teachers and students.

Practical English Phonetics and Phonology

One word in the title above is all-important: note that this book concentrates on *practical* rather than theoretical aspects of English phonetics and phonology. It has been our aim to present the subject in the kind of down-to-earth way that readers will find easy to follow, enabling them to absorb the most significant basic principles and terminology. Exercise activities are provided at regular intervals to reinforce and extend what has been learnt.

We emphasise throughout how phonetics and phonology can supply insights to help you understand those aspects of speech and pronunciation that most people seem to find interesting. These include such matters as the ways in which regional accents differ from each other, how over the centuries English pronunciation has changed (and is still changing) and how phonetic knowledge can help you to pronounce foreign languages more effectively. Incidentally, we must state at the outset that this is not a book on elocution or speech training. We believe that the way you speak your *native* language is your own concern, and it isn't any of our business to tell native English speakers that certain types of accent are better or worse than others. (For non-natives, we do provide some hints and guidance on making your English pronunciation more convincing.)

The practical emphasis also explains why we include such a large number of audio recordings on the companion website. Not only does this provide you with spoken examples as you read along, but it also enables you to listen to nearly fifty minutes of samples of English drawn from all over the world. A final practical resource is the website with extra information, questions, and keys to exercise activities. By accessing this material, you can go on to expand your knowledge by investigating areas of speech science beyond what we can deal with in an introductory textbook.

Section A introduces some basic concepts and leads you on to absorb the ideas and terminology needed for the all-round study of human speech (i.e.

general phonetics). It introduces the phoneme and teaches you how to use phonemic transcription to write down the sounds of English with greater accuracy than ordinary spelling would ever allow. In addition, it provides an up-to-date description of the consonants and vowels of modern British English.

Building on this foundation, Section B develops your expertise through a closer study of many of the interesting features of connected speech such as assimilation, elision, stress and intonation. You'll also find out how English has developed over the centuries, and how its pronunciation is changing even now in our own time. This section is rounded off with guidelines showing you how practical phonetics can be used both as an aid for English speakers learning foreign languages, and also as an effective way of teaching English pronunciation to non- natives.

Section C explores English in a selection of its many varieties. The audio recordings include English spoken by twenty-five genuine speakers of different English accents worldwide – ranging from Dublin to Delhi, and from Scotland to Singapore. For each accent there is a full transcript plus a brief description of the salient phonetic features. Section D extends your knowledge further by means of a selection of writings about phonetics by well-known experts in the field. These take in a wide range – including attitudes to regional accents, teaching and learning the pronunciation of a foreign language, the need for a reformed alphabet which takes account of different pronunciations in different accents and the syllabification of English words. Our hope is that through reading these authors you'll be inspired to go on to discover much more about that most complex and fascinating of human activities – speech.

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Prefaces and Acknowledgements

Preface to the first edition

In the course of writing this book we have been helped in many different ways by colleagues, students, friends and family. Our thanks go out to them all, but especially to those mentioned below.

Ron Carter gave us much wise advice at the planning stage, and the series editor Peter Stockwell has provided us with valuable guidance from then on. Crucial help and support has come all along the way from the editorial staff at Routledge, successively from Louisa Semlyen, Christy Kirkpatrick, Kate Parker and Ruth Jeavons; a special note of gratitude for her efficiency, patience and cheerfulness under pressure goes to Margaret Aherne.

We want to thank all those colleagues who offered perceptive critical comments on preliminary drafts and the final manuscript. Most (though not all) of their suggestions have been acted upon, and we have ended up with a greatly improved book as a consequence. In this regard, we must make special mention of Philip Carr, Rias van den Doel, Jack Windsor Lewis, Robert Phillipson and Gilda Suárez de Nielsen. We also gained much from the detailed criticism contained in Paul Tench's review of the penultimate version of the manuscript. Colin Ewen not only read and commented on the book in draft form, but also aided us in a very practical way by constructing and digitising all the vowel diagrams and intonation representations. Help with providing and checking language materials was given by Sarah Branci, Rolf Bremmer, Inès Brulard, Robert Druce, Gyde Hansen, Arnt Lykke Jakobsen, María Pilar Lorenzo, Vincent Phillips, Klaske van Leyden and Carol Williams. Useful feedback on many matters came from students at the Copenhagen Business School who allowed us to expose them to earlier versions of the text. We are also grateful to Jennifer Jenkins, who used portions of the material with her students at King's College London. Finally, mention must be made of Arnold Warthog, who was constantly on hand to assist us in every aspect of our work.

For the audio CD, we benefited greatly from the technical expertise of Steve Hitchins, who assembled and edited the final version of the disk. In this connection, we also want to thank Vincent van Heuven for the use of recording facilities at Leiden University, and John Wells for permission to use a portion of the recording of the cardinal vowels made for University College London by the late A. C. Gimson. For the provision of recorded materials used in the collection of English accent varieties we are much indebted to Alastair Hamilton, Mia Overlade Hansen, Jen Hay, Gerry Knowles, Lesley Milroy, Debi Molnar, Tine Ditlev Nielsen, Kitt Spangbjerg Petersen, Yvonne Spuijbroek, Karen Stetting and Maria Vanlaeken- Kester. Finally, our thanks go out to all the anonymous recorded speakers for their time, trouble and goodwill.

Naturally, we do not wish to saddle any of those mentioned above with blame for whatever defects and errors remain in the book. That responsibility is ours alone.

This book is dedicated to the memory of I.M.'s mother, Birthe Mees, and B.C.'s sister, Beryl Adams.

Beverley Collins and Inger M. Mees

Leiden and Copenhagen, March 2003

Preface to the second edition

In this new edition, numerous changes, corrections and additions have been made throughout the text, including the introduction of several new maps and diagrams. The audio CD now contains examples of two more English pronunciation varieties – namely British Estuary English and New York English – both of which also feature in the revised text. In Section B, a complete new unit, intended for the non- native learner of English, has been introduced, covering English orthography and spelling- to- sound pronunciation guides. In Section D, there are two extra readings from leading figures in the fields of phonetics and sociolinguistics. John Wells discusses the problems associated with spelling reform, while Peter Trudgill covers current changes in the social perception of various British English regional and social varieties, ranging from traditional Received Pronunciation through to Estuary English and a selection of regional accents.

In producing this new version of our book, we have had help from many sources. First, at Taylor and Francis, we want to thank Peter Stockwell (series editor) for his advice and guidance, and Nadia Seemungal for her willingness to deal promptly with any problem thrown at her. We have had useful criticism and suggestions from a number of reviewers, who provided incisive assessment and criticism. In particular, we must mention Madalena Cruz- Ferreira, who not only reviewed the book in a most perceptive manner, but then, in response to our request, sent extra comments to us personally. Five anonymous peer reviewers also provided invaluable advice and suggestions. We are grateful to them all.

Help has also come in various ways from many friends and colleagues. We are especially grateful to Rias van den Doel for all the assistance he gave at the proofreading stage. In addition, we wish to express our gratitude to Inès Brulard, Philip Carr, Simon Cook, Anne Fabricius, Anne Margrethe

Hauge, Christian Jensen, Klaske van Leyden, Catherine Meinertz- Nielsen, Lowell Melka- Teichroew, Talía Morris, Brian Mott, Jan Posthumus, Bert Schouten and Jack Windsor Lewis. In addition, we have had valuable feedback from many users of the book, and in particular our students at the Copenhagen Business School, Ghent University and the Université Catholique de Lille.

We need hardly say, as before, that any blame for remaining errors or omissions in the text should be laid solely at our door.

Beverley Collins and Inger M. Mees

Utrecht and Copenhagen, December 2007

Preface to the third edition

Although this third edition has several additional features, many corrections and much revision, nevertheless the overall structure of the book remains the same. We saw no reason to make radical changes to what appears on the whole to have been a successful formula.

We wish once more to express our gratitude to all those, acknowledged above, who have assisted us in the past, and to the reviewers, students and colleagues who have helped us with this edition. Special thanks go to Philip Carr, Andrew Kehoe, Petr Rösel and Jack Windsor Lewis. We also want to put on record our debt to Paul Carley, Marta Dura, Alex Rotatori and Masaki Taniguchi for their contributions to the new language descriptions in Section C. In addition, we have benefited from feedback from our students – especially from participants in the University College London Summer Course in English Phonetics (SCEP) in recent years. At Routledge, we have had much help and support, and we now want to thank Isabelle Cheng, Rachel Daw, Sarah May and, especially, for overseeing the whole operation, Nadia Seemungal.

Beverley Collins and Inger M. Mees

Utrecht and Copenhagen, November 2012

Preface to the fourth edition

Sadly, this latest edition continues without our good friend and colleague Bev Collins, who died in 2014. We are now joined by Paul Carley, who like Bev believes in a practical pedagogical approach to English phonetics and pronunciation teaching, and we are happy to be going forward in a manner which Bev would have approved of.

The most striking modification to this new fourth edition is the rearrangement of chapters to bring similar topics together, while other changes include expansion of the treatment of intonation, new readings, the adoption of the term General British (GB) and numerous updates to the description of modern British pronunciation. Where formerly recordings were included on an accompanying CD, they are now available for download on the companion website.

In addition to all those who have helped us with previous editions, we would like to thank Petr Rösel for his considerable contribution to the section on German and for providing the accompanying recordings. We extend our thanks to Graeme Dunphy for his assistance with interpreting the Belfast recording and Hiroshi Miura for suggesting improvements. At Routledge, we are grateful to Francesca McGowan, Nadia Seemungal- Owen and Lizzie Cox for their patience and support during the whole process.

Inger M. Mees and Paul Carley

Copenhagen and Cwmbach, December 2018

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Crystal, D. (2018) *Sounds Appealing: The Passionate Story of English Pronunciation*, London: Profile Books, pp. 267–74. Profile Books Ltd, 2018.

Jones, D. (1935) originally entitled 'Speech training: the phonetic aspect'. Reprinted from *British Journal of Educational Psychology* 5: 27–30. Reproduced by kind permission of John Wiley & Sons.

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Wells, J.C. (2003) "English accents and their implications for spelling reform". This is an edited version of a talk given to the Simplified Spelling Society on 25 January 1986. – John Wells, 2003. Available at www.phon.ucl.ac.uk/home/wells/accents_spellingreform.htm. Reproduced with kind permission of the author.

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Phonetic Symbols

The following list used in this book does not include (1) the symbols employed for English phonemic transcription (see pp. xxiv–xxv) or (2) the symbols for the cardinal vowels (see pp. 84–5). A more comprehensive set of symbols is to be found on the IPA chart on p. 317.

t̬	voiced /*t*/, American English *bet̬t̬er*
ɹ	post-alveolar approximant, English *r̲u̲r̲al*
r	voiced alveolar trill, Spanish *pa̲r̲r̲a* ‘grapevine’
ɾ	voiced alveolar tap, Spanish *pa̲r̲a* ‘for’
ʀ	voiced uvular trill, old-fashioned French *r̲ue* ‘street’
ʁ	voiced uvular approximant, one of the possible realisations of Dutch of /r/ *rood* ‘red’
ʋ	labio-dental approximant, so-called ‘defective’ English /*r*/ *me̲r̲r̲y* [ˈmeʋi]
ç	voiceless palatal fricative, German *ni̲c̲h̲t* ‘not’
x	voiceless velar fricative, German *Na̲c̲h̲t* ‘night’
ʍ	voiceless labial-velar fricative, Scottish English *w̲h̲ich*
ɸ	voiceless bilabial fricative, allophone of English /f/, *helpf̬ul*
β	voiced bilabial fricative, as in intervocalic /b/ Spanish *a̲b̲eto* ‘pine tree’
ɣ	voiced velar fricative, as in intervocalic /g/ in Spanish *amigo* ‘friend’
ɬ	velarised alveolar lateral approximant (also termed ‘dark *l*’), English *sti̲l̲l̲*
ɬ	voiceless alveolar lateral fricative, Welsh *l̲l̲ine̲l̲l̲* ‘line’
ɮ	voiced alveolar lateral fricative, Zulu *d̲l̲ala* ‘play!’ (imperative)
ʎ	

	voiced palatal lateral approximant, Italian *aglio* ‘garlic’; traditional pronunciation of Spanish *ll**a**ve* ‘key’
ɲ	voiced palatal nasal, French *cyg**n**e* ‘swan’
ɥ	voiced labial-palatal approximant, French *h**ui**le* ‘oil’
ɐ	central vowel between open-mid and open, German *Fisch**er*** ‘fisherman’
ʏ	front-central rounded vowel between close and close-mid, German *f**ü**nf* ‘five’
ʔ	glottal stop, Cockney *bu**tt**er*
ˀ	pre-glottalised, English *cra**ck**down* [kræˀkdaʊn]
~	(through symbol) velarised, English *sti**ll*** [stiɫ]
̃	(above symbol) nasalised, English *m**a**n* [mæ̃n]
ʷ	labialised, English *d**w**ell* [dʷwel]
̪	dental (applied to alveolars), English *hi**d̪** them* [hɪd̪ ðəm]
ʲ	palatalised, English *t**u**be* [tʲjuːb]
̥	(below symbol, but above for descending symbols) devoiced, English *t**w**eed* [tw̥iːd̥], *b**i**g* [b̥ɪg̊]
ʰ	aspirated, English *c**a**t* [kʰæt]
̩	(above or beneath the symbol) syllabic consonant, English *butto**n*** [ˈbʌtn̩]
ː	length mark, English *gr**ee**n* [griːn]
+	(after or below symbol) advanced, English *k**e**y* [k+iː],[kiː]
−	(after or below symbol) retracted, English *c**o**re* [k-ɔː], [k̠ɔː]
ˈ	stressed, English *potato* [pəˈteɪtəʊ]
//	enclosing phonemic transcription
[]	enclosing phonetic transcription
*	unacceptable or non-existent form

Intonation marking

ˈ	Onset of high level head
↘	Onset of high falling head
ˋ	High fall
ˌ	Low fall
ˊ	High rise
ˎ	Low rise
ˇ	Fall-rise
ˆ	Rise-fall
˃	Mid-level
|	Intonation phrase boundary
‖	Sentence boundary

English Phonemic Transcription Key

Consonants

FORTIS			**LENIS**		
Plosives					
p	*pet, lap*	pet, læp	b	*bet, lab*	bet, læb
t	*town, mat*	taʊn, mæt	d	*down, mad*	daʊn, mæd
k	*cap, lock*	kæp, lɒk	g	*gap, log*	gæp, lɒg
Affricates					
ʧ	*chin, batch*	ʧɪn, bæʧ	ʤ	*gin, badge*	ʤɪn, bæʤ
Fricatives					
f	*fast, safe*	fɑːst, seɪf	v	*vast, save*	vɑːst, seɪv
θ	*thigh, loath*	θaɪ, ləʊθ	ð	*thy, loathe*	ðaɪ, ləʊð
s	*sink, face*	sɪŋk, feɪs	z	*zinc, phase*	zɪŋk, feɪz
ʃ	*shy, wish*	ʃaɪ, wɪʃ	ʒ	*measure*	ˈmeʒə
h	*hat*	hæt, –			
Nasals			**VOICED**		
			m	*meet, team*	miːt, tiːm
			n	*nice, fine*	naɪs, faɪn
			ŋ	*–, long*	lɒŋ
Approximants					
Lateral (approximant)			l	*late, sail*	leɪt, seɪl
(Central) **approximants**			j	*yes, –*	jes
			w	*wait, –*	weɪt
			r	*race, –*	reɪs

Vowels

Vowel	Keyword	aAdditional spellings
Checked		
ɪ	KIT/kɪt/	g**y**m, man**a**ge, b**u**sy, **E**ngland, g**ui**lt
e	DRESS /dres/	br**ea**d, fr**ie**nd, s**ai**d
æ	TRAP /træp/	pl**ai**d
ʌ	STRUT /strʌt/	s**o**n, y**ou**ng, bl**oo**d
ɒ	LOT /lɒt/	sw**a**n, bec**au**se, kn**ow**ledge
ʊ	FOOT /fʊt/	p**u**t, w**ou**ld, w**o**man

Free steady- state vowels

iː	FLEECE/fliːs/	n**ea**t, th**e**se, techn**i**que, bel**ie**f
ɛː	SQUARE/skwɛː/	f**air**, th**eir**, v**a**ry
ɑː	PALM/pɑːm/	st**ar**t, cl**er**k, h**ear**t, mem**oir**
ɜː	NURSE/nɜːs/	g**ir**l, t**er**m, h**ear**d, w **or**d, j**our**ney
ɔː	THOUGHT/θɔːt/	sh**ort**, c**au**ght, w**ar**, s **aw**, w**a**lk, br**oa**d
uː	GOOSE/guːs/	r**u**de, s**ou**p, sh**oe**, d**o**, cr**ew**

Free diphthongs

eɪ	FACE/feɪs/	l**ai**d, m**ay**, w**ei**gh, th**ey**, br**ea**k
aɪ	PRICE/praɪs/	tr**y**, l**ie**, b**uy**, g**ui**de
ɔɪ	CHOICE/ʧɔɪs/	b**oy**
əʊ	GOAT/gəʊt/	n**o**se, bl**ow**, s**ou**l, t**oe**
aʊ	MOUTH/maʊθ/	dr**ow**n
ɪə	NEAR/nɪə/	b**eer**, p**ie**rce, z**e**ro, w**eir**d
ʊə	CURE/kjʊə/	t**our**, **Eu**rope, m**oor**

Weak vowels

ə	*bonUs*	comm**a**, **a**bil**i**ty, usel**e**ss, und**er**, f**or**get, bon**u**s, fam**ou**s
i		happ**y**, mon**ey**, hipp**ie**, med**i**ate, pr**e**tend
u		grad**u**ate, t**o** (weak form), thank y**ou**
ɪ		cott**a**ge, watch**e**s, **e**xpect
ʊ		acc**u**rate, reg**u**lar

The phonemic transcription system is the same as that to be found in the eighteenth edition of the *English Pronouncing Dictionary* (Jones 2011) and in the *Longman Pronunciation Dictionary* (2008), with one exception: for the vowel in SQUARE, ɛː is used instead of eə. The words printed in small capitals are the keywords used throughout this book to refer to the vowel in question.

Section A
Introduction

A1

English Worldwide

Introduction

If you've picked up this book and are reading it, we can assume one or two things about you. First, you're a human being – not a dolphin, not a parrot, not a chimpanzee. No matter how intelligent such creatures may appear to be at communicating in their different ways, they simply do not have the innate capacity for language that makes humans unique in the animal world.

Then, we can assume that you speak English. You are either a **native speaker**, which means that you speak English as your mother tongue; or you're a **non- native speaker** using English as your second language; or a learner of English as a foreign language. Whichever applies to you, we can also assume, since you are reading this, that you are literate and are aware of the conventions of the written language – like spelling and punctuation. So far, so good. Now, what can a book on English phonetics and phonology do for you?

In fact, the study of both **phonetics** (the science of speech sound) and **phonology** (how sounds pattern and function in a given language) are going to help you to learn more about language in general and English in particular. If you're an English native speaker, you'll be likely to discover much about your mother tongue of which you were previously unaware. If you're a non-native learner, it will also assist in improving your pronunciation and listening abilities. In either case, you will end up better able to teach English pronunciation to others and possibly find it easier to learn how to speak other languages better yourself. You'll also discover some things about the pronunciation of English in the past, and about the great diversity of accents and dialects that go to make up the English that's spoken at present. Let's take this last aspect as a starting point as we survey briefly some of the many types of English pronunciation that we can hear around us in the modern world.

Accent and dialect in English

You may well already have some idea of what the terms 'accent' and 'dialect' mean, but we shall now try to define these concepts more precisely. All languages typically exist in a number of different forms. For example, there may be several ways in which the language can be pronounced; these are termed **accents**. To cover variation in grammar and vocabulary we use the term **dialect**. If you want to take in all these aspects of language variation – pronunciation together with grammar and vocabulary – then you can simply use the term **variety**.

We can make two further distinctions in language variation: namely, between **regional variation**, which involves differences between one place and another, and **social variation**, which reflects differences between one social group and another (this can cover such matters as gender, ethnicity, religion, age and, very significantly, social class). Regional variation is accepted by everyone without question. It is common knowledge that people from London do not speak English in the same way as those from Bristol, Edinburgh or Cardiff; nor, on a global scale, in the same way as the citizens of New York, Sydney, Johannesburg or Auckland. What is more controversial is the question of social variation in language, especially where the link with social class is concerned. Some people may take offence when it is pointed out that accent and dialect are closely connected with class differences, but it would be very difficult to deny this fact.

In considering variation, we can take account of a range of possibilities. The broadest local accents are termed **basilects** (adjective: **basilectal**). These are associated with working- class occupations and persons less privileged in terms of education and other social factors. The most prestigious forms of speech are termed **acrolects** (adjective: **acrolectal**). These, by contrast, are generally found in persons with more advantages in terms of wealth, education and other social factors. In addition, we find a range of **mesolects**

(adjective: **mesolectal**) – a term used to cover varieties intermediate between the two extremes, the whole forming an accent continuum. This situation has often been represented in the form of a triangle, sometimes referred to as the **sociolinguistic pyramid** (Figure A1.1). In England, for example, there is great variation regionally amongst the basilectal varieties. On the other hand, the prestigious acrolectal accent exhibits very few differences from one area to another. Mesolects once again fall in between, with more variation than in the acrolect but less than in the basilects.

In the British Isles it is fair to say that one variety of English pronunciation has traditionally been connected with the more privileged section of the population. As a result, it became what is termed a **prestige accent**, namely, a variety regarded highly even by those who do not speak it, and associated with status, education and wealth. This type of English is variously referred to as 'Oxford English,' 'BBC English,' 'Standard Southern British English' and even 'the Queen's English,' but none of these names can be considered accurate. For a long time, phoneticians have called it **RP** – short for **Received Pronunciation**; in the Victorian era, one meaning of 'received' was 'socially acceptable.' In recent years the term 'Received Pronunciation' has caught on with the media, and now has wider currency with the general public.

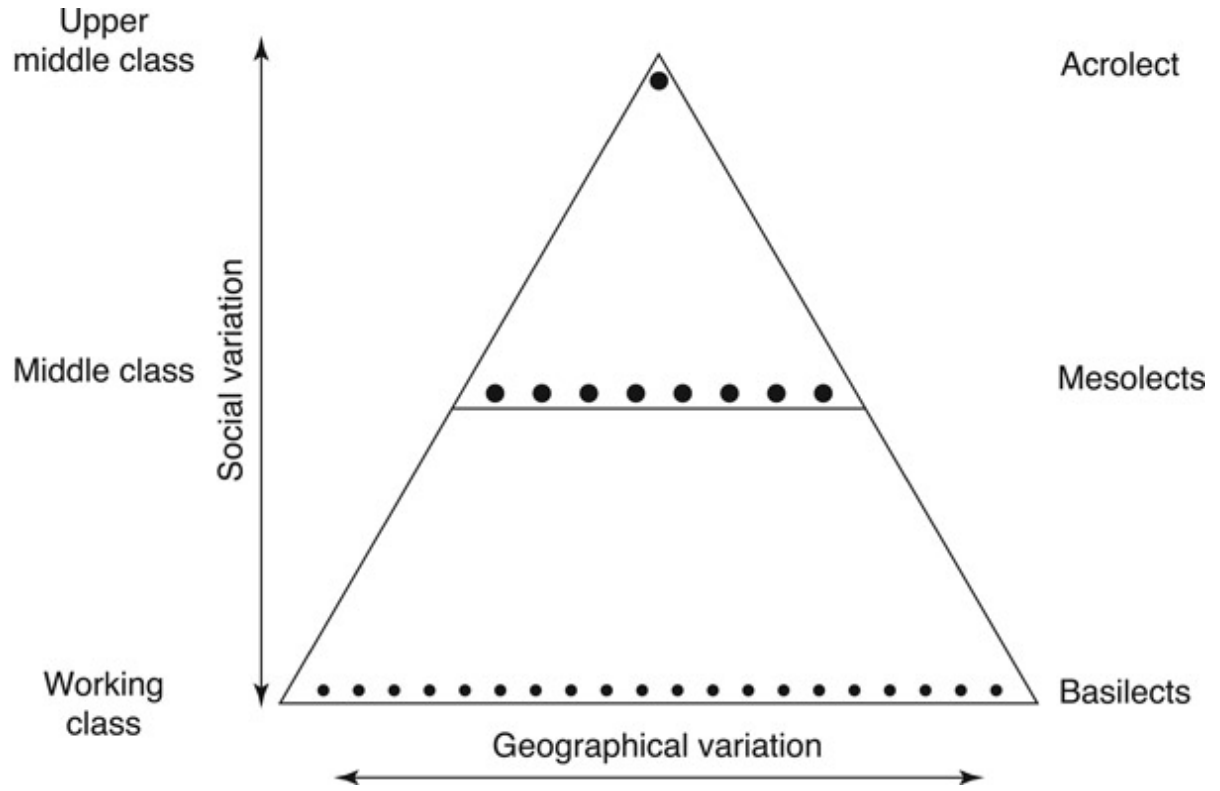


Figure A1.1 The sociolinguistic pyramid

Traditional RP could be regarded as the classic example of a prestige accent since, although it was spoken only by a small percentage of the population, it had high status everywhere in Britain and, to an extent, the world. RP was not a regional but a social accent; it was to be heard all over England (though only from a minority of speakers). Although to some extent associated with the London area (hence the term 'Standard Southern British English' used by some phoneticians), this probably only reflected the greater wealth of the south- east of England as compared with the rest of the country. RP continues to be much used in the theatre and at one time was virtually the only speech employed by national BBC radio and television announcers – hence the term 'BBC English.' Nowadays, the BBC has a declared policy of employing a number of announcers with (modified) regional accents on its national TV and radio networks. On the BBC World Service, there are in addition announcers and presenters who use other global varieties. Traditional RP also happens to be the kind of pronunciation still heard from

older members of the British Royal Family; hence the term 'the Queen's English.'

Within RP itself, it was possible to distinguish a number of different types (see Wells 1982: 279–95 for a detailed discussion). The original narrow definition included mainly persons who had been educated at one of what in Britain are called 'public schools' (actually very expensive boarding schools) like Eton, Harrow and Winchester. It was always true, however, that many English people from less exclusive social backgrounds modified their regional speech and ended up speaking RP or something very similar to it. In this book, because of the dated social connotations, we shall not use the label RP (except consciously to refer to the upper- class speech of the twentieth century). We shall instead endeavour to describe a more encompassing neutral type of modern British English which lacks obvious local accent features. To refer to this variety we shall employ the term **General British** (abbreviated to **GB**).[1] We shall thus be able to allow for the present- day range of variation to be heard from educated middle- and younger-generation speakers in England who have a pronunciation which isn't specific to a particular area.

Traditional Received Pronunciation (RP)🎧 recording A1.1

Jeremy: yes what put *me* off Eton was the importance attached to games because I wasn't sporty – I was very bad at games – I was of a rather sort of cowardly disposition – and the idea to have to run around in the mud and get kicked in the face – by a lot of larger boys three times a week – I found terribly terribly depressing – fortunately this only really happened one time a year – at the most two – because in the summer one could go rowing – and then one was just alone with one's enormous blisters – in the stream –

Interviewer: which games did you play though – or did you have to play –

Jeremy: well you had to play – I mean I liked – I was – the only thing I was any good at was fencing and I liked rather solitary things like

fencing or squash or things like that – but you had to play – Eton had its own ghastly combination of rugger and soccer which was called the 'field game' – and that was for the so- called Oppidans *[fee-paying pupils who form the overwhelming majority at Eton]* like myself – and then there was the Wall Game – which was even worse – and that was for the college – in other words the non- paying students known as 'tugs' –

Interviewer: known as –

Jeremy: tugs –

Interviewer: ah right –

Jeremy: they were called tugs –

Interviewer: there was a lot of slang I suppose *Jeremy:* there was a *lot* of slang – I wonder how much it's still understood – and I don't know if it still exists at Eton – whether it's changed

Jeremy, a university professor, was born in the early 1940s. His speech is a very conservative variety, by which we mean that he retains many old-fashioned forms in his pronunciation. Jeremy, in fact, preserves many of the features of traditional Received Pronunciation (as described in numerous books on phonetics written in the twentieth century) which have since been abandoned by most younger speakers.

Modern General British (GB)🎧 recording A1.2

The story of Arthur the rat

There was once a young rat named Arthur, who would never take the trouble to make up his mind. Whenever his friends asked him if he would like to go out with them, he would only answer, 'I don't know.' He wouldn't say 'yes,' and he wouldn't say 'no' either. He could never learn to make a choice.

His aunt Helen said to him, 'No one will ever care for you if you carry on like this. You have no more mind than a blade of grass.' Arthur looked wise, but said nothing.

One rainy day the rats heard a great noise in the loft where they lived. The pine rafters were all rotten, and at last one of the joists had given way and fallen to the ground. The walls shook, and all

the rats' hair stood on end with fear and horror. 'This won't do,' said the old rat who was chief. 'I'll send out scouts to search for a new home.'

Three hours later the seven scouts came back and said, 'We've found a stone house which is just what we wanted: there is room and good food for us all. There is a kindly horse named Nelly, a cow, a calf, and a garden with an elm tree.' Just then the old rat caught sight of young Arthur. 'Are you coming with us?' he asked. 'I don't know,' Arthur sighed, 'the roof may not come down just yet.' 'Well,' said the old rat angrily, 'we can't wait all day for you to make up your mind. Right about face! March!' And they went off.

Arthur stood and watched the other rats hurry away. The idea of an immediate decision was too much for him. 'I'll go back to my hole for a bit,' he said to himself, 'just to make up my mind.'

That night there was a great crash that shook the earth, and down came the whole roof. Next day some men rode up and looked at the ruins. One of them moved a board, and under it they saw a young rat lying on his side, quite dead, half in and half out of his hole.

You'll notice straightaway that this speaker, Luke, whose non- regionally defined speech is not atypical of the younger generation of educated British speakers, sounds different from Jeremy in many ways. Since Luke grew up in the early 2000s (the recording dates from 2018), his pronunciation indicates that well before the end of the twentieth century GB was effectively largely replacing traditional RP.

Towards the end of the twentieth century, there was talk of a 'new' variety of British English which was dubbed **Estuary English** – a term originally coined by David Rosewarne (1984) and later enthusiastically embraced by the media. The estuary in question is that of the Thames, and the name was given to the speech of those whose accents are a compromise between traditional RP and popular London speech (or Cockney, see Section C2). Listen to this speaker, Matthew, a university lecturer, who was born and grew up in London, and whose speech is what many would consider typical of Estuary English. Matthew's accent is clearly influenced by his London upbringing, but has none of the low- status basilectal features of Cockney as described on pp. 224–5.

Estuary English 🎧 recording A1.3

Matthew: but generally speaking – I thought Sheffield was a lovely place – I enjoyed my time there immensely – some of the things that people

> said to you – took a little bit of getting used to – I did I think look askance the first time – I got on a bus – and I was called 'love' by the bus driver – but I wasn't really used to this kind of thing at the time – I do remember one thing – it was delightfully quiet in Sheffield because – I grew up – in west London near the flight path of Heathrow – the first night I slept in Sheffield – I couldn't sleep – and – this was despite some kind of – hideous sherry party which had been thrown to – loosen up the students in some kind of way – and eventually I worked out why I couldn't sleep – and that was because it was so bloody quiet – I was used to the dim roar of Heathrow – and the traffic of the M4 and the A4 – vague hiss in the background – and to be confronted with a room to sleep in – where there was no noise whatsoever – was quite frightening really – and I think that was one of the reasons – that I developed the habit of wanting to go to sleep with music on – to protect me from this terrifying silence – now I must stress that Sheffield is not known for its silence generally – but the university part of the city – is in a very green area – well away from all of Sheffield's industrial past as it were – and was actually a very quiet place – unless there was somebody running down your student corridor shrieking

In the 1990s and the first few years of the 2000s, this putative new variety was fiercely debated both in the media and academia, but since then interest in Estuary English has waned and been replaced by discussion of the capital's latest linguistic innovation – Multicultural London English (see p. 225). Claims were made that Estuary English would in the future become the new prestige British accent – but it's too early to make predictions. What does seem certain, however, is that change is in progress, and that one can no longer delimit a prestige accent of British English as easily as one could in the early twentieth century. The speech of young educated speakers in the south of England indeed appears to show a considerable degree of London influence (Fabricius 2000). By introducing the term GB, which is more encompassing than traditional RP, we take account of this development.

World Englishes

A British model of English is what is most commonly taught to students learning English as a second language in Europe, Africa, India and much of Asia. In this book, GB is the accent we assume non- native speakers will choose. Our main reason for selecting GB is that English of this kind is easily understood, not only all over Britain, but also elsewhere in the world.

In Scotland, Ireland and Wales, notwithstanding the fact that there never were very many speakers of RP in those countries, the accent was formerly held in high regard (certainly this is less so nowadays). This was also true of more distant English-speaking countries such as Australia, New Zealand and South Africa. Today scarcely any Australians, New Zealanders or South Africans consciously imitate traditional RP as was once the case, even though the speech of radio and television announcers in these countries clearly shows close relationships with British English. In the USA, surprisingly, there was also many years ago a tradition of using a special artificial type of English, based on RP, for the stage – especially for Shakespeare and other classic drama. Even today, the 'British accent' (by which Americans essentially mean traditional RP) retains a degree of prestige in the United States; this is especially so in the acting profession – although increasingly in the modern cinema it seems to be the villains rather than the heroes who speak in this manner!

But in the twenty- first century, any kind of British English is in reality a minority form. Most English is spoken outside the British Isles – notably in the USA, where it is the first language of more than 220 million people. It is also used in several other countries as a first language, e.g. Canada, Australia, New Zealand, South Africa and the countries of the Caribbean. English is used widely as a second language for official purposes, again by millions of speakers, in Southern Asia, e.g. India, Pakistan and Sri Lanka, and in many countries across Africa. In addition, there are large second-language English-

speaking populations in, for example, Hong Kong, Malaysia and Singapore. In total, there are probably as many as 330 million native speakers of English, and it is thought that in addition an even greater number speak English as a second language – numbers are difficult to estimate (Crystal 2003: 59–71). Figure A1.2 (p. 8) provides a map showing the two family trees of British and American varieties of English. Locations populated largely by second-language English users are indicated in italics. See Crystal (2003: 62–5) for a table giving estimates of firstand second- language English speakers in over 70 countries.

Let's now look a little more closely at two regions of the world where English is used as a first language – North America (USA and Canada) and Australasia (Australia and New Zealand). In the United States, over the course of the last century, an accent of English developed which today goes under the name of **General American** (often abbreviated to **GA**). This variety is an amalgam of the educated speech of the northern USA, having otherwise few recognisably local features. It is said to be in origin the educated English of the Midwest of America; it certainly lacks the characteristic accent forms of East Coast cities such as New York and Boston. Canadian English bears a strong family resemblance to GA – although it has one or two features which set it firmly apart. On the other hand, the accents of the southern states of America are clearly quite different from GA in very many respects.

GA is to be heard very widely from announcers and presenters on television and radio networks all over the USA, and for this reason it is popularly known by another name, 'Network American.' General American is also used as a model by millions of students learning English as a second language – notably in Latin America and Japan, but nowadays increasingly elsewhere. We shall return to this variety in Section C1.

Other varieties of English which are now of global significance are those spoken in Australia and New Zealand. Once again there is an obvious relationship between

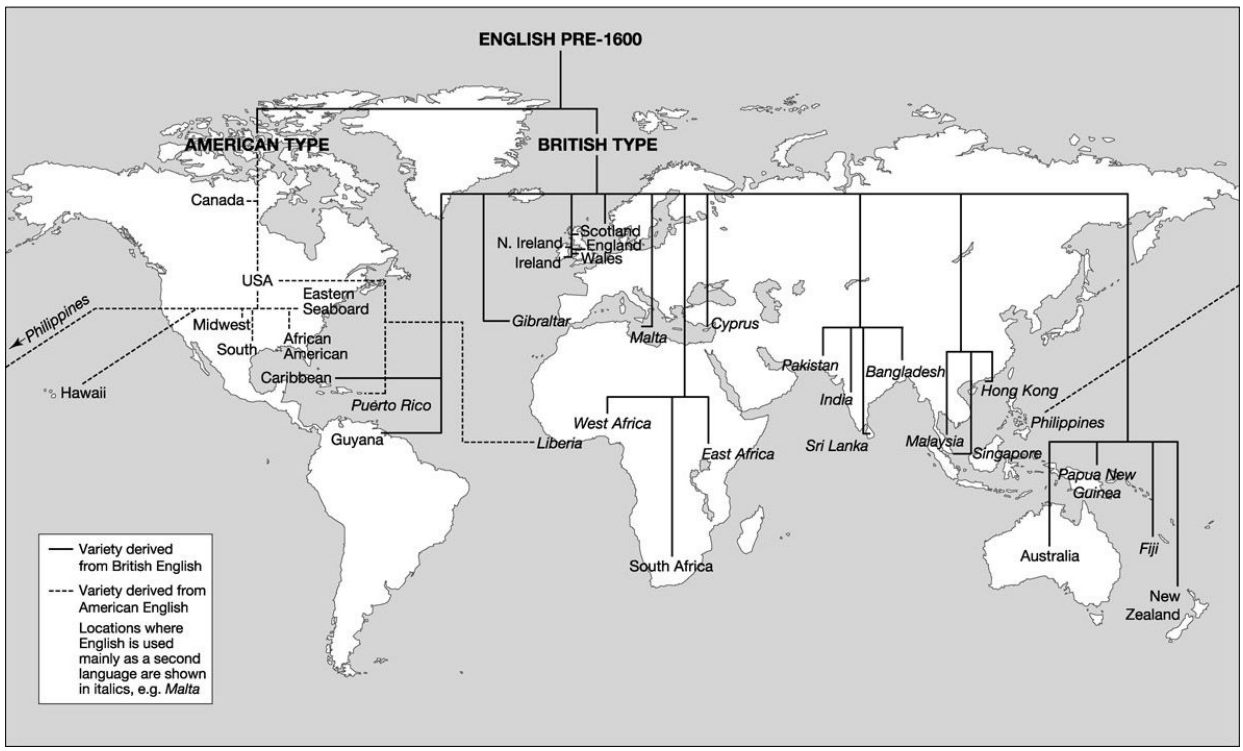


Figure A1.2 Map indicating locations of main varieties of English worldwide (after Strevens 1980: 86; Crystal 2003: 70)

these two varieties, although they also have clear differences from each other. New Zealand English has distinct 'South Island' types of pronunciation – but there is surprisingly little regional variation across the huge continent of Australia. On the other hand, there is considerable social variation between what are traditionally termed 'Broad Australian,' 'General Australian' and 'Cultivated Australian English.' The first is the kind which most vigorously exhibits distinctive Australian features and is the everyday speech of perhaps a third of the population. The last is the term used for the most prestigious variety (in all respects much closer to British GB); this minority accent is not only to be heard from television and radio presenters but is also, in Australia itself, taught as a model to foreign learners. General Australian, used by the majority of Australians, falls between these two extremes.

Finally, we have to remember that while there are so many different world varieties of English, they are essentially (at least in their standard forms) very similar. In fact, although the differences are interesting, it's the degree of

similarity character-ising these widely dispersed varieties of English which is really far more striking. English as used by educated speakers is readily understood all over the world. In fact, it is unquestionably the most widespread form of international communication that has ever existed.

Note

1 The name was first suggested by Jack Windsor Lewis in his (1972) *Concise Pronouncing Dictionary of British and American English* and has been taken up by Cruttenden (2014) and Carley, Mees and Collins (2017).

A2

Phoneme, Allophone and Syllable

Introduction

At this point, let's sort out some basic terminology. The study of sound in general is the science of **acoustics**. We'll remind you that **phonetics** is the term used for the study of sound in human language. The study of the selection and patterns of sounds in a single language is called **phonology**. To get a full idea of the way the sounds of a language work, we need to study not only the phonetics of the language concerned, but also its phonological system. Both phonetics and phonology are important components of **linguistics**, which is the science that deals with the general study of language. A specialist in linguistics is technically termed a **linguist**. Note that this is different from the general use of *linguist* to mean someone who can speak a number of languages. **Phonetician** and **phonologist** are the terms used for linguists who study phonetics and phonology, respectively.

We can examine speech in various ways, corresponding to the stages of the transmission of the speech signal from a speaker to a listener. The movements of the tongue, lips and other speech organs are called **articulations** – hence this area of phonetics is termed **articulatory phonetics**. The physical nature of the speech signal is the concern of **acoustic phonetics**. The study of how the ear receives the speech signal we call **auditory phonetics**. The formulation of the speech message in the brain of the speaker and the interpretation of it in the brain of the listener are branches of **psycholinguistics**. In this book, our emphasis will be on articulatory phonetics, this being in many ways the most accessible branch of the subject, and the one with most applications for the beginner.

In our view, phonetics should be a matter of practice as well as theory. We want you to produce sounds as well as read about them. Let's start as we mean to go on: say the English word *mime*. We are going to examine the sound at the beginning and end of the word: [m].

Activity A2.1

Say the English word *mime* several times. Use a mirror to look at your mouth as you pronounce the word. Now cut out the vowel and just say a long [m]. Keep it going for five seconds or so.

There's a tremendous amount to say just about this single sound [m]. First, it can be short, or we can make it go on for quite a long period of time. Second, you can see and feel that the lips are closed.

Activity A2.2

Produce a long [m]. Now pinch your nostrils tightly, blocking the escape of air. What happens? (The sound suddenly ceases, thus implying that when you say [m], there must be an escape of air from the nose.)

Activity A2.3

Once again, say a long [m]. This time put your fingers in your ears. Now you'll be able to hear a buzz inside your head: this effect is called voice. Try alternating [m] with silence [m … m … m … m …]. Note how the voice is switched on and off.

Consequently, we now know that [m] is a sound which:

- ❑ is made with the lips (bilabial);
- ❑ is said with air escaping from the nose (nasal);
- ❑ is said with voice (voiced).

Now try to produce a different sound – [t] as in *tie*. You can feel that the tongue- tip is held against the hard area behind your top front teeth (technically termed the 'alveolar ridge'). [t] is a sound which:

- ❑ is made with the tongue- tip against the alveolar ridge (alveolar);
- ❑ has air escaping not from the nose but from the mouth (oral);
- ❑ is said without voice (voiceless).

Activity A2.4

Say [t] looking in a mirror. Can you prolong the sound? If you put your fingers in your ears, is there any buzz? If you pinch your nostrils, does this have any effect on the sound? (The answer is 'no' in each case.)

A word now about the use of different kinds of brackets. The symbols between square brackets [] indicate that we are concerned with a sound, and are called **phonetic** symbols. The letters of ordinary spelling, technically termed **orthographic** symbols, can either be placed between angle brackets <m> – or, as in this book, they can be printed in bold, thus **m**.

How languages pick and pattern sounds

Human beings are able to produce a huge variety of sounds with their vocal apparatus, and a surprisingly large number of these are actually found in human speech. Noises like clicks or lip trills – which may seem weird to speakers of European languages – may be simply part of everyday speech in languages spoken in, for example, Africa, the Amazon or the Arctic regions. No language uses more than a small number of the available possibilities, but even European languages may contain quite a few sounds unfamiliar to native English speakers. To give some idea of the possible cross-linguistic variation, let's now compare English to some of its European neighbours.

English lacks a sound similar to the 'scrapy' Spanish consonant **j**, as in *jefe* 'boss.' This sound does exist in Scottish English (spelt **ch**), e.g. *loch*, and is used by some English speakers in loanwords and names from other languages. A similar sound also occurs in German *Da**ch*** 'roof,' Welsh *ba**ch*** 'little' and Dutch *s**ch**ip* 'ship,' but not in French or Italian. German has no sound like that represented by **th** in English *think*. French and Italian also have a gap here, but a similar sound does exist in Spanish *cinco* 'five' and in Welsh *by**th*** 'ever.' English has no equivalent to the French vowel in the word *n**u*** 'naked.' Similar vowels can be heard in German *B**ü** cher* 'books,' Dutch *m**u**seum* 'museum' and Danish *t**y**pisk* 'typical,' although not in Spanish, Italian or Welsh. We could go on, but these examples are enough to illustrate that each language selects a limited range of sounds from the total possibilities of human speech.

In addition, we need to consider how sounds are *patterned* in languages. Here are just a few examples.

- ❑ Neither English nor French has words beginning with the sound sequence [kn], like German *Knabe* 'boy' or Dutch *knie* 'knee.' Many centuries ago English did indeed have this sequence, which is why spellings like *knee* and *knot* still exist.

- ❑ Both French and Spanish have initial [fw], as in French *foi* ‘faith’ and Spanish *fuente* ‘fountain’; this initial sequence does not occur in English, Dutch or Welsh.
- ❑ English has many words ending in [d], contrasting with others ending in [t], e.g. *bed* and *bet*. This is not true of German where, although words like *Rad* ‘wheel’ and *Rat* ‘advice’ are spelt differently, the final **d** and **t** are both pronounced as [t]. Dutch is similar to German in this respect, so that Dutch *bo**t*** ‘bone’ and *bo**d*** ‘bid’ are said exactly the same. The same holds true for Russian and Polish, whereas French, Spanish and Welsh are like English and contrast final [t] and [d].

Phonemes

Speech is a continuous flow of sound with interruptions only when necessary to take in air to breathe, or to organise our thoughts. The first task when analysing speech is to divide up this continuous flow into smaller chunks that are easier to deal with. We call this process **segmentation**, and the resulting smaller sound units are termed **segments** (these correspond very roughly to vowels and consonants). There is a good degree of agreement among native speakers on what constitutes a speech segment. If English speakers are asked how many speech sounds there are in *man*, they will almost certainly say 'three,' and will state them to be [m], [æ] and [n] (see pp. 15–16 for symbols).

Segments do not operate in isolation, but combine to form words. In *man*, the segments [m], [æ] and [n] have no meaning of their own and only become meaningful if they form part of a word. In all languages, there are certain variations in sound which are significant because they can change the meanings of words. For example, if we take the word *man*, and replace the first sound by [p], we get a new word *pan*. Two words of this kind distinguished by a single sound are called a **minimal pair**.

Activity A2.5 (Answers on website)

Make minimal pairs in English by changing the initial consonant in these words: *hate, pen, kick, sea, down, lane, feet.*

Let's take this process further. In addition to *pan*, we could also produce, for example, *ban, tan, ran*, etc. A set of words distinguished in this way is termed a **minimal set**.

Instead of changing the initial consonant, we can change the vowel, e.g. *mean*, *moan*, *men*, *mine*, *moon*, which provides us with another minimal set.

We can also change the final consonant, giving yet a third minimal set: *man*, *map, mat*, *mad*. Through such processes, we can eventually determine those speech sounds which are phonologically significant in a given language. The contrastive units of sound which can be used to change meaning are termed **phonemes**. We can therefore say that the word *man* consists of the three phonemes /m/, /æ/ and /n/. Note that from now on, to distinguish them as such, we shall place phonemic symbols between slant brackets //. We can also establish a **phonemic inventory** for GB English, giving us 20 vowels and 24 consonants (see 'Phonemes in English and other languages' below).

But not every small difference that can be heard between one sound and another is enough to change the meaning of words. There is a certain degree of variation in each phoneme which is sometimes very easy to hear and can be quite striking. English /t/ is a good example. It can range from a sound made by the tip of the tongue pressed against the alveolar ridge to types of articulation involving a 'catch in the throat' (technically termed a **glottal stop**). Compare /t/ in *tea* (tongue- tip **t**) and /t/ in *football* (often made with a glottal stop).

Activity A2.6

Ask a number of your friends to say the word *football*. Try to describe what you hear. Is there an obvious t- sound articulated by the tongue-tip against the alveolar ridge? Or is the /t/ produced with a glottal stop?

Each phoneme is therefore really composed of a number of different sounds which are interpreted as one meaningful unit by a native speaker of the language. This range is termed **allophonic variation**, and the variants themselves are called **allophones**.

Only the allophones of a phoneme can exist in reality as *concrete* entities. Allophones are real – they can be recorded, stored and reproduced, and analysed in acoustic or articulatory terms. Phonemes are *abstract* units and exist only in the mind of the speaker/listener. It is, in fact, impossible to

‘pronounce a phoneme’ (although this phrasing is often loosely employed); one can only produce an *allophone* of the phoneme in question. As the phoneme is an abstraction, we instead refer to its being **realised** (in the sense of ‘made real’) as a particular allophone.

Although each phoneme includes a range of variation, the allophones of any single phoneme generally have considerable **phonetic similarity** in both acoustic and articulatory terms (though this is less evident with our /t/ example); that is to say, the allophones of any given phoneme:

- ❑ usually sound fairly similar to each other;
- ❑ are usually (although not invariably) articulated in a somewhat similar way.

We can now proceed to a working definition of the phoneme as: *a member of a set of abstract units which together form the sound system of a given language and through which contrasts of meaning are produced.*

Phonemes in English and other languages

A single individual's speech is termed an **idiolect**. Generally speaking, it is easy for native speakers to interpret the phoneme system of another native speaker's idiolect, even if they speak a different variety of the language. Problems may sometimes arise, but they are typically few, since broadly the phoneme systems will be largely similar. Difficulties occur for the non-native learner, however, because there are always important differences between the phoneme system of one language and that of another. Take the example of an English native speaker learning French. French people are often surprised when they discover that an English native speaker has difficulty in hearing (let alone producing) the difference between words like French *tu* 'you' and *tout* 'all.' The French vowel phonemes in these words, /y/ and /u/, seem alike to an English ear, sounding similar to the allophones of the English vowel phoneme /uː/ as in *two*. This effect can be represented as follows (using the symbol [–] to mean **contrasts with**):

French *tu* /ty/ – *tout* /tu/
English *two* /tuː/

On the other hand, French learners of English also have their problems. The English words *sit* and *seat* sound alike to French ears, the English vowel phonemes /ɪ/ and /iː/ being heard as if they were allophones of French /i/ as in French *site* 'site':

English *seat* /siːt/ – *sit* /sɪt/
French *site* /sit/

Another example is the contrast /ʊ – uː/ as in the words *pull* and *pool* as compared with French /u/ in *poule* 'hen':

English *pull* /pʊl/ – *pool* /puːl/
French *poule* /pul/

Of course, we need not confine this to vowel sounds. Learners often have trouble with some of the consonants of English, for instance /θ/ as in *mou**th***. German students of English have to learn to make a contrast between *mouth* and *mouse*. German has no /θ/, and German speakers are likely to interpret /θ/ as /s/ as in the final sound of *Maus* 'mouse' – this being what to a German seems closest to /θ/:

English *mouth* /maʊθ/ – *mouse* /maʊs/
German *Maus* /maʊs/

From the moment children start learning to talk, they begin to recognise and appreciate those sound contrasts which are important for their own language; they learn to ignore those which are insignificant. We all interpret the sounds of language we hear in terms of the phonemes of our mother tongue and there are many rather surprising examples of this. For instance, the Japanese at first hear no difference between the contrasting phonemes /r/ and /l/ of English, e.g. *royal – loyal*; Greek learners cannot distinguish /s/ and /ʃ/ as in *same* and *shame*; Cantonese Chinese students of English may confuse /l/ not only with /r/ but also with /n/, so finding it difficult to hear the contrast between *light, right* and *night*. So non- natives must learn to interpret the sound system of English as heard by English native speakers and ignore the perceptions imposed by years of speaking and listening to their own language. Any English person learning a foreign language will have to undertake the same process in reverse.

Overview of the English phonemic system 🎧 Recording A2.1

The consonants of English

Certain of the English consonants function in pairs – being in most respects similar, but differing in the *energy* used in their production. For instance, /p/ and /b/ are articulated in the same way, except that /p/ is a strong voiceless articulation, termed **fortis**; whereas /b/ is a weak potentially voiced articulation, termed **lenis**. With other English consonants, there is no fortis/lenis opposition. Table A2.1 shows the English consonant phonemes.

Table A2.1 The consonant system of GB

Fortis	*Example*	*Lenis*	*Example*
p	***p**ip*	b	***b** abe*
t	***t** aught*	d	***d** ead*
k	***k** ick*	g	***g** ig*
ʧ	***ch** urch*	ʤ	***j** udge*
f	***f** luff*	v	***v** erve*
θ	***th** irtieth*	ð	***th** ey breathe*
s	***s** ocks*	z	***z** oos*
ʃ	***sh** ortish*	ʒ	*meas**u**re*

Consonant	*Example*
h	***h** ay*

Consonant	*Example*
m	***m** ai**m***
n	***n** i**n**e*
ŋ	*si**n**ki**ng***
l	***l** eve**l***
r	***r** a**r**est*
w	***w** itch*
j	***y** ellow*

Table A2.2 The vowels of English GB

Checked steady-state	*Keyword*	*Free steady-state*	*Keyword*	*Free diphthongs*	*Keyword*
ɪ	KIT	iː	FLEECE	eɪ	FACE
e	DRESS	ɛː	SQUARE	aɪ	PRICE
æ	TRAP	ɑː	PALM	ɔɪ	CHOICE
ɒ	LOT	ɔː	THOUGHT	əʊ	GOAT
ʊ	FOOT	uː	GOOSE	aʊ	MOUTH
ʌ	STRUT	ɜː	NURSE	ɪə	NEAR
ə	*bonUs*			ʊə	CURE

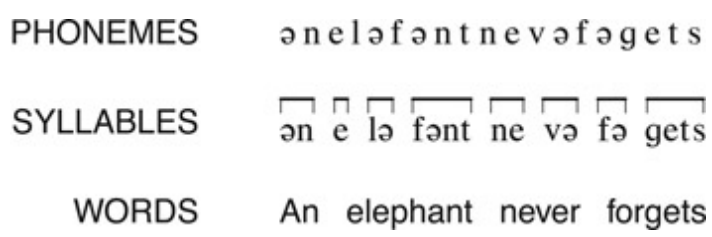


Figure A2.1 Phoneme, syllable and word

The vowels of English

The vowels of English fall into three groups. We'll classify these in very basic terms at the moment, but shall elaborate on this in Section A8, 'Overview of

the English Vowel System.' For steady- state/diphthong distinction, see pp. 86–7.

- **Checked steady-state** vowels: these are short. They are represented by a single symbol, e.g. /ɪ/.
- **Free steady-state** vowels: other things being equal, these are long. They are represented by a symbol plus a length mark [ː], e.g. /iː/.
- **Free diphthongs**: other things being equal, these are long. They have tongue movement (and sometimes also lip movement) and are represented by two symbols, e.g. /eɪ/.

See p. 89 for the terms checked and free. Note that all vowels may be shortened owing to pre-fortis clipping (see p. 59). The effect is most noticeable with free steady-state vowels and diphthongs.

In Table A2.2 we have provided keywords (adapted from Wells 1982) as a convenient way of referring to each of the English vowel phonemes. Keywords are shown in small capitals thus: KIT

The syllable

The **syllable** is a unit difficult to define, though native speakers of a language generally have a good intuitive feeling for the concept, and are usually able to state how many syllables there are in a particular word. For instance, if native speakers of English are asked how many syllables there are in the word *potato*, they usually have little doubt that there are three (even if for certain words, e.g. *extract*, they might find it difficult to say just where one syllable ends and another begins).

A syllable can be defined very loosely as *a unit larger than the phoneme but smaller than the word*. Phonemes can be regarded as the basic phonological elements. Above the phoneme, we can consider units larger in extent, namely the syllable and the word.

Syllabic consonants

Typically, every syllable contains a vowel at its **nucleus**, and may have one or more consonants either side of this vowel at its margins. If we take the syllable *cats* as an example, the vowel acting as the nucleus is /æ/, and the consonants at the margins /k/ and /ts/. However, certain consonants are also able to act as the nuclear elements of syllables. In English, /m n l/ (and occasionally /ŋ/) can function in this way, as in *bitten* /ˈbɪtn̩/, *rhythm* /ˈrɪðm̩/ and *subtle* /ˈsʌtl̩/. Here the syllabic element is not formed by a vowel, but by one of the consonants /m n ŋ l/, which are in this case longer and more prominent than normal. Such consonants are termed **syllabic consonants**, and are shown by a little vertical mark [̩] placed beneath the symbol concerned. In many cases, alternative pronunciations with /ə/ are also possible, e.g. /ˈrɪðəm/. In certain types of English, such as General American, Scottish and West Country, /r/ can also be syllabic: *hiker* /ˈhaɪkɹ̩/.

Phonemic and phonetic transcription

One of the most useful applications of phonetics is to provide transcription to indicate pronunciation. It is especially useful for languages like English (or French) which have inconsistent spellings. For instance, in English, the sound /iː/ can be represented as **e** *(be)*, **ea** *(dream)*, **ee** *(seen)*, **ie** *(believe)*, **ei** *(receive)*, etc. See Section B7 for the same phenomenon in French.

Activity A2.7 (Answers on website)

Find a number of different spellings for (1) the vowel sounds of FACE, PRICE, THOUGHT and NURSE (in GB /eɪ aɪ ɔː **ɜ**ː/) and (2) the consonant sounds /ʤ ʃ s k/.

Now try doing the same thing in reverse. See if you can find a number of different pronunciations for (1) the vowel *letters* **o** and **a**, and (2) the consonant *letters* **c** and **g**.

Finally, a rather tougher question. One of the English checked vowel sounds is virtually always represented by the same single letter in spelling. Can you work out which sound it is? If you need more help, turn to p. 108.

We can distinguish between **phonetic** and **phonemic transcription**. A phonetic transcription can indicate minute details of the articulation of any particular sound by the use of differently shaped symbols, e.g. [ʔ ɹ], or by adding little marks (known as **diacritics**) to a symbol, e.g. [ã t̪]. In contrast, a phonemic transcription shows only the phoneme contrasts and does not tell us precisely what the realisations of the phoneme are. We can illustrate this

difference by returning to our example of English /t/. Typically, a word-initial /t/ is realised with a little puff of air, an effect termed **aspiration**, which we indicate by [ʰ], e.g. *tea* [tʰiː]. In many word-final contexts, as in *eat this*, we are more likely to have [t] with an accompanying glottal stop, symbolised thus: [iːʔt ðɪS]. In a phonemic transcription we would simply show both as /t/, since the replacement of one kind of /t/ by another does not result in a word with a different meaning (whereas replacing /t/ by /s/ would change *tea* into *see*).

Both the phonetic and phonemic forms of transcription have their own specific uses. Phonemic transcription may at first sight appear less complex, but it is in reality a far more sophisticated system, since it requires from the reader a good knowledge of the language concerned; it eliminates superfluous detail and retains only the information essential to meaning. Even in a phonetic transcription, however, we generally show only a very small proportion of the phonetic variation that occurs, often only the most significant phonetic feature of a particular context. For instance, the difference in the pronunciation of the two **r**-sounds in *retreat* (phonemically /rəˈtriːt/) could be shown thus: [ɹəˈtɹ̝iːt]. Once we introduce a single phonetic symbol or diacritic then the whole transcription needs to be enclosed in square and not slant brackets.

Homophones and homographs

One way in which transcription can be of practical use is in distinguishing what are known as **homophones** and **homographs**. Both of these terms contain the element *homo-*, meaning 'same' in Greek; homophone means 'same sound' and homograph means 'same writing.' You can think of homophones as *sound-alikes* and homographs as *look-alikes* (Carney 1997).

Homophones

Homophones are words which sound the same but are written differently. Thanks to the irregularity of its spelling, there are countless examples in English, for instance *bear – bare; meat – meet; some – sum; sent – scent.* Homophones also exist in other languages (see p. 189 for examples in French). They're one of the commonest causes of English spelling errors. And unlike other kinds of spelling error, they're not normally detectable by spelling checkers. Can you say why?

Activity A2.8 (Answers on website)

The following spelling errors would be impossible for most spelling checkers to deal with. Supply a suitable homophone to correct each of the sentences.

1. You'll get a really accurate wait if you use these electronic scales._____
2. Why don't you join a quire if you like singing so much?_____
3. The people standing on the key saw Megan sail past in her yacht._____

4. Harry simply guest, but luckily he got the right answer._____
5. Passengers are requested to form an orderly cue at the bus stop._____
6. The primary task of any doctor is to heel the sick._____
7. For breakfast, many people choose to eat a serial with milk._____
8. Janet tried extremely hard, but it was all in vein, I'm sad to say._____
9. Why is the yoke of this egg such a peculiar shade of yellow? _____
10. The gross errors in the treasurer's report are plane for all to see._____

Note that homophones may vary from one English accent to another. To give one common example, in **rhotic** accents (see p. 75) like General American and Scottish, which pronounce spelt **r** in all contexts, word pairs which are homophones in GB, like *father* and *farther*, do not sound alike. Similarly, in GB *which* and *witch* are homo-phones, but not for speakers of Scottish English. For more information on types of accent variation, see pp. 210–12.

Homographs

Homographs are words which are pronounced differently but spelt exactly the same. English has far fewer homographs than homophones. Here are two common pairs, with a phonemic transcription, and the meaning:

(1)	*lead*	/led/	'metal'
	lead	/liːd/	'to go first'
(2)	*wind*	/wɪnd/	'current of air'
	wind	/waɪnd/	'to turn round'

Activity A2.9 (Answers on website)

Here is a set of homographs, each having two pronunciations and two different meanings. Fill in the appropriate meanings (one example has been done for you). To help you, here are a number of brief definitions to choose from:

> *to decline; to find guilty; to provide accommodation; to run away; to scatter seed; to shut; kind of fish; building for living in; female pig; injury; liquid from the eye; low pitch; near; not legally acceptable; past tense of 'to wind'; prisoner; rip up; rubbish; sandy wasteland; sick person*

	Homograph	Phonemic transcription	Meaning
	live	/laɪv/	'not dead'
		/lɪv/	'to be alive'
1	*refuse*	/rəˈfjuːz/	_____
		/ˈrefjuːs/	_____
2	*close*	/kləʊs/	_____
		/kləʊz/	_____
3	*convict*	/ˈkɒnvɪkt/	_____
		/kənˈvɪkt/	_____
4	*desert*	/ˈdezət/	_____
		/dəˈzɜːt/	_____
5	*invalid*	/ɪnˈvælɪd/	_____
		/ˈɪnvəlɪd/	_____
6	*sow*	/səʊ/	_____
		/saʊ/	_____
7	*tear*	/tɪə/	_____
		/tɛː/	_____
8	*house*	/haʊs/	_____
		/haʊz/	_____

9	*wound*	/wuːnd/	_____
		/waʊnd/	_____
10	*bass*	/beɪs/	_____
		/bæs/	_____

Transcription is not only used to represent words in isolation but can also be employed for whole stretches of speech. In all languages, the pronunciation of words in isolation is very different from the way they appear in connected speech (see ‘A sample of phonemic transcription,’ pp. 25–6). Phonemic transcription allows us to indicate these features with a degree of precision that is impossible to capture with traditional spelling. As such, it is an essential skill for phoneticians. In section A3 (after learning about some features of connected speech) you too will get to acquire this very useful ability.

A3

Connected Speech and Phonemic Transcription

Stress

A word of more than one syllable is termed a **polysyllable**. When an English polysyllabic word is said in its **citation form** (i.e. pronounced in isolation), one strongly **stressed** syllable will stand out from the rest. This can be indicated by a **stress mark** [ˈ] placed *before* the syllable concerned, e.g. ˈ *yesterday* /ˈjestədeɪ/, *to*ˈ*morrow*/təˈmɒrəʊ/, *to*ˈ*day*/təˈdeɪ/.

Activity A3.1 (Answers on website)

Say these English words in citation form. Which syllable is the most strongly stressed? Mark it appropriately: *manage, final, finality, resolute, resolution, electric, electricity.*

Stress in the isolated word is termed **word stress**. But we can also analyse stress in connected speech, termed **sentence stress**, where both polysyllables and **mono-syllables** (single- syllable words) can carry strong stress while other words may be completely unstressed. We shall come back to examine English stress in more detail in Section B3. At this point we just need to note that the words most likely to receive sentence stress are those termed **content words** (also called 'lexical words'): namely, nouns, adjectives, adverbs and main verbs. These are the words that normally carry a high information load. We can contrast these with **function words** (also called 'grammar words' or 'form words'), namely determiners (e.g. *the, a*), conjunctions (e.g. *and, but*), pronouns (e.g. *she, them*), prepositions (e.g. *at, from*), auxiliary verbs (e.g. *do, be, can*). Function words carry relatively little information; their role is holding the sentence together. If we compare language to a brick wall, then content words are like 'bricks of information' while function words act like 'grammatical cement' keeping the whole

structure intact. Unlike content words, function words for the most part carry little or no stress. Only two types of function words are regularly stressed: the demonstratives (e.g. *this, that, those*) and *wh*-interrogatives (e.g. ***wh****ere*, ***wh****o*, ***wh****ich*, ***h****o* ***w***). Note, however, that when *wh*-words and *that* are used as relatives they are unstressed, e.g. *the girl who lent me the yellow hat that I wore to your wedding.*

Strong, weak and contracted forms

Certain function words are pronounced differently according to whether they are stressed or unstressed. Although few in number, they are of very high frequency. Look at this example:

> *Megan had decided to fetch them from the hospital.*
> /ˈmegən əd dəˈsaɪdɪd tə ˈfetʃ ðəm frəm ðə ˈhɒspɪtḷ/.

Here the words *had, to, them, from, the* are all unstressed and reduced to /əd tə ðəm frəm ðə/. When in citation form, or stressed, these would instead be /hæd tuː ðem frɒm ðiː/. The reduced, unstressed pronunciation is termed the **weak form** (abbreviated to **WF**), while the full pronunciation characteristic of stressed contexts is called the **strong form** (abbreviated to **SF**). A select list of the commonest weak forms is given in Table A3.1 (we have restricted it to those that are necessary for native-speaker English).

Many function words can combine with other function words, so producing **contracted forms** (abbreviated to **CF**, also called 'contractions'), e.g. *he* + *will* → *he'll*, do + *not* → *don't*. Unlike weak forms, contracted forms can be stressed – and indeed, frequently are. All contracted forms have orthographic representations including an apostrophe. These spellings are regularly used in dialogue, and often in informal writing, but only sporadically in other kinds of written English. You may have noticed that we use them quite a lot in this book. Table A3.2 provides a list of the most common English contracted forms.

If you're a non- native learner of English, remember that weak and contracted forms are necessary for anyone with the goal of approaching fluent native- speaker English. It's certainly fair to argue that they are of less significance to a person learning English as a 'lingua franca' (see Jenkins 2000) – namely, a basic form of communication. But we assume that people reading this book will either be native speakers (in which case you'll want to

know about these features of your language), or, if you are a non- native, you'll be aiming at more than bare intelligibility.

Table A3.1 Essential weak forms

Class	*Word*	*Weak forms*	*Comments*
Determiners	a	/ə/	Not before vowels
	an	/ən, n̩/	Only before vowels
	the	/ðə, ði/	/ði/ before vowels
Conjunctions	and	/ənd, ən, n̩/	
	as	/əz/	
	but	/bət/	
	than	/ðən/	SF /ðæn/ is hardly ever used
	that	/ðət/	
Prepositions	at	/ət/	/fər/ before vowels
	for	/fə/	
	from	/frəm/	
	of	/əv, ə/	/ə/ is often used before *the*
	to	/tə, tu/	/tu/ used before vowels
Verb *be*	am ('m)	/əm, m/	/m/. See Contracted Forms (CFs)
	are ('re)	/ə/	/ər/ before vowels. See CFs
	is ('s)	/s, z/	See CFs
	was	/wəz/	
	were	/wə/	/wər/ before vowels

Class	*Word*	*Weak forms*	*Comments*
Auxiliary verb	has (’s)	/əz, s, z/	see p. 25
have	have (’ve)	/əv, v/	See CFs
	had (’d)	/əd, d/	See CFs
Other auxiliary	do	/də, du/	
verbs	can	/kən/	
	will (’ll)	/əl,[1]	See CFs
	shall (’ll)	/ʃəl/	See CFs
	would (’d)	/əd, d/	See CFs
	should (’d)	/əd, d/	See CFs
Pronouns & possessive	that	/ðət/	If a *relative*. see p. 24
	them	/ðəm, ðm̩/	
	us	/əs/	
	our	/ɑː/	/ɑː/ is also used in stressed contexts
Negative particle	n’t	/nt/	See CFs

Among the languages of the world, English is remarkable for the number of its weak and contracted forms and the frequency of their occurrence. Using them appropriately doesn’t come easily to non- native learners. Even if a language does have weak forms (like Dutch, for instance) it’s unlikely that the system will be as complex or extensive as in English.

Note that, in English, weak and contracted forms are in no way confined to very informal contexts, nor are they ‘slang’ or ‘lazy speech,’ as some people mistakenly believe. Avoidance of contracted forms is perhaps even more immediately noticeable than not using weak forms. Again, as a non-native, you will usually not be misunderstood, but it will certainly make your English sound less effective.

Table A3.2 Contracted forms

	Full form	*Written CF*	*Spoken CF*	*Comments*
be	I am	I’m	/aɪm/	
	you are	you’re	/jɔː/	/jɔːr/ before vowels
	he is	he’s	/hiz/	
	she is	she’s	/ʃiz/	
	it is	it’s	/ɪts/	
	we are	we’re	/wɪə/	/wɪər/ before vowels
	they are	they’re	/ðɛː/	/ðɛːr/ before vowels
have	I have	I’ve	/aɪv/	Not necessarily used if *have* is a main verb
	you have	you’ve	/juv/	
	he has	he’s	/hiz/	} Cannot be used with third person forms if *has* is a main verb, see p. 25
	she has	she’s	/ʃiz/	
	it has	it’s	/Its/	
	we have	we’ve	/wiv/	Not necessarily used if *have* is a main verb
	they have	they’ve	/ðeɪv/	
shall/ will	I shall/will	I’ll	/aɪl/	
	you will	you’ll	/jul/	
	he will	he’ll	/hil/	
	she will	she’ll	/ʃil/	

	Full form	*Written CF*	*Spoken CF*	*Comments*
	it will	it’ll	/ɪtl̩/	
	we shall/will	we’ll	/wil/	
	they will	they’ll	/ðeɪl/	
had/	I had/would	I’d	/aɪd/	There is no way of telling whether *had* or *would* is meant from pronunciation. Context usually makes the underlying form clear
would	you had/would	you’d	/jud/	
	he had/would	he’d	/hid/	
	she had/would	she’d	/ʃid/	
	it had/would	it’d	/ɪtəd/	
	we had/would	we’d	/wid/	
	they had/would	they’d	/ðeɪd/	
not	are not	aren’t	/ɑːnt/1	Also used in *aren’t I*? All auxiliaries may combine with *n’t* to form CFs and only the most significant and/or irregular are given here. There are many more, such as *isn’t*, *wasn’t*, *couldn’t*, *shouldn’t* /ˈɪzn̩t, ˈwɒzn̩t, ˈkʊdn̩t, ˈʃʊdn̩t/
	were not	weren’t	/wɜːnt/	
	do not	don’t	/dəʊnt/	
	shall not	shan’t	/ʃɑːnt/	
	will not	won’t	/wəʊnt/	
	cannot	can’t	/kɑːnt/	
	must not	mustn’t	/ˈmʌsn̩t/	
	dare not	daren’t	/dɛːnt/	

	Full form	*Written CF*	*Spoken CF*	*Comments*
let	let us	let's	/lets/	
there	there is	there's	/ðɛːz, ðəz/	
	there are	there're	/ˈðɛːrə, ðərə/	/ˈðɛːrər, ðərər/ /ˈðɛːrər, ðərər/
	there will	there'll	/ðɛːl, ðəl/	
	there would	there'd	/ðɛːd, ðəd/	

The use of weak/strong/contracted forms

Remember that WFs and CFs are far more frequent than SFs. Bearing that in mind, look at this summary of their usage.[2]

1. WFs are used only if the function word is unstressed. Otherwise SFs must be used, e.g.

   It turned out that it **was** *possible* /ɪt ˈtɜːnd ˈaʊt ðət ɪt ˈwɒz pɒsəbl̩/

2. SFs are used at the end of the intonation phrase (see B4, 'The structure of intonation patterns in English'), even if the word is unstressed.

   What was she getting at? /ˈwɒt wəz ʃi ˈgetɪŋ æt/

   Pronouns form an exception in this respect, retaining the WF even in final position.

   Jenny collected them

3. Remember that demonstrative *that* invariably has SF (even if unstressed).

   That's the best approach to the problem /ðæts ðə ˈbest əˈprəʊʧ tə ðə ˈprɒbləm/

   Relative pronoun *that* and conjunction *that* always have WFs, e.g.

   The furniture that we ordered hasn't arrived / ðə ˈfɜːnɪʧə ðət wi ˈɔːdəd hæzn̩t əˈraɪvd/
   Christopher told me that he'd written two books /ˈkrɪstəfə ˈtəʊld mi ðət id ˈrɪtn̩ ˈtuː ˈbʊks/

4. WFs ending in /ə/, e.g. *to, for* /tə fə/, take on different forms before vowels (see Table A3.1).
5. In WFs of words spelt with initial **h**, i.e. verb forms *have, has, had*, pronouns *he, his, him, her*, pronouncing /h/ is variable. The /h/ forms occur without exception at the beginning of an utterance but in other contexts both /h/ and /h/- less forms can be heard; see also pp. 128–9. (The use of a great many /h/ forms in colloquial English tends to sound somewhat over- careful.)
6. The weak form of *her* is either /ə/ or /ɜː/. When *her* is a determiner (e.g. *I drove her car to work*), /ɜː/ is more common than /ə/ (except when initial), but when *her* is a pronoun (e.g. *I drove her to work*), /ə/ is more common than /ɜː/.
7. At the end of an intonation phrase, a combination of a preposition and a pronoun tends to have a weak preposition if it follows a stressed syllable, and a strong preposition if it follows one or more unstressed syllables.

   I hid from him /aɪ ˈhɪd frəm ɪm/
   I hid it from him /aɪ ˈhɪd ɪt frɒm ɪm/
   I hid the pregnancy from him /aɪ ˈhɪd ðə ˈpregnənsi frɒm ɪm/

8. In yes/no questions auxiliary and modal verbs may either be stressed and have a strong form or be unstressed and have a weak form.

Can you hear clearly with both ears? /ˈkæn ju ˈhɪə ˈklɪəli wɪð ˈbəʊθ ˈɪəz/ or /kən ju ˈhɪə ˈklɪəli wɪð ˈbəʊθ ˈɪəz/
Are you going to Paris this summer? /ˈɑː ju ˈgəʊɪŋ tə ˈpærɪs ðɪs ˈsʌmə/ or /ə ju ˈgəʊɪŋ tə ˈpærɪs ðɪs ˈsʌmə/

Activity A3.2

In which of the following auxiliary verbs and pronouns (all spelt with **h**) would English speakers actually pronounce /h/? And where would it be dropped?

Jack's handed him the money.
Tom's handed her the money.
He's handed Jack the money.
Has he handed her the money?
Would he have handed her the money?
Would she have told him about having been handed the money?
I haven't handed her any of his money.
He hasn't had any of her money.

Discuss your responses with the other members of your class. Does everybody come up with the same patterning? If there are any differences, where are they to be found?

9. *Have* /*has* when used as a main verb implying possession usually retains SF, e.g. *I have an interesting bit of news* /aɪ ˈhæv ən ˈɪntrəstɪŋ ˈbɪt əv ˈnjuːz/. While *have* occasionally enters into CFs (e.g. *I've an interesting bit of news* /aɪv ən ˈɪntrəstɪŋ ˈbɪt əv ˈnjuːz/), this is never the case with *has;* compare the inappropriate: **She's an interesting piece of news* – which would mean something quite different! (Note, incidentally, that the asterisk * is used in linguistic work to indicate unacceptable forms.) *Do/does* behaves in a similar manner. When used as a main verb, the strong form is used, e.g. *What are they going to do about it?* /ˈwɒt ə ðeɪ ˈgəʊɪŋ tə ˈduː əˈbaʊt

ɪt/. An example of both a strong and a weak form of *do* can be found in the phrase *How do you do?* /ˈhaʊ də ju ˈduː/.

See the 'Brief transcription guide' below for the regular pronunciation patterns of '**s** in weak forms of *has* and *is*.

10. Notice that a few common function words have no regular WF. These include: *I, if, in, it, on, one, then, they, up, when, what, with* (and possessive pronouns: *mine, yours, etc.*).

A sample of phonemic transcription

Now that you know something about stress, and also have a knowledge of the crucial matter of weak/contracted forms, you're ready to move on from transcribing isolated words to doing a phonemic transcription of a short passage of English. This will enable us to show features of real connected speech such as sentence stress and also all the WFs and CFs. For further detail on other features of connected speech, e.g. assimilation and elision, see Section B2.

Here's a short extract (slightly adapted) from Lewis Carroll's *Alice in Wonder-land*, shown first of all in an orthographic version (i.e. in ordinary spelling) and then in phonemic transcription. Note that our transcription is only *one* possible version – there can be quite a lot of freedom in such matters as stressing, the choice of alternative pronunciations, and much else besides.

Orthographic version

'How do you know I'm mad?' said Alice.

'You must be,' said the cat, 'or you wouldn't have come here.'

Alice didn't think that proved it at all. However, she went on, 'And how do you know that you're mad?'

'To begin with,' said the cat, 'a dog's not mad. You grant that?'

'I suppose so,' said Alice.

'Well, then,' the cat went on, 'you see a dog growls when it's angry, and wags its tail when it's pleased. Now I growl when I'm pleased, and wag my tail when I'm angry. Therefore I'm mad.'

'I call it purring, not growling,' said Alice.

'Call it what you like,' said the cat.

Phonemic transcription of the same passage 🎧 Recording A3.1

ˈhaʊ ʤu[3] ˈnəʊ aɪm ˈmæd | sed ˈælɪs ||

ju ˈmʌs[4] bi sed ðə ˈkæt | ɔː ju ˈwʊdn̩t əv ˈkʌm hɪə ||

ˈælɪs ˈdɪdn̩t θɪŋk ðæt ˈpruːvd ɪt ə ˈtɔːl[5] || haʊˈevə | ʃi went ˈɒn | ən ˈhaʊ ʤu[3] ˈnəʊ

ðət ˈjɔː ˈmæd ||

tə bəˈgɪn wɪð | sed ðə ˈkæt | ə ˈdɒgz nɒt ˈmæd || ju ˈgrɑːnt ˈðæt ||

aɪ səˈpəʊz ˈsəʊ sed ælɪs ||

ˈwel ðen | ðə ˈkæt went ˈɒn | ju ˈsiː | ə ˈdɒg ˈgraʊlz wen ɪts ˈæŋgri | ən ˈwægz ɪts

ˈteɪl wen ɪts ˈpliːzd || naʊ aɪ ˈgraʊl wen aɪm ˈpliːzd | ən ˈwæg maɪ ˈteɪl wen aɪm

ˈæŋgri || ˈðɛːfɔː r[6] aɪm ˈmæd ||

ˈaɪ kɔːl ɪt ˈpɜːrɪŋ | nɒt ˈgraʊlɪŋ sed ˈælɪs ||

ˈkɔːl ɪt wɒʧu[3] ˈlaɪk sed ðə ˈkæt ||

Brief transcription guide

This simplified survey is intended to start you off doing transcription and deals with some frequent beginners' problems. Several of the points mentioned in passing here are discussed at greater length later on in the book.

1 Transcription from a written text

Transcription may be from a text in conventional orthography.

1. Read the passage *aloud* to yourself a number of times.
2. In transcribing, you must always remember that you are dealing with connected speech and not a string of isolated words. First, mark off with a single vertical bar the breaks between intonation phrases (see Section B4, 'The structure of intonation patterns in English'). These normally occur where in reading it would be possible to make a brief pause. Sentence breaks are shown by a double bar.

   > A most important thing to remember | is to clean the filter frequently. || This will ensure | that the machine runs efficiently | at all times. ||

   Note that for any written text, there are usually several different possibilities for division into intonation groups. See Section B4 for more detail.
3. Using the orthographic text, mark the stressed syllables as found in connected speech (i.e. *sentence stress*). This is different from stress in the isolated word as indicated in the dictionary (*word stress*). Sentence stress is most likely to fall on a syllable of content words (i.e. nouns, main verbs, adjectives, most adverbs). Function words

(except for demonstratives, e.g. *this, those*, possessive pronouns, e.g. *mine, yours*, and wh- words used in questions, e.g. *what, where, who*) are typically unstressed. Mark sentence stress thus [ˈ] *before* the stressed syllable, e.g.

> A ˈmost imˈportant ˈthing to reˈmember | is to ˈclean the ˈfilter ˈfrequently. || This will enˈsure | that the maˈchine ˈruns eˈfficiently | at ˈall ˈtimes. ||

4. Now begin transcribing into phonemic symbols. If in doubt about a difficult word, make an attempt at it, but go back later and check in any dictionary showing pronunciation in phonemic transcription (e.g. the *Longman Pronunciation Dictionary*, Wells 2008). Note that there may be minor differences between the transcription system used in your dictionary and the one in this book. Your dictionary may also show alternative pronunciations, possibly by superscript or italic letters. Don't indicate all these variants; just choose *one* of the possibilities.

2 Transcription from speech

For phonemic transcription of actual speech, e.g. dictation from your instructor, or an audio recording, you must bear the following points in mind.

1. Listen to the whole passage several times. Mark intonation phrase boundaries. Then, concentrating on one intonation phrase at a time, mark sentence stress.
2. Remember that in transcribing a passage of spoken language, you cannot (as you can with a written text) choose between a variety of interpretations. You must try to render faithfully in phonemic transcription *exactly* what the speaker has uttered. Bearing this point in mind, proceed as for a written text.

3 Writing the symbols

1. Always use the letter shapes of print rather than those of handwriting.
2. Take care with the following symbols: ə ɔ ɪ ʊ ɜ ɛ æ a ɒ ʃ ʒ θ ð g. Make sure that you don't confuse these letter shapes:

   ɪ i, ɛ ɜ, ə a, æ ɒ a, z ʒ, ʒ ɜ, θ ə ɔ, ʊ u, m ʍ, s ʃ, ɒ ɔ ɑ

3. Here are a few hints on how to write some of the symbols:

   - ❑ ɒ is like b without an ascending stroke.
   - ❑ θ is written as 0 with a cross- stroke.
   - ❑ ð is like a reversed 6 with a cross- stroke.
   - ❑ f should not descend below the line.

4 Some transcription do's and don'ts

First the ***do's***:

- ❑ Do use *weak* and *contracted forms* wherever possible.
- ❑ Do show syllabic consonants with the syllabic mark: *bottle* /ˈbɒtl̩/, *written* /ˈrɪtn̩/. The most frequent syllabic consonants in GB are /l/ and /n/; syllabic /m/ and /ŋ/ are less commonly found. Syllabic /r/ is very common in General American and other rhotic accents.
- ❑ Do transcribe numbers or abbreviations in their full *spoken* form. Note that in abbreviations the stress always falls on the last item, e.g. *CD* /siː ˈdiː/, *CNN* /siː en ˈen/.

Now the ***don'ts***:

- ❑ Don't use any capital letters or show any punctuation.

- ❑ Don't include **c o q x y**, which don't occur in our English GB phonemic transcription system. (Note that these symbols are used for sounds in other languages.)
- ❑ Don't use *phonetic* symbols, e.g. [ʔ ɹ ɬ], in a *phonemic* transcription.

5 Other miscellaneous points to note

1. All vowels except /ə/ can occur in stressed syllables, but in unstressed syllables we typically find one of the five weak vowels /ə ɪ ʊ i u/ or a syllabic consonant, e.g. *complain, attend, evening, pretty, superb, awful* /kəmˈpleɪn, əˈtend, ˈiːvnɪŋ, ˈprɪti, suˈpɜːb, ˈɔːfʊl/ ˈɔːfəl/ˈɔːf l̩/. It is not impossible for strong vowels to occur in unstressed syllables (e.g. *genteel, canteen, steadfast* /ʤenˈtiːl, kæn ˈtiːn, ˈstedfɑːst/), but there are far more words where we find weak vowels than strong vowels in this context. Transcriptions like */ ˈkəmpleɪn, ˈətend, kɒmˈpleɪn, æˈtend/ are incorrect – either because a weak vowel has been assigned stress or because a strong vowel has been used in an unstressed syllable.
2. In most cases, the syllable on either side of the syllable that carries the main stress is unstressed and therefore contains a weak vowel, e.g. *adventure, another, astonish* /ədˈventʃə, əˈnʌðə, əˈstɒnɪʃ /. More than one syllable away from the main stress, all vowels (strong and weak) can be found, e.g. *university, opportunity, conversation* /juːnɪ ˈvɜːsəti ɒpəˈʧuːnəti kɒnvəˈseɪʃn̩/.
3. In GB, and similar accents, /r/ only occurs before a vowel, e.g. *fairy* /ˈfɛːri/, but *far* /fɑː/, *farm* /fɑːm/. (See Section A6.) To indicate the possibility of linking *r* (see B2), many dictionaries use superscript *r*, e.g. /fɑːʳ /. You should never write the superscript *r*, but instead where there is linking *r* transcribe it *between* words with a full- size letter, e.g. *far off* /fɑː r ˈɒf/.

4. The *happy* words' (see p. 94), ending in - **y**, - **ie** or - **ee**, are said with a short version of the FLEECE /iː/ vowel, as are inflectional - **ies** and - **ied**. This unstressed allophone is indicated by the symbol **i**, e.g. *silly* /ˈsɪli/, *caddie* /ˈkædi/, *coffee* /ˈkɒfi/, *fairies* /ˈfɛːriz/, *married* /ˈmærid/. Unstressed [i] also occurs before vowels in words like *radio, serious, idiot*. Similarly, words like *graduate, influence* are said with a short allophone of the GOOSE vowel /uː/, shown by the symbol **u**, e.g. *influence* /ˈɪnfluəns/. Note that these short vowels also occur in certain weak forms (see Table A3.1, p. 22). Strictly speaking, [i] and [u] should not be placed between slant brackets, as they are not phonemes (they can never result in a new meaning) but allophones. However, as they occur so frequently, it has become general practice to show these allophones in phonemic transcriptions.
5. The pronunciation of **s** in plurals, possessives and the third person singular is governed by the preceding sound. The same is true of the weak and contracted forms of *is* and *has*.

    - ❑ Following /s z ʃ ʒ ʧ ʤ/, **s** → /ɪz/, e.g. *buses* /ˈbʌsɪz/, *wishes* /ˈwɪʃɪz/, *George's* /ˈʤɔːʤɪz/. Note though that in the case of *has* the ending is pronounced /əz/, e.g. *Liz has gone* /lɪz əz gɒn/, *Liz is gone* /lɪz ɪz gɒn/.
    - ❑ Following the fortis consonants /p t k f θ/, **s** → /s/, e.g. *Jack's boots* /ˈʤæks ˈbuːts/, *Pat's gone* /ˈpæts ˈgɒn/.
    - ❑ In all other cases, **s** → /z/, e.g. *roads* /rəʊdz/, *dreams* /driːmz/, *Sue's* /suːz/, *Jane's leaving* /ˈʤeɪnz ˈliːvɪŋ/.

6. The ending - **ed** has the following patterning:

    - ❑ Following /t/ and /d/, - **ed** → /ɪd/, e.g. *folded* /ˈfəʊldɪd/, *waited* /ˈweɪtɪd/.
    - ❑ Following fortis consonants (except /t/), - **ed** → /t/, e.g. *looked* /lʊkt/, *laughed* /lɑːft/.

- ❑ Following all other consonants or vowels, - **ed** → /d/, e.g. *seemed* /siːmd/, *pleased* /pliːzd/, *saved* /seɪvd/, *barred* /bɑːd/.

For several adjectives, -**ed**.d/, e.g. *crooked* /ˈkrʊkɪd/, *naked* /ˈneɪkɪd/. Other examples are: *ragged, aged, jagged, - legged* (as in *four-legged, bow- legged*), *rugged, wicked, learned, cursed, blessed, beloved.*

7. A number of verbs ending in **n** or **l** have two pronunciations and sometimes two spelling forms for the past tense, one in - **ed** and one in - **t**, e.g. *spelled/spelt; burned/burnt.* In British English, the pronunciation with /t/ is more common; American English favours /d/.
8. If transcribing from an audio recording, you must show all assimilations and elisions you can hear. When transcribing from a written text, it adds interest to show assimilations and elisions where these are possible (see Section B2).

Passages for transcription

Passages (slightly adapted from *Alice in Wonderland*, Ch. 1), graded in length, have been provided for you to use for transcription practice in the course of reading this book. Three are given below to start you off, and from then on there is an activity of this sort at the end of every unit in Sections A and B. Mark sentence stress and intonation phrase boundaries. Show contracted forms wherever possible, even if not indicated as such in the text (i.e. transcribe *could not* as /kʊdn̩t/). **Keys (based on GB) to all the transcriptions are to be found on the website**.

Activity A3.3

Transcribe phonemically, showing intonation phrases and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 1

And here Alice began to get rather sleepy, and went on saying to herself, in a dreamy sort of way, ‘Do cats eat bats?’ and sometimes, ‘Do bats eat cats?’ For, you see, as she couldn’t answer either question, it didn’t much matter which way she put it.

Transcription passage 2

She felt that she was dozing off, and had just begun to dream that she was walking hand in hand with Dinah, her cat. She was saying to her very earnestly, ‘Now, Dinah, tell me the truth. Did you ever eat a bat?,’ when suddenly – thump! Down she came on a heap of sticks and dry leaves, and the fall was over.

Transcription passage 3

Alice was not a bit hurt, and she jumped up on to her feet in a moment. She looked up, but it was all dark overhead. In front of her was another long passage, and the White Rabbit was still in sight, hurrying down it. There was not a moment to be lost. Away went Alice like the wind. She was just in time to hear it say, as it turned a corner, ‘Oh my ears and whiskers, how late it’s getting!’

Notes

1 The older CF of *aren't* and *isn't* was *ain't* – a form now heard only in regional varieties.

2 A more detailed treatment of this topic is to be found online, 'Weakform words and contractions for the advanced EFL user', www.yek.me.uk/wkfms.html.

3 See Section B2, 'Patterns of assimilation in English', for information on assimilations.

4 See Section B2, 'Elision' and 'Patterns of elision in English', for information on elision.

5 This phrase has a fixed pronunciation with stress as shown.

6 See Section B2, 'Liaison', for information on linking *r*.

A4

How we Produce Speech

Introduction

In this unit, we're going to have a look at what are usually known as the **organs of speech** or the **speech mechanism**. But one curious thing about the organs of speech is that none of them started out that way. They are all 'designed' for purposes other than speech. For example, the lungs are primarily intended for breathing; the teeth and the tongue for chewing up food and passing it down to the stomach. This has sometimes led scientists to call speech an 'overlaid function.' Nevertheless, the human being is uniquely a *speaking* animal, and in the course of evolution, all the organs of speech have developed in very specialised ways often quite remote from their original purpose. Perhaps the best example of this is the larynx (see below). This was originally merely a device for keeping chewed- up food from entering the lungs, but it has evolved into one of the most intricate parts of the vocal apparatus, playing a crucial role in speech.

The overwhelming majority of the sounds found in human speech are produced by an **egressive pulmonic airstream**, i.e. an outgoing stream of air produced by the lungs contracting (partially collapsing *inwards*) and thus pushing the air contained within them *outwards*. This airstream then passes through the **larynx** (known familiarly as the 'Adam's apple') and along a tube of complex shape formed by the mouth and nose (termed the **vocal tract**). A variety of muscles interact to produce changes in the configuration of the vocal tract so as to allow parts of the speech organs to come into contact (or near contact) with other parts, i.e. to **articulate**. Phoneticians term these anatomical bits and pieces the **articulators** – hence the term for the branch of science known as **articulatory phonetics**, which actually forms the main basis of this book.

The organs of speech fall into three groupings, arranged here from top to bottom:

Location	System
HEAD	Articulatory system
THROAT	Phonatory system
CHEST	Respiratory system

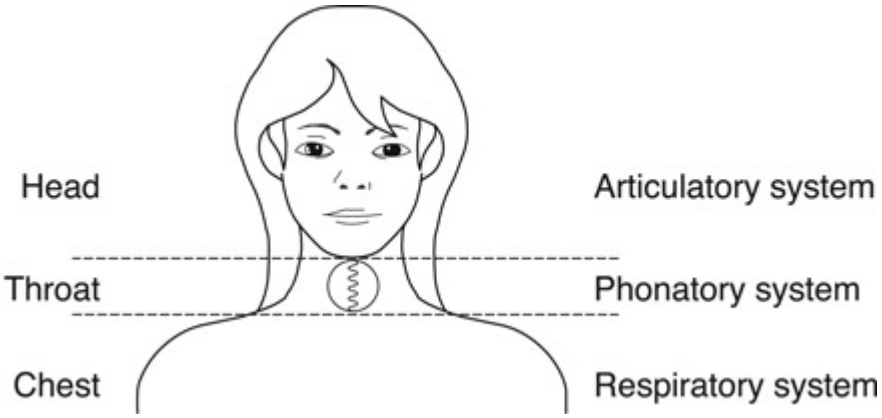


Figure A4.1 Divisions of the speech mechanism

The respiratory system

The respiratory /rəˈspɪrətri/ system consists of the lungs and the bronchial /ˈbrɒŋkiəl/ tubes which lead to the throat. Normally, breathing in (**inhalation**) and breathing out (**exhalation**) both take a roughly equal space of time. But during speech, the lungs take in air rapidly and let it out slowly – in fact, about 1:8 in favour of exhalation. Speech consequently can be seen as a type of controlled breathing.

Activity A4.1

Breathe in and out. Then say /ɑː/ as in PALM. Hold it for as long as you can. Now try making the same noise on an ingressive airstream (i.e. breathing *in*). What difference can you notice?

When you did Activity A4.1 above, you will have noticed that it's very difficult to speak on an **ingressive** airstream for any length of time. Ingressive air may sometimes be used involuntarily for speech, for example when sobbing, or out of breath. Have you ever tried talking after having walked up several flights of stairs? A pulmonic ingressive airstream may also be employed when counting quickly (perhaps you remember playing 'hide and seek' as a child, and counting up to fifty as quickly as you could).

Activity A4.2

Try to recite a nursery rhyme or some other familiar piece of verse, breathing in. How many seconds can you go on for using just *one* breath?

In some languages certain words may be occasionally produced on an ingressive pulmonic airstream (for instance, French *oui* 'yes' is often said in this way). But no known language regularly uses an ingressive pulmonic airstream as part of its phonemic system.

All languages use the pulmonic egressive airstream as their main form of speech production. But a few sounds are made in a different way – for instance, the click sounds we use occasionally to show disapproval (*tut- tut*) or enthusiasm. Although clicks aren't part of the English phonemic system, they are nevertheless meaningful in context. We call such phenomena that function alongside speech **paralinguistic** features – gestures, facial expressions and voice quality are other examples. The sounds known as **clicks** – made with ingressive mouth air – are actually used as phonemes in several African languages. The best known of these are Zulu and Xhosa (two very similar languages) spoken in total by about twelve million people in South Africa.

The phonatory system

The bronchial tubes end in the windpipe – known technically as the **trachea** (/trəˈkiːə/ or /ˈtreɪkiə/). At the very top of the trachea, we find the **larynx** /ˈlærɪŋks/, which can be regarded as the engine of the phonatory /fəʊˈneɪtri/ system. The larynx, also commonly called the 'voice box,' is clearly visible in grown males as a lump bobbing up and down in the neck; females have much smaller larynxes. Try feeling your larynx – easy for men but a bit more difficult for women.

The **vocal folds** (also called the vocal cords) vibrate very rapidly when an air-stream is allowed to pass between them, producing what is termed **voice** – that is, a sort of 'buzz' which one can hear and feel in vowels and in some consonant sounds. The function of the larynx as a vibration source is termed **phonation** /fəˈneɪʃn̩/.

The larynx is a box- like structure composed of cartilage, and inside it are the two vocal folds. These can be positioned by the two cartilages known as the **arytenoids** /ærəˈtiːnɔɪdz/ (from Greek *arutaina*, 'serving spoon, ladle,' so called because the cartilages were thought to be spoon- like in shape). The vocal folds temporarily close off the entrance to the trachea, so protecting the lungs from inhaling small food particles. If this mechanism fails, as it sometimes does, we end up choking and spluttering, complaining that the food has 'gone the wrong way.' Food normally goes down the **oesophagus** /iˈsɒfəgəs/, the pipe leading to the stomach, being diverted away from the larynx by the epiglottis.

We can view the workings of the larynx in the old- fashioned way without too much difficulty by means of a **laryngoscope** /ləˈrɪŋgəskəʊp/, which is a smart word for a rod with a mirror on the end (like the mirror a dentist uses to look at your teeth). Or, with more up- to- date technology, we can employ a fibre- optic cable by means of which still and moving images of the larynx can be obtained. We have not included a photographic image

here because a wealth of material is to be found on the Internet: an excellent website is www.phon.ox.ac.uk/~jcoleman/phonation.htm.

The gap between the vocal folds and/or the arytenoids is termed the **glottis** (adjective: **glottal**). We shall, for our purposes, use a simplified model of the larynx as illustrated in Figure A4.2 (note, incidentally, that our diagrams have the front of the larynx at the top – some of the images available on the Internet show the larynx the other way round).

For **voiceless** sounds (Figure A4.3), the vocal folds and the arytenoid cartilages are held wide apart as in relaxed breathing. This allows the pulmonic airstream to escape freely.

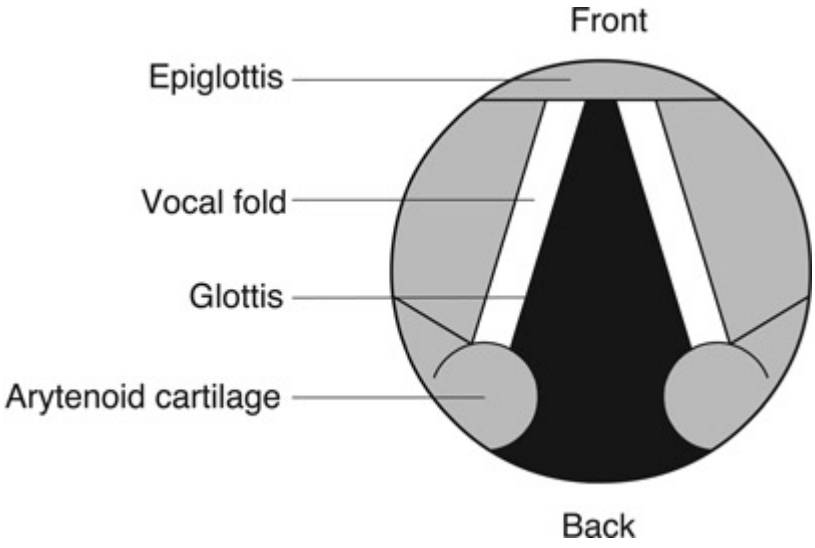


Figure A4.2 Simplified model of the larynx

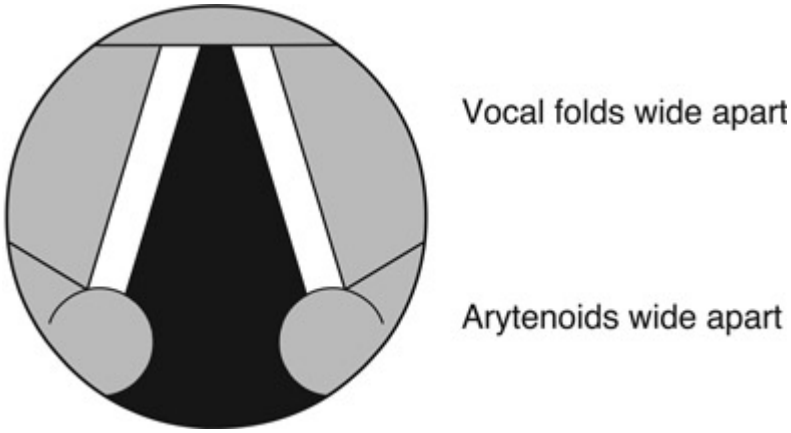


Figure A4.3 Glottal setting: voiceless

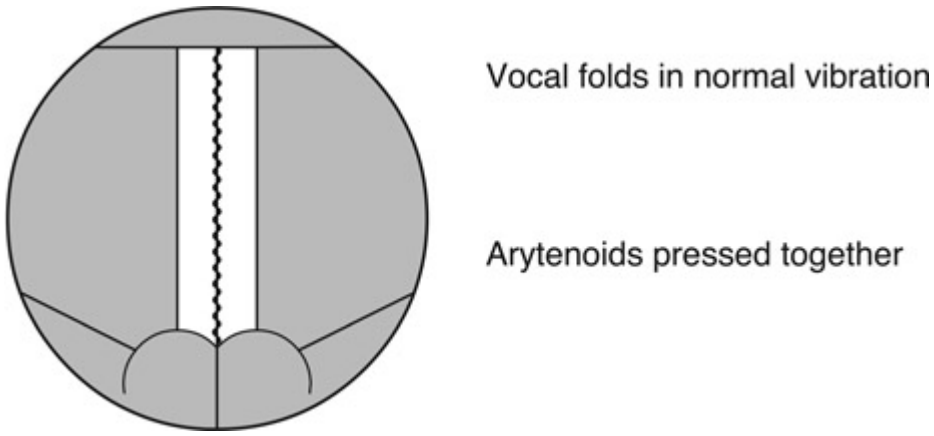


Figure A4.4 Glottal setting: voice

For **voice** (Figure A4.4), the vocal folds vibrate at high speed in the airstream produced by the lungs. The arytenoids are firmly closed. Vocal fold vibrations are far too fast to see with the naked eye, being comparable to the buzzing of an insect's wing. The vibration is constantly changing but occurs on average 130 times a second for male voices, and 230 times per second for females. Longer and larger vocal folds produce slower vibrations. The larger dimensions of the male vocal folds mean that men's voices are deeper in pitch than those of women.

The speed of vibration is termed **frequency**. Although the relationship is complex, we can say broadly that the higher the frequency of vocal fold vibration, the higher the pitch perceived by listeners (note that frequency is a *physical measurement*, whilst pitch refers to the *perception* of the listener). Pitch change is crucial in language, being the basis of intonation and tone (see Section B4).

Activity A4.3

Say a vowel [ɑː] as in PALM. Prolong it. Press your hand on your larynx, and feel the buzz – the voicing. Now say a long [m] and feel the same thing. Now say a long [s]. This time there is no buzz. Go on to say a [z]. Prolong it. Can you feel and hear the voicing for the [z] sound?

Say [s z s z s z] and feel the contrast of voiceless and voiced in these sounds.

Activity A4.4

Say some voiced sounds: [ɑː], [m], [z]. Sing or hum them, changing the pitch up and down. This is easy to do with the voiced sounds but impossible with a voiceless sound like [f].

We shall soon see how important voicing is in language. In English, it's one of the phonetic variables which play a part in the fortis/lenis contrast (see A5).

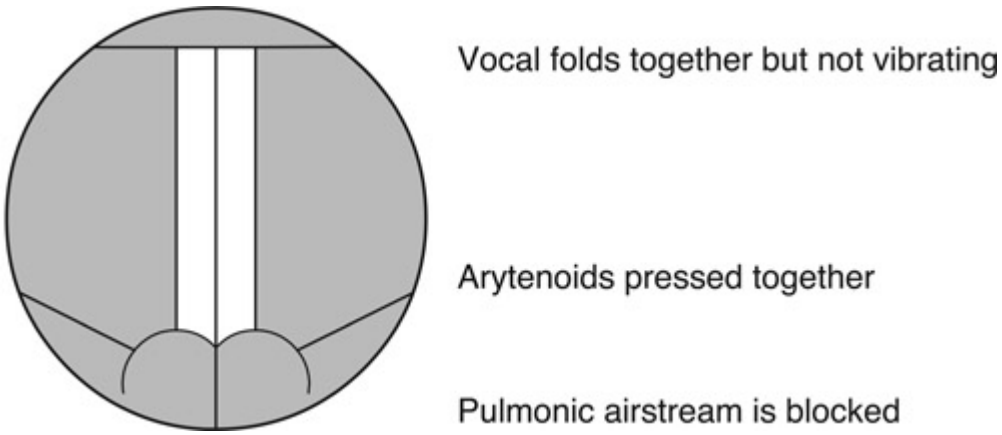


Figure A4.5 Glottal setting: glottal stop

Glottal stop [ʔ] (Figure A4.5) is at the other extreme from voiceless (where the vocal folds are wide apart). The vocal folds and the arytenoids are close together so that the airstream coming from the lungs is momentarily stopped. On the release of the glottal closure, the blocked air rushes out with an effect rather like a weak cough, or the noise one makes when lifting a heavy weight.

Glottal stop functions as a phoneme in many languages, e.g. Arabic, Hawaiian and Farsi (also called Persian, which is the chief language of Iran). In English, [ʔ] isn't a phoneme, but plays a very important role as a reinforcement (or replacement) of fortis stop consonants (see Section B2).

Activity A4.5 Recording A4.1

Try saying this sentence using [ʔ] for /t/ as it might be in Cockney.

I've got to put a lot of butter on that little bit of bread
[aɪv ˈgɒʔə ˈpʊʔ ə ˈlɒʔ ə ˈbʌʔə r ɒn ðæʔ ˈlɪʔl̩ ˈbɪʔ ə ˈbred].

Note that because [ʔ] isn't a phoneme, we have to enclose this transcription in square brackets.

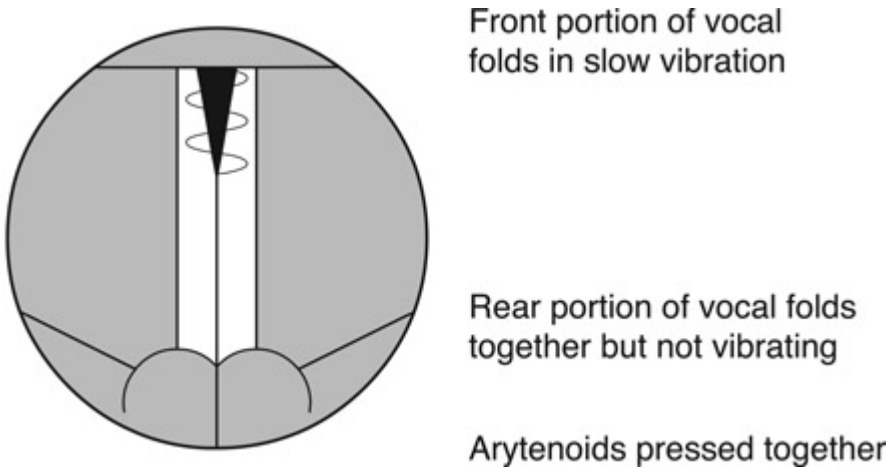


Figure A4.6 Glottal setting: creak

Creak (Figure A4.6) is like a succession of glottal stops, one after another, sounding rather like an old door creaking open. The arytenoids are firmly pressed together whilst the front portions of the vocal folds slowly vibrate. These vibrations (about forty times per second) are slow enough almost to be heard individually.

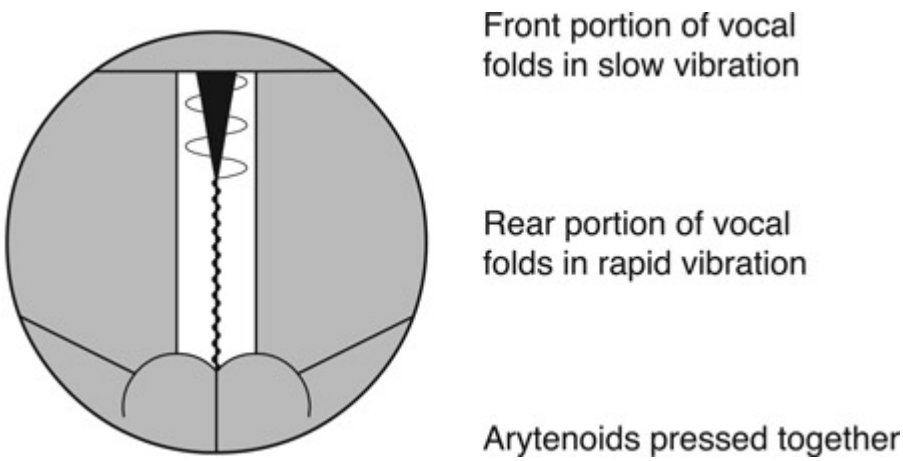


Figure A4.7 Glottal setting: creaky voice

Creaky voice (Figure A4.7) is creak combined with voice. Though apparently more complicated, creaky voice is nevertheless easier to imitate and much commoner in language. Creaky voice is common in GB English and also in much American speech, especially high- status varieties. In fact, if you listen to the samples of native speaker English on the website, you'll hear creaky voice in many of them. You can hear creaky voice on 🎧 ***Recording A4.3*** on the website.

Activity A4.6

Can you produce creaky voice and creak? Say a long vowel [ɑː], going down the scale till it's as low a note as you can comfortably achieve – and then go lower again! You'll end up with creaky voice. Now take away the actual vowel sound leaving just the 'rattle' of creak.

In Danish many words are distinguished by whether or not they are said with creaky voice. This effect, known in Danish as *stød*, is indicated in transcription by', e.g. *hun* /hun/ 'she' – *hund* /hun'/ 'dog.' This means that in Danish creaky voice has a kind of phonemic function.

Activity A4.7 Recording A4.2

Listen to these three pairs of words in Danish. In each case, the first word is said with normal voice whilst the second has added creaky voice, or *stød* (indicated in transcription by an apostrophe). Try imitating the words to see if you can mimic the effect of *stød*.

hun [hun] 'she'	*hund* [hun'] 'dog'
man [mɛn] 'one' (pron.)	*mand* [mɛn'] 'man'
mor [moɐ] 'mother'	*mord* [moː'ɐ] 'murder'

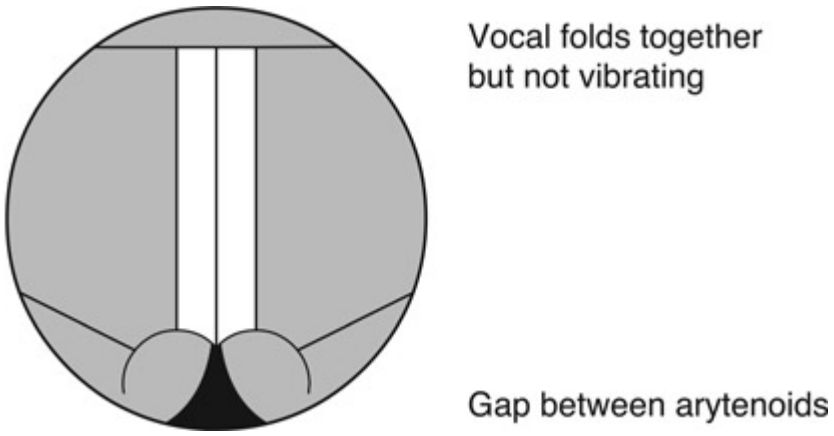


Figure A4.8 Glottal setting: whisper

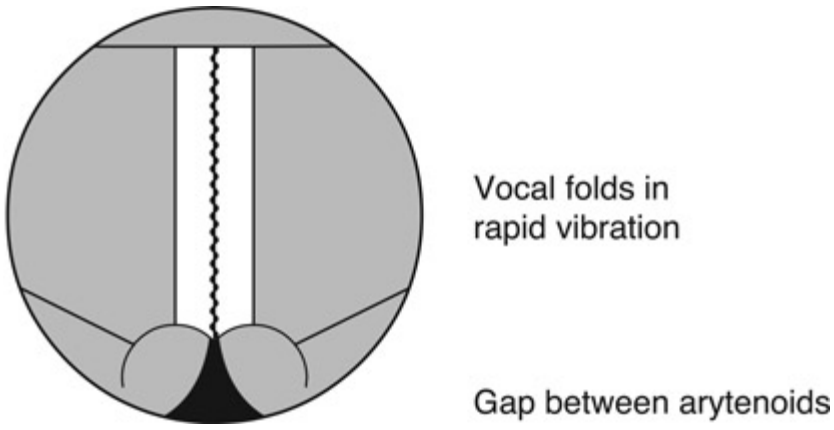


Figure A4.9 Glottal setting: breathy voice

For **whisper** (Figure A4.8) the vocal folds are brought together but do not vibrate. The arytenoids are held apart leaving a gap at the rear of the larynx through which air passes at fairly high velocity. You can hear whisper on 🎧 ***Recording A4.3*** on the website.

A combination of voice and whisper is known as **breathy voice** (Figure A4.9). It's sometimes associated with 'sexy' voices, and breathy voice is skilfully used by popular singers – particularly women – as a special effect (to quote just one example from a former era, Marilyn Monroe). A significant aspect of such singing – as opposed to the classical tradition – is the deliberate introduction of a wide variety of different larynx settings and voice qualities. You can hear breathy voice on 🎧 ***Recording A4.3*** on the website.

Activity A4.8

Listen to some popular singers. What impression do you get of any special voice quality effects that are being employed? Do you notice any differences in the voices of male and female singers in this respect?

In many Indian languages (e.g. Hindi, Bengali) breathy voice is employed phonemically, some consonants being said with breathy voice and some with normal voice. In English, /h/ between vowels is often said with breathy voice, indicated by [ɦ], e.g. *behind* [bəˈɦaɪnd]. In Afrikaans (spoken in South Africa), and also in much South African English, /h/ is breathy voiced in all contexts.

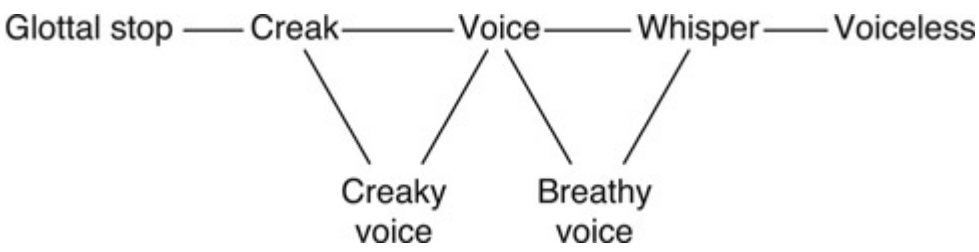


Figure A4.10 Chain relationship of glottal settings

The various states of the glottis can be seen as forming a kind of chain relationship. Voiceless is at one extreme of openness of the larynx; glottal stop is at the other extreme of closed larynx state. Both the extreme states allow no vocal fold vibration and hence no possibility of voicing. Voice can be placed at the centre as the most frequent state of the larynx in most languages. Creaky voice and breathy voice are combinations of creak and voice, and whisper and voice, respectively.

All these possibilities are known to be used in language. For example, most languages employ voiced and voiceless in some way in consonant oppositions. English has glottal stop as a marker of the consonants we term 'fortis' (see Section A5). Other languages, e.g. Arabic, use glottal stop itself as a phoneme. Creaky voice and creak occur regularly in English as a part of the intonation process. Whisper and breathy voice are heard in /h/ and may also sometimes be used for special effects.

Activity A4.9 🎧 Recording A4.3

Listen to the recording on the website and then try to imitate different glottal settings for this sentence in English:

Jack and Jill went up the hill to fetch a pail of water.

1. Voice. 2. Whisper. 3. Breathy voice. 4. Creaky voice.

The articulatory system

Without special equipment, it's impossible to view the anatomy of the respiratory system and difficult to examine that of the phonatory system. But most of the **articulatory system**, the third part of the speech mechanism, is quite easy to see – all you need is an ordinary mirror and decent illumination.

The articulatory /ɑːˈtɪkjələtri/ system is contained in the head and throat above the larynx – termed the **supra- glottal vocal tract** (from Latin *supra* = 'above,' hence 'above the glottis'), usually abbreviated simply to 'vocal tract.' We can distinguish three resonating cavities:

❑ Throat (or pharynx)	pharyngal cavity /færənˈʤiːəl ˈkævəti/
❑ Mouth	oral /ˈɔːrəl/ cavity
❑ Nose	nasal /ˈneɪzḷ/ cavity

As the airstream passes through these cavities the nature of the vocal buzz is altered, increasing (or amplifying) some parts of it and diminishing (or damping) others. This is in many ways comparable to the difference made to the sound that a vibrating reed produces once the tube and bell of a saxophone have been added to it (or other similar wind instrument). Alterations in the shape of the pharyngeal and oral cavities change the shape of the resonating chambers (i.e. the cavities) and modify the quality of the sounds produced, particularly the vowels. Furthermore, the air passing from the lungs can be blocked off by the articulators and released to make little pop- like explosions, or made to pass through narrowings to produce hiss-type noise.

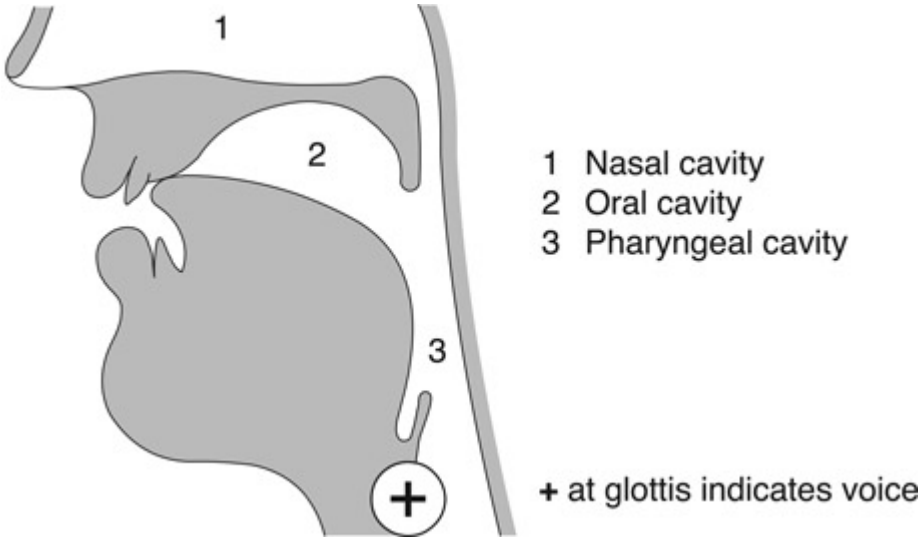


Figure A4.11 Simplified cross- section of vocal tract showing nasal, oral and pharyngeal cavities, as for articulation of /n/

It is convenient to illustrate the shape of the vocal tract by means of **cross- sections**. Rather than having detailed, realistic cross- sections (if you want to see one of these, go to www.phon.ox.ac.uk/~jcoleman/phonation.htm), it is better for our purposes to use a simplified model, as in Figure A4.11.

Pharyngeal, nasal and oral cavities

The pharynx is located directly above the larynx. At the upper end, the passageway splits in two – one portion leading to the **nasal cavity** (the space inside the nose) and the other to the **oral cavity** (the space inside the mouth). The position of the soft palate determines whether the airstream is directed into one or the other.

Activity A4.10

Say a prolonged [m]. Now pinch your nostrils sharply. What happens? Do the same with [n] and [ŋ]. These consonants, where the airstream is allowed to resonate in the nasal cavity, are called nasals. When you block the point of the release at the nostrils, the airstream can no longer escape and the sound suddenly ceases.

The function of the soft palate or **velum** /ˈviːləm/ can be likened to that of a railway points mechanism. It switches the airstream to flow in one of two ways:

1. into the mouth (soft palate raised, giving a **velic** /ˈviːlɪk/ **closure**), without entering the nose (see Figure A4.13); or
2. out through the nose (soft palate lowered, hence no velic closure; see Figure A4.12).

In the case of (1), the result is an **oral (** or **non- nasal)** consonant. In the case of (2), the result is a **nasal** consonant.

In all languages, most speech sounds are non- nasal, but nearly all languages have **nasal consonants**, e.g. English /m n ŋ/.

Note also that consonants made by the back of the tongue forming a closure with the soft palate, e.g. English /k g ŋ/, are made with what is termed a **velar** /ˈviːlə/ **closure** (see Figures A4.12 and A4.13). It's important to distinguish between **velar closure** (an articulation formed with the back of the tongue raised towards the soft palate) and **velic closure** (where the soft palate itself is raised).

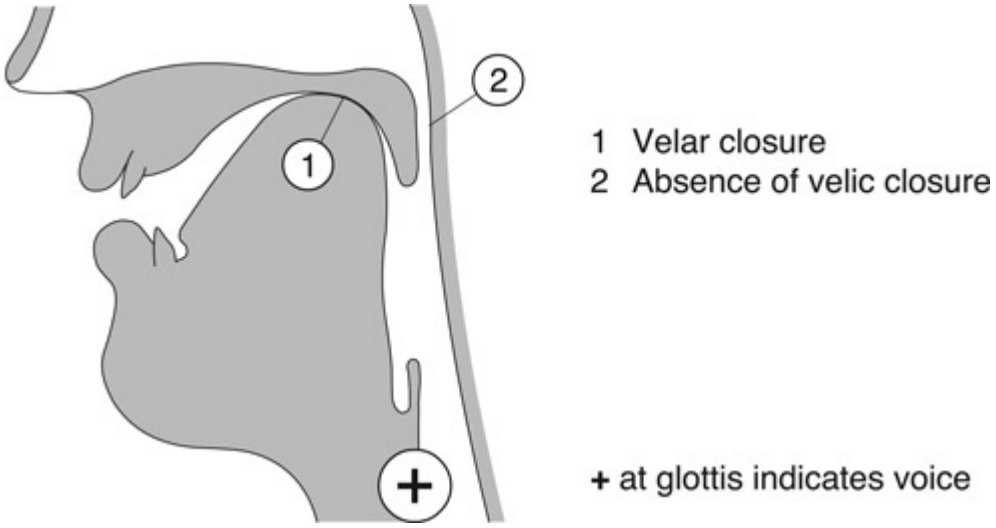


Figure A4.12 Articulation of /ŋ/ showing velar closure but absence of velic closure

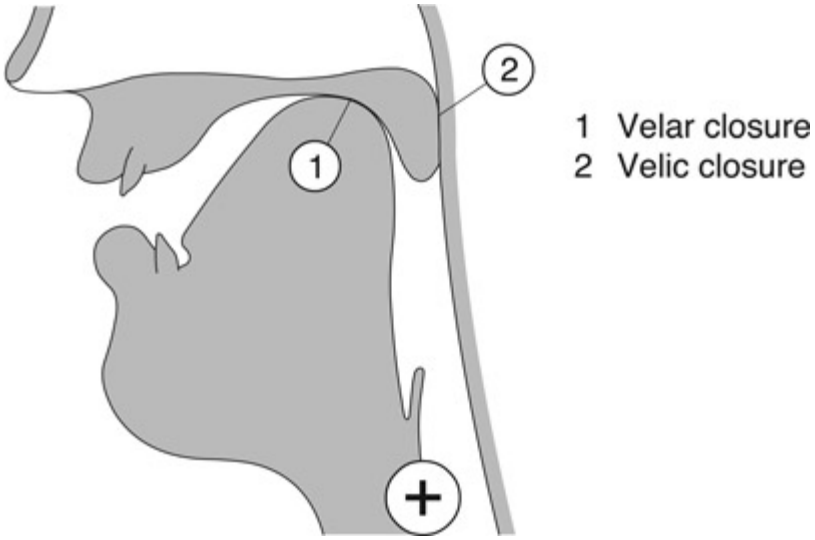


Figure A4.13 Articulation of /g/ showing both velar closure and velic closure

Activity A4.11

Look in a mirror and say an oral vowel [ɑː] followed by a nasalised vowel [ɑ̃ː]. If you look at the back of your mouth, you may be able to see the velum moving up and down.

In speech, much of the action takes place in the oral cavity. We'll start at the lips to begin our description and then work backwards.

Lips (Latin labia *; adj. labial; bilabial = 'two lips')*

The two lips can close to block the airstream, as for **bilabial** /baɪˈleɪbiəl/ /p b m/ in English. Or the lips can allow air through, being so close together that audible friction is produced, as for the Spanish bilabial sound [β] spelt **b** or **v**, e.g. *Ibiza* or *aviso* 'warning.'

The lower lip can also be held close to the upper teeth, as for /f v/ (e.g. *fan, van*). Such lip- teeth articulations are termed **labio- dental** /leɪbiəʊ ˈdentl̪/.

For vowels, the lips may be rounded (as in the English THOUGHT vowel), neutral (as in English PALM) or spread (as in English FLEFCE). Consonants may also be lip- rounded; English /w/ has strongly rounded lips, and for most speakers, /r/ is also weakly rounded. The lips can also be protruded – often even made 'trumpet- shaped,' as for English /ʃ ʒ ʧ ʤ/, e.g. ***sh** ip, mea **s** ure, ai **tch** , bri **dg** e.*

Activity A4.12 🎧 Recording A4.4

Practise lip- rounding and spreading with vowel sounds, using a mirror. Say /iː/, as in FLEFCE. Now say it whilst rounding your lips. You

should then get a sound resembling the vowel [y], as in French *nu* or German *Bücher*, which we referred to in Section A2. Similar sounds exist in many other European languages, e.g. Dutch, Danish, Swedish, Norwegian, Finnish and Turkish.

Teeth (Latin dentes *; adj. dental)*

The term **dental** /ˈdentl̪/ normally implies a sound made by the tongue- tip against or close to the front teeth, e.g. English /θ ð/. These articulations usually pose problems for non- native learners of English. In the languages of the world, dental fricatives similar to English /θ/ and /ð/ are not as unusual as is sometimes supposed. One or both are found, for example, in Greek, European Spanish, Icelandic, Welsh and in many varieties of Arabic.

But in fact, the teeth are important in one way or another for making a whole range of sounds, e.g. [θ ð f v s z ʃ ʒ]. It's really quite difficult to talk without them. If you don't believe us, ask anyone with false teeth!

Activity A4.13

If you are a non- native speaker of English, try saying the dental sounds [θ] and [ð]. Use your mirror to check the position of your tongue and teeth. See if you can say the dental sounds by placing the tongue just behind the back of the upper front teeth. You should find it quite easy to produce [θ] and [ð] in this way.

Alveolar ridge (from Latin alveolus *'small hollow,' referring to the tooth sockets)*

Now let's deal with the roof of the mouth. The term **alveolar** /ælviˈəʊlə/ implies that the tongue- tip or blade (see Figures A4.14 and A4.15) is in contact or near contact with the upper alveolar ridge (also termed the 'teeth-ridge'), i.e. the ridge immediately behind the front teeth. A large number of the English consonants are alveolar articulations, i.e. /t d s z n l/.

Activity A4.14

Put your tongue on your teeth. Move it back to the gums and the sensitive ridged area just behind the gums. You can now feel your alveolar ridge, which is where the teeth fit into their sockets – or *alveoli*, to give them their Latin name.

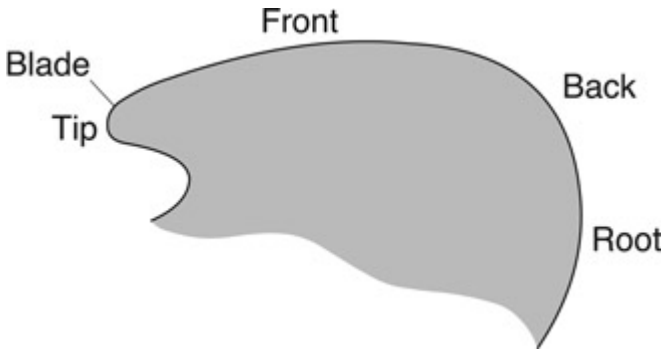


Figure A4.14 Divisions of the tongue

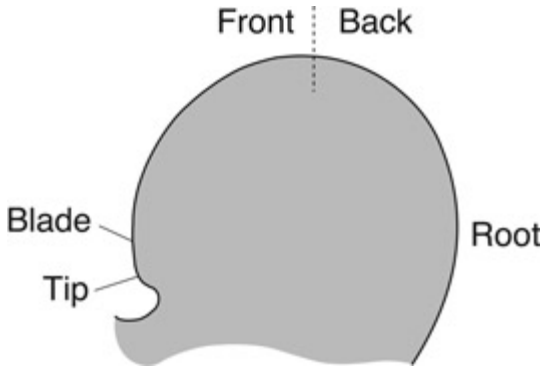


Figure A4.15 Tongue body raised, with tip and blade lowered, as for vowel articulations

Hard palate (from Latin palatum *; adj. palatal)*

The term 'palatal' /ˈpælətl̩/ means that the central portion of the tongue articulates with the hard palate /ˈpælət/, e.g. [j].

Activity A4.15

Move the tip of your tongue back from the alveolar ridge. As you do so, you'll notice that the roof of the mouth changes from ridged to smooth. This portion is called the hard palate – it feels hard because there's a bone inside it.

Note that when applied to the description of sounds 'palatal' is only used for those involving the *hard* palate. See below for sounds formed by the back of the tongue against the soft palate (termed 'velar'). For /ʃ/, as in *ship*, a large portion of Alphabet symbol chart, p. 317.)

Soft palate or velum (from Latin velum *'veil'; adj. velar)*

Activity A4.16

If you feel brave, run your finger further back to determine where the hard palate joins the soft palate. You'll be aware of a sensation, called the 'gag reflex,' which makes you want to vomit. Its purpose is to deter you from swallowing large objects.

The two important functions of the soft palate or velum /ˈviːləm/ have been explained above (p. 40), namely that of (1) directing the airstream either into the nasal cavity (if lowered, i.e. absence of velic /ˈviːlɪk/ closure)

or into the oral cavity (soft palate raised, velic closure) and (2) being used as a place of articulation – just like the other parts of the roof of the mouth described in this section. Sounds made with the back of the tongue against the soft palate are called **velar** /ˈviːlə/. Note that /k g ŋ/ are all velar consonants and have a velar closure, but only /k g/ have a velic closure.

Uvula (from Latin uvula *'little grape'; adj. uvular)*

The velum ends in a lump of flesh called the **uvula** /ˈjuːvjələ/. It is quite possible to see this organ (which does indeed look something like a little pink grape!) and to make it vibrate, so producing a **uvular** /ˈjuːvjələ/ **trill** [ʀ] (see Figure A5.6, p. 51). It's much the same kind of action as gargling. Several European languages, including French, German, Dutch, Danish, have forms of uvular articulation for /r/, all with the airstream channelled between the uvula and the back of the tongue. Uvular /r/ is unusual in English but not unknown. Geordies (from the north- east of England) sometimes produce /r/ in this way.

Activity A4.17

Try to produce a uvular trill [ʀ]. If you have difficulty, try going through the motions of gargling.

Tongue (Latin lingua *; adj. lingual)*

We'll now examine one of the most complex of the organs of speech – the tongue. The body of the tongue, consisting almost entirely of muscle, is very flexible and capable of assuming a wide variety of different shapes. Although it has no natural anatomical divisions, it is necessary for phonetic

analysis to distinguish its various portions: tip, blade, front, back and root. See Figure A4.14, p. 42.

The tip of the tongue is a very sensitive organ of touch – much more sensitive, in fact, than the finger tips – but this sensitivity diminishes as we move towards the back of the tongue.

Activity A4.18

While looking in a mirror, run the tip of your tongue back from the teeth along the hard palate. How far back can you get the tongue- tip to go? Can you feel the soft palate? Try saying [t]- type sounds with your tongue at various points along the roof of the mouth. Can you make a trilled [r] with the tip of your tongue?

The term 'front' is used for what at first looks as if it should be called the middle of the tongue. But look at Figure A4.15, p. 42, which shows the **tongue arch** found in the articulation of vowels. You'll see that the front/back divisions are then quite appropriate.

Two other important facts about the tongue:

1. The sides of the tongue can be lowered for **lateral** /ˈlætrəl/ sounds, e.g. [l].

Activity A4.19

Say [l] and then breathe in sharply. Where do you feel the cold air coming in? Along the midline of the tongue, or along one or both sides?

2. The tongue can be depressed making a groove down the midline. This is very important for the sounds [s] and [z].

Activity A4.20

Say [s] and then breathe in sharply. Feel how the cold air rushes in via the channel formed along the groove down the midline of your tongue.

You now have most of the necessary information about the anatomy and physiology of the organs of speech. To test yourself out on the basic facts, do Activity A4.21.

Activity A4.21 (Answers on website)

Fill in the blanks by consulting the text.

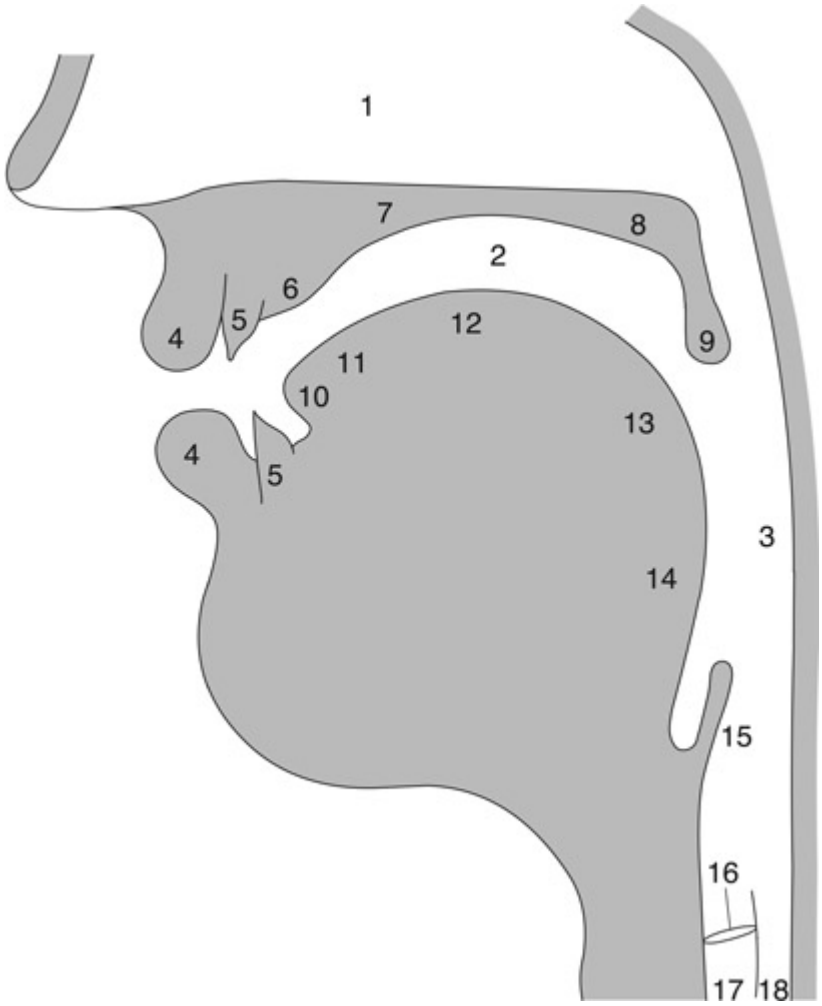


Figure A4.16 Exercise on speech mechanism

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____

12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____

Activity A4.22

Transcribe phonemically, showing intonation phrases and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 4

She was close behind it when she turned the corner, but the Rabbit was no longer to be seen and she found herself in a long, low hall, which was lit up by a row of lamps hanging from the roof. There were doors all round the hall, but they were all locked. Alice went all the way down one side and up the other, trying every door. Then she walked sadly down the middle, wondering how she was ever to get in.

A5

Consonant Possibilities

Consonant labels

Consonants are usually referred to by brief descriptive labels stating *energy*, *place of articulation* and *manner of articulation*, always in that order (Table A5.1). However, we shall discuss energy of articulation last, since it's the most complex.

Place of articulation

Place of articulation tells us ***where*** the sound is produced. The English places of articulation are shown in Figure A5.1 (they correspond to the column 'Place' in Table A5.1).

Other languages and varieties of English may have additional places of articulation. For instance, French /r/ is **uvular**, made with the back of the tongue against the uvula; it is symbolised phonetically as [ʁ] and can also be heard in traditional Geordie (Tyneside) accents; see Section C2. Indian languages (and most Indian English) have **retroflex** sounds made with the tip of the tongue curled back against the front of the palate (see Section C6). Some speakers of West Country English also make /r/ in that way (see Section C2).

Some consonants have two places of articulation resulting in what is termed a **double articulation**. An example is English /w/ which is articulated at the lips (bilabial) and at the velum (velar) and hence is termed labial- velar.

Activity A5.1

Say these words and relate the consonants in bold to their places of articulation: ***p*** *u* ***b*** (bilabial), ***f*** *i* **v** *e* (labio- dental), ***th*** *is ba* ***th*** (dental), ***s*** *i* ***d*** *e* (alveolar), ***r*** *a* ***r*** *er* (post-alveolar), ***ch*** *an* ***g*** *e* (palato- alveolar), ***y*** *ou* (palatal), ***k*** *i* ***ng*** (velar), ***h*** *ow* (glottal).

Table A5.1 Consonant labels for English

Consonant	*Energy*	*Place*	*Manner*
p	} fortis	bilabial	} plosive
t		alveolar	
k		velar	

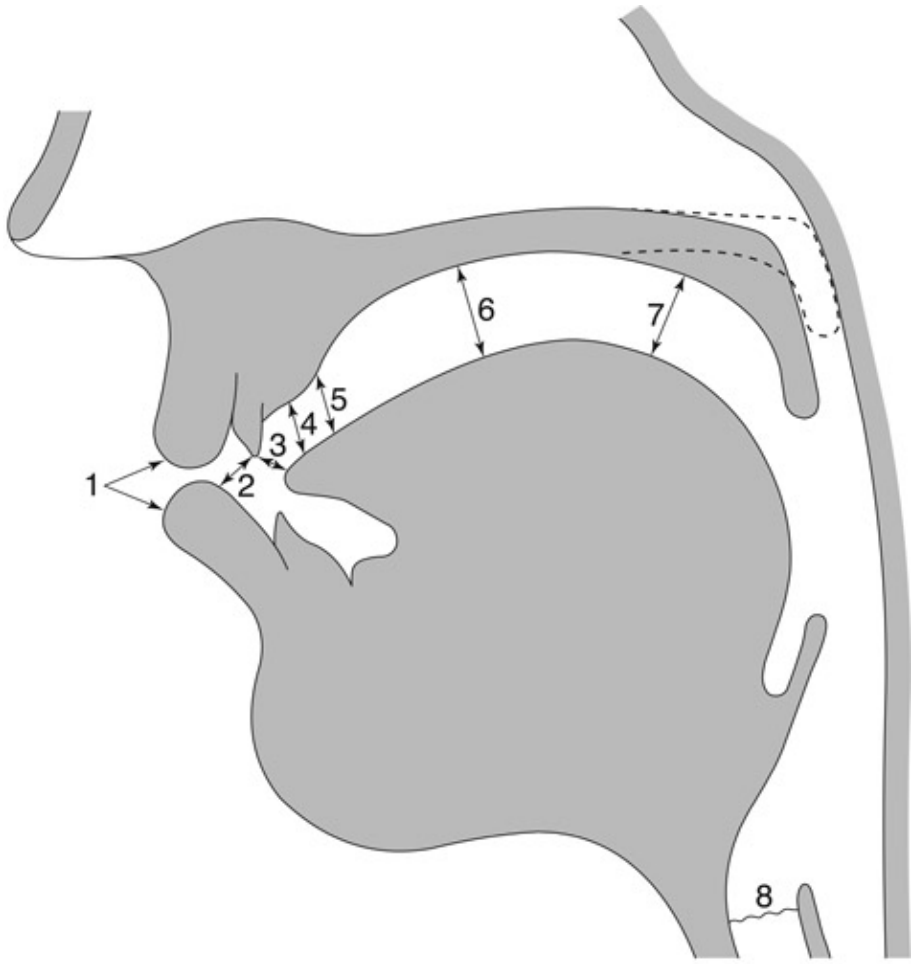
Consonant	*Energy*	*Place*	*Manner*
b	} lenis	bilabial	} plosive
d		alveolar	
g		velar	
ʧ	fortis	} palato-alveolar	} affricate
ʤ	lenis		
f	}fortis	labio-dental	}fricative
θ		dental	
s		alveolar	
ʃ		palato-alveolar	
h		glottal	
v	} lenis	labio-dental	} fricative
ð		dental	
z		alveolar	
ʒ		palato-alveolar	
w		labial-velar	} (central) approximant
r		post-alveolar	
j		palatal	
l	alveolar	lateral (approximant)	
m		bilabial	} nasal
n		alveolar	
ŋ		velar	

Manner of articulation

Manner of articulation tells us *how* the sound is produced. All articulations involve a **stricture**, i.e. a narrowing of the vocal tract which affects the airstream. Table A5.2 summarises the three possible types of stricture: *complete closure, close approximation* and *open approximation.*

Active and passive articulators

The **active articulator** is the organ that *moves*; the **passive articulator** is the *target* of the articulation – i.e. the point towards which the active articulator is directed. Sometimes there's actual contact, as in [t] and [k]. In other cases, the active articulator is positioned close to the passive articulator, as in [s] or [θ]. With other articulations again, like English /r/, we find only a slight gesture by the active articulator towards the passive articulator.



1 Bilabial (lower lip ↔ upper lip)
2 Labio-dental (lower lip ↔ upper front teeth)
3 Dental (tip of tongue ↔ rear of upper front teeth)
4 Alveolar (tip/blade of tongue ↔ alveolar ridge)
5 Palato-alveolar (blade/front of tongue ↔ rear of alveolar ridge/front of hard palate)
6 Palatal (front of tongue ↔ hard palate)
7 Velar (back of tongue ↔ velum)
8 Glottal (glottis)

Figure A5.1 English consonants: places of articulation

Table A5.2 Manner of articulation – stricture types

Nature of stricture	*Effect of stricture*

Nature of stricture	*Effect of stricture*
Complete closure	Forms obstruction which blocks airstream
Close approximation	Forms narrowing giving rise to friction
Open approximation	Forms no obstruction but changes shape of vocal tract, thus altering nature of resonance

The distinction of passive/active articulator isn't always possible. For instance, [h] is formed at the glottis. The descriptive label for place of articulation is in most cases derived from the *passive* articulator. Figure A5.1 shows the chief places of articulation for English.

Activity A5.2

Say /t/ as in *tight* [taɪt]. Now say /s/ as in *sauce* [sɔːs]. Can you feel that for /t/ the active articulator (tongue- tip/blade) and the passive articulator (alveolar ridge) block the airstream with a stricture of *complete closure?* But for /s/ the same articulators form a narrowing through which the airstream is channelled, i.e. a stricture of *close approximation.* Now say and compare the following sounds:

- ❑ English /k/ in *coat* (complete closure);
- ❑ Spanish /x/, the sound spelt **j** in *jefe* (close approximation);
- ❑ English /j/ in *yes* (open approximation).

Complete closure

Stops

Stop consonants have a stricture of complete closure in the vocal tract which blocks (i.e. *stops*) the airstream, hence the term **stop**. The soft palate is raised so that there's no escape of air through the nose. The compressed air can then be released in one of two ways:

- ❑ The articulators part quickly, releasing the air with explosive force (termed **plosion**). Sounds made in this way are termed **plosives**, e.g. English /p t k b d g/.
- ❑ The articulators part relatively slowly, producing **homorganic** friction, i.e. friction at the same point of articulation. Sounds made in this way are termed **affricates**, e.g. English /ʧ ʤ/.

Figures A5.3 and A5.4 illustrate the stages in /ʧ ʤ/ as in *church, judge*. In English, /ʧ/ and /ʤ/ are affricates which function as phonemes (but see also p. 65 for phonetic affricates).

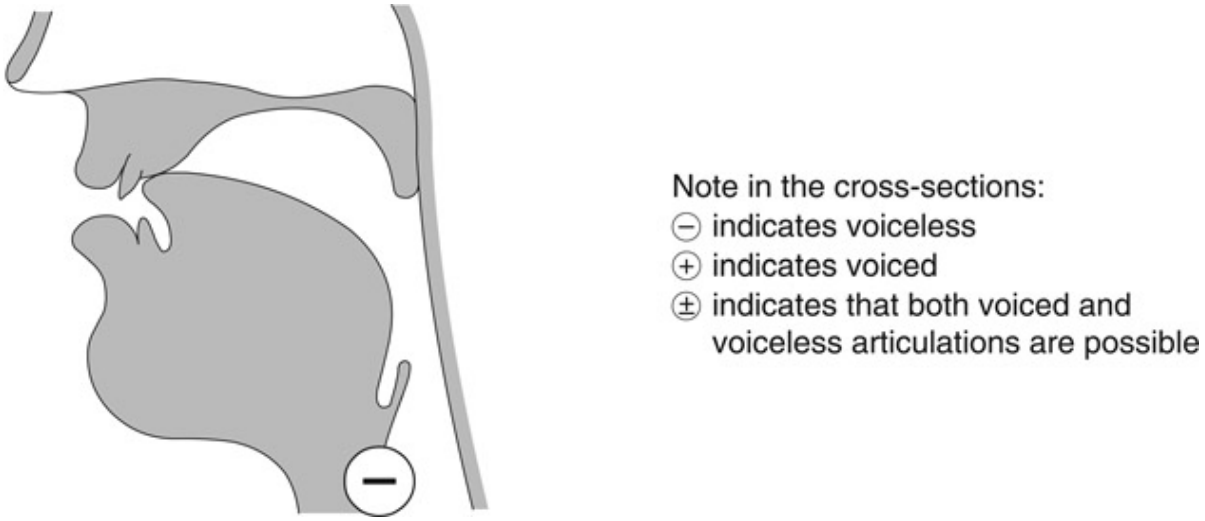


Figure A5.2 Plosive [t] showing complete closure

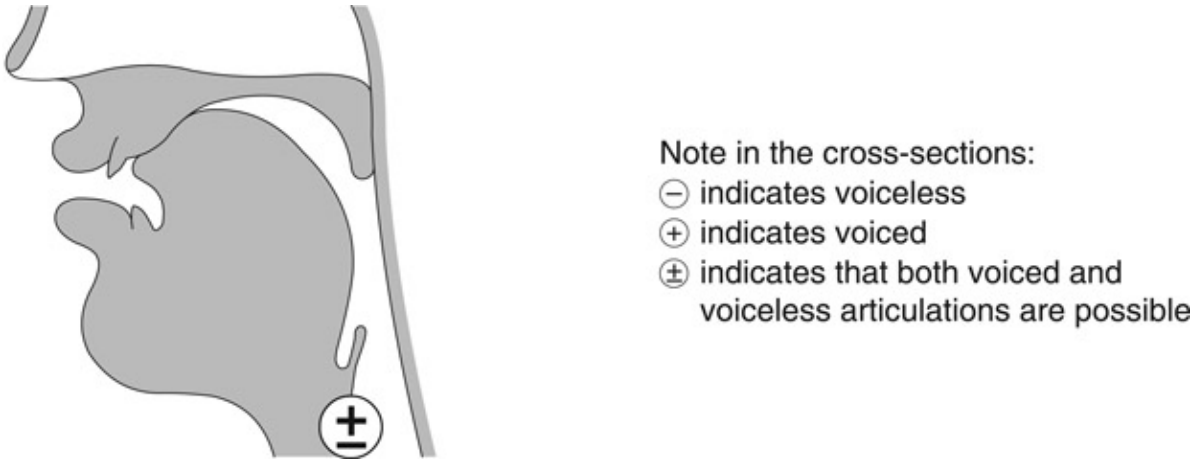


Figure A5.3 Affricates [ʧ] and [ʤ] showing palato- alveolar closure

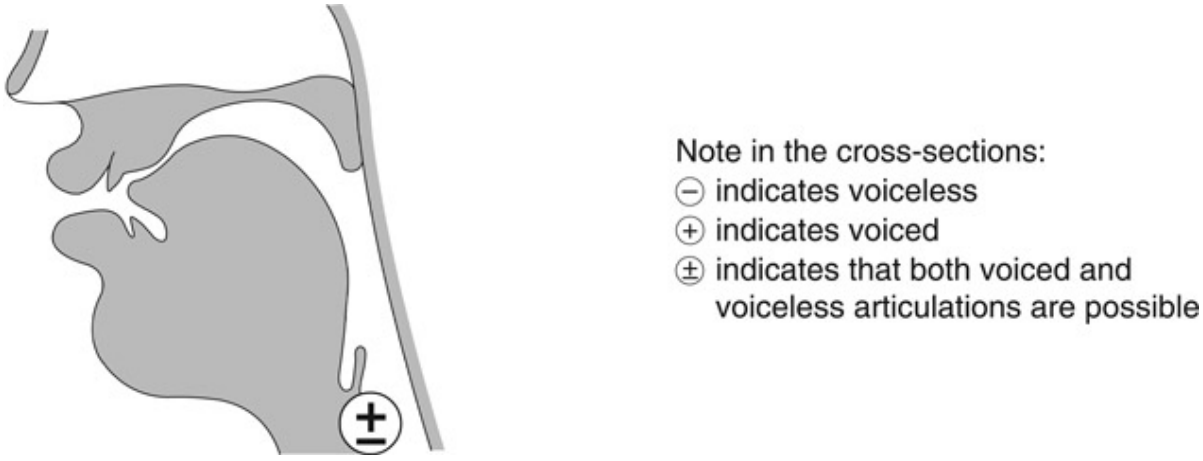


Figure A5.4 Affricates [ʧ] and [ʤ] showing release with homorganic friction

Nasals

Like stops, **nasals** have a stricture of complete closure in the oral cavity, but the soft palate is lowered allowing the airstream to escape through the nose, e.g. English /m n ŋ/. In English, as in most languages, nasal consonants are normally voiced. However, a few languages, e.g. Burmese and Icelandic, have voiceless nasals functioning as phonemes, i.e. /m̥ n̥ ŋ̊/. Note that we employ here the diacritic for voiceless [̥] added below the symbol (above in the case of [ŋ]).

Activity A5.3 🎧 Recording A5.1

Try imitating these examples, based loosely on Burmese words: [m̥ɑ] 'notice'; [n̥ɑ] 'nose'; [ŋ̊ɑ] 'borrow.' (See Ladefoged and Maddieson 1996: 111.)

Trills and taps

For a **trill**, the active articulator strikes the passive articulator with a rapid percussive (i.e. beating) action. The two types of trill that most frequently occur in language are alveolar (the tongue- tip striking the alveolar ridge) and uvular (the uvula striking the back of the tongue); see Figures A5.5 and A5.6. But other kinds are possible – for instance, a bilabial trill (see Activity A5.4).

An alveolar trill is found in Spanish, e.g. *carro* 'cart.' The uvular trill [ʀ] is occasionally heard in French – but usually only in singing. Edith Piaf, a well-known French voice from the past, was renowned for her vibrant uvular trill.

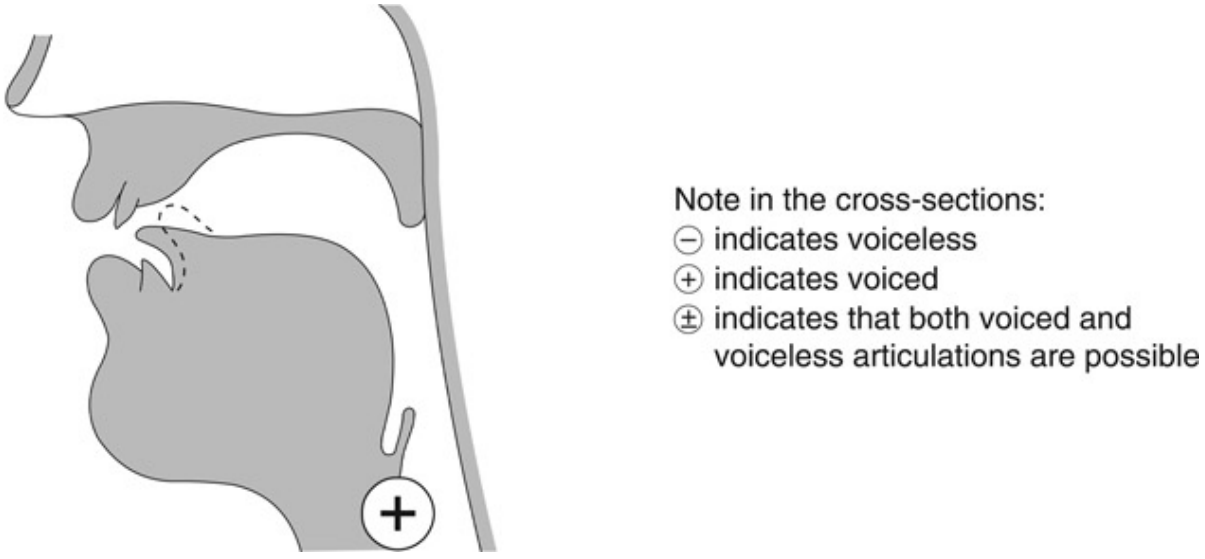


Figure A5.5 Alveolar trill [r]

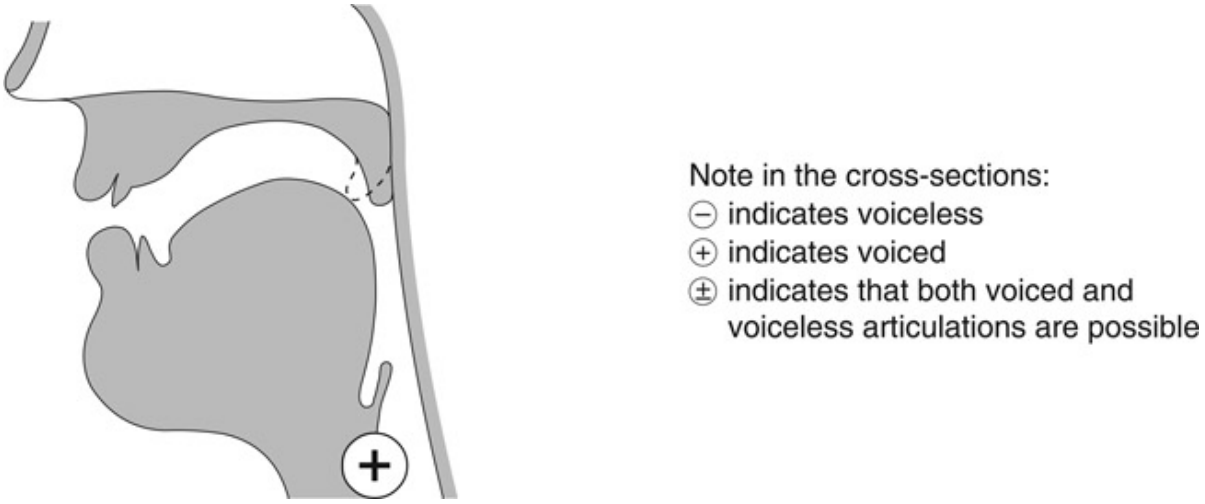


Figure A5.6 Uvular trill [ʀ]

Activity A5.4

You should find it easy to make a bilabial trill – it's just the *brrr* noise we sometimes use to mean: 'Isn't it cold!' The sound has its own phonetic symbol [ʙ]. It functions as a phoneme in a few African languages, e.g. Ngwe, spoken in Cameroon. Look in a mirror and then you'll be able to see, as well as feel, the rapid percussive lip action.

A *single* rapid percussive movement (i.e. one beat of a trill) is termed a **tap**. Spanish is unusual in having a contrast of a tap /ɾ/ and a trill /r/, e.g. *caro* 'dear' /ˈkaɾo/ and *carro* /ˈkaro/. In many languages with trilled [r] (e.g. Welsh and Polish) speakers regularly pronounce taps, reserving the trill for careful speech.

Activity A5.5 Recording A5.2

Try saying, between vowels, (1) an alveolar tap [aɾa] and (2) an alveolar trill [ara]. Then practise the uvular trill [ʀ] in the same context [aʀa].

One important point concerning transcription: note that in *phonetic* transcription the symbol for an alveolar trill, placed, of course, in square brackets, is [r]. The *phonetic* transcription symbol for the commonest type of English /r/ (a post-alveolar approximant, see pp. 53–4) is an upside-down [ɹ]. Nevertheless, for *phonemic* transcription the rule is to employ the simplest letter shape possible, and consequently an ordinary /r/ (in slant brackets) is used for the English phoneme. Therefore /r/ (between slant brackets) can either refer to the phoneme realised as a trill [r] (as in the case of Spanish) or as a post-alveolar approximant [ɹ] (as in English). It depends on the conventions adopted for the phonemic transcription of the language in question.

GB, like virtually all other types of native-speaker English, has no regular trill articulation. Scots can usually produce a trill if called upon to do so, but use a tap for /r/ in everyday speech. Many British regional accents, not only Scottish, but also Liverpool, and some Welsh varieties, regularly have an alveolar tap [ɾ] for /r/. A tap was also to be heard **intervocalically** (i.e. between vowels) from old-fashioned traditional RP speakers (one famous example was the legendary Noël Coward). It was used for /r/ after a stressed vowel, e.g. *carry, very, Paris*. Indeed, a tapped [ɾ] is still sometimes taught by **elocutionists** (prescriptive speech trainers) as 'correct' speech, especially for would-be actors.

Activity A5.6

Some people find it hard to make an alveolar trilled [r]. Don't despair! One way to begin is by saying a 'flappy' [d] using the very tip of your tongue, and producing it as quickly as possible. Try it in words like *cross, brave, proof* [kɑbs bdeɪv pduːf]. Practise rapid 'flappy' [d] many times until you can change it into a true tap and then extend that into a trill.

Close approximation

Fricatives

The articulators are close to each other but don't make a complete closure, as in Figure A5.7. The airstream passes through a narrowing, producing audible hiss-like friction, as in English /f v θ ð s z ʃ ʒ h/.

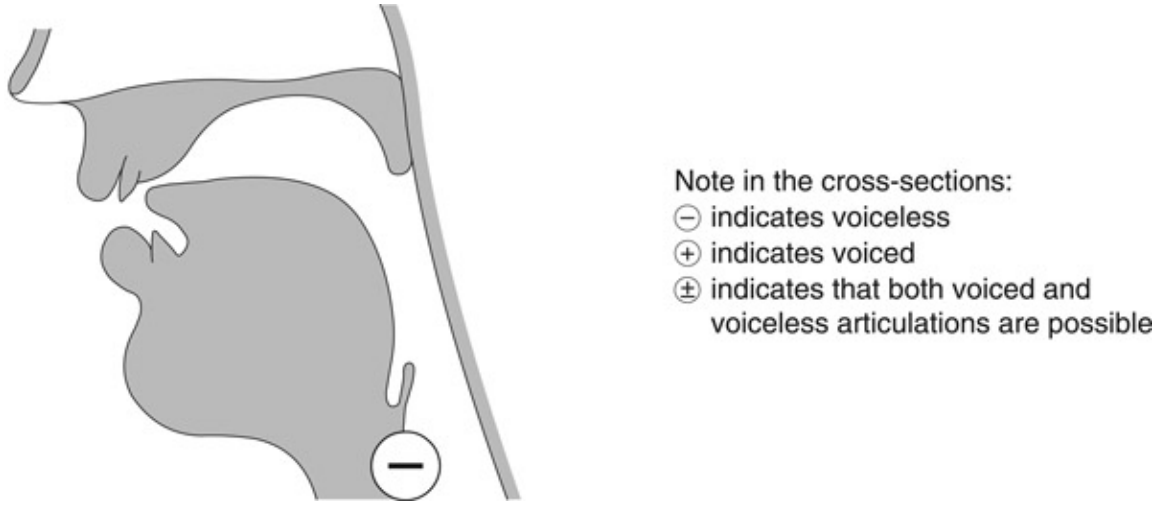


Figure A5.7 Fricative [s] showing narrowing at alveolar ridge

Compared with most varieties of English, Scottish accents have two extra fricatives [x ʍ]. The voiceless velar fricative [x] is found mostly in local usages, e.g. *och!* 'oh,' *loch* 'lake' ([x] also occurs in many European languages; see Section A2). The voiceless labial-velar fricative [ʍ] occurs in words spelt **wh**, such as *which, what, whether, wheel.* It is used not only by Scots but also by many Irish and some American speakers.

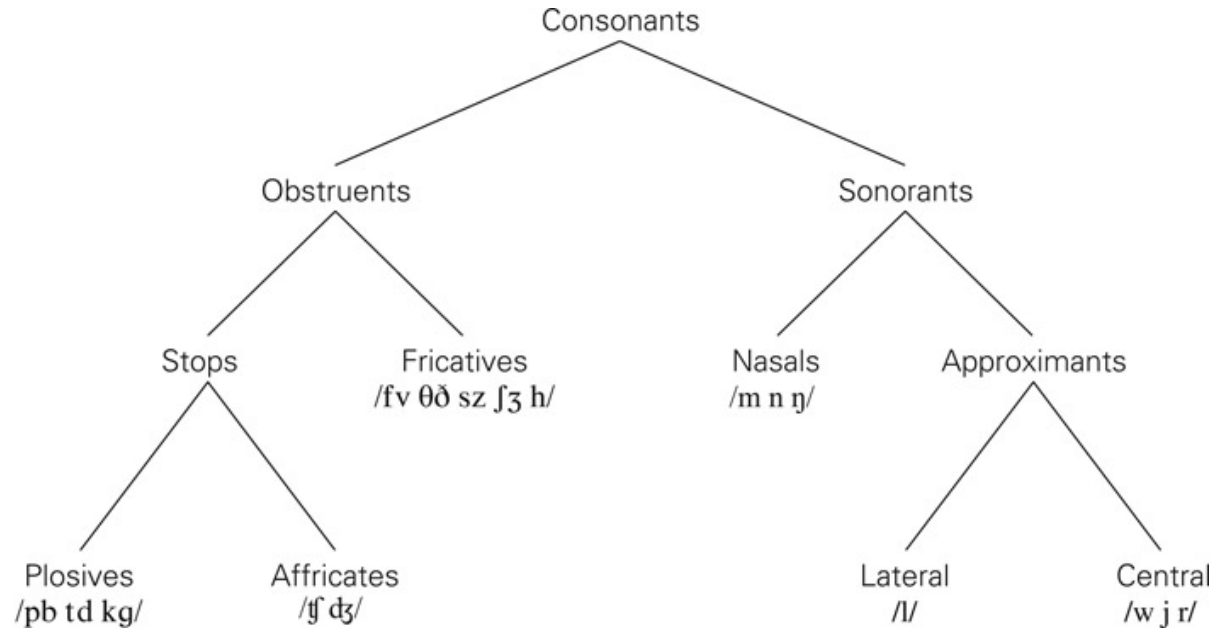


Figure A5.8 Overview of English consonant system

A useful term to cover both stops and fricatives is **obstruents**, a term employed to denote the obstruction of the airflow. All other consonant sounds, and also vowels, are classed as **sonorants**, referring to a continuous, unobstructed airflow in the vocal tract. Sonorants are much more resonant ('sonorous') than obstruents. See Unit B1.

Open approximation

(Central) approximants

Approximants have a stricture of open approximation. The space between the articulators is wide enough to allow the airstream through with no audible friction, as in English /w j r/. English /j/ and /w/ are like very short vowels – similar to brief versions of /i:/ and /u:/ – which is why they are known as **semi-vowels**. Note that [j] is also termed **yod** after the name for the sound in Hebrew.

Activity A5.7

Say English /iː/ followed directly by /es/ in this way: /iː es/. If you say /iː/ quickly, you will end up with *yes*. Now try the same with /uː/. If you say a rapid /uː/ followed by /et/, you should end up with a sound close to /w/, and a word sounding like English *wet*. For non-native learners of English who don't have /j/ or /w/ in their languages this is a good way to learn them.

In GB, and most English regional accents, /r/ is a post-alveolar approximant – made with the tip of the tongue approaching the rear of the alveolar ridge. The phonetic symbol is [ɹ]. Remember that in phonemic transcription, because one tries to use simple symbol shapes wherever possible, it is shown with the ordinary letter /r/.

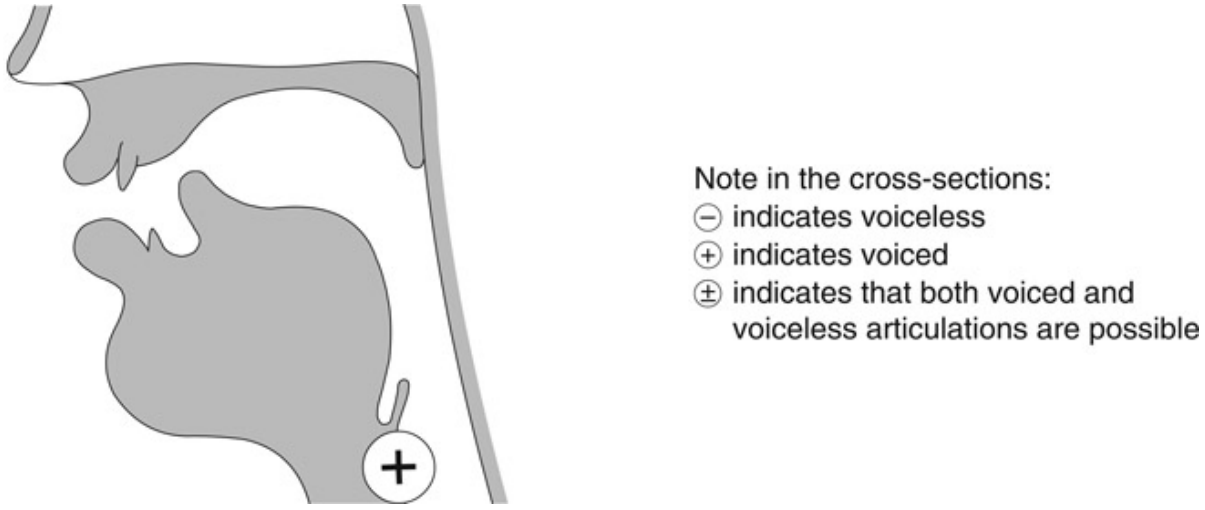


Figure A5.9 Approximant [ɹ] showing post-alveolar open approximation

All the approximants so far described may if necessary be termed **central approximants** to distinguish them from the lateral approximants described below.

Lateral (approximant)

Lateral consonants are made with a point somewhere along the midline of the tongue forming a closure with the roof of the mouth but the sides lowered. The English lateral is alveolar /l/. Typically, the airstream escapes without friction and consequently this sound is termed a **lateral approximant**. This is true for most allophones of English /l/, and indeed for [l] as it occurs in most languages. Consequently, the 'approximant' part of the label is usually omitted, and just 'lateral' is used. However, if there's a narrowing between the lowered sides of the tongue and the roof of the mouth, and the air escapes with friction, the result is a **lateral fricative**.

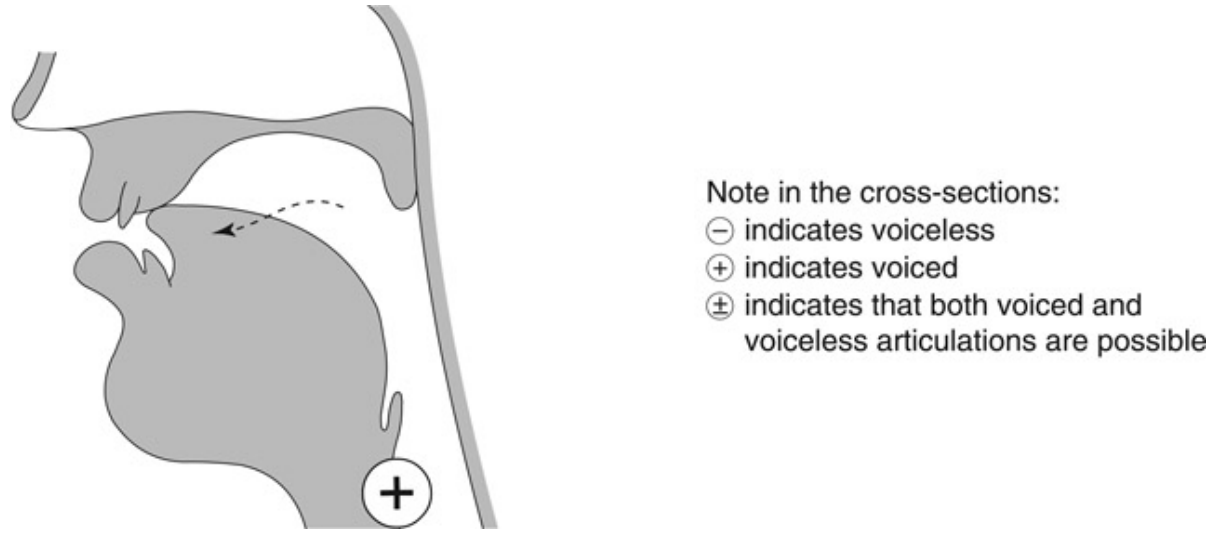


Figure A5.10 Lateral approximant [l] Arrow indicates passage of airstream without friction over lowered sides of tongue

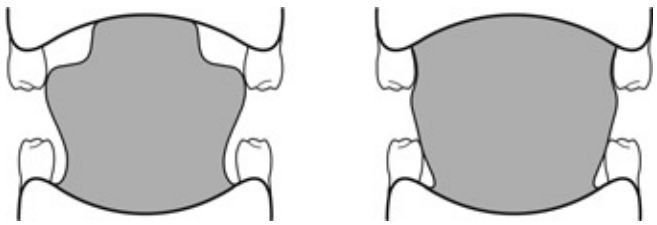


Figure A5.11 Transverse cross-sections of mouth viewed from front. Left: tongue sides lowered for lateral [l]; right: tongue sides raised as for non-lateral articulations, e.g. [t d]

Activity A5.8 🎧 Recording A5.3

Say [l] a number of times. Now try saying the sound, lightly touching the side teeth with the sides of the tongue (but not firmly enough to block the airflow), and forcing a stronger airstream through. This gives you a voiced lateral fricative, [ɮ]. Now try 'switching off' the voice. This results in a voiceless lateral fricative [ɬ], which is Welsh **ll**. A similar sound also occurs in English (usually represented as [l̥]) as an allophone of /l/, following the fortis plosives /p/ and /k/, as in *close, place*.

Lateral fricatives are unusual in the languages of the world but by no means unknown. The most familiar to you may be the notorious Welsh **ll**. The voiceless lateral fricative (spelt double **ll**, and symbolised [ɬ]) is a frequent phoneme in Welsh. You can hear it in the place name *Llanelli*. It's sometimes said to be 'impossible' for non-Welsh people to produce – a claim which is patently untrue, since not only do such sounds occur in many other languages, but English itself has a similar articulation as an allophone of /l/; see above.

Activity A5.9 🎧 Recording A5.4

Try saying these Welsh words which contain the voiceless lateral fricative: *llaeth* /ɬaiθ/ 'milk', *llaw* /ɬau/ 'hand', *llong* /ɬɔŋ/ 'ship', *allan* /'aɬan/ 'out', *ambell* /'mbɛɬ/ 'sometimes'.

Activity A5.10 🎧 Recording A5.5

Just for fun, try saying the longest Welsh place name. It's full of voiceless [.] sounds:

Llanfairpwllgwyngyllgogerychwyrndrobwllllantysiliogogogoch
[ˈɬanvairpuɬˈwiɬgoˈerəxwərnˈdrəbuɬˈantˈsiljoˈgogoˈgo:x]

Incidentally, the name in its present form was invented in the nineteenth century -apparently as a joke, or perhaps to bewilder the English. The official name is actually 'Llanfairpwllgwyngyll' - still a bit of a mouthful! But it's known to the locals simply as *Llanfair P.G.* - much easier to pronounce! Even for the Welsh!

Welsh, Icelandic, Burmese, the South African languages Zulu and Xhosa, and many native American languages all have [ɬ]. The voiced lateral fricative [ɮ] is much more uncommon but does occur, for example, in Zulu and Xhosa.

Activity A5.11

Find a recording of Miriam Makeba (or another South African performer) singing folk songs in Zulu or Xhosa. Listen to it carefully and try to pick out the lateral fricatives (voiced and voiceless).

We have already mentioned in Activity A5.8 that English /l/ has a very common fricative allophone which is to be heard in words beginning /pl/ and /kl/. If a normally voiced phoneme is for whatever reason realised partially or fully without voice, the effect is termed **devoicing**. As we have seen, this is shown by a diacritic in the form of a little circle, e.g. [l̥].

Activity A5.12 🎧 Recording A5.6

Try saying these words with devoiced [l̥]: *clean, play, click, clock, please, plaster, plenty, cluster.* Some English speakers produce a devoiced [l̥] following [t] as in *atlas, rattling, cutlet.* Do you?

Energy of articulation (fortis/lenis contrast)

The third possible distinction is **energy of articulation** (already mentioned briefly above). The English consonants /k/ and /g/ are both velar (place of articulation) and plosives (manner of articulation), yet they're obviously very different sounds. The same goes for /s/ and /z/, which are both alveolar fricatives, but are clearly not identical. So what's the difference?

Activity A5.13 🎧 Recording A5.7

Listen and repeat these words a number of times: *pack – back*. Compare the initial sound in each word /p – b/. Did you notice that there is a slight 'puff of air' after the release of /p/ but not after the release of /b/?

Activity A5.14

Say /p/ and /b/ between /ɑː/ vowels: /ɑːpɑː/, /ɑːbɑː/. Put your fingers in your ears and listen for voice. Voice ceases during /p/, but continues all the way through /b/. Now do the same for /t/ and /d/, and /s/ and /z/: /ɑːtɑː/ and /ɑːdɑː/, /ɑːsɑː/ and /ɑːzɑː/. Voice ceases for the consonants /t/ and /s/, but continues throughout for /d/ and /z/.

English has two classes of consonant sound: one of the /t k s/ type with *stronger* and *voiceless* articulation and another of the /b d z/ type whose articulation is *weaker* and potentially *voiced*. The first class is termed **fortis** (Latin: 'strong'), and the second **lenis** (pronounced /ˈliːnɪs/ Latin: 'soft'). Consonants in English divide as follows (note that /h/ has no lenis counterpart).

Fortis	Lenis
p t k ʧ f θ s ʃ h	b d g ʤ v ð z ʒ

The fortis/lenis distinction applies in English only to the obstruents (i.e. stops and fricatives). The sonorants (nasals and approximants) do not have this contrast (hence the blank spaces in the 'energy' column in Table A5.1).

The fortis/lenis contrast in English

Most languages have a contrast of a kind similar to the fortis/lenis contrast found in English. But the exact form of the contrast varies a lot from one language to another, and there are more phonetic signals for the fortis/lenis contrast in English than in most other languages (see Table A5.3 below).

There may also be very important differences in distribution. Many languages have no word-final fortis/lenis contrasts (even where the spelling would seem to indicate this). This goes for German, Dutch and Russian. In German, *Wirt – wird* 'host' – 'becomes' are said exactly the same and *kalt – bald* 'cold' – 'soon' form a good rhyme. Similarly, in Dutch, *hout – houd* 'wood' – 'hold!' are pronounced identically, and *maat* 'size' rhymes with *kwaad* 'angry.' Speakers of languages such as these usually have great difficulty with the frequent word-final fortis/lenis contrasts in English in pairs like *life – live, rate – raid, nip – nib*.

Table A5.3 summarises the main ways in which the fortis/lenis contrast is indicated in English. The factors described in this table are crucial for this contrast.

Energy of articulation has been mentioned already. Aspiration and glottalisation apply only to the fortis plosives /p t k/ and will be discussed in Section A6. Let's now examine the two remaining features, voicing and vowel length.

Table A5.3 Fortis/lenis contrast in English

Fortis	*Lenis*
1 Articulation is stronger and more energetic.	1 Articulation is weaker.

Fortis	*Lenis*
2 Articulation is voiceless.	2 Articulation may have voice.
3 Plosives /p, t, k/ when initial in a stressed syllable have strong aspiration (a brief puff of air), e.g. *pip* [pʰɪp], *intent* [ɪnˈtʰent].	3 Plosives are unaspirated, e.g. *bib* [bɪb], *indent* [ɪnˈdent].
4 Vowels are shortened before a final fortis consonant, e.g. *beat* [bit].	4 Vowels have full length before a final lenis consonant, e.g. *bead* [biːd].
5 Syllable-final stops, especially /t/, can have a reinforcing glottal stop, e.g. *set down* [seˀt ˈdaʊn].	5 Syllable-final stops never have a reinforcing glottal stop, e.g. *said* [sed].

Voicing

In English, fortis consonants are voiceless, i.e. the vocal folds do not vibrate. Lenis consonants are *potentially* voiced. The word 'potentially' is important here. In many languages the essential difference between sounds like [s] and [z], or [p] and [b], is one of voicing; /p t k f s/ etc. are voiceless while their counterparts /b d g v z/ etc. are truly voiced. This is largely true, for example, of French, Spanish, Italian and many more. In such languages, the terms used for these phonologically opposed classes are voiceless and voiced.

But in English the difference is not as clear-cut. Between vowels or other voiced sounds, lenis consonants have full voicing. Some voicing is lost after a pause or a fortis consonant, and before a pause or fortis consonant, final lenis consonants are typically almost totally devoiced.

Activity A5.15 🎧 Recording A5.8

Listen and repeat the following English words and note the degree of voicing in the different contexts:

	Initial	**Medial**	**Final**

	Initial	Medial	Final
/b/	*ban*	*rabbit*	*cab*
/d/	*die*	*cider*	*side*
/ʤ/	*jar*	*margin*	*barge*
/z/	*zinc*	*daisy*	*daze*
/v/	*vet*	*favour*	*save*

The difference in initial and final devoicing only affects lenis obstruents. The nasals /m n ŋ/, lateral /l/ and approximants /w j r/ do not undergo devoicing in the manner described following or preceding a pause. Consequently, in words like *ram, long, wall, moon, yell*, the initial and final sounds are both fully voiced.

Activity A5.16 (Answers on website)

Dad bought books, bags and magazines at Gateshead Station.
[ˈd̥ æd ˈ bɔː t ˈb̥ ʊ ks ˈb̥ ægz ən mægəˈziːnz ə t ˈg̊ eɪ tsh e d̥ ˈst eɪ ʃ n̥]

In this example, the vowels and fully voiced consonants are underlined, and those with devoicing shown by the 'devoiced' diacritic above or below the symbol: [̥], [̊]. Transcribe the following utterances and mark the consonants in the same way.

A big bag full of gold.
David rode off on Grandad's old bike.

Vowel length

In all varieties of English, vowels are shortened before fortis consonants but have full length in all other contexts (i.e. word-finally, before lenis consonants,

and before sonorants). This pre-fortis shortening is most obvious in stressed **monosyllables** (i.e. single-syllable words) and is termed **pre-fortis clipping**.

Activity A5.17 Recording A5.9

Listen to these sets of English words. Notice how pre-fortis clipping shortens the vowels. When they are word-final or pre-lenis, they have full length. If you are a non-native English speaker, try imitating this effect using the recording as your model.

Pre-fortis	Final	Pre-lenis	Pre-fortis	Final	Pre-lenis
wheat	*we*	*weed*	*peace*	*pea*	*peas*
note	*no*	*node*	*bought*	*bore*	*bored*
sauce	*saw*	*sawed*	*juice*	*Jew*	*Jews*
state	*stay*	*stayed*	*weight*	*way*	*weighed*
white	*why*	*wide*	*hurt*	*her*	*heard*

Secondary articulation

It often happens that the production of a speech sound involves certain types of modification. Besides the main articulation, there may also be an additional **secondary articulation**. The chief kinds of modification are listed in Figure A5.12 and also in Table A5.4. Notice that all the terms include '-ised' or '-isation.'

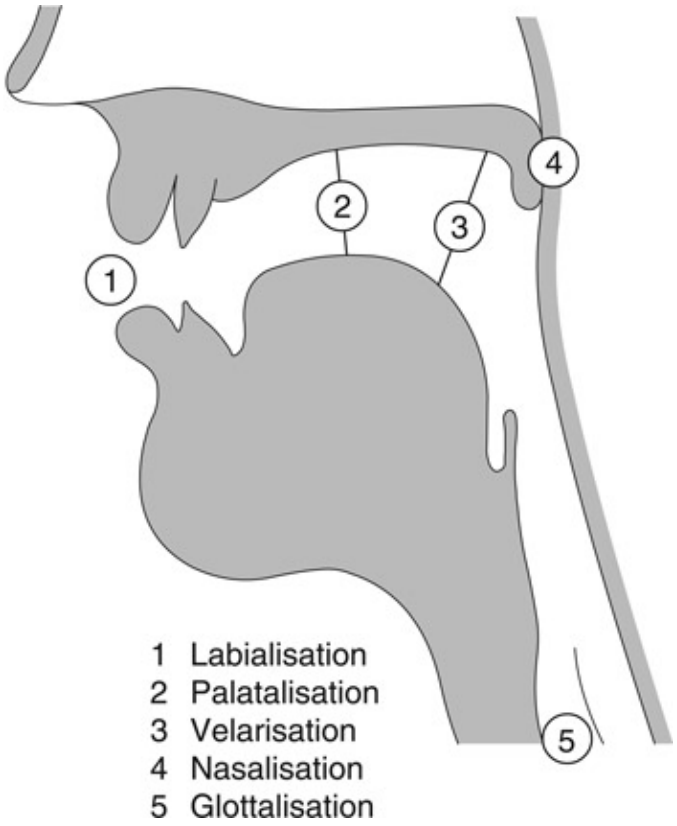


Figure A5.12 Secondary articulation locations

Table A5.4 Secondary articulation

Modification	*Description*	*Symbol*	*Example*
Palatalisation	Addition of front tongue raising to hard palate	^{j} after symbol	*tune* [t^{j}ju:n]

Modification	*Description*	*Symbol*	*Example*
Velarisation	Addition of back tongue raising to velum	~ through symbol	*still* [stɪɬ]
Labialisation	Addition of lip-rounding	^{w} after symbol	*talk* [tʷɔːk]
Glottalisation	Addition of glottal stop	^{ʔ} before symbol	*stopwatch* [ˈstɒʔpwɒʔʧ]
Nasalisation	Addition of nasality	~ above symbol	*morning* [ˈmɔːnɪŋ]

Labialisation adds lip-rounding and is shown phonetically with the diacritic [^{w}] *after* the symbol.

Activity A5.18

Look in a mirror and say *me*. What shape are your lips? Now say *more*. Where does the lip-rounding begin? Now say the words *door, saw, core, bore*. You'll find that lip-rounding typically starts in the consonant preceding the rounded vowel. We can show these labialised consonants as [dʷ sʷ kʷ bʷ].

Activity A5.19

Say the word *sheep*. Do you have lip-rounding for /ʃ/? English native speakers usually do since the lip-rounding is an essential part of the articulation of this consonant and not dependent on the following vowel.

Palatalisation adds to the main articulation the raising of the front of the tongue towards the hard palate (tongue takes on an [i]- like shape). It is shown by [^{j}] placed *after* the symbol.

Activity A5.20

Say the English words *tune, dune, new, mew, assume, beautiful, putrid.* These all involve palatalised consonants [tʲ d j nʲ mʲ sʲ bʲ pʲ]. (But note that for *tune, dune* most GB speakers nowadays use /ʧ ʤ/; see p. 75.)

In some languages, e.g. Russian, Irish and Scots Gaelic, a set of palatalised consonants contrasts phonemically with a set of non-palatalised consonants.

French, Swedish, Italian, German and Welsh have palatalised /l/ (often termed **clear** *l*) in all contexts. The same is true of most South Wales English and much southern Irish English.

Velarisation adds to the main articulation the raising of the back of the tongue towards the velum (the tongue takes on an [u]- like shape). It is shown by [~] written *through* the symbol, e.g. [ɬ]. Velarised /l/ is often termed **dark** *l* and is found not only in English, but also (for example) in Russian, Portuguese and Dutch.

Activity A5.21 Recording A5.10

Listen and repeat the following words in English: *still, tell, shall, bull.* And then these words in French: *style, tel, halle, boule.* Note that in this context English /l/ is dark whereas French /l/ is clear.

Activity A5.22

Certain varieties of English, e.g. much American, Scottish and Australian, have a velarised dark *l* in all contexts. Is your word-initial /l/ clear or dark in words like *leaf, lame, less, look, long?* What about medial position, e.g. *willow, follow, teller, sullen?* If you are a non-native speaker of English and

/l/ occurs in your language, is it clear or dark? Or do you have both allophones as in GB?

Glottalisation adds reinforcing glottal stop [ʔ]. The English fortis stops /p t k ʧ/ are regularly glottalised when syllable-final (for more detail, see p. 67). Glottalisation is symbolised as [ˀ], e.g. *lipstick* [lɪˀ pstɪˀ k].

Nasalisation adds nasal resonance through lowering the soft palate. It is shown by the diacritic [˜] placed above the symbol. In English, and many other languages, vowels preceding nasals are regularly nasalised, e.g. *strong man* [strɒ̃ŋ mæ̃n].

Note that most writers consider as secondary articulations only the oral strictures of open approximation (e.g. labialisation, palatalisation, velarisation). We have extended the concept to cover two other articulatory modifications, i.e. glottalisation and nasalisation.

Articulatory setting

In addition to differences between individual consonants, one can also consider other characteristics of consonant articulations which have to do with the articulatory **setting** of a particular language. This term refers to shapings of the speech organs which are continuous *throughout* the speech process. Setting varies from one language to another and, within the same language, from one accent to another.

To give just a few examples:

- ❑ Spanish is characterised by a dental setting (tongue-tip against front teeth) which means that sounds such as /t d/ are dental rather than alveolar. (This, together with syllable-timed rhythm [see Section B3], is perhaps why English speakers have been known to refer to Spanish as sounding rather like a 'machine gun with a lisp'!)
- ❑ Portuguese has semi-continuous nasalisation – something also found in much American English (see Section C1). European Portuguese also has notable velarisation (not obvious in the Brazilian variety).
- ❑ In Hindi and other Indian languages there is a retroflex setting so that many articulations are made with the tip of the tongue curled back against the front of the hard palate alveolar ridge (see p. 250). This retroflex setting is also a well-known feature of almost all varieties of Indian English.
- ❑ Many types of Arabic have tongue-root retraction producing a pharyngealised setting.

GB English typically has loose lips, and relaxed tongue and facial muscles – very much opposed to French with its pouting lip-rounding, and tense tongue and facial muscles. A characteristic of most English is to use a tapered tongue setting for alveolar consonants with a small area of contact. Compare the blunter tongue setting for alveolars found in some other languages, e.g. Dutch and Danish, where a larger portion of the tongue is used for these sounds. The

looser lip setting and the relaxed tapered tongue shape of English alveolars seem to be one reason why fortis stops in English are frequently realised with aspiration.

Setting can also vary noticeably from one language variety to another. Just within British English we can find several examples: West Country English (e.g. Bristol) often has a type of retroflex setting; South Wales English has a tendency towards palatalisation; whilst Liverpool English (or 'Scouse' as it is often called) is velarised (the accent is popularly termed 'adenoidal,' presumably in reference to the voice quality induced by the velar setting). Pharyngealisation is characteristic of English as spoken in much of North Wales.

Activity A5.23

Transcribe phonemically, showing intonation groups and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 5

Suddenly she came upon a little three-legged table, all made of solid glass. There was nothing on it but a tiny golden key, and Alice's first idea was that this might belong to one of the doors of the hall. But, alas! Either the locks were too large, or the key was too small. At any rate, it would not open any of them. However, the second time round, she came upon a low curtain she had not noticed before, and behind it was a little door about fifteen inches high. She tried the little golden key in the lock, and to her great delight it fitted.

A6

English Consonants

Overview of the English consonant system

In the previous chapter we discussed the various possibilities for producing consonant sounds. Now we're going to examine in greater detail how these sounds function in present-day English. It is usual to provide an overview in the form of a consonant grid with the following conventions: *place* on the horizontal axis, *manner* on the vertical axis; fortis precedes lenis in each pair.

Table A6.1 English consonant grid

	Bilabial	*Labio-dental*	*Dental*	*Alveolar*	*Palato-alveolar*	*Palatal*	*Velar*	*Glottal*
Plosive	p b			t d			k g	[ʔ][3]
Affricate					ʧ ʤ			
Nasal	m			n			ŋ	
Fricative		f v	θ ð	s z	ʃ ʒ			h
(Central) Approximant	w[2]			r[1]		j	w[2]	
Lateral (Approximant)				l				

Notes:
[1] /r/ is post-alveolar.
[2] /w/ is labial-velar with two strictures (see p. 46).
[3] In GB [ʔ] is an allophone. Hence the square brackets.

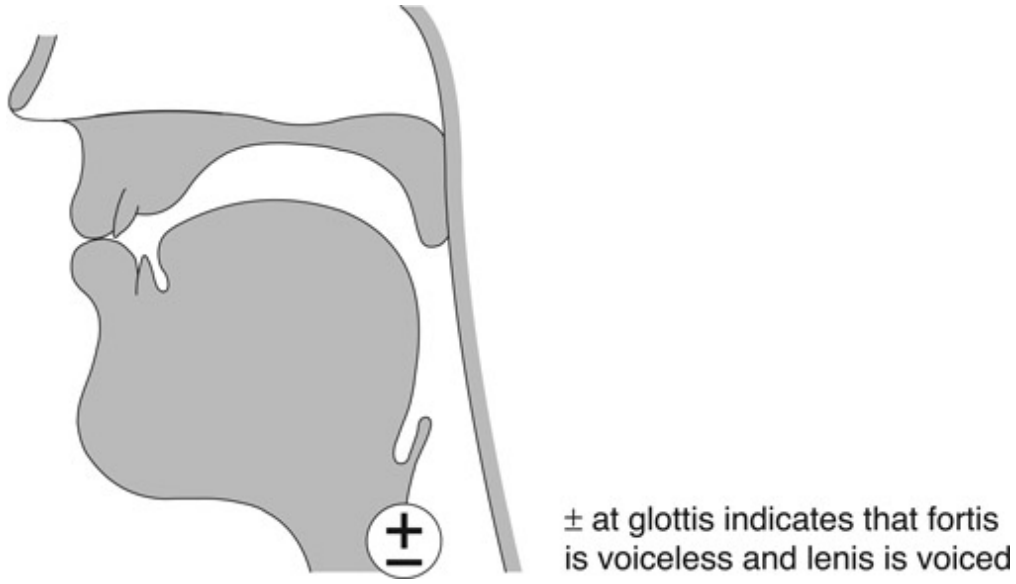


Figure A6.1 English /p/ and /b/ (hold stage)

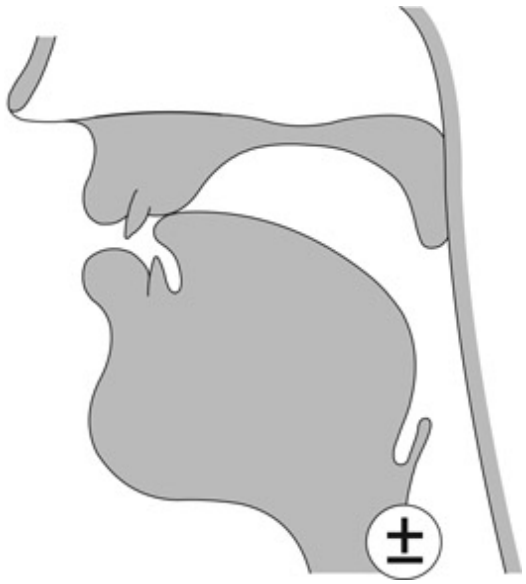


Figure A6.2 English /t/ and /d/ (hold stage)

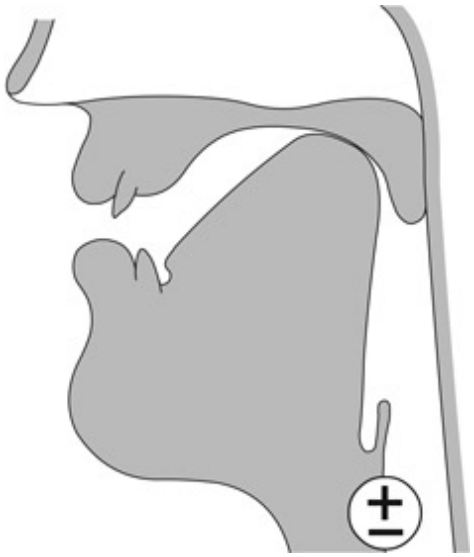


Figure A6.3 English /k/ and /g/ (hold stage)

Stop consonants

The English stop phonemes (1) plosives /p t k b d g/ and (2) affricates /ʧ ʤ/ occur in initial, medial and final contexts.

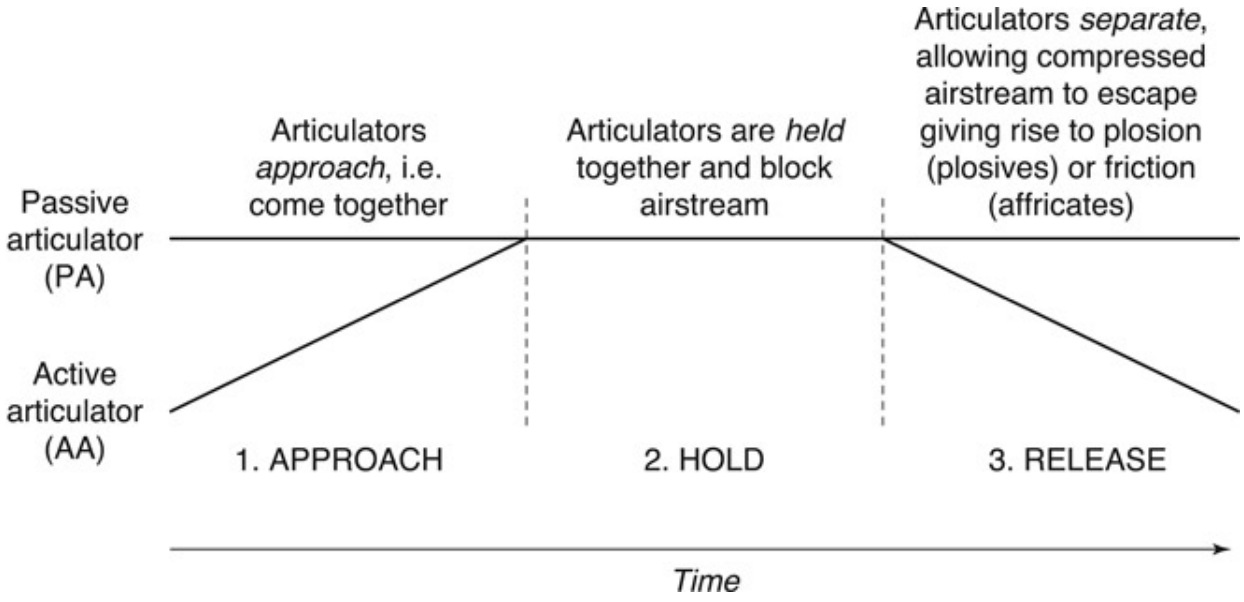


Figure A6.4 Articulation timing diagram showing the stages of a stop

Stops (i.e. plosives and affricates) have three stages (see Figures A6.4 and A6.5):

- ❑ in the **approach** stage, the articulators come together and form the closure;
- ❑ in the **hold** stage, air is compressed behind the closure;
- ❑ in the **release** stage, the articulators part and the compressed air is released, either (1) rapidly with plosion in the case of plosives, or (2) slowly with friction in the case of affricates. Note that sometimes the release stage is inaudible, e.g. in the first of two adjacent plosives.

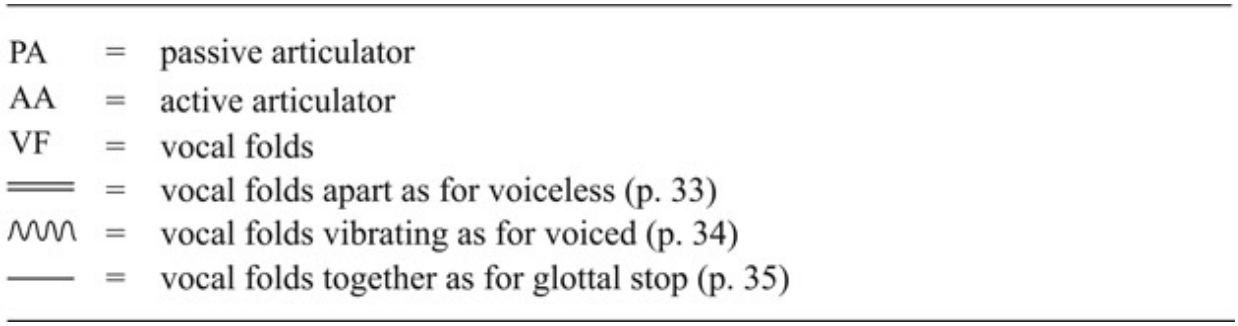


Figure A6.5 Interpreting the articulation timing diagrams; for explanation of terms 'passive articulator' and 'active articulator,' see p. 47

Plosives /p t k b d g/

In all cases a closure is made at some place in the vocal tract:

- ❑ at the lips for bilabial /p b/ (Figure A6.1);
- ❑ tongue-tip against alveolar ridge for alveolar /t d/ (Figure A6.2);
- ❑ back of tongue against velum for velar /k g/ (Figure A6.3).

Affricates /ʧ ʤ/

English has two **phoneme affricates**, namely /ʧ/ and /ʤ/; see Section A5 (pp. 49–50) for cross-section diagrams of /ʧ ʤ/. A closure is formed between a large area of the tip, blade and the front of the tongue with the rear of the alveolar ridge and the front of the hard palate. The palato-alveolar closure is released relatively slowly, thus producing friction at the same place of articulation (i.e. homorganic). Like the palato-alveolar fricatives /ʃ ʒ/, these affricates are strongly labialised, with trumpet-shaped lip-rounding. Fortis /ʧ/ is energetically articulated (though without aspiration); lenis /ʤ/ is weaker and has potential voice.

Phonetic affricates

In addition, there are the following phonetic affricates resulting from a sequence of two homorganic consonants:

/tr/ *try*	[tɻ̊] fortis post-alveolar affricate
/dr/ *dry*	[dɹ] lenis post-alveolar affricate
/ts/ *cats*	[ts] fortis alveolar affricate (/t/ often has glottal reinforcement or replacement)
/dz/ *lads*	[dz] lenis alveolar affricate

Affrication is also heard from many speakers who produce bilabial affricates [pɸ bβ] as realisations of the sequences /pf bv/, e.g. *hel **pf** ul*, *o **bv** ious*.

Fortis/lenis opposition in stops

The fortis stops /p t k ʧ/ have energetic articulation and are voiceless; lenis stops /b d g ʤ/ have weaker articulation and have potential voice (see p. 58). In addition, aspiration (for plosives) and pre-glottalisation are important distinguishing features.

Aspiration

Aspiration (symbolised phonetically by [^{h}]) occurs when fortis plosives /p t k/ are initial in a stressed syllable, and takes the form of a delay in the onset of voicing, an effect often compared to a little puff of air (see Figure A6.6). The link with stress is significant; in *com'petitor* [kəm'p^{h} etɪtə] aspiration is heard on the /p/, but much less so on the unstressed /k/ or the two /t/s; compare ˈ *competent* ['k^{h} ɒmpətənt]. In initial clusters with /s/, e.g. *stool*, *spool*, *school*, aspiration is absent. See below for devoicing of /l r j w/ following fortis plosives.

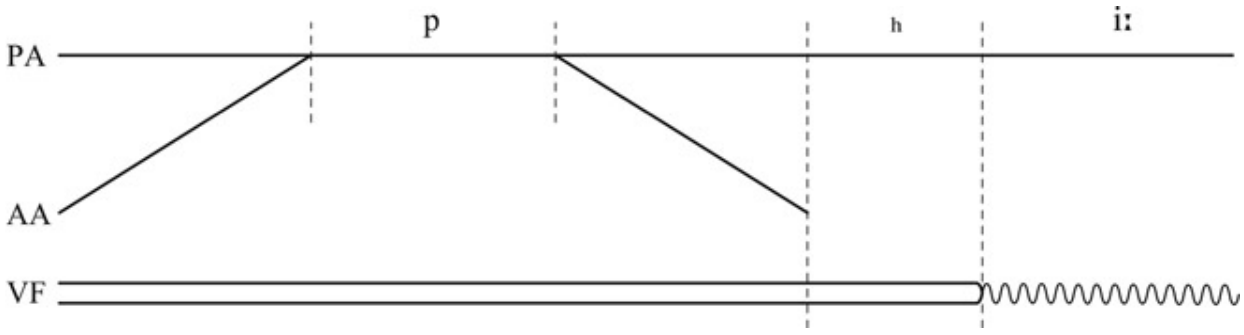


Figure A6.6 Delayed voice onset time (aspiration) in English /p/, as in *pea*

Activity A6.1 (Answers on website)

A test for aspiration is to put a feather or a piece of paper in front of your mouth and then pronounce the consonants [p t k]. If you're a native speaker of English, the paper should move noticeably.

Try the same test with the lenis non-aspirated [b d g]. The paper should move less or not at all. Now try the clusters [sp st sk] as in *spy*, *sty*, *sky*. Does the paper move now?

Aspiration is a feature of most English accents (a few varieties, e.g. some Lancashire, and most Scottish and South African English, have very weakly aspirated stops). Languages split into two main groups:

- those with aspiration, such as English, standard German, the Scandinavian languages (Danish, Swedish, Norwegian, Icelandic), Welsh, Chinese;
- those without aspiration, such as Dutch, southern varieties of German, the Romance languages (e.g. French, Spanish, Italian, Portuguese, Rumanian) and the Slavonic languages (e.g. Russian, Polish, Czech, Slovak, Serbian, Croatian and Slovene).

Some languages (e.g. Korean) distinguish voiceless vs. aspirated voiceless vs. voiced stops; many Indian languages have a four-term distinction

(voiceless vs. aspirated voiceless vs. voiced vs. aspirated voiced). Non-aspiration languages tend to have firmer closures for voiceless plosives; the articulators form a tight, efficient valve, with a brisk release of the compressed air. Aspirated articulations have looser closures which act like an inefficient 'leaky' valve from which the air is released somewhat more slowly.

Pre-glottalisation in stops

English syllable-final fortis stops can be accompanied by a reinforcing glottal stop at or before the hold stage. Termed (**pre-)glottalisation**, or **glottal reinforcement**, this is one of the most significant phonetic markers of final fortis stops in many English accents. In GB the pattern of glottal reinforcement is as follows:

- Syllable-final fortis stops are regularly glottalised before another consonant (both within the same word and across a word boundary), e.g. *I don't like that fat guy* [aɪ ˈdəʊnˀ t laɪˀ k ˈðæˀ t ˈfæˀ t ˈgaɪ], *sleepwalker* [ˈsliːˀ pwɔːkə], *locksmith* [ˈlɒˀ ksmɪθ], *watchdog* [ˈwɒˀ ʧdɒg]. Note that /ʧ/ also has optional glottalisation in medial position, e.g. *kitchen* [ˈkɪˀ ʧɪn].
- In the following contexts both glottalised and non-glottalised forms are to be found:

  (a) before pause: *short* [ˈʃɔːˀ t] or [ˈʃɔːt];
  (b) before /h/, *shorthand* [ˈʃɔːˀ thænd] or [ˈʃɔːthænd];
  (c) word-finally preceding a vowel: *short of money* [ˈʃɔːˀ t əv ˈmʌni] or [ˈʃɔːt əv ˈmʌni].

- The most frequently pre-glottalised consonant is /t/. In particular, pre-glottalisation (and glottal replacement, see below) very commonly affects a small group of high-frequency words, namely: *it*, *bit*, *get*, *let*, *at*, *that*, *got*, *lot*, *not* (and contracted forms: *don't*,

can't, *aren't*, *isn't*, etc.), *what*, *put*, *but*, *might*, *right*, *quite*, *out*, *about*.

Activity A6.2

If you're a native English speaker, do you glottalise the underlined stop consonant in any of these words or phrases? If you're a non-native, try using pre-glottalisation with the stop closures in these examples.

no<u>t</u> true; pu<u>t</u> right; i<u>t</u>'s go<u>t</u> twisted; tra<u>p</u> door; a<u>t</u>las; po<u>t</u> luck

Glottal replacement (an effect also known as 'glottalling') occurs when [ʔ] is substituted for /t/ so that, for example, *shortbread*, *shorten*, *sit down* are realised as [ˈʃɔːʔbred, ˈʃɔːʔn̩, ˈsɪʔ ˈdaʊn]. This may also occur where /p k/ are followed by a hom-organic stop or nasal, e.g. *stepbrother* [ˈsteʔ brʌðə], *took care* [ˈtʊʔ ˈkɛː].

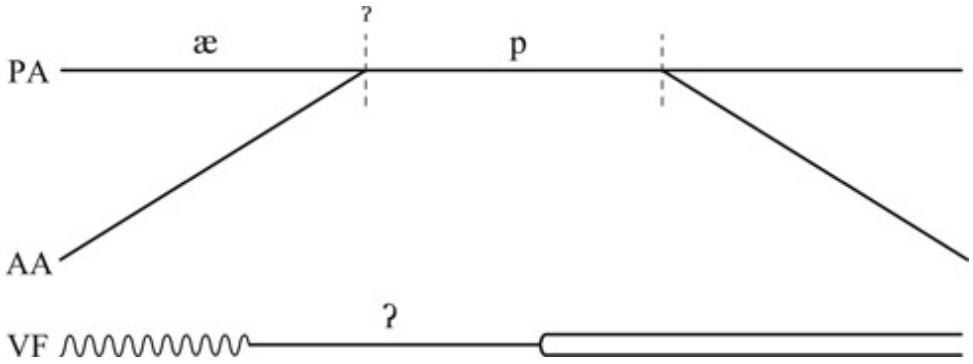


Figure A6.7 Pre-glottalisation in English /p/ as in *laptop*

Types of release

Nasal release

When a plosive is followed by a homorganic nasal, the closure is not released in the usual way. Instead, the soft palate lowers, which allows the airstream to pass out through the nasal cavity; this is termed **nasal release**, e.g. *submit*, *partner*. With fortis plosives, there is typically accompanying pre-glottalisation, e.g. *witness* [ˈwɪʔ tnəs], *help me* [ˈhelʔ p mi]. (In fact, in GB, fortis plosives often even undergo glottal replacement in this context, e.g. [ˈwɪʔnəs ˈhelʔ mi], but note that this is not a case of nasal release as there is no alveolar contact for the fortis plosive.) Nasal release of /t d/ is also heard in final /tn dn/ leading into a syllabic nasal, e.g. *shorten* [ˈʃɔːʔtn̩], *rodent* [ˈrəʊdn̩t], although nowadays many younger speakers insert /ə/ between the alveolar plosive and /n/, particularly following /t/ [ˈʃɔːtən], [ˈrəʊdənt]. German is notable for the common occurrence of nasal release giving rise to syllabic nasals (often with assimilation: see Section B2), e.g. *leben* ‘to live’ [ˈleːbm̩], *beten* ‘to pray’ [ˈbeːtn̩], *sagen* ‘to say’ [ˈzaːgŋ̩].

Lateral release

In English, /t/ and /d/ can have **lateral release**, i.e. the alveolar closure is released by lowering the sides of the tongue, e.g. *settle*, *partly*, *muddle*, *paddling*. Following /t/, there is initial devoicing of /l/: [ˈsetl̥l], [ˈpɑːtl̥li]. Similar tongue- side lowering is found in the sequences /kl gl pl bl/, as in *prickly*, *struggling*, *grappling*, *bubbly*, where the tongue takes up the alveolar position for /l/ during the hold stage of the stop.

Lateral release in GB English often leads into syllabic laterals. In many other accents, lateral release is lacking and instead a vowel /ə/ or /ʊ/ is inserted, giving e.g. *settle* [ˈsetəl] or [ˈsetʊl]. Of late, possibly as a result of the spread of London influence, realisations without lateral release have become increasingly common among younger GB speakers. As opposed to what happens with syllabic /n/, glottal replacement is not found in GB in this context.

Stop sequences

Sequences such as, for example, /pt gb kd gʧ dg/, as in *stopped*, *rugby*, *back door*, *big cheese*, *bad guys*, where a plosive consonant is immediately followed by a stop, are termed **overlapping stops**. In such cases, the first plosive has inaudible release and the second stop has inaudible approach.

Activity A6.3

Take a paragraph from any of the extracts in Section D and underline all the examples of overlapping stops that you can find. Then transcribe them phonemically.

In English, in a sequence of three stops, the central consonant (usually alveolar /t/ or /d/) lacks both audible approach and release stages. In fact, /t d/ in this context are elided in all but ultra- careful speech, e.g. *clubbed together* /ˈklʌb təˈgeðə/, *she looked quite young* /ʃi ˈlʊk kwaɪt ˈjʌŋ/ (see Section B2 on elision).

Sequences of homorganic stops result in a single articulation with a prolonged hold stage, e.g. /gg/ (phonetically [gː]) as in *big game*. Where the first of such a hom-organic sequence is fortis, the stop typically has glottal replacement, e.g. *short time* [ˈʃɔːʔ ˈtaɪm], *great day* [ˈgreɪʔ ˈdeɪ].

Other types of allophonic variation

Alveolar /t d/ have a wide range of variation in GB. Intervocalic /t/ (i.e. /t/ between vowels) is frequently realised as a very brief voiced stop which can be shown as [t̬], e.g. *British*, *pretty*, *better, but I*, *that I, get it*. This effect is known as **t- voicing** and is particularly common in high- frequency words and expressions. The brevity of the tap and the shortening of the preceding vowel serve to maintain the contrast with /d/. Unlike American English,

there is no tendency to neutralise the contrast /t – d/ in pairs such as *clouted – clouded*, *writing – riding*, *waiter – wader* (see Sections B1 and C1).

Activity A6.4

Are you a 't- voicer'? Say the following words and phrases and ask others in your class to judge.

be<u>tt</u>er; phone<u>t</u>ics; pre<u>tt</u>y; la<u>t</u>er; pathe<u>t</u>ic; ma<u>tt</u>er; no<u>t</u> a lo<u>t</u> of; wha<u>t</u> a pi<u>t</u>y; qui<u>t</u>e a lot

If you do voice /t/, do you think the resulting sound is the same as /d/ or different? Check by saying pairs like *whiter – wider*, *waiter – wader*. Do you also extend t- voicing to contexts before syllabic /l/, e.g. *bottle*, *total?* Or do you replace /t/ here by glottal stop?

Nasals

The bilabial and alveolar nasals /m n/ occur in all contexts, but velar /ŋ/ occurs only syllable- finally following checked vowels. For all three nasals, the place and manner of articulation is similar to that of the corresponding stops /b d g/ (see above). However, the soft palate is lowered (i.e. there is no velic closure; see Section A4), thus adding the resonance of the nasal cavity. See Figures A6.8, A6.9 and A6.10 for /m n ŋ/.

The soft palate anticipates the action of other articulators, and consequently vowels are nasalised preceding nasals, e.g. *farm* [fɑ̃ːm], *lawn* [lɔ̃ːn], *gang* [gæ̃ŋ]. This tendency can be very noticeable in certain varieties, e.g. most American English.

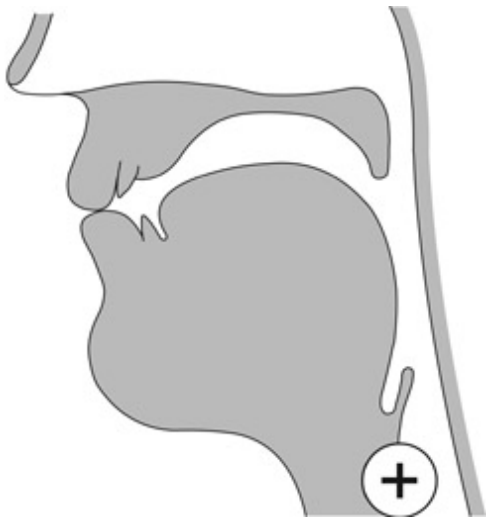


Figure A6.8 English /m/

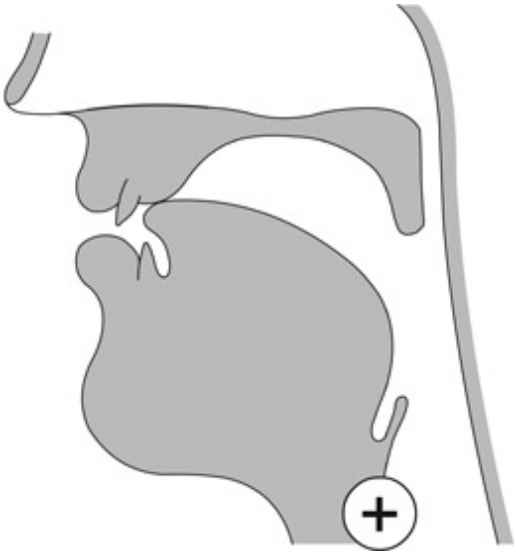


Figure A6.9 English /n/

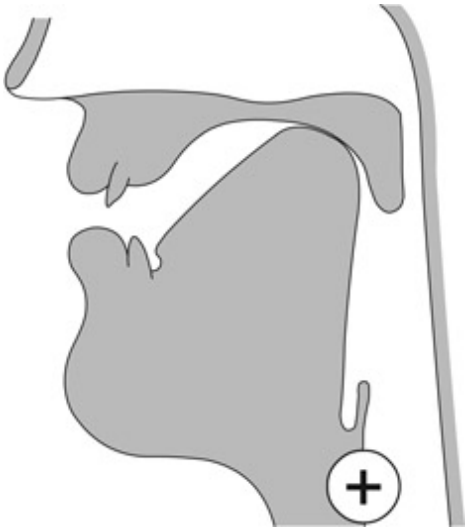


Figure A6.10 English /ŋ/

Activity A6.5

You may have noticed that when you have a cold, your nose gets blocked and nasals come out as non- nasals. Try saying the following text substituting non- nasal stops [b d g] for the nasals [m n ŋ].

Good morning, Mr Armstrong. I'm most sorry but I'm not coming in this afternoon owing to an appalling attack of influenza. I'm going to remain at home but with any luck, I'll be in again on Wednesday morning. End of message.

gʊd ˈbɔːdɪg | bɪstə r ˈɑːbstrɒg || aɪb ˈbəʊst ˈsɒri bət aɪb ˈdɒt ˈkʌbɪg ˈɪd ðɪs ɑːftəˈduːd || ˈəʊɪg tu əd əˈpɔːlɪg əˈtæk əv ɪdfluˈedzə || aɪb ˈgəʊɪg tə rəˈbeɪd ət ˈhəʊb | bət wɪð ˈedi ˈlʌk | aɪl bi ˈɪd əˈged ɒd ˈwedzdeɪ ˈbɔːdɪg || ˈed əv ˈbesɪʤ ||

(A useful technique if you want a good excuse for staying away from work!)

Fricatives

All fricatives, except /h/, occur in fortis/lenis pairs. (Return to Units A2 and A5 if you're unsure of the contrast between lenis and fortis consonants.)

Labio- dental fricatives /f v/

The lower lip makes near contact with the upper front teeth resulting in labio- dental friction. Lenis /v/ has potential voice.

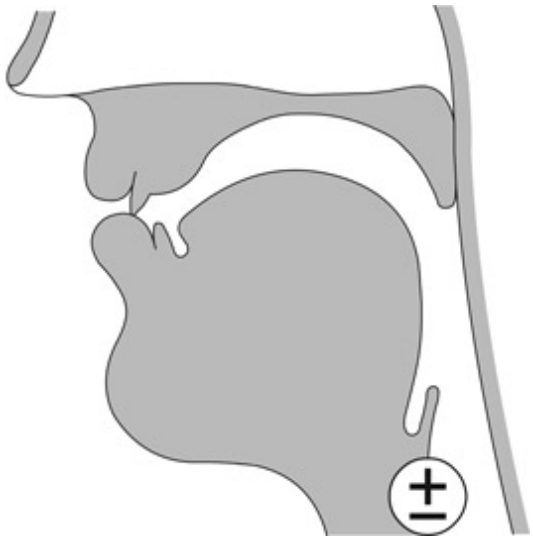


Figure A6.11 English /f/ and /v/

Dental fricatives /θ ð/

The tongue- tip makes near contact with the rear of the upper teeth, resulting in dental friction. Lenis /ð/ has potential voice, and often has the tongue withdrawn, being realised as a type of weak dental approximant.

Initial /ð/ occurs only in the following function words: *the*, *this*, *that*, *these*, *those*, *then*, *than*, *thus*, *there*, *they*, *their*, *them*; also in *thence* and the archaic words *thou*, *thee*, *thy*, *thine*, *thither*.

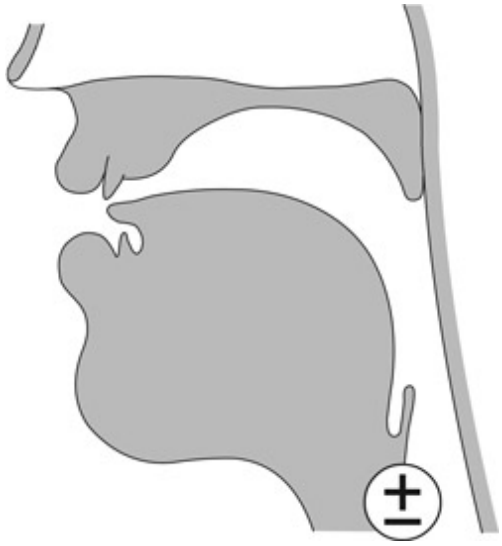


Figure A6.12 English /θ/ and /ð/

Alveolar fricatives /s z/

The tip/blade of the tongue makes near contact with the alveolar ridge. Air is channelled along a deep groove in the tongue, producing alveolar friction characterised by **sharp** hiss (see Figure A6.14). /s z/ are sometimes termed **grooved** fricatives; see Figure A6.13. Lenis /z/ has potential voice.

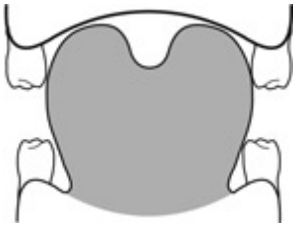


Figure A6.13 Transverse cross- section of mouth viewed from front showing grooved tongue shape for /s/ and /z/

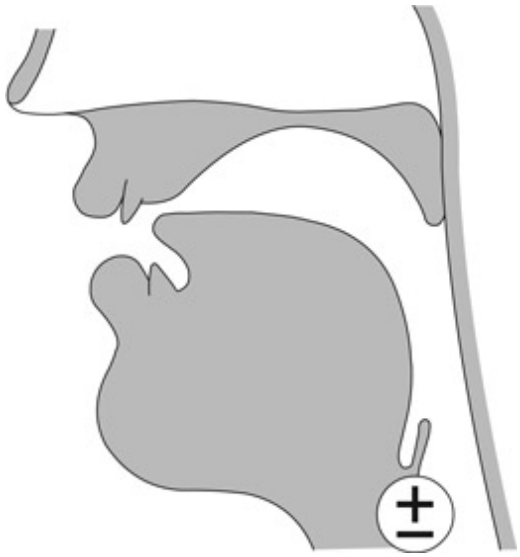


Figure A6.14 English /s/ and /z/

Palato- alveolar fricatives /ʃ ʒ/

A large portion of the tongue (tip/blade/front) makes near contact with the alveolar ridge and the front of the hard palate. The airstream is channelled through a shallower groove than for /s z/. In addition, /ʃ ʒ/ have strong trumpet- shaped lip- rounding similar to that of /ʧ ʤ/. The resulting hiss is **graver** (i.e. lower pitched) than that of /s z/.

/ʒ/ is notably restricted in its distribution, occurring mainly in medial position, e.g. *usual*, *pleasure*, etc. In initial and final position it is found only in recent French loanwords, e.g. *genre*, *beige*. In most of these cases, there are alternative pronunciations with /ʤ/.

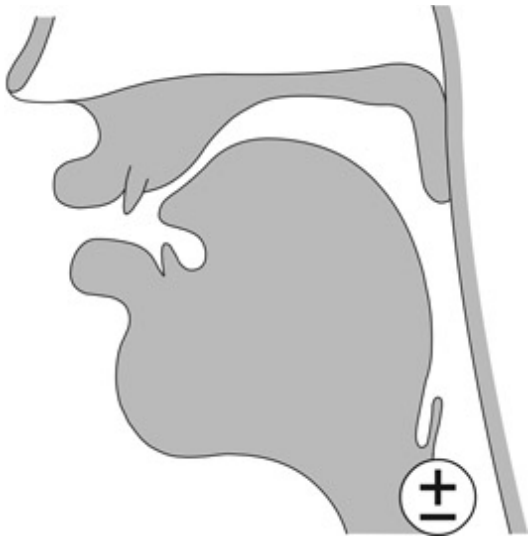


Figure A6.15 English /ʃ/ and /ʒ/ Note trumpet- shaped lip- rounding

Glottal fricative /h/

Phonetically, /h/ is like a voiceless vowel. The articulators are in the position for the following vowel sound and a strong airstream produces friction not only at the glottis but also throughout the vocal tract. Consequently, there are as many articulations of /h/ as there are vowels in English (and for that reason no cross- section diagram is provided). In English, /h/ occurs only preceding vowels.

Approximants

Lateral (approximant) /l/

The tip and blade of the tongue form a central closure with the alveolar ridge, while the sides of the tongue remain lowered. The airstream escapes over the lowered sides.

Clear *l* occurs before vowels, e.g. *leap* [lʲiːp], *yellow* [ˈjelʲəʊ], and before /j/, as in *value* [ˈvælʲjuː] , *million* [ˈmɪlʲjən]. The tongue shape is slightly palatalised with a convex upper surface giving a close front vowel [i]- type resonance (see Figure A6.16 below). Clear *l* can be shown by a diacritic in the form of a raised [ʲ] following [l], as in the examples above, but it is usually omitted: [liːp, ˈjeləʊ].

Dark *l* occurs before consonants except /j/ and pause. The articulation is slightly velarised (see Unit A5), with a concave upper surface, giving a back-central vowel [ʊ]- type resonance, e.g. *still* [stɪɫ], *help* [heɫp]. Dark *l* is often a syllable- bearer, when it can be of longer duration [ɫː], e.g. *hospital* /ˈhɒspɪtl̩/ [ˈhɒspɪtɫː]. Younger GB speakers, especially those brought up in the area of London or the south- east, nowadays regularly have a vocalic dark *l* sounding rather like [ʊ], especially following central and back vowels, e.g. *doll* [dɒʊ], *pearl* [pɜːʊ]. This effect is termed **l- vocalisation**. Traditional RP speakers tend to stigmatise this feature, which is nevertheless one of the most striking changes going on in present- day GB English.

The allophonic distribution of clear and dark *l* quoted above is true of GB and most varieties of English, but other English accents show different patterns. For example, most Welsh and Irish accents have only clear *l* in all contexts, while many Scottish and American varieties have only dark *l*.

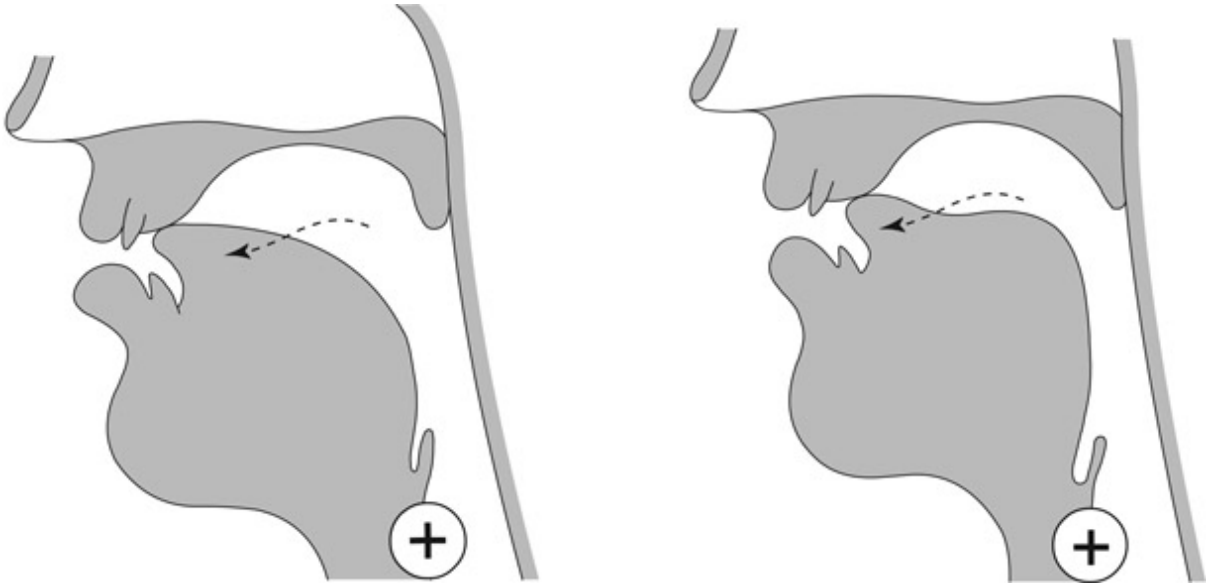


Figure A6.16 English clear *l* (left) showing palatalised tongue shape, and dark *l* (right) showing velarised tongue shape. Arrows indicate lateral passage of the airstream over lowered sides of the tongue

Activity A6.6

Try saying the following sentences (1) with dark *l* only, (2) with clear *l* only:

I'm told that this model will only be available for a little while longer.
Lesley feels awfully guilty putting you to all this trouble.
Delia's told me she'll call round at twelve.

Remember that in stressed syllable- initial clusters /pl kl/, e.g. *clean*, *please*, the effect of aspiration of /l/ is manifested as devoicing with friction: [kl̥iːn pl̥iːz] (see pp. 55–6).

Post- alveolar approximant /r/

The sides of the tongue are raised and in contact with the back teeth; the tongue- tip moves towards the rear of the alveolar ridge in a stricture of open

approximation (see Figure A6.17 below). Although /r/ is classed as post-alveolar, the raising of the sides of the tongue is probably just as important as the tongue- tip movement. Most GB speakers have accompanying labialisation, i.e. lip- rounding and protrusion. Note that /tr/ and /dr/ are realised as post- alveolar affricates.

The sporadic occurrence in times past of an alveolar tap [ɾ] in traditional RP in intervocalic contexts, e.g. *borrow*, *marry*, has been mentioned in Section A5. Nowadays, tap [ɾ] is rarely heard from GB speakers although it is found in many regional accents. Curiously, it is still taught by elocutionists as 'correct speech.' Another recent development is that some young speakers (especially in the south- east of England) use a labio- dental approximant, symbolised as [ʋ]. People often use the pejorative term 'defective r' for this pronunciation, and it's sometimes imitated for comic effect. Consequently, even though it's increasingly heard from young speakers, it's not recommended for imitation by non- natives.

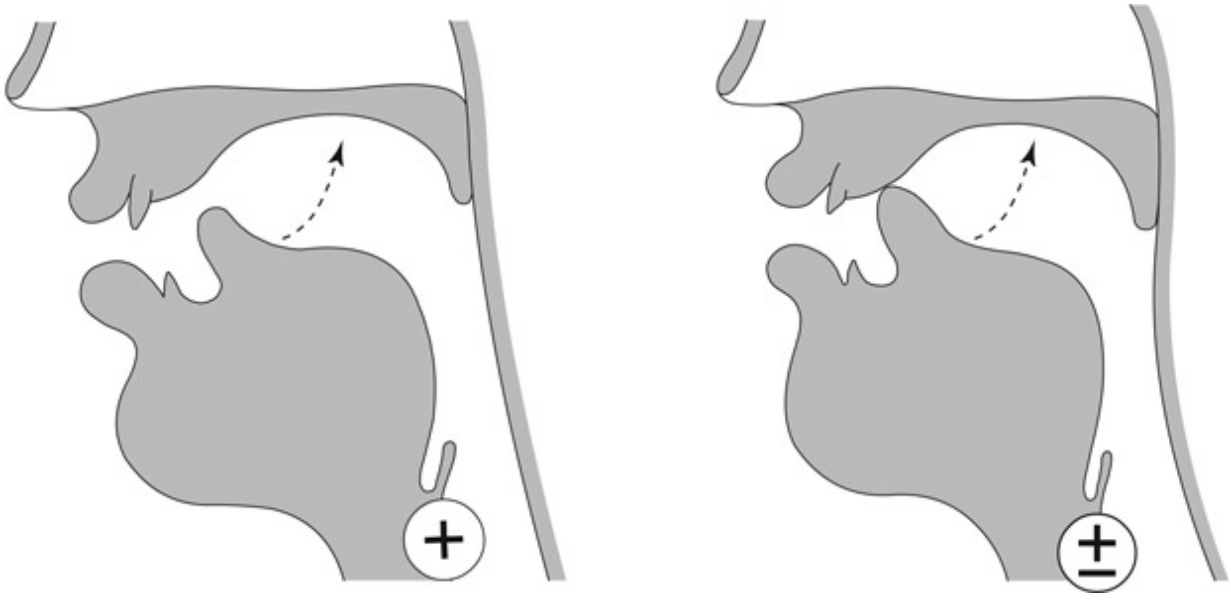


Figure A6.17 English /r/ (left). Compare (right) English post- alveolar affricates [tɻ dɻ] as in ***tr** ain*, ***dr** ain* (hold stage). Arrows indicate the raising of the sides of the tongue towards the back teeth

Distribution – rhotic vs. non- rhotic accents

A very significant feature of English is the split of accents into two groups according to /r/ distribution. In rhotic varieties, /r/ is pronounced in all contexts. Rhotic speech comprises most American varieties – including General American and Canadian – Scottish, Irish, much Caribbean, and the regional accents of the West Country of England. In non- rhotic varieties, /r/ is pronounced only before a vowel. Non- rhotic speech includes most of England and Wales, much American English spoken in the southern and eastern states, some Caribbean, all Australian, all South African, and most New Zealand varieties of English. Note that English as spoken by most African Americans from all areas of the USA is typically non- rhotic.

In non- rhotic varieties, /r/ is generally pronounced across word boundaries, e.g.

car	/kɑː/	*car alarm*	/ˈkɑː r əlɑːm/
matter	/ˈmætə/	*matter of fact*	/ˈmætə r əv ˈfækt/

This type of **liaison** is termed **linking** *r*. See Section B2 for further discussion of this and other types of r- liaison.

Activity A6.7

Go round your class and discover who has a rhotic form of English. If they're native speakers, which part of the English- speaking world do they come from? If they're non- natives, which type of English are they imitating? If you are a non- native speaker and /r/ occurs in your language, try to establish whether your variety is rhotic or non- rhotic. To take some examples, Danish is nonrhotic and Dutch is rhotic. In German both rhotic and non- rhotic varieties exist.

Palatal approximant /j/

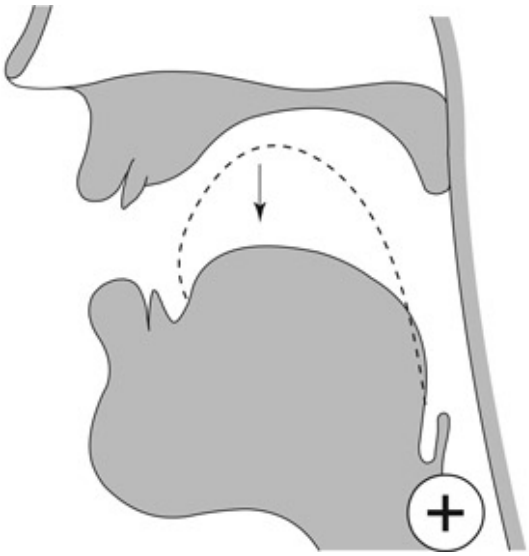
The palatal approximant /j/ is a brief [i]- vowel- like glide (Figure A6.18); see p. 86. In GB, the sequences /tj dj/ are typically replaced by palato- alveolar affricates /ʧ ʤ/, e.g. *Tuesday* /ˈʧuːzdeɪ/, *induce* /ɪnˈʤuːs/, *statute* /ˈstæʧuːt/, *module* /ˈmɒʤuːl/. This can also occur across word boundaries, particularly involving *you*, *your*, e.g. *can't you* /ˈkɑːnʧu/, *did you* /ˈdɪʤu/, *mind your own business* /ˈmaɪnʤɔː r əʊn ˈbɪznəs/. A notable difference between British and American accents is the frequent loss of /j/ after the alveolar consonants /t d n/ in most American English. This effect is termed **yod- dropping**. See also p. 213.

Activity A6.8

In your English idiolect, are the beginnings of these words the same or different?

chews – Tuesday; choose – tune; Jew – due; June – dune; jukebox – duke; jewel – dual

So do you say, for example, *tune* /tjuːn/, /ʧuːn/ or /tuːn/? And is *duke* /djuːk/, /ʤuːk/ or /duːk/? Ask round the class and compare results for all the words.



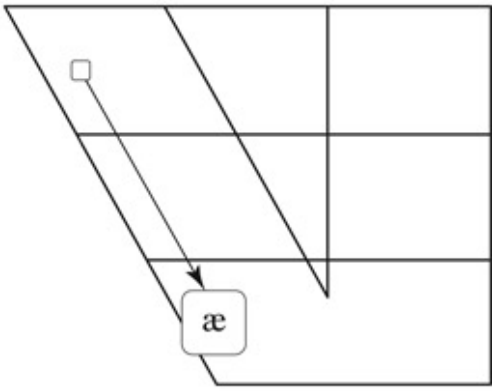


Figure A6.18 English /j/: sequence /jæ/ as in *yam*. Cross- section shows approximate change in shape of tongue

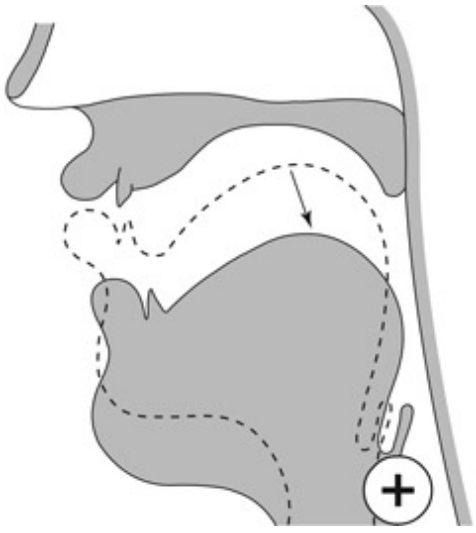
Labial- velar approximant /w/

For /w/ there are two strictures of open approximation: (1) labial and (2) velar. Like /j/, /w/ is a brief vowel glide; see p. 86. The [u]- like glide has strong lip- rounding.

A few speakers will strive to produce an additional phoneme contrast, with a voiceless labial- velar fricative, symbolised as /ʍ/, used in all words beginning **wh**, e.g. *where – wear* /ʍɛː – wɛː/. Those who produce this sound have often undergone speech training of some kind. Over- correct forms are not infrequently encountered. These two examples were actually heard from BBC announcers:

Isle of Wight	*/ˈaɪl əv ˈʍaɪt/
the ways of the world	*/ðə ˈʍeɪz əv ðə ˈʍɜːld/

It is probable that the phoneme /ʍ/ was extinct in the everyday language of England by the eighteenth century. But it is somewhat more often heard in American English, and is still a living feature of all Scottish varieties and also much Irish English.



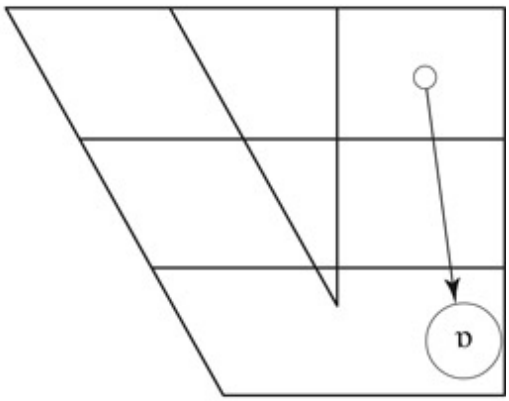


Figure A6.19 English /w/: sequence /wɒ/ as in *watt*. Cross- section shows approximate change in shape of tongue

Activity A6.9

Do you have any English- speaking friends or relatives who say /ʍ/ for **wh**? If so, is it natural to them or were they taught to say it in school, or by a speech trainer in elocution classes?

Other types of allophonic variation

Devoicing

All nasals are typically voiced throughout and there is none of the devoicing characteristic of the fricatives and stops.

Similarly, /l/ is also typically voiced, not showing initial and final devoicing. It is, however, devoiced and fricative [l̥] in initial clusters following the voiceless plosives /p k/ in stressed syllables, e.g. *plain*, *claim* [pl̥eɪn kl̥eɪm]. (The cluster /t1/ does not occur in initial position.) The same holds true for /w j/, e.g. *queen*, *cute* [kw̥iːn kj̊uːt]. This effect corresponds to the aspiration of the fortis plosives found in other contexts.

In stressed syllable- initial clusters, a completely devoiced post- alveolar fricative [ɹ̥] is realised following fortis plosives /p k/, e.g. *price*, *crease*. The sequences /tr dr/, e.g. *troop*, *droop*, are realised as post- alveolar affricates, [tɹ̥ dɹ] (see p. 74).

Palatalisation

Preceding /j/, plosives are palatalised [pʲ bʲ tʲ dʲ kʲ gʲ], e.g. *pure*, *beauty*, *student*, *dune*, *cure*, *argue*. As stated above, the sequences /tj dj/ are frequently reduced in GB to /ʧ ʤ/, so giving no contrast between words like *juice* and *deuce*, *chewed* and the first syllable of *Tudor*. After fortis consonants, /j/ is devoiced and fricative [j̊], e.g. *pure*, *tuna*, *cue*; it may even be realised as a voiceless palatal fricative [ç] (similar to the sound known in German as the *ich- Laut*, in words like *ich* 'I,' *Bücher* 'books'). The sequence /hj/ in *huge*, *human* is also frequently realised in this way [ç], e.g. *humid* /ˈhjuːmɪd/ [ˈçuːmɪd].

Other fricatives preceding /j/ are also palatalised, e.g. *fuse*, *views*, *assume*, *presume*. Following word- initial /s/, GB deletes traditional /j/, e.g. *suit*, *suicide* (at one time /sjuːt ˈsjuːɪsaɪd/, nowadays typically /suːt ˈsuːɪsaɪd/). These well- established forms nevertheless occasionally suffer criticism from some older- generation speakers.

Before /j/, the nasals /m n/ are strongly palatalised, e.g. *mute* [mʲ juːt], new [nʲuː].

Labialisation

Consonants preceding /w/ are strongly labialised, e.g. *switch* [sʷ wɪʧ], *language* [ˈlæŋgʷ wɪʤ]. Following the fortis alveolar and velar plosives /t k/, as in *between*, *quick*, /w/ is in addition devoiced, [bəˈtʷ ʍiːn], [kʷ ʍɪk]. The remaining voiceless plosive /p/ is not found in this context.

Advanced/retracted

Consonants may be **advanced** or **retracted**, dependent on the phonetic context. Alveolar consonants are particularly prone to place variation. The plosives /t d/ are advanced to dental when adjacent to dental fricatives (shown by means of the diacritic [̪] below the symbol), i.e. articulated with the tongue- tip against the teeth: [t̪ d̪] in *eighth*, *hid them*. The same goes for /n l/ [n̪ l̪], e.g. *anthem*, *both numbers*, *healthy*, *faithless*.

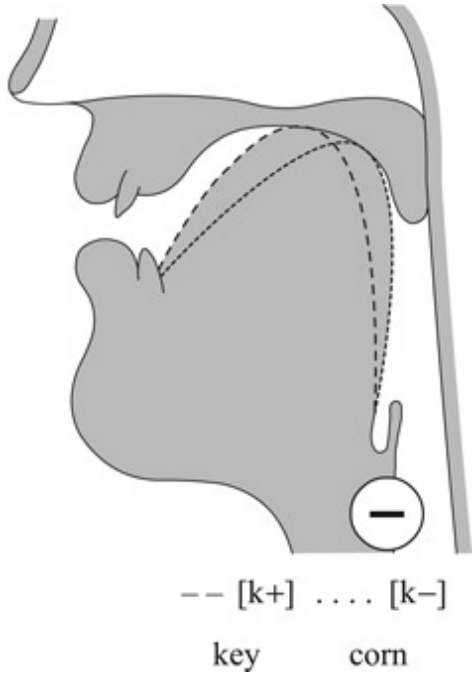


Figure A6.20 Articulation of /k/ showing advanced [k+] as in *key* compared with retracted [k -] as in *corn*

For /k g/, the velar closure is advanced before front vowels and /j/ – an effect shown in phonetic transcription by the diacritic [+], e.g. *key*, *cue* [k+iː k+juː]. The closure is retracted before back vowels (shown by [-]), cf. *corn*, *cob* [k- ɔːn k- ɒb]. If you insert a finger into your mouth, you can feel the difference between the two /k/ allophones quite easily.

Before labio- dental /f v/, both /m/ and /n/ may be realised as labio- dental nasal [ɱ], e.g. *in front*; thus, despite the spelling, the consonant clusters in *e* ***mph*** *asis* and *i* ***nf*** *ant* are normally pronounced identically.

Activity A6.10

Transcribe phonemically, showing intonation groups and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 6

Alice opened the door and found that it led into a small passage. She knelt down and looked along the passage into the loveliest garden you ever saw. How she longed to get out of that dark hall, and wander about among those beds of bright flowers and cool fountains. But she was not able even to get her head through the doorway. ‘And then, if my head *would* go through,’ thought poor Alice, ‘it would be of very little use without my shoulders. Oh, how I wish I could shut up like a telescope! I think I could, if I only knew how to begin.’ For, you see, so many out-of- the- way things had happened lately, that Alice had begun to think that nothing was really impossible.

A7

Vowel Possibilities

Introduction

Vowels can't be described in the same way as consonants. For vowels, there's always considerable space between the articulators, so that in terms of manner of articulation all vowels are approximants. Nor can we effectively use place of articulation – all we can do is distinguish broadly whether the front, centre or back of the tongue is raised towards the roof of the mouth. Finally, our third variable (voicing or energy of articulation) is of little help. Vowels are typically voiced, so that there are no voiced/ voiceless or fortis/lenis contrasts.

It is possible to use another means of description, namely acoustic data, and acoustic phoneticians have made enormous advances in this area. But obtaining such information and interpreting it still involves considerable time and effort. In language teaching, dialect research, and many other branches of practical phonetics, a speedy and reasonably accurate way of describing vowels is what is actually required.

The most generally used description of vowel sounds is based on a combination of articulatory and auditory criteria, and takes into account the following physical variables:

1. Tongue shape
2. Lip shape
3. Whether tongue and/or lip shape are held constant or undergo change (i.e. is the vowel a *steady- state vowel* or is it a *diphthong*?)
4. Position of the soft palate (nasal or non- nasal)

Finally, we have a non- physical variable which operates in a large number of languages:

5 Duration

Tongue shape

Change in the shape of the tongue is the most important of all these factors. Let's first examine the variable of **tongue height**, namely how close the tongue is to the roof of the mouth. For some vowels, it is very easy to see and feel what is going on, as you can test for yourself in the following two activities.

Activity A7.1

Say the English vowel /ɑː/, as in PALM. Put your finger in your mouth. Now say the vowel /iː/ (as in FLEECE). Feel inside your mouth again. Look in a mirror and see how the front of the tongue lowers from being close to the roof of the mouth for /iː/ to being far away for /ɑː/. Now you know why doctors ask you to say 'ah' when they want to see inside your mouth; the tongue is at its lowest when you say /ɑː/.

Activity A7.2

Now say these English vowels: /iː/, as in FLEECE, /ɛː/, as in SQUARE, /æ/, as in TRAP. Can you feel the tongue moving down? Then say them in reverse order: /æ/, /ɛː/, /iː/. Can you feel the tongue moving up?

As the tongue lowers, the oral cavity opens and increases in size. Consequently, the oral cavity is bigger for /ɑː/ than it is for /iː/, and as a result it produces a lower-pitched resonance.

Activity A7.3

Now take another set of English vowels and say them a number of times: /ɑː/, as in PALM, /ɔː/, as in THOUGHT, /uː/, as in GOOSE.

For the vowel /ɑː/ in PALM, the tongue is fairly flat in the mouth. For /ɔː/ in THOUGHT, the back of the tongue rises, and for /uː/ in GOOSE is closer again. We cannot see or feel the back of the tongue as easily as the front, and the lip- rounding for /ɔː/ and /uː/ obscures our view. But X- ray photography (and similar imaging techniques) confirm the raising of the back of the tongue for vowels like /ɔː/ and /uː/.

This provides us with an important aspect of vowel description. If the upper tongue surface is *close* to the roof of the mouth (like /iː/ in FLEECE and /uː/ in GOOSE) the sounds are called **close** /kləʊs/ vowels. Vowels made with an *open* mouth cavity, with the tongue far away from the roof of the mouth (like /æ/ in TRAP and /ɑː/ in PALM), are termed **open** vowels.

We also need to know which *part* of the tongue is highest in the vowel articulation. If the *front* of the tongue is highest (as in the first type /iː/ and /ɛː/), we term the sounds **front** vowels. If the *back* of the tongue is the highest part, we have what are called **back** vowels (the second type, like /ɔː/ and /uː/).

Although we can look into the mouth cavity, it is impossible to view directly what is happening in the pharynx – but this can be observed with X-ray imaging and similar techniques. As a consequence, we know that the open vowels like /ɑː/ have the tongue root pushed back so that the pharynx cavity is small. For the other open vowels, and to an extent for all back vowels, the pharynx cavity is reduced in size.

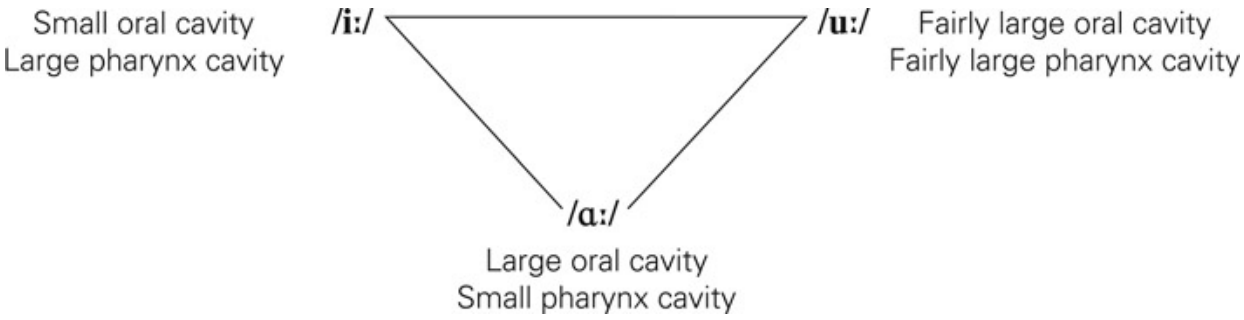


Figure A7.1 Relative sizes of oral and pharynx cavities in vowel production

The cardinal vowels

It was not until early in the twentieth century that a reasonably accurate system of describing and classifying vowels was devised. In 1917, the British phonetician Daniel Jones (1881–1967) produced his system of **cardinal vowels** (often abbreviated to **CVs**), a model which is still widely employed to this day.

For any vowel, the tongue must be arched into a hump (termed the **tongue arch**), as illustrated in Figures A7.2–A7.5. We can always distinguish the highest point of the tongue arch for any vowel articulation. There is an **upper vowel limit** beyond which the surface of the tongue cannot rise in relation to the roof of the mouth – otherwise friction (i.e. a consonant) will be produced. The vowels at the upper vowel limit are the front vowel [i] and the back vowel [u].

Activity A7.4

Say a close front vowel, e.g. /iː/ in FLEECE. Now try to put your tongue even closer to the roof of your mouth. You will hear friction. Do the same for /uː/ in GOOSE. Once again a kind of fricative will be the result.

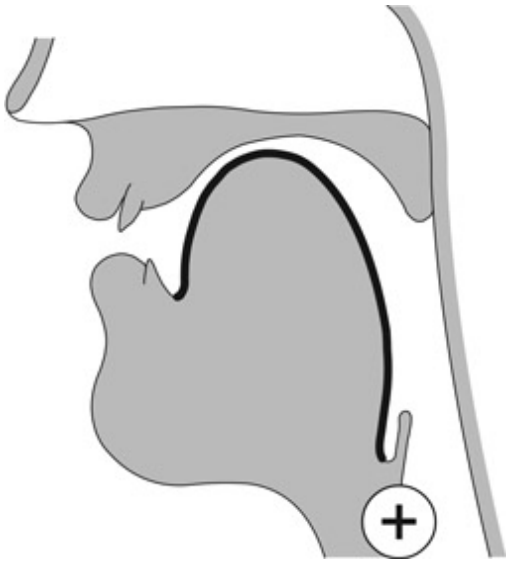


Figure A7.2 Tongue arch for [i]

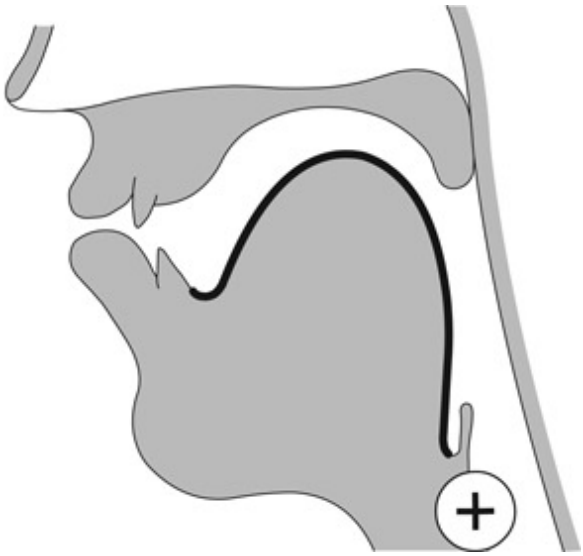


Figure A7.3 Tongue arch for [u]

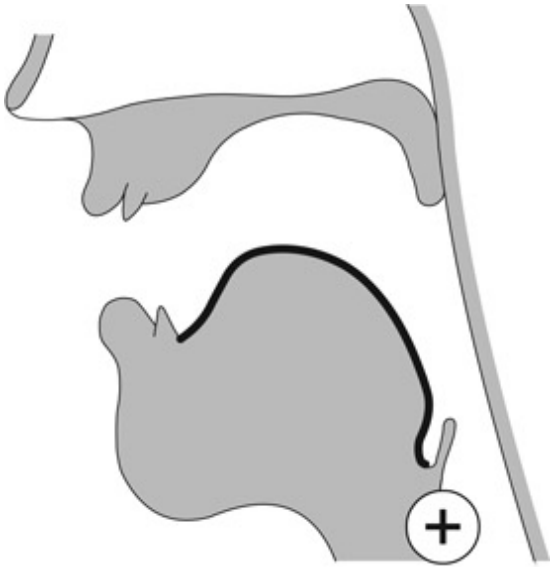


Figure A7.4 Tongue arch for [a]

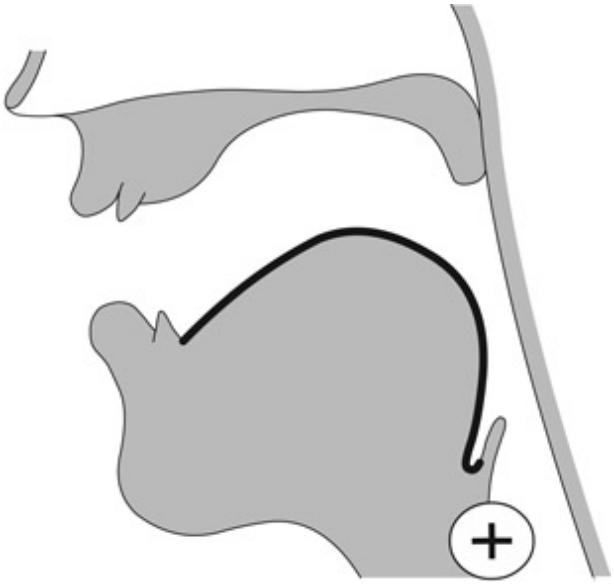


Figure A7.5 Tongue arch for [ɑ]

There is also a **lower vowel limit** beyond which the tongue cannot be depressed. This gives us two other extreme vowels – a front vowel [a] and a back vowel [ɑ].

We have now established the closest and most front vowel [i]; the closest and most back vowel [u]; the most open and most front vowel [a]; the most open and most back vowel [ɑ].

Figure A7.6 shows the superimposed tongue- arch shapes for the vowels [i u a ɑ]. In each case, the highest point of the tongue has been indicated by a black dot. If we then link up these dots, as shown on the diagram with a dashed line, then we arrive at an oval shape – rather like a rugby ball (or its American football equivalent). This is termed the **vowel area**, indicating the limits for vowel production (see Figure A7.7). For the sake of simplicity, we can straighten out the lines to form a four- sided figure, termed the **vowel quadrilateral**, as shown in Figure A7.8. Other vowels have been estimated auditorily (i.e. by ear) at roughly equal steps related to assumed tongue height. This gives four intermediate vowels – two front [e ɛ] and two back [o ɔ]. The full series of eight sounds is termed the **primary cardinal vowels** (named after the cardinal points of the compass: North, South, East, West). The quadrilateral is then for convenience divided up by lines as in Figure A7.9. The resulting figure is termed the **vowel diagram**.

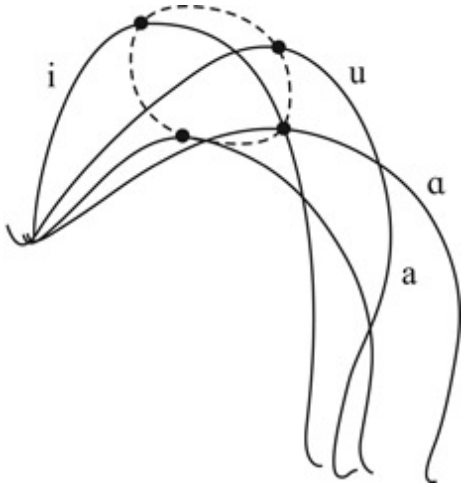


Figure A7.6 Tongue arches for [i u a ɑ] superimposed; black dots indicate highest point of the tongue for each vowel; dashed line shows limits of vowel area

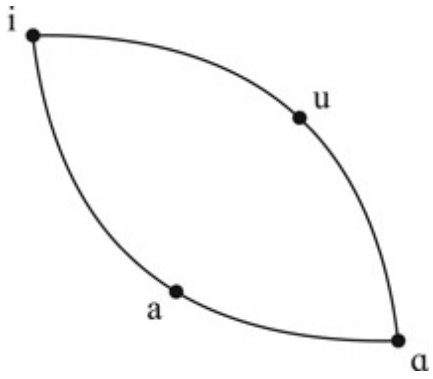


Figure A7.7 Vowel area

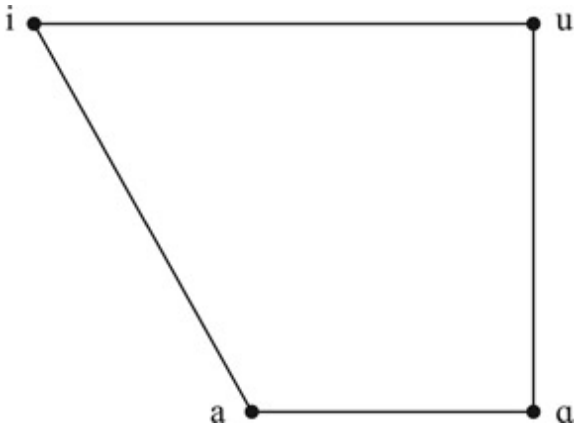


Figure A7.8 Vowel quadrilateral

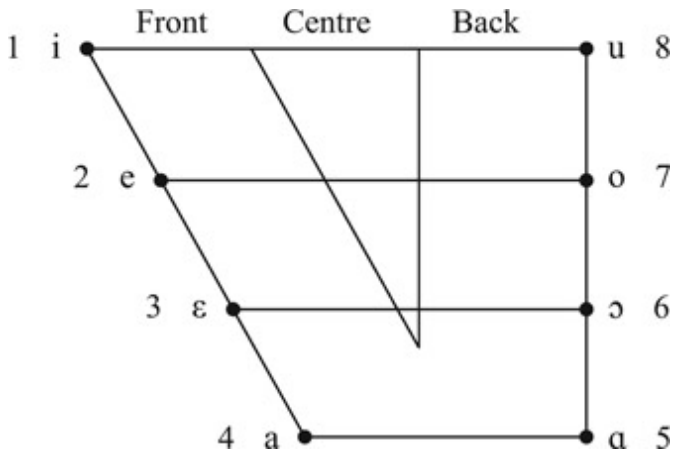


Figure A7.9 Primary cardinal vowels shown on a vowel diagram

What the cardinal vowel model provides is a mapping system which presents what is essentially auditory and acoustic information in a

convenient visual form. The approach can be faulted in some respects, mainly in that no account is taken of the pharyngeal cavity. Nevertheless, linguists have found it a very useful way of dealing with vowel quality for many practical purposes. The cardinal vowel model has been adopted by phoneticians all over the world and, in 1989, a vowel diagram closely based on it was introduced on the International Phonetic Alphabet symbol chart. The full revised 2015 version is illustrated on p. 317.

Note the labelling system for the cardinal vowels:

[i]: front close
[e]: front close- mid
[ɛ]: front open- mid
[a]: front open
[u]: back close
[o]: back close- mid
[ɔ]: back open- mid
[ɑ]: back open

In older textbooks, you may find the terms 'half- close' for close- mid and 'half-open' for open- mid.

In order to define the cardinal vowel qualities, Jones made a series of audio recordings, and these have served as a standard for other phoneticians using the system. A recording of the CVs by Daniel Jones himself can be heard if you visit this website: www.phonetics.ucla.edu/course/chapter9/cardinal/cardinal.html.

Lip shape

Change of lip shape is also a significant factor in producing different vowel qualities. The main effects of lip- rounding are: (1) to enlarge the space within the mouth; (2) to diminish the size of the opening of the mouth. Both of these factors deepen the pitch and increase the resonance of the front oral cavity. The lip shapes of the primary CVs follow the pattern typically found in languages worldwide. Front and open vowels have unrounded, i.e. spread or neutral, lip position, whilst back vowels have rounded lips (see Figure A7.10). (The UPSID survey of world languages, carried out by the University of California, has shown that over 90 per cent of front and back vowels are unrounded and rounded respectively; Maddieson 1984.)

The shape of the lips can be shown on vowel diagrams by means of the following **lip- shape indicators**:

Unrounded, ▢ e.g. /eɪ/ in FACE
Rounded, ◯ e.g. /oʊ/ in GOAT in many American varieties.

Although front unrounded vowels are the norm, nevertheless a number of languages (including many spoken in Europe) also have rounded front vowels; this goes for French, German, Dutch, Finnish, Hungarian, Turkish and the major Scandinavian languages. For example, French has the rounded front vowels /y ø œ/, as in *tu* 'you,' *peu* 'little' and *neuf* 'nine'; German rounded front vowels include /yː øː œ/, as in *Stühle* 'chairs,' *Goethe* (name), *Götter* 'gods.' Unrounded back vowels are much less common but are, for instance, to be heard in some languages of the Far East, like Japanese and Vietnamese. To cover these cases, a set of **secondary cardinal vowels** was devised, with reverse lip positions (i.e. front rounded, back unrounded) and these can be found on the official IPA chart (p. 317). For many purposes, it is only necessary to be familiar with three front rounded vowels as shown in Figure A7.11.

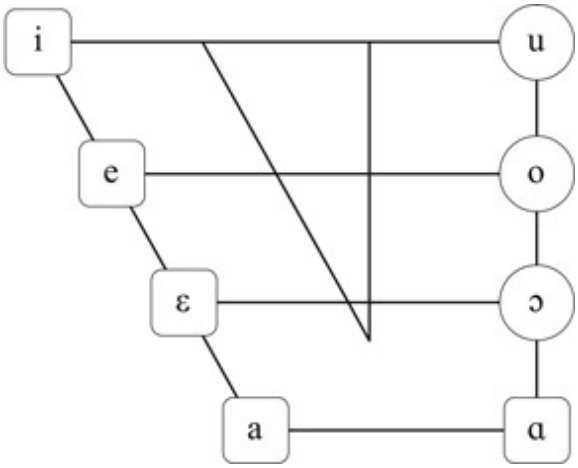


Figure A7.10 Lip shape of primary cardinal vowels

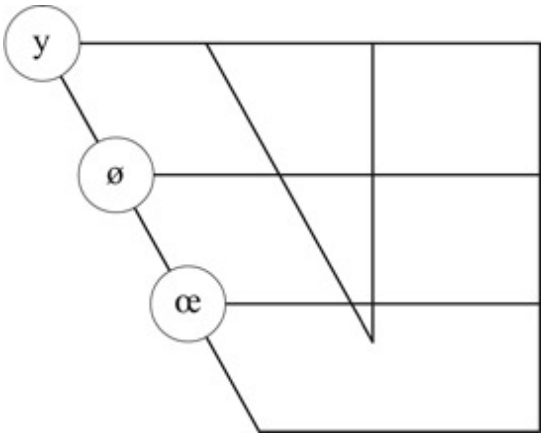


Figure A7.11 Front rounded cardinal vowels

Activity A7.5 🎧 Recording A7.1

Listen to the recording of the three secondary cardinal vowels /y ø œ/; get to know them so that you can recognise them and reproduce them with ease. Look in a mirror when you pronounce them to check that your lips are rounded.

You can find more information on the cardinal vowels in the *Handbook of the International Phonetic Association* (1999: 10–13).

Additional vowels

Other vowels are now included in the latest version of the vowel diagram incorporated into the International Phonetic Alphabet. The most important of these is the central vowel [ə] (termed **schwa** after the name of the vowel in Hebrew and similar to the *bon*US vowel of English). In addition, the following vowels are significant because of their frequent occurrence in languages: centralised CV 2 [ɪ] (similar to KIT) and centralised CV 7 [ʊ] (similar to FOOT in traditional RP). See Figure A7.12. Another vowel shown is a front vowel between CVs 3 and 4, namely [æ] – termed 'ash' (from the name for the letter in Old English). This sound is similar to General American TRAP.

Steady-state vowels and diphthongs

If the positions of the tongue and lips are held steady in the production of a vowel sound, we term it a **steady- state** vowel. In other books you may encounter the terms ‘pure vowel’ or ‘monophthong’ /ˈmɒnəfθɒŋ/ (Greek for ‘single sound’; note the spelling with **phth**). If there is an obvious change in the tongue shape (and sometimes also the lip shape), we term the vowel a **diphthong** (meaning ‘double sound’ in Greek, pronounced /ˈdɪfθɒŋ/; note again the spelling with **phth**). For a sound to be considered a diphthong, the change – termed a **glide** – must be accomplished in one movement within a single syllable without the possibility of a break. Apart from steady- state vowels, most languages also have a number of diphthongs; this goes for English and for other European languages, e.g. Dutch, Danish, German, Spanish and Italian. French is the best known example of a language which is usually analysed as having only steady- state vowels.

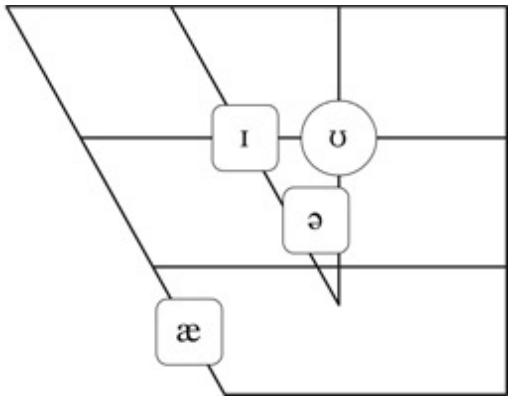


Figure A7.12 Additional vowels

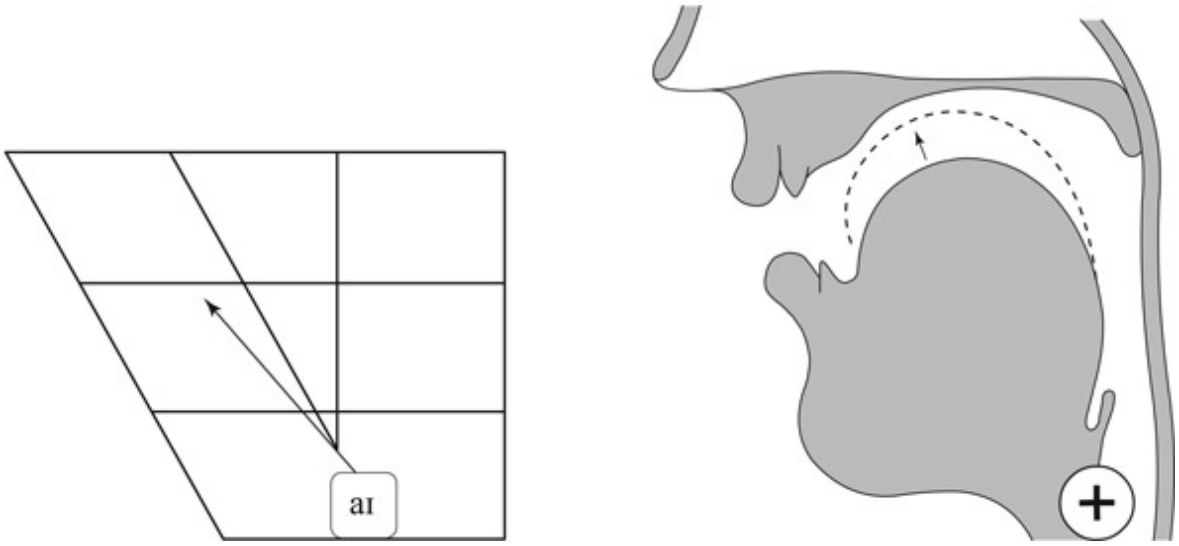


Figure A7.13 Vowel diagram representing English /aɪ/ as in PRICE. The cross- section shows the raising of the front of the tongue

The starting point of a diphthong is shown in the usual way and the direction of the tongue movement is indicated by an arrow. Figure A7.13 illustrates by means of a cross- section the change in tongue position for the English diphthong /aɪ/ as in PRICE. This corresponds to an arrow on a vowel diagram.

To allow for possible change in lip shape in diphthongs, two additional lip-shape indicators are employed:

- From unrounded to rounded, e.g. /əʊ/ in GOAT
- From rounded to unrounded, e.g. /ɔɪ/ in CHOICE

Note that the indication goes from left to right as in handwriting. (These lip-shape indicators were devised by J. Windsor Lewis 1969.)

Position of the soft palate

Nasalised vowels, produced with the soft palate lowered (see p. 40), are found in many languages all over the world. European languages with nasalised vowel phonemes include French (see Activity A7.6), Portuguese and Polish. These sounds are common in African languages (for example, Yoruba, spoken in Nigeria) and are also to be heard in a European language now spoken in South Africa – Afrikaans (see Activity A7.7).

Activity A7.6 🎧 Recording A7.2

Listen to the audio recording and practise making the nasalised vowels in the French words given here: *brun* 'brown' /brœ̃/, *train* 'train' /trɛ̃/, *banc* 'bench' /bɑ̃/, *bon* 'good' /bɔ̃/. (Most present- day speakers of standard French have no contrast /œ̃ – ɛ̃/, using /ɛ̃ / for both.) Compare the oral vowels: *boeuf* 'ox' /bœf/, *très* 'very' /trɛ/, *bas* 'low' /ba/, *beau* 'beautiful' /bo/.

Activity A7.7 🎧 Recording A7.3

Listen to these Afrikaans sounds on the website: *kans* 'chance' /kɑ̃s/, *mens* 'human being' /mɛs/, *ons* 'we, us, our' /ɔ̃s/.

Duration

Duration is merely the time taken for any sound. But measuring sounds in isolation only gives us *absolute* values. Duration is only of linguistic significance if one considers the *relative* length of sounds, i.e. the duration of each sound has to be considered in relation to that of other sounds in the language.

Many languages have a phonemic contrast of longer vs. shorter duration in vowel sounds, although very often this is combined with differences of vowel quality. This is true of English where the checked vowels like /ɪ/ are shorter than the free vowels like /iː/ (see Sections A2 and A8). Similar phonemic pairs are found in, for example, German, Dutch and the Scandinavian languages.

Practical applications of the vowel diagram

The following system can be used for vowel description. The areas of the vowel diagram are designated in the way shown in Figure A7.14.

We shall also distinguish between central vowels (i.e. those in or near the central-mid position of the diagram, Figure A7.15) and peripheral vowels (i.e. those around the edges, or periphery, of the vowel diagram).

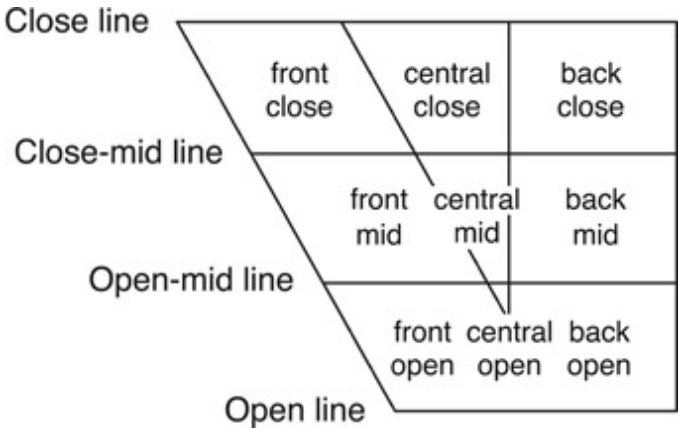


Figure A7.14 Areas of the vowel diagram

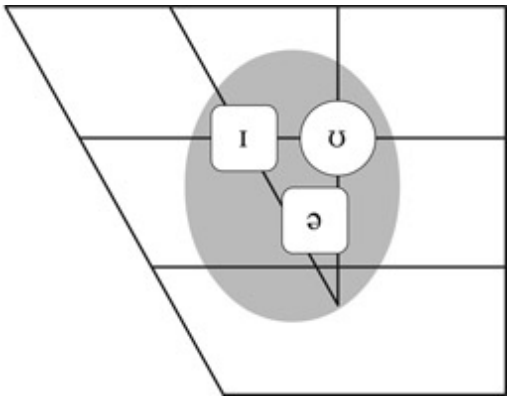


Figure A7.15 Central vowel area (indicated by shading)

Activity A7.8

Transcribe phonemically, showing intonation groups and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 7

There seemed to be no use in waiting by the door, so she went back to the table, half hoping she might find another key on it, or at any rate a book of rules for shutting people up like telescopes. This time she found a tiny bottle on it – 'which certainly was not here before,' said Alice. Tied round the neck of the bottle was a paper label, with the words 'Drink me,' beautifully printed on it in large letters. It was all very well to say that, but wise little Alice was not going to do things in a hurry.

A8

English Vowels

Overview of the English vowel system

In Unit A7, we saw how vowels can be described using a combination of articulatory and auditory data. Let's now examine in overview (Figure A8.1) the complete vowel system of English GB.

The checked/free distinction

The terms 'checked' and 'free' were introduced in Unit A2, but we can now say a little bit more about this distinction. In English, checked vowels cannot occur in word- final stressed open syllables. This implies that there are no words like */ˈtɪ ˈte/, etc., whereas we do find free vowels in this environment, e.g. /ˈtiː ˈtaɪ/ (*tea*, *tie*), etc. Since /ə/ is never stressed, it must be regarded as lying outside the checked/free classification. As it is always short, it will here be discussed together with the checked vowels.

Vowel length

Remember what was said earlier about vowel length in GB English. Other things being equal, checked vowels are shorter than free vowels and diphthongs (e.g. the vowel in *rid* is shorter than that in *reed* and *raid*). In addition, all vowels are shortened by pre- fortis clipping (p. 59), but this shortening effect is much more obvious with free vowels and diphthongs than with checked vowels.

Checked steady- state vowels and /ə/

The checked steady- state vowels of English are shown in Figure A8.2.

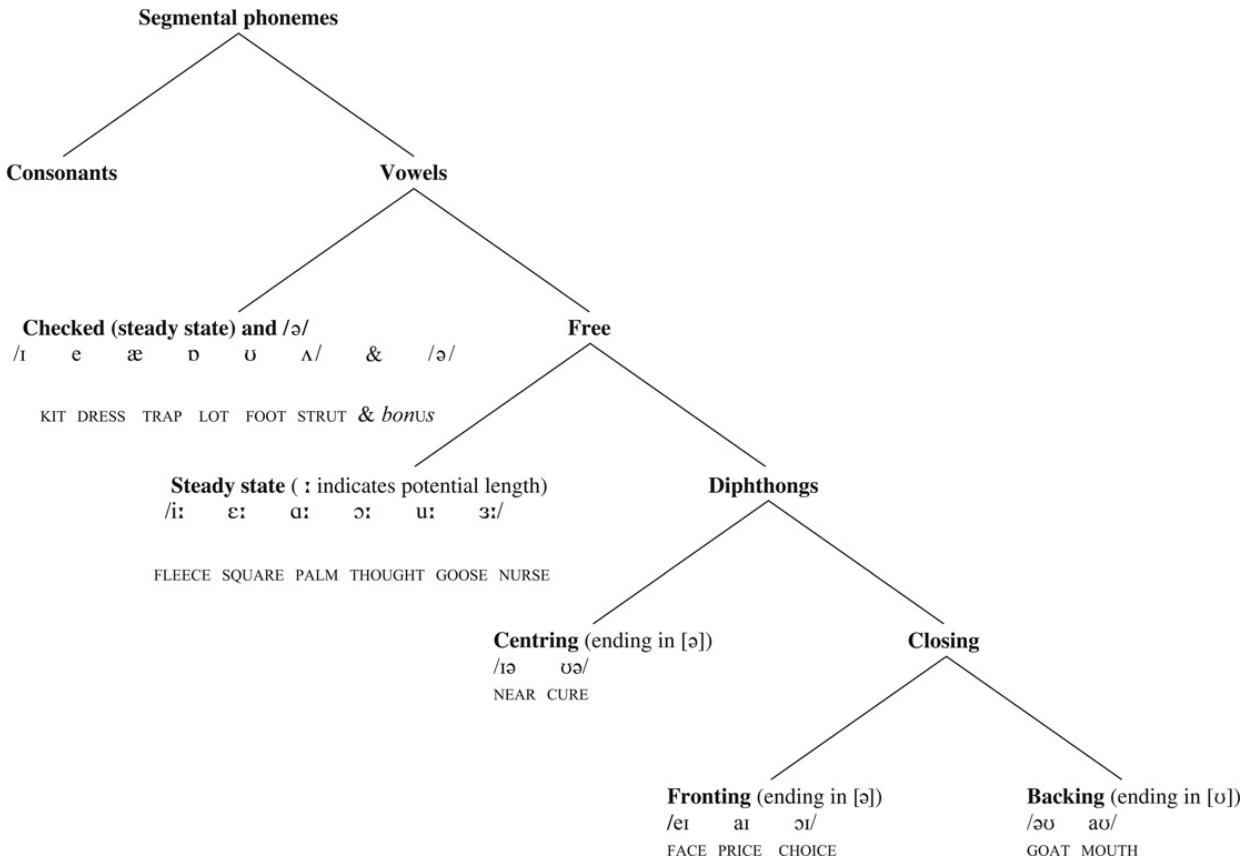


Figure A8.1 Overview of English (GB) vowel system *Figure A8.1*

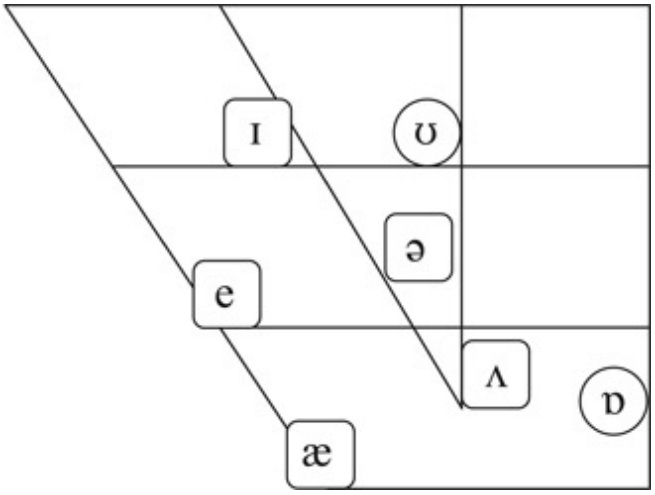


Figure A8.2 English (GB) checked vowels and /ə/

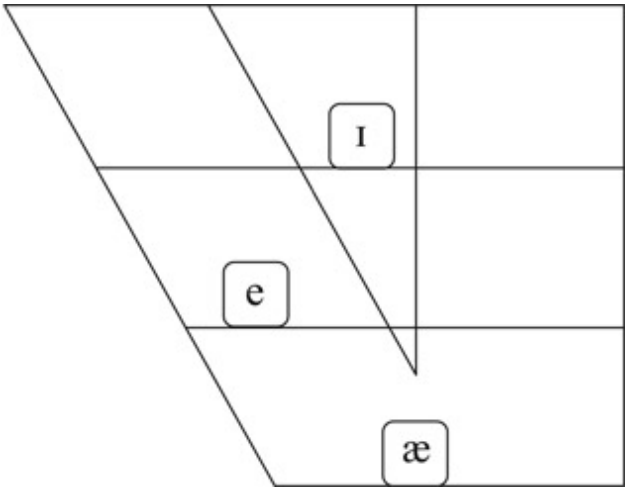


Figure A8.3 English (GB) front vowels before dark *l* in *pill, bell, pal*

Front checked vowels /ɪ e æ/

/ɪ/	KIT	front- central, close- mid
/e/	DRESS	front open- mid
æ	TRAP	front open

The English front checked vowels share the following characteristics:

- ❑ they are unrounded;

- ❑ they are centralised before dark *l*, e.g. *pill*, *bell*, *pal* (see Figure A8.3);
- ❑ they are raised before velars, e.g. *pick*, *peck*, *pack*.

Many GB speakers have a lengthened TRAP vowel in certain common words, such as *bad*, *mad*, *bag*, *man*; this is also true of many southern regional varieties and traditional RP. This is sometimes termed the *bad – lad* split.

Activity A8.1 (Answers on website)

Do you have vowels of the same length in the words listed below? Or is the first vowel regularly longer? (If you're not a native speaker, ask an English-speaking friend.)

- ❑ *mad – had*
- ❑ *man – plan*
- ❑ *bag – stag*
- ❑ *jam – tram*

If you do have lengthening of this sort, can you think of any other words which regularly contain a lengthened TRAP vowel? Ask friends and relatives the same questions.

Traditional RP front checked vowels had closer qualities, an effect which is especially noticeable with TRAP (making it sound amusingly similar to SQUARE to young ears), so that *glad* sounds like *glared*. This feature is still to be heard from some of the older generation – one often imitated example being the British Queen. See also Section B5 for discussion of language change affecting TRAP. Traditional RP DRESS was also noticeably closer than the present- day vowel, making *mess* sound like *miss* to the younger generation.

Central checked vowel /ʌ/ and central vowel /ə/

/ʌ/	STRUT	central between open-mid and open
/ə/	*bon*U*s*	central mid

STRUT varies considerably – some speakers use a much more front quality, sounding like [a], but in recent years this tendency has reversed as TRAP has lowered and a backer quality is heard.

In word- final position before a pause (e.g. *butter*, *favour*, *sofa*), the *bon*U*s* vowel is more open, and overlapping to a degree with STRUT. Indeed, for many native English speakers these two vowels are allophones of a single phoneme. Since /ə/ is always (by definition) unstressed, then /ʌ/ is regarded by such speakers as the stressed allophone of /ə/. For many speakers, the two vowels in *butter* /ˈbʌtə/ are very similar, or identical, sounding like [ˈbʌtʌ] or [ˈbətə].

In the accents of the north of England, roughly from just above Birmingham to the Scottish border, STRUT is absent and words containing /ʌ/ are instead pronounced with the FOOT vowel/ʊ/. See Sections B1, C1 and C2. Note that the *bon*U*s* vowel can be spelt with any vowel letter (with or without a following r), e.g. camer **a**, p **ar** ticul **ar**, usel **e** ss, wait **er**, pos **i** tive, V **ir** ginia, pr **o** nunciation, doct **or**, bon **u** s, col **ou** r, mart **yr**.

Activity A8.2

Although native English speakers outside the north of England usually have a contrast STRUT – FOOT – ʊ/, nevertheless not all may consider that they contrast the STRUT vowel/ə/-ʊ/ and the *bon*U*s* vowel /ə/. How do you yourself pronounce the syllable *drum* in the following words: *drum – humdrum – conundrum*? Do you say them with a STRUT vowel, a FOOT vowel or a *bon*U*s* vowel? Or do they vary? (If you're not a native speaker, ask an English-speaking friend.)

Back checked vowels /ɒ ʊ/

/ɒ/	LOT	back between open-mid and open (rounded)
/ʊ/	FOOT	central close-mid (weakly rounded)

The checked back vowels have lip- rounding. Note, however, in present- day GB such rounding is typically rather weak. FOOT in particular is often unrounded, especially in the high- frequency word *good*. See above for the use of the FOOT vowel in words in northern England. In certain words LOT varies with STRUT, e.g. *accomplish*, *constable*. In some northern varieties this is extended to more words, e.g. *none*, *one*.

Worry words

Non- native learners of English often confuse STRUT and LOT words. This is because the STRUT vowel, as well as having a regular spelling with **u** (e.g. *bus*, *hurry*), can also be represented orthographically by **o**, as in *love*, *worry*. (Note that *son* and *sun* are both pronounced with STRUT.) We shall therefore term these the **worry words**, and you can find a list of them in Unit A9, pp. 106–7.

This is a sound–spelling relationship which is especially significant for non-natives, since it is a problem which affects all learners who use the Roman alphabet for their L1.

Free steady- state vowels

The free steady- state vowels are long in open syllables, and also when preceding nasals, lateral approximants and lenis stops and fricatives. Before fortis stops and fricatives, under the influence of pre- fortis clipping (see p. 59), these vowels are much shorter.

Front steady- state vowels /iːɛː/

/iː/	FLEECE	front close
/ɛː/	SQUARE	front open-mid

The FLEECE vowel /iː/ is generally realised as a slight diphthongal glide [ɪi], except where shortened by pre- fortis clipping. Compare *knee* (long, diphthongal) with *neat* (short, steady- state). Preceding dark *l*, there is usually a *centring* glide, so that for many speakers there is no contrast with /ɪəl/, e.g. *reel* – *real*. English native speakers often seem unsure of how to transcribe words like *feel*, i.e. either as /fiːl/ or as /fɪəl/. Thus, for them, the effect of dark *l* would appear to be to neutralise the contrast.

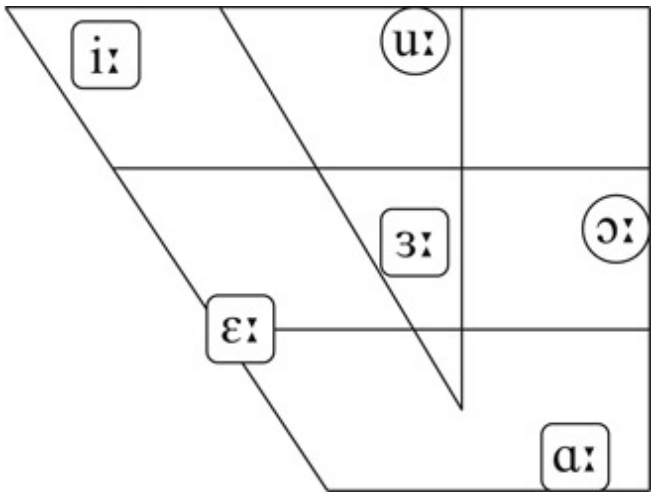


Figure A8.4 English (GB) free steady- state vowels

The final vowel in words like *happy*, *coffee*, *movie*, etc. (usually referred to as the '*happ* ʏ words'; see Wells 1982: 165–6) is nowadays much closer than in traditional RP. Indeed, speakers of GB now regard it as falling into the FLEECE rather than the KIT category. Old- fashioned RP speakers, many northerners (in particular Yorkshire and Lancashire) and most Scots regard the '*happ* ʏ' vowel as /ɪ/ and this is how it has until recently been classified. At one time, traditional RP had a very open vowel in this context, sounding almost like /e/: ['hæpe]. This is hardly ever heard today and strikes modern GB users as archaic or regional. The typical GB realisation is a short FLEECE vowel [i] and therefore pronunciation dictionaries nowadays show it with the symbol **i**. SQUARE /ɛː/ is typically a steady- state vowel in present- day GB. For past generations, a centring glide of an [ɛə] type was usual, and this is still to be heard as a variant pronunciation from older speakers, especially word- finally before a pause. In most phonetics books, the symbol for this vowel is **e** ə – but this certainly does not reflect the typical pronunciation of the twenty- first century.

Central steady- state vowels /ɜːɑː/

/ɜː/	NURSE	central mid
/ɑː/	PALM	back-central open

NURSE /ɜː/ was more open in traditional RP – a feature nowadays often regarded as 'affected.'

The BATH words

In what are termed the BATH words, e.g. *craft*, *pass*, *dance* (see below), most British varieties apart from GB and those in the south- east of England choose TRAP. GB, London and East Anglia have PALM in these items. Some speakers, for instance many northerners and Midlanders whose speech is otherwise largely GB, may retainTRAP in BATH words, thus keeping a characteristic of their local speech. (This is often cited as an example of 'accent loyalty.') Worldwide, North American accents choose TRAP, South Africa chooses PALM, while Australia, New Zealand and the Caribbean are variable.

The set of BATH words consists chiefly of words where orthographic **a** occurs before (1) a nasal (+ consonant), e.g. *ban **a** na*, *chance*, or (2) a fricative (+ consonant), e.g. *pass*, *task*. The following list provides a selection of the commonest words.

Pre-nasal

an	*banana*, *sultana*
am	*example*, *sample* (but *ample*, *exam* with /æ/)
ance	*advance*, *chance*, *dance*, *France*, *glance*, *lance*, *lancet* (but *romance*, *finance*, *cancel*, *cancer* with /æ/)
and	*command*, *demand*, *reprimand* (/æ/ in single-syllable words, e.g. *bland*)
ans	*answer*
ant	*advantage*, *chant*, *grant*, *plant*, *can't*, *shan't*. Note also: *aunt*

Pre-fncative

af	*after, craft, draft, staff*. Note also: *laugh, draught*
alf/alv	*half, calf, halve*

ask	*ask, task, basket*
asp	*gasp, grasp, clasp*
ass	*brass, class, glass, grass, pass* (but *ass, classical, classify, mass* with /æ/)
ast	*cast, castle, disaster, fast, fasten, ghastly, master, past, plaster* (but -**astic** is usually /æ/, *e.g. plastic, elastic, fantastic)*
ath	*bath, path, rather* (but *maths* with /æ/)

In GB there are also a number of words which vary between /æ/ and /ɑː/ (e.g. *drastic*, *plastic*) and all words containing the prefix **trans** -, e.g. *transport.*

Activity A8.3

How do you yourself pronounce the following words – with the TRAP vowel or the PALM vowel?

prance, bask, brass, rather, task, dancer, answer

If possible, ask people from other parts of the English- speaking world. Does everyone have the same patterning? If not, try to analyse the differences.

Activity A8.4

Even if you are from the south- east of England, or a GB speaker, you'll find some BATH words are pronounced in two ways. Which vowel (TRAP or PALM) do you use in the words below? (If you're not a native speaker, ask an English- speaking friend.)

chaff, graph, photograph, askance, bastard, lather, plastic, Glasgow, Basque, trans- (e.g. *transport*)

Back steady- state vowels /ɔːuː/

/ɔː/	THOUGHT	back below close- mid (rounded)
/uː/	GOOSE	central close (weakly rounded)

Like other back vowels in English, THOUGHT and GOOSE are rounded – although with many speakers, the rounding in GOOSE may be minimal or absent.

The GOOSE vowel can also be realised with a slight glide from an opener position, except where shortened by pre- fortis clipping. For younger GB speakers, a striking change has occurred in recent years whereby this vowel has become much more fronted and unrounded. Older- generation speakers sometimes interpret this new GOOSE vowel as FLEECE, which may cause confusion with pairs such as *two – tea, through – three, food – feed, Luke – leek*, etc. The fronting is most obvious following /j/, as in *news, confuse, huge*, etc.

The THOUGHT vowel is the most strongly lip- rounded of all vowels in present- day GB English. For most speakers this vowel replaces traditional /ʊə/ in common words such as *sure, you're/your, poor* and has increasingly extended to other items belonging to the CURE set. See below.

Free diphthongs

Free diphthongs – also termed vowel glides – fall into a number of categories based on direction of tongue movement. English has **closing** /ˈkləʊzɪŋ/ diphthongs (tongue rises, thus *closing* the space between the tongue and the roof of the mouth) and **centring** diphthongs (tongue moves towards the *central* vowel [ə]). The closing diphthongs can be further subdivided into **fronting** (moving towards a close *front* vowel [ɪ]) and **backing** (moving towards a close *back* vowel [ʊ]). See Figures A8.5 and A8.6.

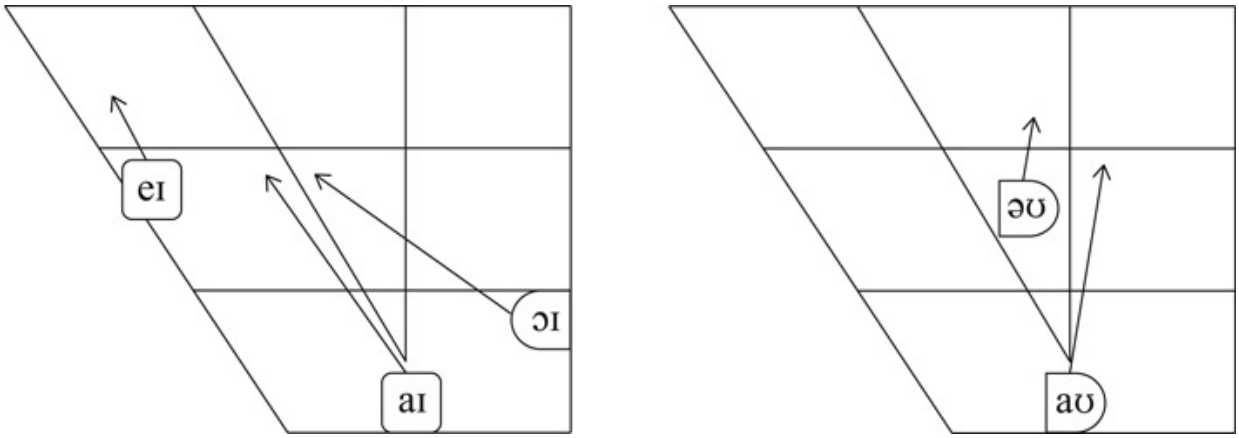


Figure A8.5 English (GB) closing diphthongs: (left) fronting /eɪ aɪ ɔɪ/; (right) backing /aʊ əʊ/

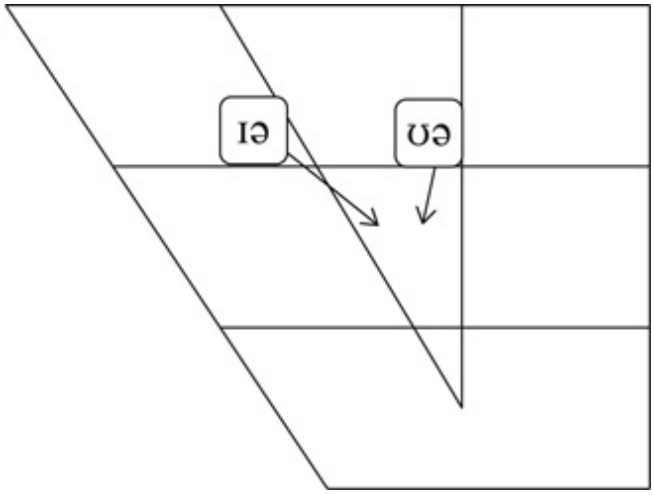


Figure A8.6 English (GB) centring diphthongs

Symbolisation and lip- shape indicators

All diphthongs are shown with two symbols as explained below:

- fronting diphthongs end with ɪ, e.g. /eɪ/ FACE;
- backing diphthongs end with ʊ, e.g. /aʊ/ MOUTH;
- centring diphthongs end with ə, e.g. /ɪə/ NEAR.

The diphthongs /eɪ aɪ ɪə/ are lip- spread throughout their articulation and are therefore represented by ▢on vowel diagrams. The diphthongs /ʊə ɔɪ/ involve a change from rounded to unrounded (represented by ◻). The diphthongs /əʊ aʊ/ move from lip-spread to lip- rounded (represented by ▢). GB English has no vowel glides which are completely lip- rounded throughout, though American GOAT is often realised in this way.

Fronting diphthongs /eɪ aɪ ɔɪ/

/eɪ/	FACE	front mid → ɪ
/aɪ/	PRICE	central open → ɪ
/ɔɪ/	CHOICE	back open-mid (rounded) → ɪ

Traditional RP had a closer starting point for FACE, a more front starting point for PRICE, and a more open starting point for CHOICE. These may still be heard from some conservative speakers.

Backing diphthongs /aʊ əʊ/

/aʊ/	MOUTH	central open → ʊ
/əʊ/	GOAT	central mid → ʊ

Traditional RP had back starting points for these diphthongs, and these are still to be heard from some older speakers. GOAT in particular still shows very considerable variation. Some GB speakers now have a more front articulation which can sound similar to / eɪ/ to older- generation ears, leading to potential confusion with pairs such as *cone/cane, go/gay, road/raid*, etc. For certain speakers, the [ʊ] element may be minimal or lost entirely before dark *l*, making pairs such as *pole/pearl, whole/hurl* near- homophones.

Many GB speakers, especially those influenced by London speech, employ [ɒ] rather than [əʊ] before dark *l*, giving an extra diphthong of an [ɒʊ] type. This can be heard in words like *gold, revolt*, etc.

Centring diphthongs /ɪə ʊə/

/ɪə/	NEAR	front close-mid ⟶ ə
/ʊə/	CURE	central close-mid ⟶ ə

Despite the symbolisation, many GB speakers have a closer starting point (similar to FLEECE) making NEAR sound like a sequence of /iː/ and /ə/ pronounced smoothly within one syllable. Very open terminations were found in traditional RP, and are now considered by many to be 'affected.' It's now very common for the glide to be lost altogether and for NEAR to be realised as a prolonged [ɪː] vowel. It appears that NEAR is in the middle of undergoing the same historical change that is more or less complete in the case of SQUARE.

In the case of CURE, again many GB speakers have a closer starting point (similar to GOOSE) which makes CURE sound like a sequence of /uː/ and /ə/ pronounced smoothly within one syllable. Increasingly, in common words, e.g. *poor*, /ʊə/ is replaced by the THOUGHT vowel and, for most speakers, the /ʊə/ diphthong hardly exists.

Note that traditional RP included SQUARE as a third centring diphthong of an [ɛə] type which can now be regarded as a steady- state vowel (p. 94).

Vowel sequences with /ə/ termination /aɪə aʊə/

In the common sequences /aɪə/ and /aʊə/, the [ɪ] or [ʊ] element is generally reduced, and may be altogether absent – an effect which has been termed **smoothing** (Wells 1982: 286). Nevertheless, words like *shire* and *shower* are normally distinct. The contrast of /aʊə/ and /ɑː/ (i.e. *shower* and *Shah*) was formerly absent in the relaxed speech of some traditional RP speakers – but this suffered a degree of stigmatisation, often being labelled 'affected.' In GB (as indeed in other forms of English) a clear contrast of /aʊə – aɪə – ɑː/ seems to be well maintained. An exception to this is the word *our*, which is commonly pronounced /ɑː/ not only in unstressed contexts but also when stressed.

You can hear a degree of smoothing in other sequences, e.g. /eɪə/ as in *conveyor*, /əʊə/ as in *thrower*, /ɔɪə/ as in *royalist*. Extreme reductions such as the levelling of /eɪə/ and /ɛː/ *(layer – lair)* or /əʊə/ and /ɜː/ (*slower – slur*) are again characteristic of a type of traditional RP which was often branded 'affected.' These extreme smoothings are unusual in modern GB.

Activity A8.5

Transcribe phonemically, showing intonation groups and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 8

‘No, I’ll look first,’ she said, ‘and see whether it’s marked “poison” or not,’ because she had read several nice little stories about children who had got burnt, and eaten up by wild beasts, and other unpleasant things, all because they *would* not remember the simple rules their friends had taught them. For instance, a red- hot poker will burn you if you hold it too long. If you cut your finger *very* deeply with a knife, it usually bleeds. Alice had never forgotten that if you drink much from a bottle marked ‘poison,’ it is almost certain to disagree with you, sooner or later.

A9
English Spelling

Now that you've discovered more about the consonants and vowels of English, it's perhaps a good time to discuss English spelling conventions. The first thing we have to find out is why English orthography is so irregular and full of exceptions to its rules (although English spelling is not really quite as unpredictable as is sometimes suggested). The history of English orthography is long and complex. As is true of other western European languages, the Roman alphabet – designed to deal with the fifteen consonants and five long and five short vowels of Latin – had to be adapted to fit the needs of Old English (pp. 163–4). Several new letters were introduced, including **Þ** and **ð** for the dental fricatives [θ, ð], but all of these innovations eventually became defunct.

From 1066 onwards, English was massively infiltrated by the language of the conquering Normans – indeed, it looked for a time as if French might even supplant English as the language of England. Many French spelling conventions were adopted, as you can see from the transcript of Chaucerian English (pp. 164–5). Further complications came with the influx of Latin and Greek vocabulary which were vital to deal with the needs of scientific and scholarly work. In Shakespeare's time (pp. 165–6), there was much variation in orthography and considerable tolerance of individuals' personal preferences. During the eighteenth century (pp. 166–7), spelling became more standardised, and very similar to what we have today – a process hastened by the publication in 1755 of Samuel Johnson's influential *Dictionary of the English Language*. It is notable, however, that no attempt

was made at any official spelling reform, and consequently many discrepancies and irregularities remained. In America, the lexicographer Noah Webster's modifications were minor; for instance, he removed superfluous letters to produce spellings like *color, encyclopedia, traveled* (and similar past tense forms). Nevertheless, Webster's reforms do largely account for the differences between British and American spelling today.

In the course of the last two centuries, relatively few changes have been made to English spelling, even though a couple of British anomalies like *shew* and *gaol* have been superseded by *show* and *jail*. However, there have been many calls for spelling reform, and in 1908 the Simplified Spelling Society was set up in Britain (an American Simplified Spelling Board already existed). It gained the support of many well- known figures – notably the playwright Bernard Shaw, who attempted to leave all of his huge fortune to the cause of spelling reform (his will was subsequently bitterly contested in the courts). Under its new name – the English Spelling Society – it's still very much a going concern, and until 2013 had a phonetician, John Wells, as its president, and counts several linguists amongst its supporters. You can access its website at http://spellingsociety.org. A major project in the 1960s was the Initial Teaching Alphabet, designed by James Pitman (1901– 85) to introduce children to reading on an essentially one symbol to one speech sound basis. Although it had considerable success in its aims, British teachers lost interest in it, and it was eventually abandoned. The ITA still has adherents in the USA, where it is used in some schools, in particular for teaching English spelling to American Hispanic children. There is more information at this website: www.itafoundation.org/.

The arguments in favour of spelling reform are very powerful. Research has confirmed that far more time is needed for an English- speaking child to learn to read than is the case for children in countries with languages with more rational spelling systems like Finnish or Spanish. Functional illiteracy is known to be a major problem in job training, and there have been suggestions that the high degree of illiteracy found in the prison population

might indicate that the over- complex orthography of English could even help foster some kinds of criminality.

However, the difficulties of introducing spelling reform should not be underestimated. Wherever it has been attempted, there has always been great public resistance to any change. In the case of English, with its unique position as a world language, reform would require government co-operation on an international scale. Furthermore, English is spoken all over the world in many different accents, and a reformed alphabet would have to take into account all the varying pronunciation of its many users. This is the point discussed by John Wells in his piece in Section D (pp. 263–8).

Nevertheless, it is reassuring to realise that English spelling is really far less chaotic than might at first be thought. In fact, the vast majority of words are pronounced according to definable rules and the number of exceptional words going against these patterns is actually rather small – even though these are unfortunately amongst the commonest words in the language. The difficulties experienced by native speakers of English derive from the fact that they are well aware of how to pronounce a word, but have trouble in knowing how to write it. This is because they encounter the spoken form of the word first. For non- natives, the reverse is true. They first learn the written form of the word, but may easily have an incorrect impression of how the word is pronounced. In the remainder of this Unit, we shall try to give you some idea of certain useful spelling- to- sound relationships (**grapho- phonemic** patterns, as they are technically termed) so as to provide guidelines to help non- native speakers with English pronunciation. Learning about these patterns will help you to cope with some of the vagaries of English spelling, by enabling you to link the orthographic form of the word to its phonemic form. Similar grapho- phonemic guides can also be found in the two best known pronunciation dictionaries, the *Longman Pronunciation Dictionary* (Wells 2008) and the *Cambridge English Pronouncing Dictionary* (Jones 2011). A useful little book devoted solely to the topic of spelling is Carney's (1997) *English Spelling*, while Carney's *Survey of English Spelling* (1994) is the definitive work on the subject. A

more recent, and very readable, publication on English spelling, covering many different aspects of the topic, is Crystal's (2012) *Spell it Out*.

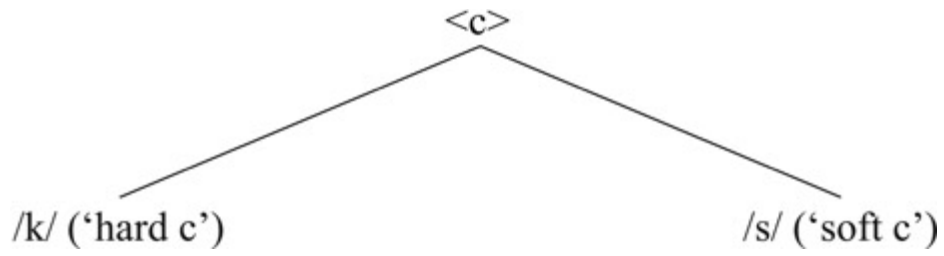
Note

Note that in the sections that follow, the warning triangle ⚠ indicates an exception to the general guideline or pattern.[1]

Spelling guidelines 1: letters <c> and <ch>

Letter <c>

Orthographic **c** is pronounced mainly in two ways: either /k/ or /s/, popularly termed ‘hard c’ and ‘soft c’ respectively.



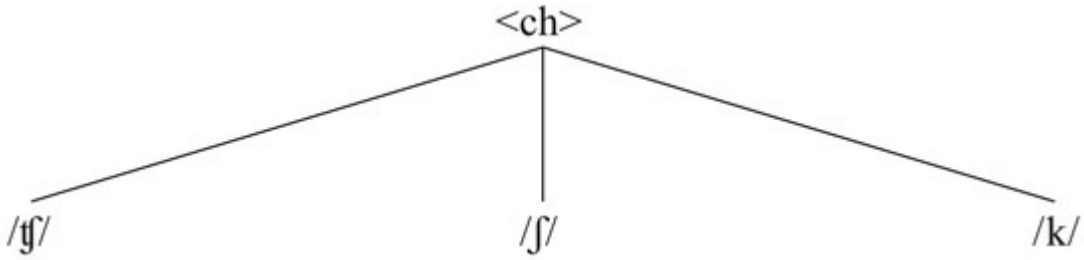
/k/ (‘hard c’)	/s/ (‘soft c’)
1. Preceding **a**, **o**, **u** e.g. *cat, cot, cut;* in initial consonant clusters, e.g. *clap, creak;* and when final, e.g. *music.*	1. Preceding **e**, **i**, **y**: *cease, city, cymbals, grace, icicle, bicycle.* (Word-final **ce** always represents /s/ and *never /z/,* e.g. *mice, space.)*
2. Coda combination **ck** is always pronounced **k**, e.g. *block, sticks.*	

Note

Preceding **ia**, **ea**, **ie**, **io** in unstressed syllables, **c** is said as /ʃ/, e.g. *special, ocean, ancient, precious, suspicion.* Note *pronunciation, society*, where /s/ occurs: /prənʌnsiˈeɪʃn̩, səˈsaɪəti/.

Letter combination <ch>

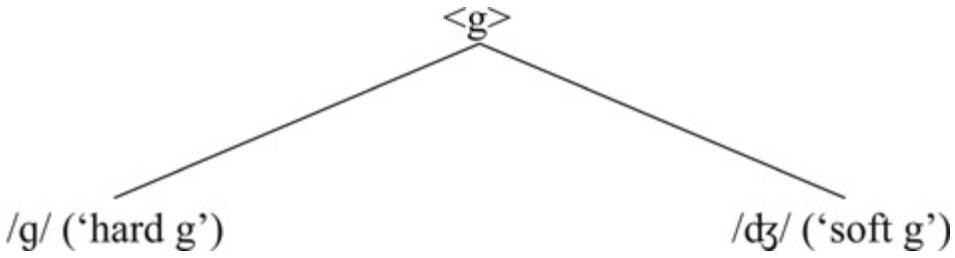
The letter combination **ch** is pronounced in three ways.



Regular form: *chicken, cheek, achieve, peach* ***Note*** Combination **tch** is regularly pronounced /ʧ/, e.g. *patch, kitchen.*	/ʃ/ in recent French loans: *charlatan, cham-pagne, chic, chef, chas-sis, brochure, machine, parachute*	In scientific, medical and other learned words (mostly derived from Greek), e.g. *chaos, chemist, architecture, archives, epoch, stomach, mechanism, psychologist, hierarchy, ache*

Spelling guidelines 2: letter <g>

Letter **g** is pronounced in two main ways: either /ɡ/ or /ʤ/, popularly termed 'hard g' and 'soft g' respectively. Note that **g** also occurs in several letter combinations, as detailed below.



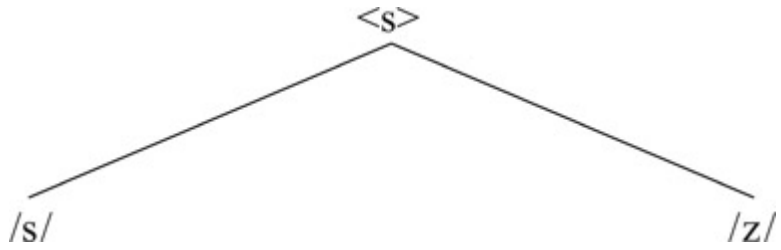
1. Before **a**, **o**, **u**, e.g. *gap, got, goat, gun.*
   △ *margarine* with /ʤ/.
2. **gu** and **gue**: here letters **u** or **ue** merely indicate a hard **g** and are silent, e.g. *guess, guise, league, intrigue.*
3. **ng** gives /ŋ/ in *tongue* /tʌŋ/, *meringue* /məˈræŋ/, and **ngu** /ŋgw/: *lingual, extinguish.*
4. Intervocalic **ng** has two possibilities. If the word is derived from a verb, it is pronounced /ŋ/, e.g. *singer, hanger, longing*; if not derived from a verb, it is pronounced /ŋg/, e.g. *anger, finger.* Compare *longing* /ˈlɒŋɪŋ/ from *to long*, and *longer* /ˈlɒŋgə/ from adj. *long.*
5. **gh** gives /ɡ/ initially and medially: *ghastly, ghost, spaghetti.*

1. Before **e**, **i**, **y**, e.g. *gesture, general, gin, danger, gibberish, gymnasium, energy, magic.*
   △ There are many exceptions to this guideline, especially in common words, e.g. *gear, get, give, together, begin, eager.*

6. Final **gh** gives /f/ (also in sequence **ght**): *rough* /rʌf/, *cough* /kɒf/, *laugh* /lɑːf/ *draught* /drɑːft/. See section on silent letters below for silent **gh** as in *though, daughter*. **gg** gives /g/, e.g. *luggage, dagger*.

 *suggest* /səˈʤest/.

Spelling guidelines 3: letters <s> and <se>



1. Initial **s** regular form: *sit, sun, stick.*
2. Medial between vowels (including **y**): /s/ is rather more common:

    a) Prefixes: **mis-**, **dis-**, e.g. *misunder-stand, misuse, disapprove, disobey.*

    △ /z/ in *disease.*

    b) Longer words (three syllables or more) ending in –**sy**: *hypocrisy, ecstasy, jealousy.*

    c) **-ss-**: /s/ in *assert, assess, essay.*

1. Initial **z** always /z/, never /s/, e.g. *zebra, zinc, zoo.*
2. Medial between vowels (including **y**): /z/ is less common, but does occur in some high-frequency words:

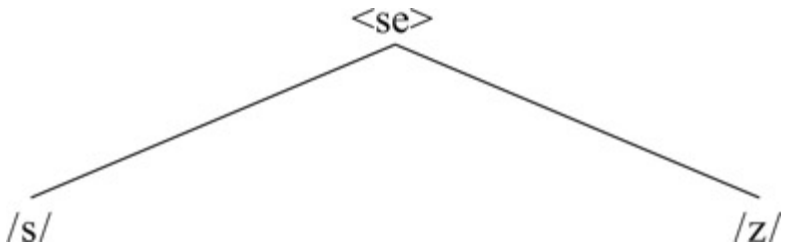
    a) Prefixes: **de-**, **pre-**, **re-** followed by a stressed syllable beginning **s**, e.g. *design*, *preserve*, *resent.*

    b) Short words ending in –**sy**, e.g. *busy*, *clumsy*, *cosy*, *drowsy*, *easy*, *flimsy*, *lousy*, *noisy*, *queasy*

△ /z/ in *dessert, possess, scissors, dissolve.*

d) **sch**: /sk/ in *scheme, schism, scholar, school.*

△ /ʃ/ *in schwa*; /ʃ/ or /sk/ in *schedule.*



(less commonly)

aise: no example

ase: *base, case, cease* /siːs/, *increase,chase, purchase*

ause: no example

eese: *geese*

ese: *obese*

ise: *concise, paradise, practise, precise, premise*(*s*) /ˈpremɪsɪz/

oise: *porpoise* /ˈpɔːpəs/, *tortoise* /ˈtɔːtəs/

oose: *goose, loose, moose, noose*

ose: *close* (n. and adj.), *jocose, purpose,verbose*

ouse: *house* (n.), *louse, mouse, spouse*

owse: *dowse*

use: *abstruse, diffuse* (adj.), *excuse* (n.), *obtuse, profuse, recluse, refuse* (n.) /ˈrefjuːs/,

(generally)

liaise /liˈeɪz/, *praise, raise ease, erase, phase, phrase, vase* /vɑːz/ *because, cause, clause, pause*

cheese

Chinese, Japanese, Siamese, journalese, these

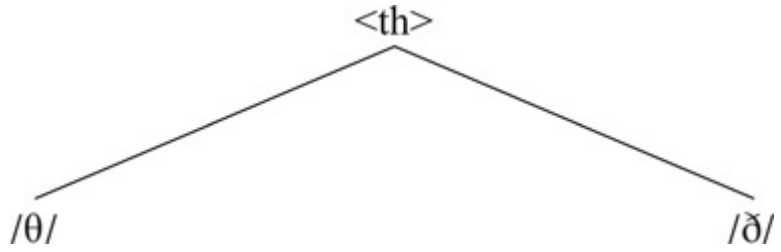
criticise, devise, disguise /dɪsˈgaɪz/, *realise, revise, surprise.* Also *analyse, paralyse.* Most **ise** words (not all) have an alternative spelling **ize**.

noise, poise, turquoise /ˈtɜːkwɔɪz/ *choose*

use (n.). When final – **se** follows a consonant (including **r**), **s** is pronounced as /s/, e.g. *else, immense, immerse, lapse, sparse, universe.* △ *cleanse* /klenz/, *parse* /pɑːz/	*close* (vb), *compose, chose(n), dispose, lose, nose, propose* *arouse, blouse, house* (vb), *rouse browse, drowse* *abuse* (vb), *accuse, confuse, diffuse* (vb), *excuse* (vb), *fuse, refuse* (vb), *peruse, use* (vb)

Spelling guidelines 4: letter combination <th>

The letter combination **th** has two main pronunciations, /θ/ and /ð/. There is no popular term for this distinction – surprisingly, many native English speakers are quite unaware of the fact that they make this consonant contrast.



1. Regularly in initial position except for function words listed opposite, e.g. *thick, therapy, through, thermometer.*	1. In the following function words: *that, the, they, their, them, then, thence, there, this, these, those, though, thus.* Note also these archaic forms: *thy, thine, thou, thee, thither* /ˈðɪðə/.
2. In medial position in learned or sci-entific words: *anthem, atheist, author-ity, cathedral, ether, ethics, method, mathematics.*	2. In medial position in most everyday words, e.g. *either, gather, neither, father, mother, brother, other, northern, southern* /ˈsʌðn̩/, *together, worthy* /ˈwɜːði/. Also *rhythm, rhythmical*, etc.
3. Regularly when word-final e.g. *bath, heath, beneath, teeth, growth, north, south.* Some have plurals with /ðz/, e.g. *baths, paths, oaths.*	3. Word-finally in *booth, smooth, with.* Final -**the** is always /ð/, e.g. *bathe, breathe, clothe.*
4. **th** gives /t/ in a few proper names, e.g. *Thames, Theresa,*	

Thomas, Thompson, Anthony, Esther. Note also *thyme*.

Spelling guidelines 5: silent consonants in some common words

Letter	*Context*	*Examples*
b	Final **mb**	*bomb* /bɒm/, *climb, comb* /kəʊm/, *crumb, dumb,lamb, limb, tomb* /tuːm/, *numb, plumb, thumb,succumb, aplomb.* Also derived forms, e.g. *bomber, dumber, dumbest, plumbing.* Otherwise medial **mb** is pronounced in full, e.g. *limbo,lumber, timber.*
	Final **bt**	*debt, doubt* (and derived forms, e.g. *debtor,doubtful*). Note also medial *subtle.*
c	Mainly in **sc**	*scene, scenario, obscene, scent, science,scissors, ascend, descend, crescent* / krezənt/, ˈ *corpuscle* /ˈkɔːpəsl̩/, *muscle.* But **c** = /k/ in *muscular, corpuscular.* Note also *indict* /ɪnˈdaɪt/.
d	Medial sequences	*Wednesday*[*] /ˈwenzdeɪ/, *sandwich*[*], *grandfather*[*], *handsome.*
g	Initial and final **gn**	*gnash, gnarled, gnat, gnome, align* /ə laɪn/, *sign*/ˈ/saɪn/, *foreign* /ˈfɒrən/, *reign* /reɪn/. But note *signal* with sounded /g/, / sɪgnəl/.
	Final **gm**	Only in *paradigm, phlegm, diaphragm* (note that **g** returns in derived forms, *phlegmatic,paradigmatic, diaphragmatic*).
	gh	*sigh, right, weigh, though.*
	Medial **ph**	*shepherd* and some place names e.g. *Bispham,Clapham, Felpham, Meopham* / mepəm/.
h	Initial **rh**	*rhapsody, rhinoceros, rhotic, rhyme, rhythm.*

Letter	*Context*	*Examples*
	Initial **wh**. see p. 53.	*what*, *which*, *white*, *whether*.
	Initially in a few common words	*heir, honest, honour, hour* (and derived forms, e.g. *heiress, honesty*, etc.).
	Medial **h** (1) after e**x**- (2) intervocalic	*exhaust, exhibit, exhilarate, exhort, exhume;annihilate, vehicle, vehement.*
k	Initial **kn**	*knack, kneel, knife, know.*
l	**al** = /ɑː/	*calf, half, almond*, *alms, calm, palm.* Note also: *salmon* /ˈsæmən/; *halfpenny* /ˈheɪpni/ (old coin).
	al = /ɔː/	*chalk, stalk, talk, walk.* Also *baulk.*
	ol = /əʊ/	*folk, yolk.* In place names, final *-folk* = /fək/, e.g. *Norfolk, Suffolk.* Note: *colonel* /ˈkɜːnl̩/.
	ould = /ʊd/	Only in *should, could, would.*
n	Final **mn**	*autumn, condemn, column, damn, hymn, solemn.* Note that **n** returns in derived forms: e.g. *autumnal, condemnation, columnist, solemnify*, etc.
p	Initial **pn**, **ps**	*pneumatic, pneumonia, psychologist,psychiatrist, pseudo-.*
	In a few exceptional words	*coup* /kuː/, *corps* /kɔː/, *cupboard* /ˈkʌbəd/, *raspberry* /ˈrɑːzbri/, *receipt* /rəˈsiːt/.
r	see p. 75 on non-rhotic accents	Pronounced only before a vowel in non-rhotic accents. Note: *iron* /ˈaɪən/, but *irony, ironical* aɪrəni, aɪ rɒnɪkl̩/.
s	In a few exceptional words	*aisle* /aɪl/, *isle* /aɪl/, *island*, /ˈaɪlənd/, *viscount*/ ˈvaɪkaʊnt/.

Letter	*Context*	*Examples*
	In recent loans from French	*chassis* /ˈʃæsi/, *debris* /ˈde(ɪ)briː/, *precis* /ˈpreɪsiː/, *corps* /kɔː/, *rendezvous* / rɒnd(e)ɪvuː/.
t	In ending -**stle**, -**sten**	*castle, nestle, trestle, bristle, whistle, fasten,glisten, listen, moisten.*
	In three common words	*Christmas, soften, often*[*].
	In recent loans from French	*bouquet* /buˈkeɪ/, *ballet* /ˈbæleɪ/, *buffet* /ˈbʊfeɪ/, ''' *cachet* /kæʃeɪ/, *chalet* / ʃæleɪ/, *crochet* / krəʊʃeɪ/, '' *depot* /depəʊ/, *mortgage* / mɔːgɪʤ/, *sachet*ˈ/ sæʃeɪ/, *ragout* / ræguː/.
w	Initial **wh**	*who, whom, whose, whole.*
	Initial **wr**	*wrath* /rɒθ/, *write, wrench, wriggle, wry.*
	Exceptional words and place names	*answer, sword, two; Greenwich, Norwich,Berwick, Warwick.*

[*] Letter is sounded by a minority of speakers.

Spelling guidelines 6: letter <o>

Of all the letters in the English alphabet, letter **o** is the one associated with most spelling irregularities. Here are some spelling–sound guidelines to help you fi nd your way through the maze.

Spelling	***Sound***	***Example***
Main patterns		
o	/ɒ/	*hop, box, slot, rotten, doll, long*
o…e, o…o, o…a	/əʊ/	*hope, sole, solo, sofa, solar*
Subsidiary patterns		
o	/ʌ/	*son, love* (see **worry words** below)
final o	/əʊ/	*tomato, banjo, potato*
		△ *to, do* /uː/
oa, oe	/əʊ/	*toad, toe*
		△ *shoe, canoe* /uː/; *broad* /ɔː/
oi	/ɔɪ/	*boil, voice*
oo	/uː/	*food, root*
ook	/ʊk/	*book, hook, look*
		△ *spook, snooker* /uː/
ou	/aʊ/	*house, pout, blouse*
		△ *country, southern* /ʌ/ (see **worry words** below)
	/uː/	*group, youth*
ow	/aʊ/	*cow, town, growl*
	/əʊ/	*growth, own, shown*

oy	/ɔɪ/	*toy, loyal*

The worry words

There are a number of high- frequency words spelt with **o** which are pronounced with /ʌ/. These are sometimes known familiarly as the **worry words**. The most common are shown below, divided into groups, based on spelling, so that they can be learnt more easily. The **worry words** form an important area of pronunciation error which can be readily eliminated. You're recommended to memorise them!

done, none, son, ton, won, one /wʌn/
front, month, London, Monday
honey, money, wonder(ful)
onion, sponge, stomach
among(st), tongue, monk, monkey
above, glove, love, lovely, shove, shovel
slovenly, oven, govern, government
cover, covet
come, some, Somerset
comfort, comfortable, compass(es), company, accompany
brother, mother, smother, other, nothing
dozen, colour
thorough, borough, worry

To the list above we can add the following **worry words** which have **o** in combination with other letters.

Spelling	***Sound***	***Example***
ou	/ʌ/	*country, double, couple, cousin* /ˈkʌzn̩/, *trouble, touch, southern, young*
oe	/ʌ/	*does*
oo	/ʌ/	*blood, flood*
ough	/ʌf/	*enough, rough, tough*
Before r		

or, oar, our	/ɔː/	*cord, board, four, course, tour(ist)*
		△ *attorney, journey, journal(ist)* /ɜː/
our	/aʊə/	*hour, sour*
		△ *your* /jɔː/
-our (word-final unstressed)	/ə/	*flavour, glamour, honour*
oor	/ʊə/ or /ɔː/	*poor, moor*
Between w and r		
or	/ɜː/	*work, world, word*
Before l		
ol + **consonant**	/əʊ/	*gold, told, bolt, soldier*
oul	/əʊ/	*mould, poultry*. Note /ʊ/ before silent **l** in *should, would, could.*
In unstressed syllables		
o, or	/ə/	*reason, visitor*

Note **-ford** is /fəd/ in British place names, e.g. *Bradford* /ˈbrædfəd/, *Oxford* /ˈɒksfəd/.

Spelling guidelines 7: TRAP, DRESS and SQUARE /æ e ɛː/

1 Spelling of TRAP/æ/

1.1 The TRAP vowel is virtually *always* spelt **a**, e.g. *cab, bat, saddle*. There are just two exceptions with **ai**:

△ **ai** in *plaid, plait*

1.2 **are** usually represents /ɛː/ SQUARE (see below).

1.3 **ar** followed by any vowel except **e** represents TRAP, e.g. *carol, aristocratic, charity, Paris, comparison, barbaric* (cf. *barbarian* /bɑːˈbɛːriən/), *maritime, baritone*, **arr** usually represents TRAP (and *never* SQUARE), e.g. *marry, embarrass, carrot, narrow*. Note that **are**, **ary**, **arious**, **arian** represent /ɛː/; see point 3 below.

2 Spelling of DRESS

2.1 The DRESS vowel is in almost all cases spelt either as **e** or **ea**, e.g. *bet, leg, help, steady, sweat, instead.*

△ **a…y**, **a…e** *any, many, ate, Thames*. Note that *ate*, traditionally /et/, is increasingly pronounced /eɪt/.

△ **ai, ay** *said, again, against* (also /əˈgeɪn, əˈgeɪnst), *says* /sez/.

△ Some oddities are: *friend, Geoffrey* /ˈʤefri/, *Leicester* /ˈlestə/,*leisure* /ˈleʒə/,*bury* /ˈberi/, burial /ˈberiəl/.

3 Spelling of SQUARE/ɛː/

3.1 The SQUARE vowel is overwhelmingly spelt **are** or **air**, e.g.*care, share, rare, square, aware, compare, parent, air, fair, chair, dairy, fairy, prairie.*

△ *apparent* /əˈpærənt/.

3.2 Note also: **ary** and suffixes - **arious**, - **arian**, e.g.*wary, vary, Mary, hilarious, various, barbarian, vegetarian* and **ari***(in)variable* /ˈvɛriəbl/,*variant* /ˈvɛːriənt/.

△ **ear** in *bear, pear, swear, to tear, wear*

△ **ay***mayor* /mɛː/,*prayer* /prɛː/; **eir**,*heir* /ɛː/,*heiress* /ˈɛːres/;*their*. Note *their, there* and *they're*: all three words are pronounced /ðɛː/.

△ **ar** Sarah /ˈsɛːrə/;*scarce* /skɛːs/,*scarcity* /ˈskɛːsəti/.

Spelling guidelines 8: FOOT /ʊ/ and GOOSE /uː/

Non- native English speakers often experience difficulty deciding which words are to be said with GOOSE and which with FOOT. But this is easily sorted out. The spellings are reasonably regular, and it's well worthwhile learning the main patterns.

1. Spellings for FOOT

There are only three common spellings for the FOOT oowel. It occurs in very few words – but note that these include some of the commonest items in the language. It's easy to learn *all* the important words containing FOOT merely by committing to memory the following list. High- frequency words are listed first and shown in **bold**.

1.1 Spellings with <oo>

ood	**good**,*hood* (also as suffix -**hood**: *childhood, manhood, womanhood*, etc.), **wood**(-en), **stood**
ook	Almost *all* words with **ook** are pronounced with FOOT**book**, **cook**(-*ery*), **crook**, **crooked** /ˈkrʊkɪd/, **hook**, **look**, **shook**, **took**,*brook, nook, rook*
	△ *snooker, spook(y)* (both with GOOSE)
ool	*wool, woolly, woollen*
oot	**foot** (and *footing, footloose* /ˈfʊtluːs/), *soot(y)*

1.2 Spellings <o>

o ***woman***, [2]*bosom* /ˈbʊzəm/, *wolf, Worcester* /ˈwʊstə/

1.3 Spellings with <u>

These mostly precede either **l** or **sh**. (Think of a door marked *pull* on one side and *push* on the other!)

ul or **ull**	**full**, **-ful** (e.g. *mouthful*),[3]**pull**, *bull* (and derivatives, e.g. *bulldozer*), *bullet, bulletin* /ˈbʊlətɪn/, *bullock, bully, fulfil, fulsome, pullet, pulley, pullover, pulpit*
ush	**bush**, **push**, *bushel, ambush, cushion*
Note also: **put**, **sugar**, *butch, butcher, cuckoo, pudding, puss(y)*	**ould** as strong form for verbs **could**, **should**, **would**

2. Spellings for GOOSE

2.1 The GOOSE vowel has a lot of different spellings, but only three: **oo**, **u**, **o**, overlap with those of the FOOT vowel.

oo	*boot, food, mood, proof, noon, soon, spoon, room, fool, too*
u	*duty, music, truth, ruthless*
o	*do, who, two, to, tomb* /tuːm/, *womb* /wuːm/

2.2 All the following spellings can represent GOOSE (but not FOOT).

oo…e	*choose, loose, goose, groove*
o…e	*lose, whose, move, prove, remove*
ou	*group, soup, route, youth, through*

u…e	*cube, tube, crude, rude, huge, tune, June, assume, accuse, refuse*
ui	*fruit, juice, pursuit, suit, suitable*
ew	*brew, chew, crew, new, screw, threw, view*
ue	*blue, cue, clue, glue, sue, pursue*
eu	*feud, manoeuvre, neutral, neuter, pseudo-* /ˈsjuːdəʊ, ˈsuːdəʊ/

⚠ ***Common words*** with unusual spellings:*beauty, canoe* /kəˈnuː/,*shoe.*

Activity A9.1

Transcribe phonemically, showing intonation groups and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 9

However, this bottle was not marked ‘poison,’ so Alice risked tasting it, and found it very nice. It had a sort of mixed flavour – cherry tart, custard, pineapple, roast turkey, toffee and hot buttered toast – so she very soon finished it off. ‘What a curious feeling,’ said Alice. ‘I must be shutting up like a telescope!’ And so she was indeed. She was now less than a foot high, and her face brightened up at the thought that she was now the right size for going through the tiny door into that lovely garden. First, however, she waited for a few minutes to see if she was going to shrink any further. She felt a little nervous about this. ‘It might end, you know, with me going out altogether, like a candle. I wonder what I’d be like then.’

Notes

1 Many of these guidelines first appeared in *Sounds of English and Dutch*, Collins and Mees (1981).

2 Note that plural *women* is /ˈwɪmɪn/.

3 -*ful* varies, e.g.*mouthful* can be either /ˈmaʊθfʊl/ or /ˈmaʊθfəl/.

Section B
Development

B1

Phoneme and Syllable Revisited

The phoneme revisited

In Section A2 we introduced the phoneme. We shall now return to examine the concept a little more closely, and consider its place in linguistic organisation. You'll recall that the phoneme is an abstract unit which may be realised as any one of a number of allophones. Allophones are the concrete entities of speech. The allophones of a particular phoneme typically have **phonetic similarity**, that is to say, they have both articulatory and acoustic features in common (stated loosely, this implies that they are produced in much the same way by the speaker and sound much the same to the listener).

Taken to the finest level of analysis, no two realisations of a phoneme are ever totally identical. Even if we ask the same person to produce the same sound under carefully controlled conditions, there will still be very slight differences between one utterance and the next. However, this perfectionist approach is not very useful in linguistic analysis. In reality, most allophones can be placed in fairly well- defined categories, and it is usually possible to provide descriptive rules to predict their occur-rence in a particular phonetic context.

Complementary distribution and free variation

Let's take the case of the English phoneme /l/. This has three clearly defined recurring allophones (see Figure B1.1). It is possible to state, in broad terms, the chief phonetic contexts where the particular allophones of the phoneme /l/ are likely to occur:

- clear [l] occurs before vowels and /j/;
- dark (velarised) [ɬ] before a consonant (except /j/) or a pause;
- voiceless (fricative) [l̥] occurs initially in a stressed syllable following /p/ or /k/.

We can demonstrate the distribution of the allophones of the /l/ phoneme with the example in Figure B1.2.

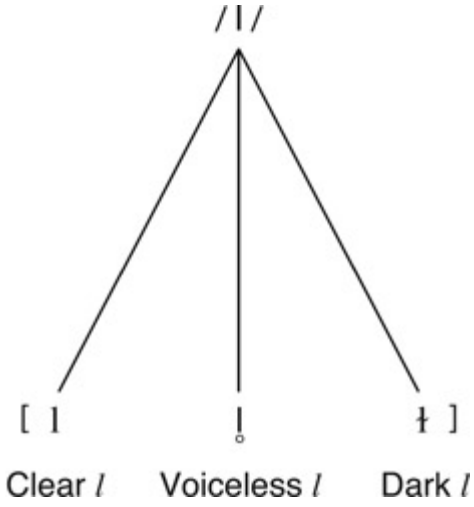


Figure B1.1 Chief allophones of English /l/

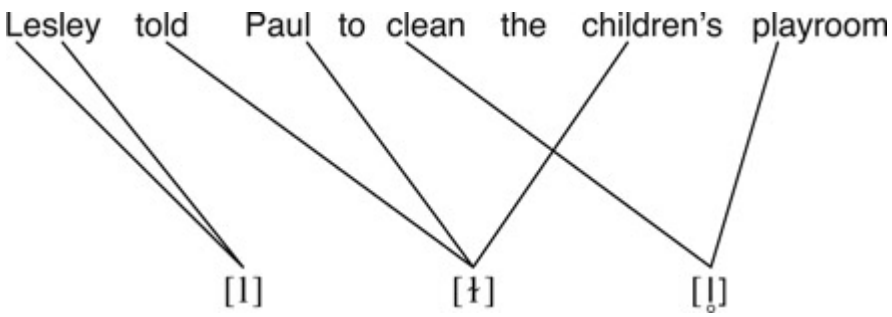


Figure B1.2 Distribution of allophones of /l/

The occurrence of allophones in this instance is therefore predictable. They can be considered as *complements* to each other; where one occurs the other cannot. Such an allophonic patterning, which is very frequent in language, is termed **complementary distribution**.

Nevertheless, not all the allophones of all phonemes can be accounted for in this way. For example, in GB English the pronunciation of /t/ in words like *Britain* varies. Some people realise the sound as alveolar [t] and others produce a glottal stop [ʔ]: [ˈbrɪtn̩] vs. [ˈbrɪʔn̩]. Many speakers alternate between these possibilities. To take an example from another language, for /r/ some speakers of Dutch employ an alveolar [r] while others use a uvular fricative or approximant (which we can symbolise as [ʁ]). But some Dutch people vary between [r] and [ʁ] in the same position in the word, using the alveolar type on one occasion and the uvular type on another. Such variation cannot be accounted for in terms of complementary distribution, since we cannot predict from the context which allophone will be selected. In such cases, the allophones are said to be in **free variation**, implying that the realisation of one allophone rather than another appears to be a matter of chance. Nevertheless, there may often be additional, possibly non- linguistic, factors involved, so free variation is not always as 'free' as it might appear at first sight! It's frequently the case that social influences are at work, and that speakers' use of particular allophones on any given occasion may be determined by matters such as the formality of the circumstances, or perhaps the socio- economic background of the people they are with at the time. For example, Australian schoolchildren may pronounce the vowel in *start* in different ways. In the playground, speaking to other schoolmates,

they might use a 'broad Australian' front vowel quality [staːt]. But back in the classroom, talking to a teacher, the same pupils might employ a more back vowel [stɑːt], which has greater social prestige. Similarly, a London hotel receptionist might use glottal stop [ʔ] for /t/ in words like *butter* and *bottle* [ˈbʌʔə ˈbɒʔl̩] when talking to other members of staff, but on turning round to address a customer might instead realise this phoneme as an alveolar plosive [ˈbʌtə ˈbɒtl̩] to take account of the more formal context.

Furthermore, although the concept of complementary distribution is a useful one, it can sometimes pose problems. Take the case of /j/ and /ŋ/. In English syllables, /j/ only occurs before a vowel (**pre- vocalically**), while /ŋ/ only occurs following a vowel (**post- vocalically**); they are therefore in complementary distribution. However, they cannot be analysed as belonging to the same phoneme, for two reasons. One is that they lack any sort of phonetic similarity; /j/ is a palatal approximant, while /ŋ/ is a velar nasal. Secondly, and even more crucially, they could not possibly be considered as members of the same phoneme by mother- tongue speakers of the language concerned. No English speaker could ever accept that *young* could be transcribed as */ŋʌŋ/ or */jʌj/. Native speakers have an awareness of phonemes and hear them as significant linguistic units; differences between allophones of the same phoneme, on the other hand, either pass unnoticed or are shrugged off as insignificant. In the final analysis, native- speaker intuition has to be regarded as the most decisive factor in the allocation of allophones to phonemic categories.

Neutralisation

Sometimes two phonemes may show overlap in phonetic realisation. Take the case of /m/ and /n/ in English, where these occur before labio- dental /f/ (or /v/), as in *emphatic*,*infatuated*, etc. In both cases, the realisation of /m/ and /n/ may be a labio- dental nasal, which is represented by the symbol [ɱ], giving [ɪɱˈfætɪk] and [ɪɱˈfætʃueɪtɪd]. In this case, there is no way (apart from spelling) of knowing whether [ɱ] should be assigned to /m/ or to /n/. Both are nasal and voiced; /m/ is bilabial while /n/ is alveolar. Since /m/ and /n/ are never in opposition in this context, we can assign [ɱ] to either of the phonemes /m/ or /n/. The opposition between /m/ and /n/ has been neutralised. We call this process **phoneme neutralisation**.

Other examples of neutralisation are the vowels in French pairs like *patte* – *pâte* (‘paw’ – ‘paste’),*là* – *las* (‘there’ – ‘weary’). Traditionally, French speakers selected /a/ for the first word in each pair and /ɑ/ for the second; but in connected speech many used a vowel somewhere between the two. Thus for these speakers there was potential neutralisation of the phonemes /a/ and /ɑ/. In present- day French this neutralisation has become established in the language and today probably only a minority still make a consistent contrast.

Yet another case of phoneme neutralisation is the realisation of stops in syllable-initial clusters after /s/ in English:*spar* /spɑː/,*star* /stɑː/,*scar* /skɑː/. After /s/, the fortis stops have none of the energy and aspiration which characterise the other allophones of /p t k/. In fact, phonetically, these realisations are in most ways close to the allophones of /b d g/. Since there is no possibility in English of a contrast of the type /spɑː – *sbɑː/, it would be perfectly reasonable to regard these allophones in this context as variants of /b d g/, and symbolise them thus: */sbɑː, sdɑː, sgɑː/. But this is never actually done even though the influence of spelling tradition is probably the main factor for their allocation to the /p t k/ fortis category. It is interesting to

note that in Welsh phonetically similar sequences are actually spelt **sb** and **sg**, e.g.*sbectol* ‘spectacles,’*sgyrt* ‘skirt’ (although Welsh words with initial /st/ are spelt **st**, e.g.*sticill* ‘stile’).

Different systems in different accents

In providing a complete phonemic analysis of a language, account must be taken of its different varieties. The phonemic system may vary considerably from one accent to another, some possessing an extra phoneme contrast or, alternatively, lacking a phoneme contrast present in other varieties. Sections C2 – C6 provide much detail on this question with reference to English varieties, but we can nevertheless consider one or two examples at this point. See Table B1.1.

Table B1.1 Different phoneme systems in different varieties of English

Most varieties of English	/ʊ/	/ʌ/
Northern English	/ʊ/	
Most varieties of English	/uː/	
Welsh English	/ɪu/	/uː/

In most types of English, there is a STRUT – FOOT contrast /ʌ – ʊ/, giving minimal pairs like *tuck* vs.*took*. However, in the north of England, broadly from just above Birmingham up to the Scottish border, this opposition is lost in basilectal accents; all words of this type have /ʊ/, and there is no /ʌ/ in the phoneme system. On the other hand, most varieties of Welsh English have an extra vowel /ɪu/ giving a contrast in pairs like *through – threw* /θruː/ – /θrɪu/. This means that Welsh English has an additional phoneme contrast GOOSE – JUICE /uː – ɪu/ as compared with most other varieties of English.

Compared to GB speakers, most Scots, many Irish and some Americans have an additional phoneme /ʍ/ that is a voiceless labial- velar fricative. This extra phoneme provides a contrast with /w/ in pairs like *where – wear,which –witch.*

Most types of English have no voiceless velar fricative phoneme [x]. Nevertheless, certain speakers use this sound in foreign names and loanwords from, for example, German, Yiddish, Scots Gaelic or Spanish (e.g.*Ba* ***ch***, ***ch****utzpah*,*Sassena* ***ch***,*rio* ***j****a*). Another example, at least for some speakers, is voiceless [ɬ] used in Welsh place names like ***Ll****ango* ***ll****en*; see p. 55. Such sounds which are not part of the basic phoneme system are termed **marginal phonemes**.

As will be seen, a valid phonemic analysis can only be made for one particular accent of a language at any one time. It is sometimes found that the differences between phonemic systems (see Section C1), especially vowels, are very great indeed. For instance, accents in Scotland, Northern Ireland and the north- east of England have vowel systems which are very different from most varieties of English.

The syllable revisited

The structure of a syllable can be represented as shown in Figure B1.3. For example, in the word *strands*, /str/ is the **syllable onset**, and /ændz/ is the **rhyme**, which consists of the **syllable nucleus** /æ/ and the **syllable coda** /ndz/. The only obligatory element here is the syllable nucleus, normally a vowel. If there is no vowel, then certain consonants can function in its place (see below). The syllable onset is an optional element, as is the syllable coda. Note that the syllable nucleus plus the syllable coda provide the potential for words to rhyme in poetry; hence the term 'rhyme.'

We have now seen that the syllable consists of an obligatory vowel potentially surrounded by consonants. We can therefore define a vowel as a speech sound which functions as the syllable nucleus. A consonant is a speech sound which typically occurs at the **margins** of the syllable. (We need hardly say that we are dealing with speech sounds here and *not* the letters of spelling. A word like *thought* /θɔːt/ has just three sounds – two consonants and a single vowel.)

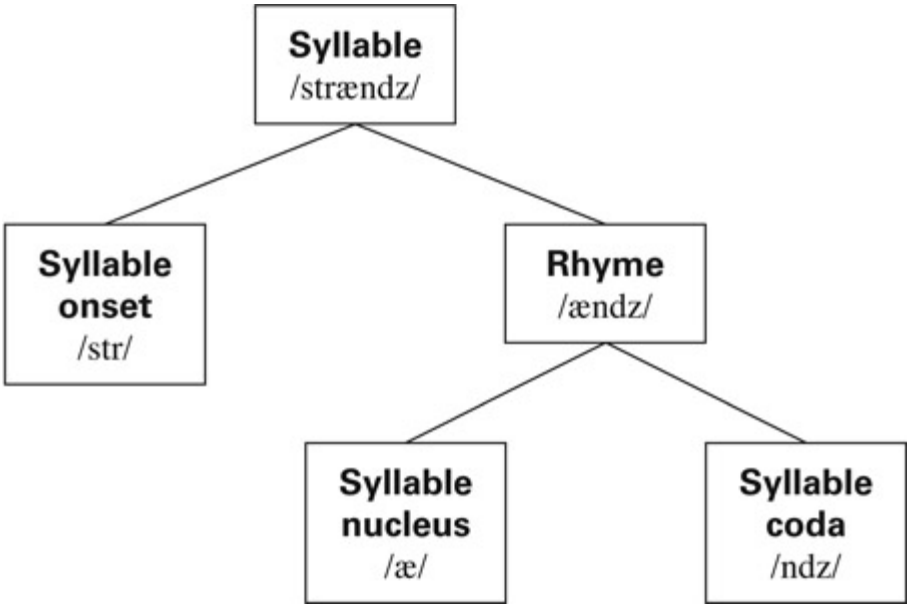


Figure B1.3 Structure of a syllable (*strands*)

A selection of possible vowel and consonant structures for English syllables is shown below:

awe	/ɔː/	V
saw	/sɔː/	CV
ought	/ɔːt/	VC
sawn	/sɔːn/	CVC
lawns	/lɔːnz/	CVCC
draw	/drɔː/	CCV
drawn	/drɔːn/	CCVC
straw	/strɔː/	CCCV
strands	/strændz/	CCCVCCC
glimpsed	/glɪmpst/	CCVCCCC

From this it can be seen that the English syllable can consist of up to three consonants in initial position (as in *straw*) and as many as four in final position (as in *glimpsed*). This can be stated more concisely as $(C^{0-3})V(C^{0-4})$. Note that a syllable which ends in one or more consonants (like *saw* ***n***,*law* ***ns***) is called a **closed** syllable; whilst one ending in a vowel (like *saw*) is termed an **open** syllable. A sequence of consonants at the margin of a syllable is called a **consonant cluster**.

In any language, there are constraints on the possible combinations of sounds which occur in consonant clusters. For instance, English doesn't permit syllable onsets such as /pn ps vw/ but these do occur in French (examples:*pneu* 'tyre,'*psychologie* 'psychology,'*voilà*, 'there you are'). English has no /tl/ onsets, but these do exist in Welsh (*tlws* /tluːs/ 'pretty'). In the onset, Spanish permits no clusters with initial /s/ of the type /sp st skw str/ etc., although these are commonly found in English.

All languages have CV- type open syllables. Most European languages allow both open and closed syllables – although in some (e.g. Spanish), there may be constraints on the types of consonant found in coda position. Samoan allows no consonant clusters and has only open syllables, whilst Yoruba (a major Nigerian language) permits only open syllables or codas of /m/ or /n/. If such languages borrow words from European languages like English, these loanwords are usually altered in terms of syllable structure. So, in Yoruba,*Christmas* is *Kérésìmesì*, and *pencil* is pẹ́nsùlù.

Activity B1.1 (Answers on website)

Look at the following Samoan words and see if you can guess the English originals. Take account also of (1) the more economical vowel system of Samoan as compared with English; (2) that there are no /b/ or /g/ phonemes; (3) that /r/ is a marginal phoneme found only in loanwords and sometimes replaced by /l/.

naifi, sipuni, sasa, kirisimasi, sikaleti, kapiteni, kirikiti, kalapu, silipa, parakarafa

Some languages have more complex onset and coda structures than English. For instance, Polish has four- consonant onsets and codas, e.g. *źdźbło* /ʑdʑbwɔ/ 'blade of grass';*warstw* /varstf/ 'layers' (genitive). Georgian is reported as having up to six consonants in onset position (Catford 1988: 208).

Languages do not use all the combinations possible in their phoneme inventories. In English we can state a number of constraints which are operative on syllable structure, for example:

1. /ŋ/ never occurs in onsets.
2. /h j w/ never occur in codas.

3. /r/ never occurs in codas in non- rhotic (see p. 75) varieties of English (e.g. GB).
4. The lenis fricatives /v ð z ʒ/ never occur as the second element of an onset cluster.
5. In three- element onset clusters the initial consonant is invariably /s/.
6. /t d θ/ never combine with /l/ in onset clusters.
7. Nasals never combine with stops in onsets.
8. Nasals combining with stops in coda clusters are invariably homorganic, e.g.
9. /mp ŋk/ is permissible but not */mk np/*.[1]

Activity B1.2 (Answers on website)

Which of these are permissible syllables in English? Explain why.

spraːθs	vwaːks	gwaːmz	kraːh	ŋaːs	knaːj
draːw	ʃraːlts	skwaːksθs	traːvz	dlaːmg	ʒraːnk

So far we have discussed syllables in monosyllabic words but, of course, many words are polysyllabic. In such cases we have to divide the word up before we can attempt a syllable analysis. This is not always easy to do in a language like English which has a complex syllable structure. To take a much- quoted example, the word *extra* /ˈekstrə/ certainly contains two syllables. But what form would these take?

1. ˈe + kstrə
2. ˈek + strə
3. ˈeks + trə
4. ˈekst + rə
5. ˈekstr + ə

We can eliminate the first and the last suggestions since they clearly conflict with the formulations for syllable onsets and codas stated above. The remaining three (nos. 2, 3 and 4) are more problematical. Many native speakers would go for no. 2, taking into account the likely realisation of the consonants in the /str/ sequence, but the decision is by no means clear- cut. More detail can be found in John Wells's discussion of syllabification in Section D (pp. 274–83).

Activity B1.3

Take one of the 'Alice' transcription passages in this book and underline all the polysyllabic words. Bearing in mind the constraints mentioned so far in terms of English syllable structures, try to split the polysyllabic words into component syllables. Compare your results with other members of your class. You may find that they differ, since placing syllable boundaries is often a matter for debate.

Activity B1.4 (Answers on website)

Consonant clusters are often simplified in connected speech. Say these words slowly. Then say the sentences containing the words at normal conversational speed. What will be the likely differences in the pronunciation of the coda clusters? See Section B2 for more about this phenomenon.

asked	*risked*	*texts*	*sixths*

1. We've asked Jack to leave.
2. I risked my money on the favourite.
3. Dan sent Jo three texts last week.

4. It takes up over five- sixths of the computer's memory.

Consonant/vowel distinction

What is it about certain sounds that makes them candidates for syllable nucleus status? It is significant that the sounds which can occur as a syllable nucleus are those which have the most **sonority** – i.e. those which, other things being equal, have the greatest 'carrying power.' The sonority of a sound is closely related to its acoustic make- up; sounds composed largely of musical tones, like vowels, are more **sonorous** than those which have more significant acoustic noise elements (plosion and hiss), like stops and fricatives. One example of an attempt to construct a sonority scale is shown in Figure B1.4.

Table B1.2 shows how it is possible to classify sounds in terms of sonority. On this basis we can consider three types of sound:

- vowels, which typically form the syllable nucleus;
- obstruents, which are found invariably at the margins of syllables (onset or coda);
- those in the intermediate category – the sonorant consonants (i.e. nasals and approximants) – typically occur at syllable margins but, if there is no vowel in a syllable, certain of these sounds can function as a nucleus. We then term them syllabic consonants (see Unit A2). Such consonants are likely to be realised with greater energy and extra length, giving them more prominence. Look at the examples in English in Figure B1.5.

You will note from the above that sonorants are also more likely to feature towards the centre of syllables. This is significant for the ordering of consonant clusters, so that, for example, /kl/ as in *clay* is a possible onset, whereas /lk/ is not. On the other hand, /kl/ is not found in coda position, whereas /lk/ as in *bulk* is to be found in this context.

Compare this categorisation with how we earlier divided up sounds as vowels and consonants in terms of manner of articulation (see Section A5). There is considerable, even if not complete, overlap.

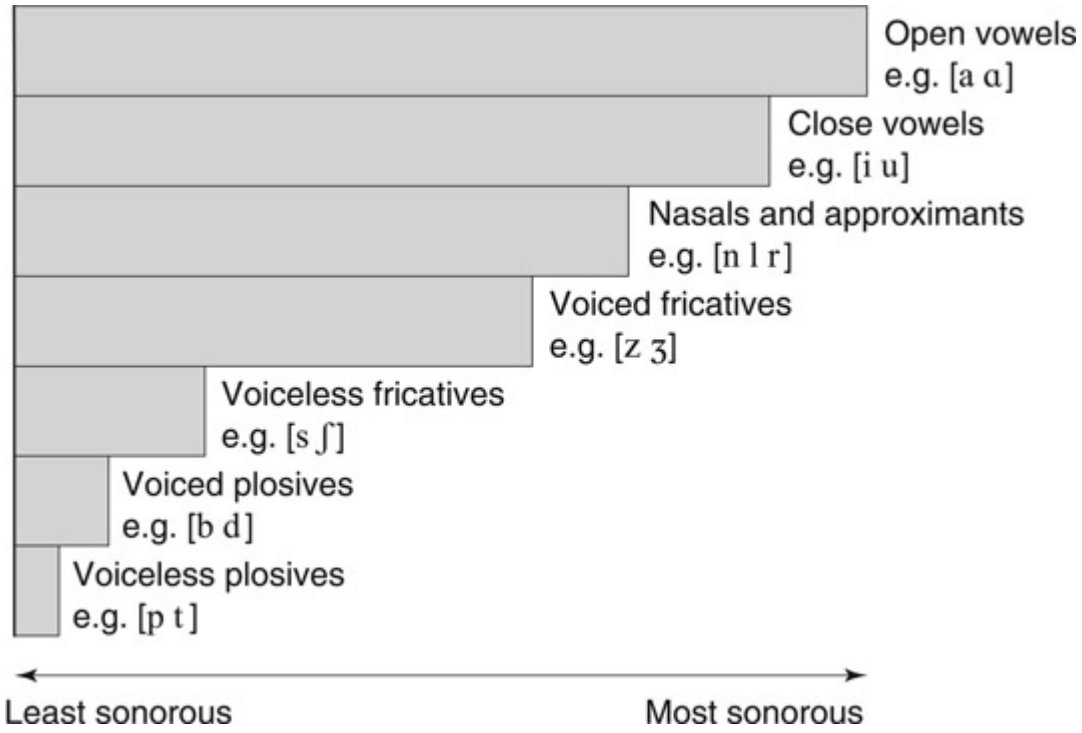


Figure B1.4 Relative sonority scale

Table B1.2 Consonants classed according to sonority

Vowels		*Most sonorous* ↓ ↓ ↓ ↓ ↓ ↓ Least sonorous
Nasals Lateral (approximant) (Central) approximants	SONORANTS	
Voiced fricatives Voiceless fricatives Voiced plosives Voiceless plosives	OBSTRUENTS	

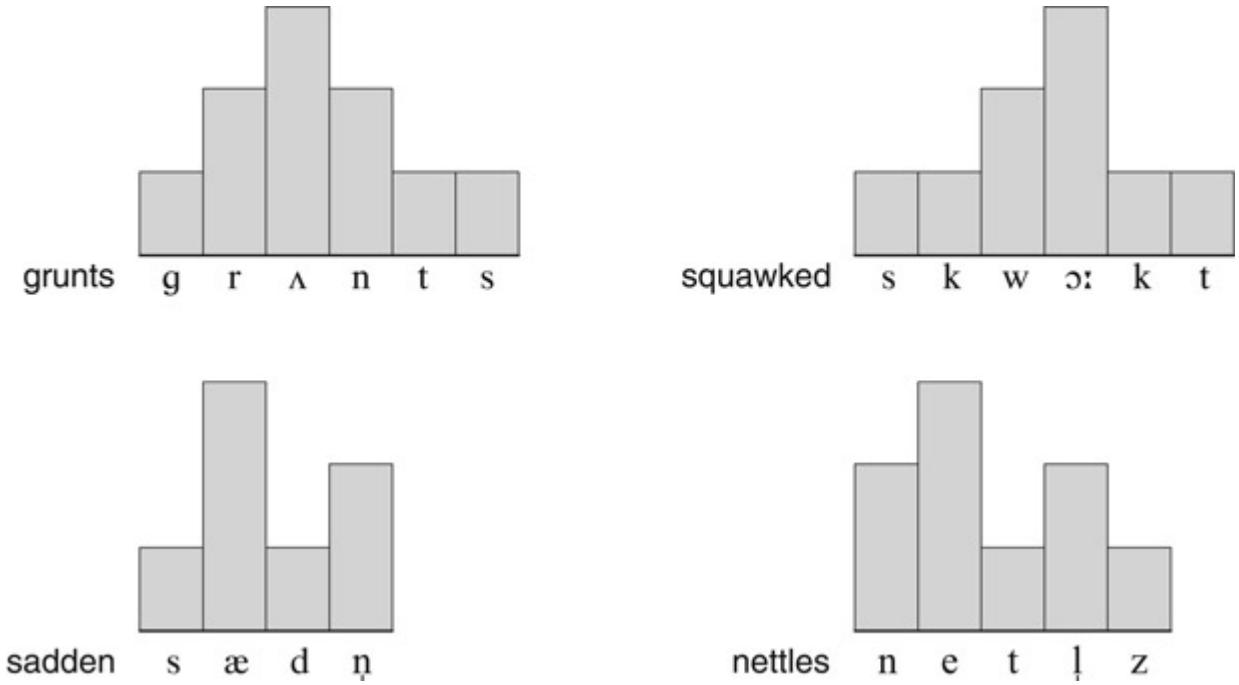


Figure B1.5 Prominence in vowels and consonants

A consonant was then defined as an articulation which involves any of the following strictures:

- ❑ blocking the airstream completely (i.e. stops, trills and taps)
- ❑ hindering the airstream sufficiently to give rise to audible friction (i.e. fricatives)
- ❑ blocking the airstream, but allowing nasal escape (i.e. nasals)
- ❑ blocking the airstream centrally, but allowing lateral escape (i.e. laterals)

All other sounds, i.e. the central approximants and the vowels themselves, which involve only strictures of open approximation, are classed as articulatory vowels.

Relationship of phonetics and phonology

In this unit we have concerned ourselves with two of the main traditional preoccupations of phonologists – namely the phoneme and the syllable. Although we have not dealt with these topics in any kind of detail, the discussion will provide an indication of how theoretical phonology approaches such matters, and what relationship phonology has to phonetics. Phonetics provides the data for describing speech; phonology generalises from these so as to produce deeper insights into the structures and patterns of language sound systems. A rough- and- ready analogy is that phonetics provides the ingredients and phonology gives you the recipe for baking the cake.

As the word 'practical' in the title of this book would suggest, most of the phono-logical aspects of the book are indeed severely practical in nature. We have confined ourselves to noting the most significant surface aspects of the patterning of sounds in English (concentrating on GB, but also comparing this accent with other varieties). But we have not attempted to dig below the surface and discuss what lies behind such matters (a tremendous amount can be said about the placement of syllable boundaries, for example). If you wish to provide yourself with the resources for a more thorough theoretical approach to phonology, you could as a first step try reading introductory surveys such as Carr (2012) and McMahon (2002) (see the 'Further reading' section). These will provide you with a basis to enable you to deal with more complex works on the English sound system, and perhaps those of other languages, later on in your linguistic career. You can find a more advanced treatment, which brings together a number of different modern approaches to phonology, in Ewen and van der Hulst (2001).

Activity B1.5

Transcribe phonemically, showing intonation groups and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 10

She tried to fancy what the flame of a candle looks like after the candle is blown out, since she could not remember ever having seen such a thing. After a while, finding that nothing more happened, she decided to go into the garden at once. But poor Alice! When she got to the door, she discovered that she had forgotten the little golden key, but when she went back to the table for it, she found she could not possibly reach it. Alice could see it quite plainly through the glass, and she tried her best to climb up one of the legs of the table, but it was too slippery. When she had tired herself out with trying, the poor little thing sat down and cried.

Note

1 This rule does not apply to inflected forms, e.g.*banged,rammed.*

B2

Features of Connected Speech

The surprises of connected speech

All languages modify complicated sequences in connected speech (and in word-formation, e.g. compounds and inflections) in order to simplify the articulation process – but the manner in which this is done varies from one language to another, and even from one accent to another within the same language. Furthermore, most native speakers are totally unaware of such simplification processes and are often surprised (or even shocked!) when these are pointed out to them.

The differences between the **citation forms** and the modified **connected speech forms** are not just a matter of chance: clear patterns are distinguishable.

Activity B2.1 🎧 Recording 2.1

Try saying these English words and phrases, first following the transcription in column 1 and then in column 2.

	1 Citation forms	2 Connected speech forms
headquarters	/hed ˈkwɔːtəz/	/heg ˈkwɔːtəz/
main course	/ˈmeɪn ˈkɔːs/	/ˈmeɪŋ ˈkɔːs/
matched pairs	/ˈmætʃt ˈpɛːz/	/ˈmætʃ ˈpɛːz/
perhaps	/pəˈhæps/	/præps/

Phonetic conditioning

Phonetic conditioning is a term used to cover the way in which speech segments are influenced by adjacent (or near- adjacent) segments, causing phonemes to vary in their realisation according to the phonetic context. We can distinguish three main types: (1) allophonic variation; (2) assimilation; (3) elision.

Throughout the sections on English segments, we have discussed deviations from the target forms of phonemes. These result from phonetic conditioning and are responsible for much of any range of allophones occurring in complementary distribution. We shall now proceed to deal with the two other types of phonetic conditioning.

Assimilation

Where, as a result of phonetic conditioning, one phoneme is effectively replaced by a second under the influence of a third, we term the process **assimilation**.

Take the English word *broadcast*, which in careful pronunciation is /ˈbrɔːdkɑːst/, but in connected speech may well become /ˈbrɔːgkɑːst/. Here, one phoneme /d/ has been replaced by a second /g/ under the influence of a third /k/. This could be stated as a rule:

/d/ → /g/ before /k/

We can distinguish here the two forms of the word *broad:* (1) /brɔːd/, (2) /brɔːg/, where form (1) can be considered the **ideal form**, corresponding to the target that native speakers have in their minds. This is what is produced in the slowest and most careful styles of speech; it often bears a close resemblance to the spelling representation. Form (2), more typical of connected speech, is termed the **assimilated form**.

Patterns of assimilation in English

Direction of influence

1. Features of an articulation may *lead into* (i.e. anticipate) those of a *following* segment, e.g. English *white pepper* /ˈwaɪt ˈpepə/ → /ˈwaɪp ˈpepə/. We term this **leading assimilation**.
2. Articulation features may be held over from a *preceding* segment, so that the articulators *lag* in their movements, e.g. English *on the house* /ɒn ðə ˈhaʊs/ → /ɒn nə ˈhaʊs/. This we term **lagging assimilation**.

In some cases there is a two- way exchange of articulation features, e.g. English *raise your glass* /ˈreɪz jɔː ˈglɑːs/ → /ˈreɪʒ ʒɔː ˈglɑːs/. This is termed **reciprocal assimilation**.

Types of influence

1. **assimilations**. For instance, final alveolars in ideal forms are often replaced by bilabials (preceding /p b m/) or velars (preceding /k g/) or palato- alveolars (pre ceding /ʃ/), e.g.*woodpecker* /ˈwʊdpekə/ → /ˈwʊbpekə/,*wet blanket* /wet ˈblæŋkɪt/ → /wep ˈblæŋkɪt/,*statement* /ˈsteɪtmənt/ → /ˈsteɪpmənt/,*night- cap* /ˈnaɪtkæp/ → /ˈnaɪkkæp/,*weed- killer* /ˈwiːdkɪlə/ → /ˈwiːgkɪlə/,*horseshoe* /ˈhɔːsʃuː/ → /ˈhɔːʃʃuː/. Place assimilation is very common in English. Note that fortis/voiceless alveolars remain fortis/voiceless, and lenis/voiced alveolars remain lenis/ voiced, so – unlike many learners – native speakers would never pronounce *wet blanket* as */web ˈblæŋkɪt/ or *woodpecker* as */ˈwʊppekə/.

2. Assimilations may involve a reduction of the fortis/lenis contrast, a type which is termed **energy assimilation**. In stressed syllables, energy assimilations are less frequent in English than in most other languages, but lenis to fortis assimilations do occur in a few common words and phrases, e.g. absolutely /æbsəˈluːtli/ → /æpsəˈluːtli/. In a small number of verb forms,*have to/has to/had to* (meaning 'must'),*supposed to* and *used to*, this type of assimilation is so common as to be effectively obligatory:*I have to do it* /aɪ ˈhæftə ˈduː ɪt/,*He has to do it* /hi ˈhæstə ˈduː ɪt/,*We had to do it* /wi ˈhættə ˈduː ɪt/,*You're supposed to do it* /jɔː səˈpəʊstə ˈduː ɪt/,*I used to do it* /aɪ ˈjuːstə ˈduː ɪt/.
3. Assimilations may involve a change in the manner of articulation, e.g. an ideal form containing a fricative may be replaced by a nasal or a lateral. This is termed **manner assimilation**.

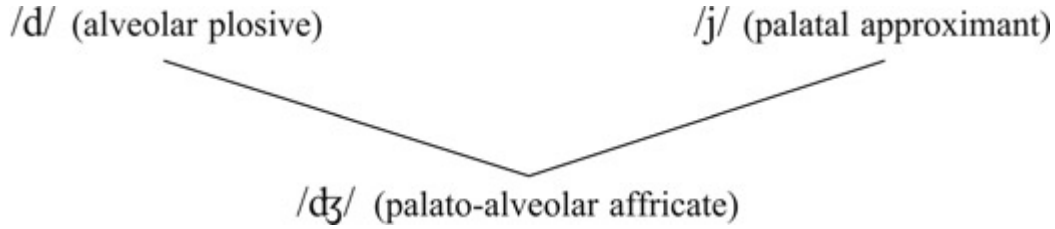
Nasal and lateral assimilations occur in English, mainly affecting initial /ð/ in unstressed words, e.g.

join the army	/ˈʤɔɪn ði ˈɑːmi/	→ /ˈʤɔɪn ni ˈɑːmi/
fail the test	/ˈfeɪl ðə ˈtest/	→ /ˈfeɪl lə ˈtest/
till they meet again	/tɪl ðeɪ ˈmiːt əˈgen/	→ /tɪl leɪ ˈmiːt əˈgen/

Nasal assimilations are especially common in French, e.g.*un demi* /œ̃ dəmi/ → /œ̃ nmi/,*on demande* /ɔ̃ dəmɑ̃d/→/ ɔ̃ nmɑ̃d/.

Co-occurrence of assimilations

Assimilations of different types may occur simultaneously, e.g.*behind you* /bəˈhaɪndjuː/ → /bəˈhaɪnʤuː/. Here both *place* and *manner* assimilation affects /d/ and /j/ of the ideal form:



More than one phoneme may be affected by an assimilation, e.g.*point-blank range* /pɔɪnt blæŋk ˈreɪnʤ/ → /pɔɪmp blæŋk ˈreɪnʤ/.

Elision

A change from the ideal form in connected speech may involve the deletion of a phoneme, e.g. English *tasteless* /ˈteɪstləs/ → /ˈteɪsləs/. The phoneme is said to be **elided** and the process is termed **elision**.

Frequently, assimilation processes also involve elision, e.g. English *mind-boggling* /ˈmaɪndbɒglɪŋ/ → /ˈmaɪmbbɒglɪŋ/ → /ˈmaɪmbɒglɪŋ/.

Historical assimilation and elision

We can distinguish between **contemporary assimilation and elision** vs. **historical assimilation and elision** processes. In contemporary assimilation/elision (using 'contemporary' in the sense of 'present- day'), there is an ideal form. The assimilation (or elision) takes place only in a certain phonetic context and, in most cases, assimilation (or elision) is optional. Once the original ideal forms become extinct, and the assimilated/elided forms are fixed, we term such cases historical assimilation and elision, e.g.*cupboard* /ˈkʌbəd/, where the form */ˈkʌpbɔːd/ has died out. The 'silent letters' of English spelling provide frequent reminders of historical elision, e.g.*talk, comb, know, could, gnome, whistle, wrong, iron*; more examples can be found in Unit A9. See Section B5 for a more general discussion of language change.

Activity B2.2

Go through two or three pages of one of the extracts in Section D and find more examples of 'silent letters' in English.

There is a tendency nowadays for some historical elisions and assimilations to revert to the original forms as a result of the influence of spelling. For instance, in modern GB English, /t/ is frequently pronounced in *often* (formerly /ˈɒfn̩/).

Activity B2.3

If you're a native speaker, how do you pronounce the following words:*always, falcon, historical, hotel, often, perhaps, towards, Wednesday*? Do you know how your parents say these words? And what about your grandparents (or people of similar age)? See Section B5. (If you're not a native speaker, ask an English- speaking friend.)

Liaison

The converse of elision is **liaison**, i.e. the insertion of an extra sound. We have seen (Unit A6) that accents of English can be divided into two groups according to /r/ distribution, namely rhotic accents where /r/ is pronounced in all contexts, as opposed to non- rhotic accents (like GB) where /r/ is pronounced only preceding a vowel. In these latter varieties, orthographic **r** is regularly restored as a link across word boundaries, e.g.

sooner /ˈsuːnə/	*sooner or later* /ˈsuːnə r ɔː ˈleɪtə/
sure /ʃɔː/	*sure enough* /ˈʃɔː r ɪˈnʌf/

This is termed **linking***r*. With most speakers of non- rhotic English, it is also possible to hear linking *r* when there is no **r** in the spelling. This is termed **intrusive***r*.

the sofa in the catalogue /ðə ˈsəʊfə r ɪn ðə ˈkætəlɒg/
my idea of heaven /maɪ aɪˈdɪə r əv ˈhevən/
we saw a film /wi ˈsɔː r ə ˈfɪlm/
bourgeois immigrants /bʊəʒwɑː r ˈɪmɪgrənts/
via Australia /vaɪə r ɒˈstreɪliə/

Intrusive *r* is heard after the vowels /ɑː ɔː ə/ and the diphthongs terminating in /ə/. Instances with other vowels hardly ever occur: /ɛː/ is invariably spelt with **r** (except possibly in the word *yeah as a form of yes*); final /ɜː/ almost always has **r** in the spelling. Formerly, many native speakers, at least those in the habit of writing letters to newspapers, were aware of the existence of intrusive *r* and made a point of avoiding it. Nowadays people appear to be less conscious of the phenomenon and use it more freely in their speech, although they would probably condemn it as ‘incorrect’ if it was brought to their attention and deny that they did it themselves. Thus it is a

characteristic feature of GB, and is also heard from the overwhelming majority of those who use any non- rhotic variety of English.

French is notable for an elaborate system of liaison, e.g.*Il est assez intelligent*, where 'est' and 'assez,' pronounced /e/ and /ase/ in citation form, recover the final consonants when they occur pre- vocalically in connected speech:/il ɛt asɛz ɛ̃tɛliʒɑ̃/.

Related to liaison is **epenthesis**, which is the insertion into a word of a segment which was previously absent. In all varieties of English, including GB, speakers often insert a homorganic plosive between a nasal and a fricative in examples such as the following:*once* /wʌnts/,*length* /leŋkθ/,*something* /ˈsʌmpθɪŋ/. As a result, words like *sense* and *scents* may be pronounced identically as /sents/.

Activity B2.4

Some English native speakers distinguish the following pairs. Others, pronouncing an epenthetic consonant, say them identically:*mince – mints; prince – prints; patience – patients; chance – chants; tense – tents; Samson – Sampson; Thomson – Thompson.* What do you do? Check with friends. Can you think of any other examples of the same phenomenon?

In some accents of English, particularly Irish English, an epenthetic /ə/ is inserted in sequences such as /lm/ and /rm/, e.g.*film* /ˈfɪləm/,*alarm* /əˈlarəm/.

Patterns of assimilation in English

General observations

Assimilation and elision tend to be more frequent in:

- ❑ rapid rather than slow tempo;
- ❑ informal rather than formal registers.

1 Leading assimilation of place of final alveolars

Alveolar → bilabial in context preceding bilabial

/t/ → /p/
/d/ → /b/
/n/ → /m/
} preceding /p b m/ and less commonly /w/

footpath /ˈfʊppɑːθ/,*madman* /ˈmæbmən/,*pen pal* /ˈpem pæl/,*in March* /ɪm ˈmɑːʧ/,*runway* /ˈrʌmweɪ/.

Alveolar → velar in context preceding velar

/t/ → /k/
/d/ → /g/
/n/ → /ŋ/
} preceding /k g/

gatecrash /ˈgeɪkkræʃ/,*kid- gloves* /kɪg ˈglʌvz/,*painkiller* /ˈpeɪŋkɪlə/.

Note that in GB the allophone of /p k/ representing orthographic **t** can be preglottalised and never has audible release: [ˀ p ˀ k], e.g.*footpath* [ˈfʊˀ

ppɑːθ],*gate-crash* [ˈgeɪʔ kkræʃ]. Often there will be complete glottal replacement [ˈfʊ ʔ pɑːθ], [ˈgeɪ ʔ kræʃ].

Alveolar → palato- alveolar in context preceding palato- alveolar

/s/ → /ʃ/
/z/ → /ʒ/
} preceding /ʃ/

spaceship /ˈspeɪʃʃɪp/,*news sheet* /ˈnjuːʒ ʃiːt/.

Coalescent assimilation with /j/

The plosives /t d/ merge regularly with *you* and *your* in a process of coalescent assimilation of place and manner. The fricatives /s z/ have similar coalescence, though less frequently, with any word- initial /j/:

/t/ + /j/ ⟶ /ʧ/
/d/ + /j/ ⟶ /ʤ/
/s/ + /j/ ⟶ /ʃ/
/z/ + /j/ ⟶ /ʒ/

suit yourself /ˈsuːʧɔːˈself/,*find your umbrella* /ˈfaɪnʤɔː r ʌmˈbrelə/.*is this your pen* /ɪz ˈðɪʃɔː ˈpen/,*where's your cup?* /ˈwɛːʒɔː ˈkʌp/.

Assimilations of this sort are especially common in tag- questions with *you:*

You didn't do the washing, did you? /ˈdɪʤu/.
You should contact the police, shouldn't you? /ˈʃʊdn̩ʧu /.

Assimilation is also frequent in the phrase *Do you.* This is often written *d'you* in informal representations of dialogue:*D'you come here often?* /ʤu ˈkʌm hɪə r ˈɒfn̩/.

2 Lagging assimilation involving /ð/

Initial /ð/ in unstressed words may be assimilated following /n l s z/:

> *on the shelves* /ɒn nə ˈʃelvz/,*all the time* /ɔːl lə ˈtaɪm/,*what's the matter?* /ˈwɒts sə ˈmætə/,*how's the patient?* /haʊz zə ˈpeɪʃn̩t/.

Lagging assimilations are most frequent preceding *the*. Nevertheless, a difference is still to be heard (except at very rapid tempo) between *the* and *a* as a result of the lengthening of the preceding segment and possible differences in rhythm. With words other than *the*, assimilation of this type is less frequent – though by no means uncommon, particularly in unstressed contexts.

> *in this context* /ɪn nɪs ˈkɒntekst/,*when they arrive* /wen neɪ əˈraɪv/,*will theyremember?* /ˈwɪl leɪ rə ˈmembə/,*was there any reason for it?* /wəz zɛː r ˈeni ˈriːzn̩ fɔː r ɪt/.

3 Energy assimilation

In English, energy assimilation is rare. Two obligatory assimilations are *used to* and *have to* (where equivalent to 'must'), e.g.

> *I used to play cricket* /aɪ ˈjuːstə ˈpleɪ ˈkrɪkɪt/, cf.*I used two* (main verb) /aɪ ˈjuːzd ˈtuː/.*I have to write him a letter* /aɪ ˈhæftə ˈraɪt ɪm ə ˈletə/, cf.*I have two* (main verb ˈpossessˈ) /aɪ ˈhæv ˈtuː/.

There are also some word- internal energy assimilations, generally with free variation between two possible forms:

> *absolute* /ˈæpsəluːt/ or /ˈæbsəluːt/;*obsession* /əpˈseʃn̩/or /əbˈseʃn̩/.

Note that fortis to lenis assimilations, e.g.*back door* */bæg ˈdɔː/,*not bad* */nɒd ˈbæd/ are not found in English. Such assimilations are common in many languages, e.g. French and Dutch.

Patterns of elision in English

Elision of /t d/ *in consonant sequences*

Elision of /t/ or /d/ is common if they are central in a sequence of three consonants:

> *past tense* /ˈpɑːs ˈtens/, *ruined the market* /ˈruːɪn ðə ˈmɑːkɪt/, *left luggage* /ˈlef ˈlʌgɪʤ/, *failed test* /ˈfeɪl ˈtest/.

Elisions such as these may remove the /t d/ marker of past tense in verbs, but the tense is usually (not always) clear through context. Elision of /t d/ is not heard before /h/: *smoked herring* /ˈsməʊkt ˈherɪŋ/. If /nt/ or /lt/ are followed by a consonant, there is normally no elision of /t/ (except at very rapid tempo), though /t/ will be glottally reinforced [ˀ t] or replaced by [ʔ]. Note that the vowel before /nt/ and /lt/ is shortened: *spent time* /ˈspent ˈtaɪm/ [ˈspenˀ t ˈtaɪm] or [ˈspenʔ ˈtaɪm]; *Walt Disney* /wɔːlt ˈdɪzni/ [wɔlˀ t ˈdɪzni] or [wɔlʔ ˈdɪzni]. Sequences of **consonant** + /t + j/ and **consonant** + /d + j/ generally retain /t/ and /d/, but often have reciprocal assimilation to /ʧ/ and /ʤ/:

> *I've booked your flight* /aɪv ˈbʊkʧɔː ˈflaɪt/, *I told your husband* /aɪ ˈtəʊlʤɔː ˈhʌzbənd/.

The verb forms *wouldn't you, didn't you*, etc. are regularly heard with this assimilated form: /ˈwʊdn̩ʧu, ˈdɪdn̩ʧu/(see p. 127).

The sequence /skt/ has elision of /k/ instead of, or if preceding consonants, in addition to /t/:

> *masked gunman* /mɑːst ˈgʌnmən/ or /ˈmɑːs ˈgʌnmən/, *they asked us* /ðeɪ ˈɑːst əs/.

Other notable elisions

The following are examples of connected speech forms not covered by what has been stated already:

1. /h/ is regularly elided from the weak forms of function words (see also Section A3), e.g.*I think he will have told her* /aɪ ˈθɪŋk i wɪl əv ˈtəʊld ə/. This is to be heard even in formal speech registers in all varieties of English. Because of the linguistic insecurity attached to **h**- dropping in England and Wales (see Unit C2), it is not uncommon for children to be, quite wrongly, corrected by parents, teachers or speech trainers for eliding /h/ in this context.
2. Another notable elision connected with weak forms is the deletion, in informal registers, of the dental fricative /ð/ in *them* – often condemned as slipshod speech, this form in fact has a long history going back hundreds of years and is to be heard in GB and all other accents of English.
3. Two common words have frequent alternative forms with elision of dental fricatives /θ ð/:*months* /mʌns/,*clothes* /kləʊz/.
4. Forms of numerals, e.g.*fifth, twelfth*, do not elide /θ/ but may instead elide the preceding consonant: /fɪθ, twelθ/.

5. Elision of /v/ in *of* is especially common before /ð/, e.g.*three of the websites* /ˈθriː ə ðə ˈwebsaɪts/,*one of the lads* /ˈwʌn ə ðə ˈlædz/. It is also heard at more rapid tempo before other consonants:*a piece of paper* /ə ˈpiːs ə ˈpeɪpə/,*as a matter of fact* /əz ə ˈmætrə ˈfækt/.

   In more rapid speech, /v/ is sometimes elided before /m/ in the verbs *give, have, leave: give me a chance* /ˈgɪ mi ə ˈʧɑːns/,*do you have my number* /duː ju ˈhæ maɪ ˈnʌmbə/,*leave me alone* /ˈliː mi ə ˈləʊn/.
6. The sequence /ʇt/ is normally reduced to /t/ in two common verbal forms, i.e.*want to, got to: I want to leave* /aɪ ˈwɒntə ˈliːv/ (some speakers will further reduce this to /aɪ ˈwɒnə ˈliːv/ in more rapid speech),*they've got to go now* /ðeɪv ˈgɒtə ˈgəʊ naʊ/.

7. When *going to* is used as a tense- former, it is typically pronounced /gənə/, e.g. *What's going to happen* /ˈwɒts gənə ˈhæpən/. This form (sometimes shown as 'gonna' in dialogue) is often criticised by prescriptivists, but is in fact the norm in colloquial GB and all other varieties of native- speaker English.

Activity B2.5

Transcribe phonemically, showing intonation groups and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 11

‘Come on, there’s no use crying like that!’ said Alice to herself, rather sharply. ‘I advise you to leave off this minute!’ She generally gave herself very good advice (though she very seldom followed it), and sometimes she scolded herself so severely as to bring tears into her eyes; and once she remembered trying to box her own ears for having cheated herself in a game of croquet she was playing against herself, for this curious child was very fond of pretending to be two people. ‘But it’s no use now,’ thought poor Alice, ‘to pretend to be two people! Why, there’s hardly enough of me left to make *one* respectable person!’

B3

Stress and Rhythm

Introduction

We're moving on now from dealing with the segments – i.e. the vowel and consonant sounds – to tackling **supra-segmental** features, namely stress, rhythm (which we shall deal with in this section) and intonation (which we'll come to in Unit B4). Unlike vowels and consonants, which are single speech sounds, supra- segmental features normally stretch over more than a single segment – possibly a syllable, a complete word or phrase, whole sentences, or even more.

We introduced the concept of stress in Section A3 and from then on we've been employing it for our transcriptions – so you should be quite used to the general idea. But now let's examine stress more closely so as to discover:

- ❑ what is implied in phonetic terms;
- ❑ what role stress has to play in the sound system of English.

Below we shall employ the distinction fi rst made in Section A3 between **word stress** (stress in the isolated word) and **sentence stress** (stress in connected speech).

What is stress?

In English, four phonetic variables appear most significant as indicators of stress: **intensity**, **pitch variation**, **vowel quality** and **vowel duration** (see Table B3.1).

1. **Intensity** in physiological terms is the greater breath effort and muscular energy associated with stressed syllables. It's closely related to what is perceived by the listener as **loudness**.
2. **Pitch variation** appears to be, as far as English is concerned, the most important single factor in determining stress. In English, higher pitch tends to be associated with stronger stress. We shall come back to discuss pitch and intonation in more detail in Section B4.
3. **Vowel quality**, i.e. whether a vowel is central or peripheral (see Figure A7.15, p. 88), also determines stress. Take the English vowels in the noun *present* /ˈprezənt/ as opposed to the verb (*to*)*present* /prəˈzent/. The stressed syllables contain the peripheral vowel DRESS /e/, whereas the unstressed syllables have a central vowel /ə/. (Note that in the first word it is possible for the vowel in the unstressed syllable to be further reduced to a syllabic consonant /n̩/; in the second word some speakers may use another non- peripheral vowel, KIT.) Diphthongs have a less clearly discernible glide.

Some degree of vowel centralisation in unstressed contexts is a feature of many languages; as a result, unstressed vowels sound somewhat 'fuzzy' as compared with those in stressed syllables, which retain distinct peripheral vowels on the edges of the vowel diagram. As you can see from our example above, what is unusual about English is that this process generally goes one stage further. The peripheral vowel in the unstressed syllable is actually

replaced by another phoneme – most commonly by /ə/, sometimes by /ɪ/ or /ʊ/, or even a syllabic consonant, e.g.*attention* /əˈtenʃn̩ /,*excitable* /ɪkˈsaɪtəbl̩/. The effect is termed **vowel reduction** and is one of the most characteristic features of the English sound system. Neglect of vowel reduction is one of the commonest errors of non- native learners of English, and results in unstressed syllables having undue prominence.

Table B3.1 Characteristics of stressed and unstressed syllables

	Stressed	*Unstressed*
1 Intensity	Articulation with greater breath/muscular effort	Less breath/muscular effort
	Perceived as greater loudness	Perceived as having less loudness
2 Pitch	Marked change in pitch	Syllables tend to follow the pitch trend set by previous stressed syllable
3 Vowel quality	May contain any vowel (except /ə/)	Generally have central vowels /ə ɪ ʊ/ or syllabic consonants
	Vowels have clear (peripheral) quality	Vowels may have centralised quality
	Diphthongs have clearly defined glide	Diphthongs tend to have a much reduced glide
4 Vowel duration	Vowels have full length	Vowels are considerably shorter

Activity B3.1 (Answers on website)

Make phonemic transcriptions of the following pairs, noting the occurrence of non- central vowels in stressed syllables against central vowels/syllabic consonants in unstressed syllables:

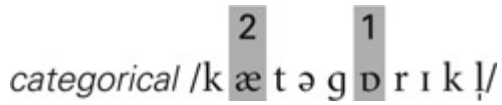
compound (noun)	(*to*) *compound*

progress (noun)	(*to*) *progress*
permit (noun)	(*to*) *permit*
frequent (adj.)	(*to*) *frequent*

4 **Duration of vowels** is an important factor in indicating stress. In English, other things being equal, vowels are shorter in unstressed than in stressed syllables, cf. English *sarcasm* [ˈs ɑ̲ ːkæzm̩],*sarcastic* [s ɑ̲ ˈkæstɪk],*organ* [ˈɔːgən],*organic* [ɔˈgænɪk],*urban* [ˈɜːb ə̲ n],*urbane* [ɜˈbeɪn].

Word stress

We shall distinguish two degrees of stress as well as 'unstressed,' as in:



The strongest stress is **primary** stress (indicated by **1** in the example); the next level, **secondary** stress (indicated by **2**) – anything else is treated as **unstressed** (unnumbered in the example, i.e. the syllables containing /ə/, /ɪ/ and the syllabic consonant /ļ/). Primary stress is normally shown by a vertical mark [ˈ] placed *above* the line (as we have been doing throughout this book). Where it's necessary to show a secondary stress, this is shown by a vertical mark *below* the line, thus: [ˌ], e.g. ˌcateˈgorical, ˌeccenˈtricity, ˌexplaˈnation, ˈcauliˌflower, ˈgoalˌkeeper, etc. Note that unstressed syllables are left unmarked. For most purposes, it is sufficient to show only *primary* stress, and from now on we shall normally ignore secondary stresses and also leave them unmarked, e.g. cateˈgorical, ˈcauliflower, etc.

In certain languages, stress overwhelmingly falls on a syllable in a particular position in the word; we shall term this **language invariable stress**. For example, in Czech and Slovak, stress is normally on the first syllable; in Italian, Welsh and Polish, stress is normally on the penultimate (last but one); other languages, such as Farsi (spoken in Iran), have word-final stress. In certain languages, notably French and many Indian languages, such as Hindi and Gujarati, native speakers don't seem to consider stress to be of significance. In French, for example, although in isolated words stress is invariably on the final syllable, things are very different in the flow of speech (see Section B7).

In English and many other languages (e.g. German, Russian, Danish, Dutch), not only can stress occur at any point in the word but, crucially, it is fixed for each individual word; this we may term **lexically designated**

stress. In such languages, stress is furthermore of great importance for the phonetic structure of the word and cannot as a rule be shifted in connected speech.

Despite the significance of stress, it's curious that few languages show stress in orthography (an exception is Spanish where any word which does not conform to regular Spanish stress patterns has the stressed syllable indicated by an acute accent, e.g.*teléfono* 'telephone'; see Section B7). In English, although it's often very difficult for a non- native to predict the primary stress from the written form of the word, there's no such help. Nevertheless, native speakers are generally able to guess the stress of unfamiliar words, and this implies that there is an underlying rule system in operation, even though the rules for stress are complex and have numerous exceptions. In fact, linguists have moved from the view once held, which claimed that there were few rules for predicting English stress, to a standpoint where some would say that stress is completely predictable. However, any prescriptive rule system which aimed at being even reasonably comprehensive would have to be tremendously complex.

Some word stress guidelines

From the point of view of non- native learners, it's probably best to consider English stress as being in part rule- governed, and only to concern themselves with learning the most useful and frequent patterns. Together with the guidelines which follow, the traditional advice to the non- native English learner of noting and memorising the stress pattern of words when you first meet them must still apply. Nevertheless, it is possible to note a few useful stress guidelines.

Words consisting of two or three syllables

Rough guide: primary stress on first syllable, e.g. ˈ*culture*, ˈ*hesitant*, ˈ*motivate*.

Longer words (four or more syllables)

Rough guide: there is a tendency for the **antepenultimate** syllable to have primary stress, i.e. the last but two, e.g.*credi* ˈ*bility*,*com* ˈ*municate, methodo* ˈ*logical*, etc.

Prefix words

Rough guide: in shorter words beginning with a prefix, the primary stress typically falls on the syllable **following** the prefix:*inter* ˈ*ference*,*in* ˈ*tend*,*ex* ˈ*pose*,*con* ˈ*nect, un* ˈ*veil*. **Exception**: a large number of nouns, e.g. ˈ*output*, ˈ*interlude*, ˈ*congress*, ˈ*absence*.

Numerous verbs with prefixes are distinguished from identically spelled nouns by stress. We can term this **switch stress**. The noun generally has stress on the prefix, while the verb has stress on the syllable following the prefix:

Verb	Noun
(to) inˈsert	(the) ˈinsert
(to) exˈcerpt	(the) ˈexcerpt
(to) conˈduct	(the) ˈconduct
(to) upˈdate	(the) ˈupdate

Word endings

Certain word endings may act as stress attractors, falling into two groups.

Stress on ending itself

- **ade** (nouns), - **ain** (verbs), - **ee** (nouns), - **eer**, - **esque** (adjs/nouns), - **esce** (verbs), - **ess** (verbs), - **ette** (nouns), - **ique** (nouns/adjs), - **oon** (nouns), - **self/- selves**, e.g.*paˈrade, abˈstain, interviewˈee,engiˈneer,groˈtesque,convaˈlesce,asˈsess,statuˈette,criˈtique,lamˈpoon,herˈself,yourˈselves.*

Stress on syllable preceding ending

-ative, - **itive**, - **cient**, - **ciency**, - **eous**, - **ety**, - **ian**, - **ial**, - **ic**, - **ical**, - **ident**, - **inal**, - **ion**, - **ital**, - **itous**, - **itude**, - **ity**, **-ive**, **-ual**, **-ular**, **-uous**, **-wards** /wədz/, e.g.*alˈternative, ˈpositive, ˈancient, deˈficiency, ouˈtrageous, proˈpriety, peˈdestrian, superˈficial, melanˈcholic, ˈradical, ˈaccident, ˈcriminal,oˈccasion,conˈgenital,infeˈlicitous, ˈmultitude,increˈdulity,aˈttentive, per*

ˈ*petual*, ˈ*secular, con* ˈ*spicuous*, ˈ*outwards*. Note that many of these lead to antepenultimate stressing.

Stress in English compounds

Incorrect stressing of compounds doesn't normally hinder intelligibility, yet this area is a very significant source of error – even for advanced non-native learners. To provide a complete guide is impossible since there are indeed many irregularities. But knowing a few simple guidelines can make compound stress very much easier for non- natives to learn. Even if you still have to use some guesswork, it allows you to get things right, perhaps nine times out of ten.

Compounds in English are of two types: those which have their main stress on the *initial* element of the compound and those which have the main stress on the *final* element.

- **Initial Element Stress (IES)** with main stress on the first part of the compound, e.g. ˈ*apple pip*, ˈ*office boy*, ˈ*Russian class*.
- **Final Element Stress (FES)** with main stress on the last element of the compound, e.g.*apple* ˈ*pie, office* ˈ*desk, Russian* ˈ*salad*. Note that many books term this 'double stress' or 'equal stress.'

Stress guidelines for compounds

(1) Word shape

Compounds written as *one word* nearly always have IES, e.g.*floorboard, waterfall, paperback,skylight*, but those written as *two words*, or with a *hyphen*, can be of either stress type.

(2) The Manufactures Rule (FES)

The most useful guides in terms of allocating stress in compounds are the 'Manufactures Rule' and the 'Location Rule.'

The **Manufactures Rule** implies that if the compound includes a material used in its manufacture (e.g. an *apple pie* is a pie made of apples), then FES applies, e.g.*apple ˈpie, plum ˈbrandy, paper ˈbag, cotton ˈsocks, diamond ˈbracelet*. Compare non-manufactured items, which instead take IES, e.g. ˈ*apple tree*, ˈ*paper clip*, ˈ*plum stone*, ˈ*cotton mill*, ˈ*diamond cutter*.

(3) Location Rule (FES)

The **Location Rule** describes the strong tendency for a compound to take FES if location is in some way involved.

a. FES applies if the first element is the name of a country, region or town: e.g.*Turkish de ˈlight, Russian rou ˈlette, Burmese ˈcat, Scotch ˈmist, Lancashire ˈhotpot,Brighton ˈrock,London ˈpride.*
b. The vast majority of place names, geographical features, etc. have FES. This category includes:

- ❑ regions, towns, suburbs, districts, natural features, e.g.*East ˈAnglia,New ˈYork,Castle ˈBromwich, Notting ˈHill, Silicon ˈValley, Land's ˈEnd, Botany ˈBay.*
- ❑ bridges, tunnels, parks, public buildings and sports clubs, e.g.*Hyde ˈPark,(the) Severn ˈBridge,Paddington ˈStation,Carnegie ˈHall,Manchester Uˈnited.*
- ❑ all street names, except *street* itself, e.g.*Church ˈRoad, Trafalgar ˈSquare, Thorner ˈPlace, Churchill ˈWay, Fifth ˈAvenue.* Cf. ˈ*Church Street, Traˈfalgar Street*, etc.

c. **Parts of a building** tend to have FES, e.g.*back ˈdoor,bedroom ˈwindow,garden ˈseat.* **Exceptions**: compounds with *-room* are IES, e.g. ˈ*living room*, ˈ*drawing room* (but *front ˈroom*).

d. FES applies where **positioning** of any sort is involved, e.g.*left ˈwing, upper ˈclass, bottom ˈline, Middle ˈAges*. Time location also tends to FES, e.g.*morning ˈstar, afternoon ˈtea, January ˈsales, April ˈshowers, summer ˈholiday*.

Activity B3.2

Think of more examples of the Manufactures Rule and the Location Rule. Can you think of any counter- examples not already mentioned? In many cases, you can get help from a pronunciation dictionary, such as the *Longman Pronunciation Dictionary* (Wells 2008) or the *Cambridge English Pronouncing Dictionary* (Jones 2011).

Further useful guides related to the Manufactures and Location Rules

1. The vast majority of **food items** have FES, e.g.*poached ˈegg*. Note that these are often covered by either the Manufactures Rule or the Location Rule, e.g.*Worcester ˈsauce, Welsh ˈrabbit, Christmas ˈpudding, fish ˈsoup*. **Exceptions**: some items take IES because they can also be regarded as part of the living plant or animal, e.g. *ˈchicken liver*, *ˈorange juice*, *ˈvine leaves*. Other significant exceptions are *-bread, -cake, -paste*, e.g. *ˈshortbread*, *ˈChristmas cake*, *ˈfish paste*.
2. Names of **magazines**, **newspapers**, etc. have FES (many involve place or time and are covered by the Location Rule), e.g. (the)*Daily ˈPost, (the) Western ˈMail, (the) Straits ˈTimes, Vanity ˈFair, (the) New ˈStatesman*.

Other stress patterns

3 IES applies to compounds including the names of **academic subjects**, **skills**, etc., e.g. ˈ*technical college*, ˈ*French teacher* (i.e. a person who teaches French).

4 Nouns formed from **verb** + **particle** take IES, e.g. ˈ*make- up*, ˈ*come-back*, ˈ*look- out*, ˈ*backdrop*. **Exceptions** are few, but note:*lie* - ˈ*down, look* - ˈ*round, set* - ˈ*to*. These patterns have changed in the recent history of the language. See Section B5.

5 Nouns ending in - **er** or - **ing** + **particle** take FES, e.g.*hanger* - ˈ*on, passer* - ˈ*by, washing* - ˈ*up*.

6 Compounds formed from - **ing** + **noun** are of two types:

- ❑ IES applies where *an activity is aided by the object* (i.e. a ˈ*sewing machine* helps you to sew), e.g. ˈ*sewing machine*, ˈ*running shoes*, ˈ*scrubbing brush*, ˈ*washing machine*.
- ❑ FES applies where *a compound suggests a characteristic of the object,with no idea of aiding an activity*, e.g.*leading* ˈ*article,running* ˈ*water,casting* ˈ*vote,sliding* ˈ*scale*.

Sentence stress

When discussing transcription (Section A3) we noted that many of the potential stresses of word stress are lost in connected speech (i.e. sentence stress). The general pattern is that words which are likely to lose stress completely are those which convey relatively little information. These are the words important for the structure of the sentence, i.e. the **function words** (articles, auxiliary verbs, verb *be*, prepositions, pronouns, conjunctions). The **content words** (nouns, main verbs, adjectives, most adverbs), which carry a high information load, are normally stressed.

I've 'heard that 'Jack and 'Jane 'spent their 'holidays in Ja'maica.
F F C F C F C C F C F C

(C = content word, F = function word)

There are certain exceptions to the general pattern stated above:

1. Three sets of function words frequently receive stress:

    a. *wh* - words where these form questions, e.g. *where*, *why*, *how*;
    b. demonstratives, e.g. *this*, *that*, *these*, *those*;
    c. possessive pronouns, *mine, yours, his, hers, ours, theirs.*

    These particular function words often add significant information; the demonstratives and possessives also provide contrast.
2. Function words normally receive stress when they indicate a contrast:

    I said give ˈ **her** a kiss, not ˈ **him**.

3. Prepositions are frequently stressed where a contrast is stated or implied:

Would you call yourself a jazz lover?
Actually, I know very little a' **bout** jazz. I prefer classical music.

4. It is noteworthy that *repeated* lexical items are not generally stressed:

   There have been 'traffic jams in 'Dagenham and 'areas 'close to Dagenham.

   A similar effect can be heard in items which are direct equivalents:

   Are you 'fond of 'chocolate then? 'Given the 'chance, I'll 'eat 'tons of the stuff.

5. At more rapid tempo, the number of unstressed syllables will increase, and more lexical words will be unstressed:

   I've heard that 'Jack and 'Jane spent their 'holidays in Ja'maica.

Stress and rhythm

Sentence stress is the basis of rhythm in English. Stressed syllables tend to occur at roughly equal intervals of time. This is because the unstressed syllables in between give the impression of being compressed if there are many and expanded if there are few.

Activity B3.3 🎧 Recording B3.1

Say the following sentences (stressed syllables are indicated by.; unstressed by ●). Take a pencil and tap out the stresses.

'Jimmy's 'bought a 'house near 'Glasgow.

— • — • — • — •

'Sally's been 'trying to 'send you an 'e-mail.

—• • —• • — • • — •

'Alastair claimed he was 'selling the company.

—• • — • • —• • — • •

Notice how the stressed syllables give the impression of coming at regular intervals; if you pronounce the words in a regular 'singsong' manner, it's possible to tap out the rhythm with a pencil. Try doing so. We term this effect **stress- timing**, and it's characteristic of languages such as English, Dutch, German, Danish, Russian and many others.

Related to this feature is the variable length of vowels in polysyllabic words. Look at the following example, and notice how the syllables

compress as more are added. (The lines underneath give an approximate indication of vowel length.)

The ban's back in place	*The banner's back in place*	*The banister's back in place*
/bænz/	/'bænəz/	/'bænɪstəz/
_____	____●	___●●

Activity B3.4

Say these words, noting how the vowel tends to shorten somewhat as unstressed syllables are added.

_____	____	___
mean	*meaning*	*meaningful*
see	*seedy*	*seedily*
red	*ready*	*readily*
myrrh	*murmur*	*murmuring*

One area in which stress timing reveals itself in English is the way it forms the basis of rhythm in verse – the *metre*, to use the technical term. To analyse English poetry written in the traditional manner, you note the beats on stressed syllables – and this applies whether we're dealing with Shakespeare or a nursery rhyme. In the verses below, the strong beats are shown in bold. There's always room for variation when reciting poetry, but the rendering below would be a typical way of reading these lines from a nursery rhyme and a piece of comic verse.

For the most part, the stresses fall on the content words, whereas the function words usually lack stressing. In terms of timing, the intervals between the strong beats of the stresses are roughly equal. Where you have

a sequence of more than one weak syllable, as in '**ev** erywhere that' and 'but it,' the weak syllables are compressed, taking up much less time. Note also how the rhythm reflects the use of weak forms, as can be seen when the verse is transcribed phonemically.

Activity B3.5 🎧 Recording B3.2

Listen to the recording on the website and recite the poems in the same manner, being careful to give more weight to the stressed syllables.

Mary had a little lamb.
*Its **fleece** was **white** as **snow**.*
*And **ev**erywhere that **Mar**y **went**,*
*The **lamb** was **sure** to **go**.*

ˈmɛːri ˈhæd ə ˈlɪtl̩ ˈlæm |
its ˈfliːs wəz ˈwaɪt əz ˈsnəʊ |
ən ˈevrɪwɛː ðət ˈmɛːri ˈwent |
ðə ˈlæm wəz ˈʃɔː tə ˈgəʊ |

*I **eat** my **peas** with **hon**ey.*
*I've **done** so **all** my **life**.*
*It **makes** the **peas**taste **fun**ny,*
*But it **keeps** them **on** the **knife**.*

aɪ ˈiːt maɪ ˈpiːz wɪð ˈhʌni |
aɪv ˈdʌn səʊ ˈɔːl maɪ ˈlaɪf |
ɪt ˈmeɪks ðə ˈpiːz teɪst ˈfʌni |
bət ɪt ˈkiːps ðəm ˈɒn ðə ˈnaɪf |

Follow up this activity by finding some other simple verse of the same kind. Mark the stresses and read it accordingly.

Languages may also work on a different principle, **syllable- timing**, giving the impression of roughly equal length for each syllable regardless of stressing. Take this example from French:

Je voudrais descendre au prochain arrêt s ˈil vous plaît 🎧 Recording B3.3.

/ʒvudre dɛˈsɑ̃dr | o prɔʃɛn aˈre | si vu ˈple/.

Here each syllable appears to have approximately equal time value, except for the final one of each group, which is extended. Other languages with a tendency to equal syllable length are: Spanish, Greek, Turkish, Polish, Hindi, Gujarati.

Stress- timing appears to operate for all types of English spoken by native speakers, possibly with the exception of those strongly influenced by Creoles, such as the English of the West Indies. Some types of English employed as a second language (e.g. the English used by many Indians and Africans) absorb the syllable- timing of the mother tongue of the speakers, but such varieties can be very difficult for others to understand. As has been shown, stress- timing is achieved mainly by lengthening certain vowels at the expense of others: vowels tend to be lengthened in stressed syllables and shortened in unstressed syllables.

Activity B3.6

Transcribe phonemically, showing intonation groups and sentence stress, and using weak and contracted forms wherever possible.

Transcription passage 12

Soon her eye fell on a little glass box that was lying under the table: she opened it, and found in it a very small cake, on which the words ‘Eat me’ were beautifully marked out in currants. ‘Well I’ll eat it,’ said Alice, ‘and if it makes me grow larger, I can reach the key; and if it makes me grow smaller, I can creep under the door: so either way I’ll get into the garden, and I don’t care which happens!’ She ate a little bit, and said anxiously to herself, ‘Which way?,’ holding her hand on the top of her head to feel which way it was growing; and she was quite surprised to find that she remained the same size. To be sure, this is what generally happens when one eats cake; but Alice had got so much into the way of expecting nothing but weird things to happen, that it seemed quite dull and stupid for life to go on in the common way. So she set to work, and very soon finished off the cake.

B4

Speech Melody

Pitch movement

Variation in speech melody is an essential component of normal human speech. Indeed, if it's absent for any reason listeners reject the speech and claim it to be literally inhuman ('robot- like'). This was formerly a major problem which had to be faced by people who had had the larynx removed owing to cancer or some other disease. Equipment was available which could produce a voicing buzz but it is only relatively recently that such devices have been built which allow the user to come close to realistically mimicking the pitch variation of natural speech.

Pitch refers to human perception, i.e. whether one perceives sounds as 'high' or 'low.' The most important physical factor in determining pitch is the **frequency** (i.e. speed of vibration) of the vocal folds; in general terms, the higher the frequency, the higher the perceived pitch, and vice versa.

Many students find it difficult to judge whether pitch is rising or falling; the following simple analogy may help. The engine of a motor car when 'revving up' to start produces a series of *rising* pitches. When the car is cruising on the open road, the engine pitch is more or less *level*. On coming to a halt, the engine stops with a rapid *fall* in pitch.

Acticity B4.1 Recording B4.1

Imitate the pitches just described, using a prolonged [a:] vowel.

(1) Rises ('revving up to start')

(2) Level pitch ('open road')

(3) Fall ('coming to a halt')

Tone languages

Pitch variation has an important role to play in communication, supplying meaning additional to that conveyed by the segmental phonemes. We can distinguish two significant ways in which pitch functions, namely (1) (**lexical**) **tone** and (2) **intonation**.

In many languages, it is possible to use pitch differences to distinguish the *dictionary meaning* of words. This function of pitch is known as **tone** and such languages are termed **tone languages**. Tone languages may make use of different numbers of pitch levels. Two levels (high and low) or three (high, mid and low) are common.

Activity B4.2 🎧 Recording B4.2

Try imitating these examples from Ewe, a three- tone language spoken in Ghana and Togo. Note the marking system commonly used for such African languages: (´) indicates high tone, (`) indicates low tone; mid tones are left unmarked.

tsí tsí [_ _] 'ladle'	*kú kú* [_ _] 'hat'
tsí tsí [_ _] 'growth'	*kù kù* [_ _] 'digging'
	kù kú [_ -] 'dying'
àtá [_ -] 'thigh'	tó [¯] 'ear'
àtá [_ -] 'you will draw'	tó [-] 'buffalo'

Languages like these, which use a tone system of two or three significant pitch levels, are called **register tone** languages. In the Far East, **contour tone**

languages are more common. These chiefly employ falling and rising pitches; examples are to be found in the languages of China, including the most widely spoken variety, Mandarin Chinese.

Activity B4.3 Recording B4.3

Say the following words in Mandarin Chinese. The pitch pattern is indicated:

han [—] 'foolish'	*han* [˨˩] 'rare'
han [˧˥] 'cold'	*han* [˥˩] 'perspiration'

The tones of a tone language may be analysed in a way comparable to the segmental phonemes, giving **tonemes** and **allotones**.

It is thought that most of the world's languages employ tone, and certainly, the vast majority of African, Far Eastern and American Indian languages are tonal. Europe in fact is rather odd in having few tone languages. Nevertheless, a few do exist: Serbian, Croatian, Norwegian and Swedish all have a partial tonal element.

Intonation variation

Most European languages do not use pitch to indicate dictionary meaning. For instance, you can say the English word *nine* on a number of different pitch patterns:

Yet it continues to mean *nine* and can't be made to mean anything else. Moreover, we can't distinguish homophones (see pp. 18–19), such as English *hare, hair*; French *foi, foie, fois* 'faith, liver, time'; or German *Rat, Rad* 'advice, wheel' by means of pitch. In English (and the vast majority of European languages), pitch variation is confined to **intonation**.

Intonation tunes operate over an extent greater than a single word, usually over complete clauses or sentences. Intonation is crucial to human communication, supplying types of meaning additional to what is supplied by the words themselves. Think how often you hear people come out with statements like: 'It wasn't so much *what* he said – it was more the *way he said it*.'

Intonation works differently in different languages. One of the first things one notices about a French person speaking English is that the intonation sounds very characteristically French (and therefore non- English). A classic TV series,*The Muppet Show*, revived in a film version in 2012, features a comic character, the 'Swedish cook,' where the whole joke is based on stereotypical mock- Swedish intonation. Furthermore, each accent of a language has its own particular intonation. If you are at all familiar with the British Isles, you'll probably already be aware that accents such as Welsh English, Birmingham English, Geordie (north- east) and Irish English all have different and easily recognisable types of intonation. Worldwide, we find the

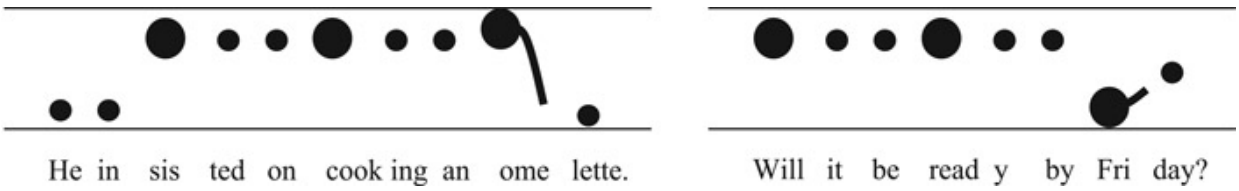
same thing over and over again. To give just two examples: many people are aware that the English of the southern states of the USA differs strikingly from General American in terms of intonation; less well known, perhaps, is that in New Zealand English there are distinct intonation differences between some South Island varieties.

Obviously we can't deal with all this variation in a single section. Fortunately, there is no real need to. You already know that there are obvious differences between the vowels and consonants of different English varieties, and yet there is also great overall similarity so that there are normally no problems of intelligibility. In the same way, although there are notable differences in the detail of different English intonation systems, there is enough overall similarity for people to be able to 'tune in' to a new system and recognise many – if not all – of its implications. The tuning- in process is sometimes termed 'normalisation.' We shall concentrate on describing some of the most important aspects of the intonation of British GB, and mention other varieties only in passing (in Sections C1 – C6). Note that selected examples (1–30) are provided on 🎧 ***Recording B4.8***.

The structure of intonation patterns in English

Marking systems for intonation

We employ the following **interlinear** marking system for intonation. Pitch patterns are indicated between an upper and lower line corresponding to the highest and lowest normal pitch range of the voice. (We are ignoring an effect known as *declination*, i.e. the tendency for pitch patterns to compress towards the end of each utterance.) Stressed syllables are shown by large dots and unstressed syllables by small dots. Lines are used to show important gliding pitch movements. The interlinear system is useful because it conveys a fairly clear impression of the rise and fall of pitch.



The complementary **in- text** marking system is a much more economical means of notation. In this case, as the name implies, the pitch information is conveyed by little marks placed within the actual text. By picking out the essential intonation features and ignoring the rest, the pattern becomes clearer and is easier to write and quicker to read.

He ˈinsisted on cooking an ˋomelette.	ˈWill it be ready by ˌFriday?

Intonation phrase division

The basic unit of speech melody is the **intonation phrase (IP)**, which is a complete pattern of intonation. As stated in Section A3, IP boundaries are

indicated by single bars |; a double bar || can be used to indicate the end of a sentence.

I'd obviously broken my leg | so I needed to see a doctor.||

IPs often correspond to a grammatical clause. However, much variation is possible. For instance, a noun phrase may have a complete IP to itself. The longer the noun phrase, the more likely this is to happen.

1. This particular part of Pembrokeshire | is at its most beautiful in the spring.||

Or an adverb, or adverbial phrase, may have its own IP:

2 Regrettably | paedophiles are unlikely ever to reform.||

The presence of an IP boundary can occasionally be crucial for meaning:

(3a) (Do you really want to leave home?)	I don't know.||
(3b) (Do you really want to leave home?)	I don't. || No. ||

Where an IP boundary occurs, it is possible to pause – although in the flow of speech these pauses are frequently omitted. IP boundaries are often (but not always) indicated in the writing by punctuation, e.g. full stops, commas and dashes.

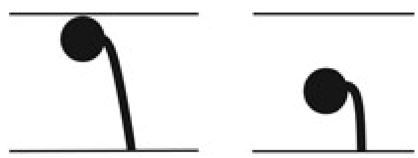
The nucleus

IPs are built around the **nucleus**, the only obligatory element of an IP. The nucleus consists of a single syllable on which a variety of **nuclear tones** are realised (or initiated if followed by additional syllables). It is also semantically the most important part of an IP, the location of the nucleus and its nuclear tone being the main bearers of intonational meaning.

There are seven nuclear tones commonly identified in analyses of English intonation: **high fall** [ˋ], **low fall** [ˏ], **high rise** [ˊ], **low rise** [ˎ], **fall- rise** [ˇ],

rise- fall [^], **mid- level** [˃]. The exact realisation of the nuclear tones depends on the number and kind of syllables they occur on. We will start by demonstrating them in the simplest possible context, a single monosyllabic word said between pauses, as when we find ourselves saying words such as 'wait,' 'yes,' 'why,' 'now' or 'thanks' as complete utterances. In such cases, a single monosyllabic word makes up the entire IP, which consists of the obligatory nucleus alone, and the nuclear tone is realised on a single syllable.

As the following illustrations demonstrate, when the two falling nuclear tones occur on a monosyllabic word, they both involve a glide down to the bottom of the speaker's normal pitch range. The high fall starts at the top of the speaker's pitch range, falling from high to low, while the low fall starts at the middle of the pitch range, falling from mid to low. Note that although strictly speaking it is sufficient to identify the nucleus using the appropriate in- text symbol, we also underline the nuclear syllable in order to make it stand out in longer IPs.



ˋNo.   ˎNo.

Exercise

Say these words with a high fall:

ˋ No. ˋ Who. ˋ Here. ˋ How. ˋ Fine. ˋ Now. ˋ Why. ˋ Stay. ˋ Aim. ˋ There. 🎧 ***Recording*** B4.9

Now say them with a low fall:

ˎ No. ˎ Who. ˎ Here. ˎ How. ˎ Fine. ˎ Now. ˎ Why. ˎ Stay. ˎ Aim. ˎ There. 🎧 ***Recording*** B4.10

Now say them first with a high fall then with a low fall, and vice versa:

ˋ No, ˎ no. ˋ Who, ˎ who. ˋ Here, ˎ here. ˋ How, ˎ how. ˋ Fine, ˎ fine. ˋ Now, ˎ now. ˋ Why, ˎ why. ˋ Stay, ˎ stay. ˋ Aim, ˎ aim. ˋ There, ˎ there. 🎧 ***Recording*** B4.11

ˎ No, ˋ no. ˎ Who, ˋ who. ˎ Here, ˋ here. ˎ How, ˋ how. ˎ Fine, ˋ fine. ˎ Now, ˋ now. ˎ Why, ˋ why. ˎ Stay, ˋ stay. ˎ Aim, ˋ aim. ˎ There, ˋ there. 🎧 ***Recording*** B4.12

Note that in the same way that vowel and consonant phonemes can vary according to the phonetic contexts they occur in, the nuclear tones vary according to the kind of syllables they occur on. Pitch depends on voicing, but syllables vary in their length and the duration of voicing. Checked vowels are inherently rather short, and so syllables in which they occur are usually of brief duration, especially when they are also followed by one or more fortis (i.e. voiceless) consonants. The opposite is true of free vowels: they are inherently quite long and usually form syllables of greater duration, especially in combination with lenis/voiced consonants. The nuclear tones, therefore, will tend to sound a little different on different kinds of syllable, the pitch movement being faster and less complete when there is less voicing, and slower and more complete when the voicing is of greater duration. This is particularly noticeable in the case of the high fall, where the fall often doesn't reach the low level on short syllables but only reaches the mid level or not even as far as that (see illustration). In such cases learners often hear the high pitch, not noticing the slight fall, and mistakenly assume that the nuclear tone is a rise.

`Six.

Exercise

Practise saying the high fall on short syllables:

ˋSix. ˋSit. ˋHot. ˋCatch. ˋPush. ˋCash. ˋPet. ˋThick. ˋShop. ˋPop. ˋTick. 🎧 ***Recording*** B4.13

Compare the high fall on long and short syllables:

ˋSeed, ˋsit. ˋHard, ˋhot. ˋCage, ˋcatch. ˋPool, ˋpush. ˋCarve, ˋcash. ˋPair, ˋpet.
ˋTheme, ˋthick. ˋShow, ˋshop. ˋPause, ˋpop. ˋTalk, ˋtick. 🎧 ***Recording*** B4.14

Practise saying the low fall on short syllables:

ˎSix. ˎSit. ˎHot. ˎCatch. ˎPush. ˎCash. ˎPet. ˎThick. ˎShop. ˎPop. ˎTick. 🎧 ***Recording*** B4.15

Compare the low fall on long and short syllables:

ˎSeed, ˎsit. ˎHard, ˎhot. ˎCage, ˎcatch. ˎPool, ˎpush., ˎCarve, ˎcash. ˎPair, ˎpet. ˎTheme, ˎthick. ˎShow, ˎshop. ˎPause, ˎpop. ˎTalk, ˎtick. 🎧 ***Recording*** B4.16

The realisation of the two rising nuclear tones, the high rise and the low rise, differs fundamentally from that of the falls. The high fall and the low fall start at different levels, but both aim to finish at the bottom of the speaker's normal pitch range. The rises, on the other hand (see illustration), begin at different levels but also end at different levels. The high rise begins at the middle of the normal pitch range and rises to the top, going from mid to high, while the low rise goes from low to mid.

ˊNo. ˏNo.

Exercise

Say these words with a high rise:

ˊ No. ˊ Who. ˊ Here. ˊ How. ˊ Fine. ˊ Now. ˊ Why. ˊ Stay. ˊ Aim. ˊ There. 🎧 ***Recording*** B4.17

Now say them with a low rise:

ˌ No. ˌ Who. ˌ Here. ˌ How. ˌ Fine. ˌ Now. ˌ Why. ˌ Stay. ˌ Aim. ˌ There. 🎧 ***Recording*** B4.18

Now say them first with high rise, then with a low rise, and vice versa:

ˊ No, ˌ no. ˊ Who, ˌ who. ˊ Here, ˌ here. ˊ How, ˌ how. ˊ Fine, ˌ fine. ˊ Now, ˌ now. ˊ Why, ˌ why. ˊ Stay, ˌ stay. ˊ Aim, ˌ aim. ˊ There, ˌ there. 🎧 ***Recording*** B4.19
ˌ No, ˊ no. ˌ Who, ˊ who. ˌ Here, ˊ here. ˌ How, ˊ how. ˌ Fine, ˊ fine. ˌ Now, ˊ now. ˌ Why, ˊ why. ˌ Stay, ˊ stay. ˌ Aim, ˊ aim. ˌ There, ˊ there. 🎧 ***Recording*** B4.20

Practise saying the high rise on short syllables:

ˊ Si t. ˊ Hot. ˊ Catch. ˊ Push. ˊ Cash. ˊ Pet. ˊ Thick. ˊ Shop. ˊ Pop. ˊ Tick. 🎧 ***Recording*** B4.21

Compare the high rise on long and short syllables:

Śeed, śit. ˊ Hard, ˊ hot. Ćage, ˊ catch. ˊ Pool, ˊ push. Ćarve, ˊ cash. ˊ Pair, ˊ pet. ˊ Theme, ˊ thick. ˊ Show, ˊ shop. ˊ Pause, ˊ pop. ˊ Talk, ˊ tick. 🎧 ***Recording*** B4.22

Practise saying the low rise on short syllables:

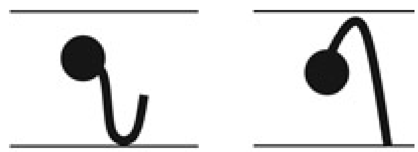
ˌS it. ˌ Hot. ˌ Catch. ˌ Push. ˌ Cash. ˌ Pet. ˌ Thick. ˌ Shop. ˌ Pop. ˌ Tick. 🎧 ***Recording*** B4.23

Compare the low rise on long and short syllables:

ˌ Seed, ˌ sit. ˌ Hard, ˌ hot. ˌ Cage, ˌ catch. ˌ Pool, ˌ push. ˌ Carve, ˌ cash. ˌ Pair, ˌ pet. ˌ Theme, ˌ thick. ˌ Show, ˌ shop. ˌ Pause, ˌ pop. ˌ Talk, ˌ tick. 🎧 ***Recording*** B4.24

The nuclear tones we have dealt with so far have all been **simple** tones, simple falls and simple rises, meaning that the pitch movement is only in one direction. English also makes use of **complex** nuclear tones which involve a

change of direction in the pitch movement: the fall- rise and the rise- fall. The fall- rise is a very common nuclear tone and often sounds typically English to learners. The rise- fall, on the other hand, is rather infrequent and therefore of only marginal importance. For the fall- rise, the pitch first falls from high to low, then changes direction and rises from low to mid, while for the rise- fall, the pitch rises from mid to high before falling from high to low.



ˇNo. ^No.

Exercise

Say these words with a fall- rise:

˅ No.˅ Who.˅ Here.˅ How.˅ Fine.˅ Now.˅ Why.˅ Stay.˅ Aim.˅ There. 🎧 ***Recording*** B4.25

Now say them with a rise- fall:

˄ No.˄ Who.˄ Here.˄ How.˄ Fine.˄ Now.˄ Why.˄ Stay.˄ Aim.˄ There. 🎧 ***Recording*** B4.26

Now say them first with a fall- rise then with a rise- fall, and vice versa:

˅ Who,˄ who.˅ Here,˄ here.˅ How,˄ how.˅ Fine,˄ fine.˅ Now,˄ now.˅ Why,˄ why.˅ Stay,˄ stay.˅ Aim,˄ aim.˅ There,˄ there. 🎧 ***Recording*** B4.27

˄ Who,˅ who.˄ Here,˅ here.˄ How,˅ how.˄ Fine,˅ fine.˄ Now,˅ now.˄ Why, ˅ why.˄ Stay,˅ stay.˄ Aim,˅ aim.˄ There,˅ there.🎧 ***Recording*** B4.28

While the realisation of the simple rises and falls is usually affected by the duration of voicing in the nuclear syllable, the pitch movement being faster and less complete when there is less voicing, the direction of influence is the opposite in the case of the complex tones. When occurring on a single syllable, the fall- rise and the rise- fall tend to noticeably stretch the nuclear syllable, even if it is inherently short, to allow time for the extra pitch movement they involve. Despite this extra length, learners often find the complex tones difficult to imitate when they are realised on a single syllable, and it is better at first to practise them spread over more than one syllable (see Tails section).

Exercise

Practise saying the fall- rise on short syllables:

ˇ Sit.ˇ Hot.ˇ Catch.ˇ Push.ˇ Cash.ˇ Pet.ˇ Thick.ˇ Shop.ˇ Pop.ˇ Tick. 🎧 ***Recording*** B4.29

Compare the fall- rise on long and short syllables:

ˇ Seed,ˇ sit.ˇ Hard,ˇ hot.ˇ Cage,ˇ catch.ˇ Pool,ˇ push.ˇ Carve,ˇ cash.ˇ Pair,ˇ pet.ˇ Theme,ˇ thick.ˇ Show,ˇ shop.ˇ Pause,ˇ pop. ˇ Talk,ˇ tick. 🎧 ***Recording*** B4.30

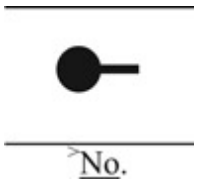
Practise saying the rise- fall on short syllables:

ˆ Sit.ˆ Hot.ˆ Catch.ˆ Push.ˆ Cash.ˆ Pet.ˆ Thick.ˆ Shop.ˆ Pop.ˆ Tick. 🎧 ***Recording*** B4.31

Compare the rise- fall on long and short syllables:

ˆ Seed,ˆ sit.ˆ Hard,ˆ hot.ˆ Cage,ˆ catch.ˆ Pool,ˆ push.ˆ Carve,ˆ cash.ˆ Pair,ˆ pet.ˆTheme,ˆ thick.ˆ Show,ˆ shop.ˆ Pause,ˆ pop.ˆ Talk,ˆ tick. 🎧 ***Recording*** B4.32

Our final nuclear tone, a simple tone, is the mid- level tone. As the name suggests, this nuclear tone is unique because it involves no change of pitch. The pitch remains level in the middle of the speaker's normal pitch range or slightly higher (see illustration).



Exercise

Say these words with a mid- level tone:

> No.> Who.> Here.> How.> Fine.> Now.> Why.> Stay.> Aim.> There. 🎧 ***Recording*** B4.33

Like the complex tones, the mid- level tone usually noticeably lengthens the single syllable of a monosyllabic nucleus.

Exercise

Practise saying the mid- level tone on short syllables:

> Sit.> Hot.> Catch.> Push.> Cash.> Pet.> Thic k.> Shop.> Pop.> Tick. 🎧 ***Recording*** B4.34

Compare the mid- level tone on long and short syllables:

> Seed,> sit.> Hard, > hot.> Cage,> catch.> Pool, > push.> Carve,> cash.> Pair,> pet. > Theme,> thick.> Show,> shop.> Pause, > pop. > Talk,> tick. 🎧 ***Recording*** B4.35

Tails

Most utterances are not monosyllabic, of course, and the nucleus can be preceded by and/or followed by other syllables within an IP. First we'll look at the syllables which follow the nucleus, because they are very important for identifying the nucleus. The term for the syllable or syllables which extend from the nucleus to the end of the IP is the **tail**, and the behaviour of the tail depends on the type of nuclear tone it follows. In other words, the nuclear tone dictates the pitch pattern of the tail.

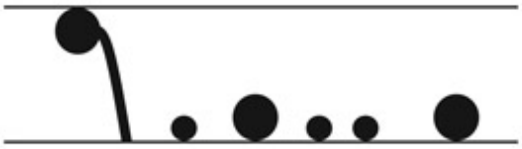
When the nuclear tone is a high or low fall, the syllables forming the tail remain on a low level.

`Ba by.

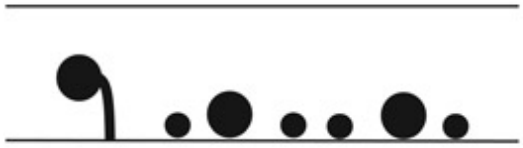
ˏBa by clothes.

`Ba by pic tures.

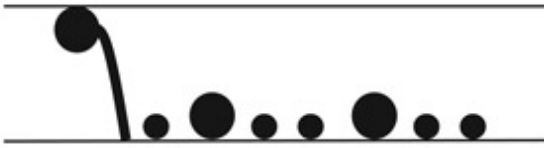
ˏBa by for mu la.



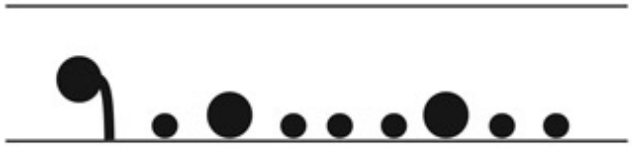
`Ba by for mu la milk.



ˏBa by for mu la mak er.



`Ba by for mu la re ci pe.



ˏBa by for mu la in gre di ents.

Exercise

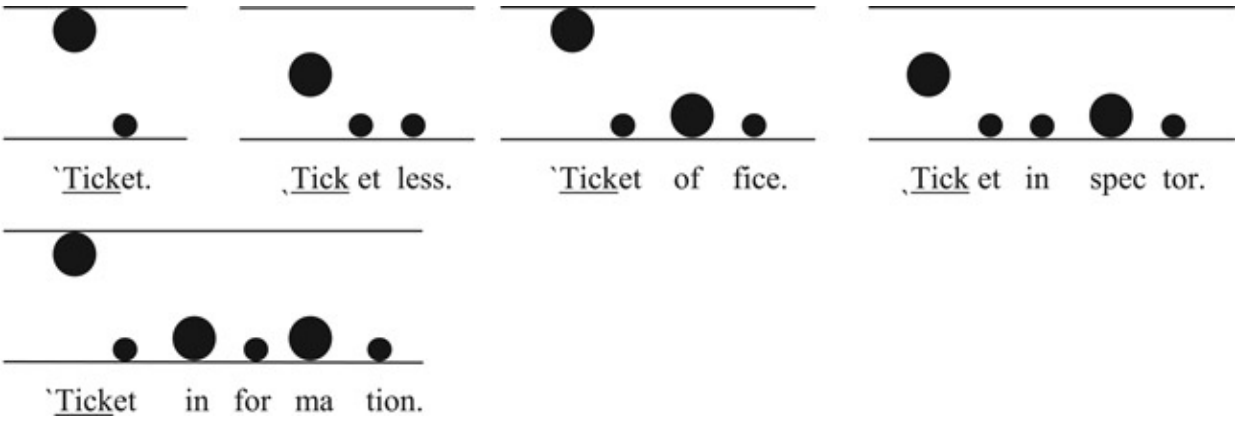
Practise saying high falls followed by a low tail:

ˋ Bab y. ˋ Bab y clothes. ˋ Bab y pictures. ˋ Bab y formula. ˋ Bab y formula milk. ˋ Bab y formula maker. ˋ Bab y formula recipe. ˋ Bab y formula ingredients. ˋ Lone ly. ˋ Lone liness. ˋ Journ al. ˋ Journ alist. ˋ Journ alism. ˋ Journ alism course. ˋ Journ alism degree. ˋ Laund ry. ˋ Laund ry bag. ˋ Laund ry basket. ˋ Learn er. ˋ Learn er's insurance. ˋ Mis er. ˋ Mis erly. ˋ Mis erliness. ˋ Morn ing. ˋ Morn ing sickness. ˋ Morn ing sickness tablets. ˋ Morn ing sickness medication. 🎧 ***Recording*** B4.36

Practise saying low falls followed by a low tail:

ˎ Baby. ˎ Baby clothes. ˎ Baby pictures. ˎ Baby formula. ˎ Baby formula milk. ˎ Baby formula maker. ˎ Baby formula recipe. ˎ Baby formula ingredients. ˎ Lonely. ˎ Lone liness. ˎ Journal. ˎ Journalist. ˎ Journalism. ˎ Journalism course. ˎ Journalism degree. ˎ Laundry. ˎ Laundry bag. ˎ Laundry basket. ˎ Learner. ˎ Learner's insurance. ˎ Miser. ˎ Miserly. ˎ Miserliness. ˎ Morning. ˎ Morning sickness. ˎ Morning sickness tablets. ˎ Morning sickness medication. 🎧 ***Recording*** B4.37

If the nuclear syllable is short, the pitch movement tends to be realised as a step down to a low pitch, rather than a glide.



Exercise

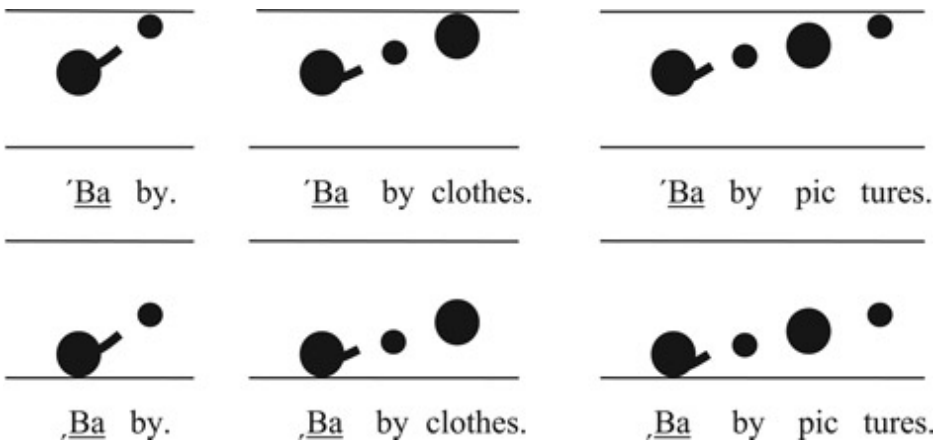
Practise saying high falls with a short nuclear syllable followed by a low tail:

ˋ Ticket. ˋ Ticketless. ˋ Ticket office. ˋ Ticket inspector. ˋ Ticket information. ˋ Coffee. ˋ Coffee shop. ˋ Coffee machine. ˋ Fashion. ˋ Fashion show. ˋ Fashion statement. ˋ Taxi. ˋ Taxi rank. ˋ Taxi driver.
🎧 ***Recording*** B4.38

Practise saying low falls with a short nuclear syllable followed by a low tail:

ˎ Ticket. ˎ Ticketless. ˎ Ticket office. ˎ Ticket inspector. ˎ Ticket information. ˎ Coffee. ˎ Coffee shop. ˎ Coffee machine. ˎ Fashion. ˎ Fashion show. ˎ Fashion statement. ˎ Taxi. ˎ Taxi rank. ˎ Taxi driver.
🎧 ***Recording*** B4.39

Tails following a nucleus with a rising tone behave very differently from those following falling tones. In the case of falling tones, the pitch movement is completed either on the nuclear syllable or between the nuclear syllable and the first syllable of the tail. Once the pitch movement is complete, the tail merely continues on the same level. If the tails of rising nuclear tones behaved in the same way, we would expect the rise to be complete on the first syllable of the tail and for the rest of the tail to continue on a level pitch. In fact, after rising nuclear tones, the tail actually takes part in the rise, each syllable being a little higher than the previous until the target pitch is reached on the final syllable.



Exercise

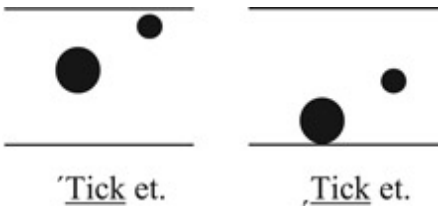
Practise saying high rises followed by a rising tail:

ˊ Baby. ˊ Baby clothes. ˊ Baby pictures. ˊ Lonely. ˊ Lone liness. ˊ Journal. ˊ Journalist. ˊ Journalism. ˊ Laundry. ˊ Laundry bag. ˊ Laundry basket. ˊ Miser. ˊ Miserly. ˊ Miserliness. ˊ Morning. ˊ Morning sickness. 🎧 ***Recording*** B4.40

Practise saying low rises followed by a rising tail:

ˏ Baby. ˏ Baby clothes. ˏ Baby pictures. ˏ Lonely. ˏ Loneliness. ˏ Journal. ˏ Journalist. ˏ Journalism. ˏ Laundry. ˏ Laundry bag. ˏ Laundry basket. ˏ Miser. ˏ Mis erly. ˏ Miserliness. ˏ Morning. ˏ Morning sickness. 🎧 ***Recording*** B4.41

If the nuclear syllable is short (i.e. having a checked vowel which may be further shortened by a following fortis consonant) and the tail consists of a single syllable, the pitch movement tends to be realised as a step up to the target pitch, rather than a glide.



Exercise

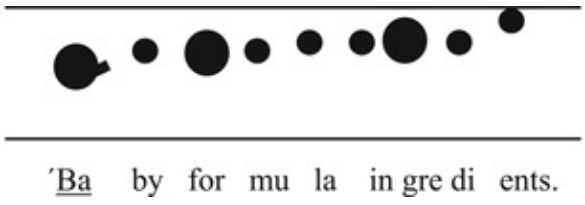
Practise saying high rises as a step up:

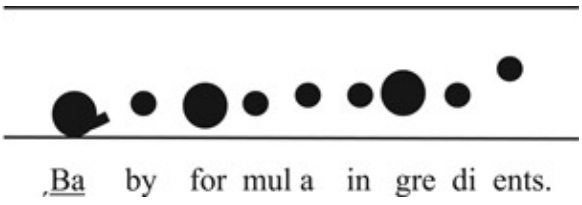
ˊ Ticket. ˊ Coffee. ˊ Fashion. ˊ Taxi. ˊEating. ˊ Pocket. ˊ Pepper. ˊ Sister. ˊ Chicken. ˊ Picture. ˊ Copy. 🎧 ***Recording*** B4.42

Practise saying low rises as a step up:

ˏ Ticket. ˏ Coffee. ˏ Fashion. ˏ Taxi. ˏEating ˏ Pocket. ˏ Pepper. ˏ Sister. ˏ Chicken. ˏ Picture. ˏ Copy. 🎧 ***Recording*** B4.43

When a rising nuclear tone is realised on a long tail consisting of several syllables, the rise tends to be very slight, or the tail may even stay level, before rising on the final syllable. In such cases, learners often incorrectly identify the last syllable of the IP as the nucleus because the pitch movement makes it stand out. In reality, however, the nucleus is the syllable on which the rising contour begins, and the final rise is only a consequence of the long tail and not an independent accent in its own right.





Exercise

Practise saying high rises with a long tail:

ˊ Morn ing sickness medication. ˊ Furn iture restoration workshop. ˊ Am bulance service association. ˊ Vit amin supplement catalogue. ˊ Journ alism apprenticeship. 🎧 ***Recording*** B4.44

Practise saying low rises with a long tail:

ˏ Morning sickness medication. ˏ Furniture restoration workshop. ˏ Ambulance service association. ˏ Vitamin supplement catalogue. ˏ Journalism apprenticeship. 🎧 ***Recording*** B4.45

With a tail of only one syllable, the fall of the fall- rise takes place on the nuclear syllable and the rise on the next syllable. In the same context, the rise- fall has two possible realisations: either a rise on the nuclear syllable followed by a syllable on a low pitch, or the nuclear syllable on a mid pitch followed by a fall from high to low.

ᵛCare ful.

^Care ful.

^Care ful.

Exercise

Practise saying the fall- rise with one- syllable tail:

ˇ Careful.ˇ Clearly.ˇ Further.ˇ Easy.ˇ Jealous.ˇ Urgent.ˇ Boring.ˇ Early. ˇ Scary.ˇ Over.ˇ Gorgeous. 🎧 ***Recording*** B4.46

Practise saying the rise- fall as a rise followed by a low- pitched syllable:

ˆ Careful.ˆ Clearly.ˆ Further.ˆ Easy.ˆ Jealous.ˆ Urgent.ˆ Boring.ˆ Early.ˆScary.ˆ Over.ˆ Gorgeous. 🎧 ***Recording*** B4.47

Practise saying the rise- fall as a mid- pitched syllable followed by a fall:

ˆ Careful.ˆ Clearly.ˆ Furth er.ˆ Easy.ˆ Jealous.ˆ Urgent.ˆ Boring.ˆ Early.ˆScary.ˆ Over.ˆ Gorgeous. 🎧 ***Recording*** B4.48

Like the high fall, the fall of the fall- rise doesn't usually reach the low level when the nuclear syllable is short.

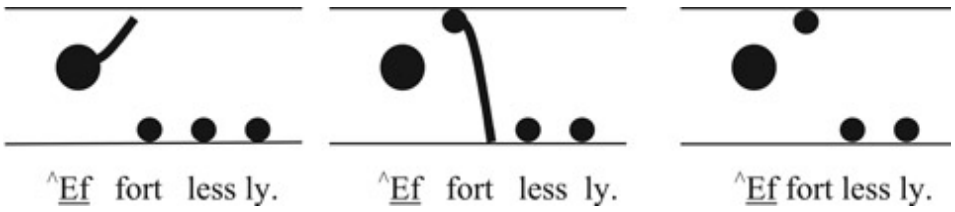
ˇBet ter.

Exercise

Practise saying the fall- rise on a short syllable followed by monosyllabic tail:

ˇ Better.ˇ Coffee.ˇ Fashion.ˇ Taxi.ˇ Eating.ˇ Pocket.ˇ Pepper.ˇ Sister. ˇ Chicken.ˇ Picture.ˇ Copy. 🎧 ***Recording*** B4.49

When a rise- fall nucleus is followed by a tail of more than one syllable, the realisation can be either one of the two described above followed by one or more low- level syllables, or the nuclear syllable can be on a mid- level, the first syllable of the tail on a high level and the second syllable of the tail on a low level (and any following syllables on a low level).

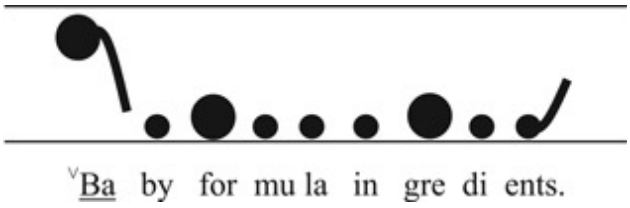


Exercise

Practise the rise- fall with mid- high- low pattern:

^ Effortlessly.^ Regularly.^ Positively.^ Reputable.^ Fortunately.^ Charitable.^ Ignorantly.^ Television.^ Horrifying.^ Vigorously. 🎧 ***Recording*** B4.50

When the fall- rise is followed by a tail of more than one syllable, the first syllable or syllables of the tail stay low (or rise only slightly) before rising at the end.

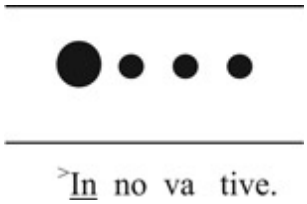


Exercise

Practise the fall- rise with long tails:

˅ Baby formula ingredients.˅ Morn ing sickness medication.˅ Furn iture restoration workshop.˅ Am bulance service association.˅ Journ alism apprenticeship. 🎧 ***Recording*** B4.51

The tail of the mid- level nuclear tone continues on the same mid- level as the nucleus.



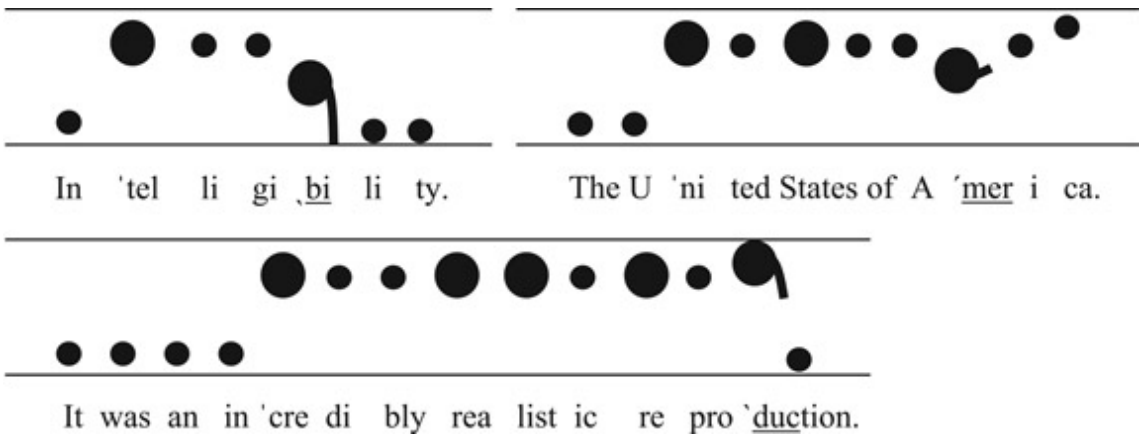
Exercise

Practise the mid- level tone with tails of different lengths:

> Eff ortlessly.> Morn ing.> Morn ing sickness.> Morn ing sickness medication.> Furn iture.> Furn iture restoration.> Furn iture restoration workshop. 🎧 ***Recording*** B4.52

Pre-nuclear patterns

The two elements of an IP which can come before the nucleus are the **head** and the **prehead**. The head starts on the first accented syllable, known as the **onset** of the head, and continues up to, but not including, the nucleus. The most common type of head is known as the **high level** head (symbol ['']). It is regularly found with all nuclear tones except the fall- rise (see below). The onset is high (though not quite as high as the beginning of a high fall) and any further syllables in the head remain on roughly the same level. The prehead consists of any unaccented syllables at the beginning of an IP and has a pitch between mid and fully low.

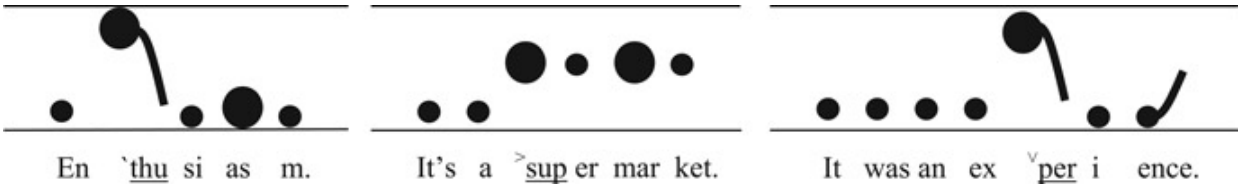


Exercise

Practise saying IPs with a high level head:

> In'telligi˴ bility. The U'nited States of A´ mer ica. It was an in'credibly realistic repro` duc tion. 'Where didyou ˴ put it? Is 'that the bestyou can ´ do? Take it 'one day at a ` time. Canyou 'say that a˴ gain, please? There's 'no need to˃ pan ic. 🎧 ***Recording*** B4.53

Despite its name, the prehead doesn't have to be followed by a head. Often an IP contains some initial unaccented syllables, but no accent before the nucleus (and therefore no head). The prehead is left unmarked.



Exercise

Practise saying IPs with a prehead but no head:

> En ` thusiasm. It's a ˃ supermarket. It was an ex ˅ perience. A ˄ mazing! For ˎ get about it. Is it ´ readyyet? It's a ca ˎ tast rophe. It's ˏ party time. 🎧 ***Recording*** B4.54

The **high falling** head occurs before the fall- rise and starts on a high pitch, with each consecutive syllable having a lower pitch until a low pitch is reached. The shorter the head, the more steeply the pitch falls, and on heads of one syllable (the onset only) the high falling head is realised as a fall.

Exercise

Practise saying the high falling head before the fall- rise:

> But I↘only did what I thought was˅ best. ↘Not a˅ gain. ↘Hold˅ on. It↘isn't very˅ far. Be↘careful not to˅ drop it. ↘Take it˅ easy. ↘Not˅ now. It's↘not exactly the kind of thing I had in˅ mind. 🎧 ***Recording*** B4.55

Categories of nuclear tone

For the sake of simplicity of presentation, the nuclear tones above are grouped according to the type of pitch movement (simple rises and falls, complex tones, and the level tone). When usage and meaning are taken into account, however, the seven nuclear tones are best divided into two groups: falls and non- falls. The high and low falls clearly belong in the falls category, but what is not so obvious is that the rise- fall belongs there too. This is because it is the second element of the complex tones that is most important. The rise- fall is really a special kind of fall which is preceded by a rise, while a fall- rise is a special kind of rise preceded by a fall. Since the pitch of the mid- level tone doesn't change, this puts it in the non- fall group.

Functions of intonation in English

Intonation has four important linguistic functions:

(1) **Focusing function**, by which the speaker focuses on the most significant information by means of the location of the nucleus. As stated above, the nucleus is typically at the end of the IP. Shift to an earlier syllable is often used to highlight some information elsewhere in the utterance. This can easily be demonstrated (nucleus shown underlined).

> Sophie adored her gorgeous new motorbike. (Neutral.)
> Sophie adored her gorgeous new motorbike. (Not the old one.)
> Sophie adored her gorgeous new motorbike. (Not the horrid one.)
> Sophie adored her gorgeous new motorbike. (Not anybody else's motorbike.)
> Sophie adored her gorgeous new motorbike. (She didn't hate it.)
> Sophie adored her gorgeous new motorbike. (It was Sophie – not Delia or Nigella.)

Activity B4.4

Although all the above are possibilities, some are perhaps more likely than others. Take a number of sentences out of an English novel and try moving the nucleus around. What sort of words are difficult to focus on in this way?

Nucleus location functions as a focusing device, not only in English but also in many other languages, e.g. German, Spanish, Italian and many more. However, some languages make relatively little use of this feature; French

regularly has prominence on the last syllable of the intonation group, and consequently greater use is made of grammar and vocabulary as a means of focusing.

A similar focusing effect is to be found in the location of the onset syllable. Once again, this stands out from the other syllables to be found at the beginning of the IP, often on the first content word, and normally serves to indicate the beginning of the material that is in focus.

(2) **Attitudinal function** is what allows speakers to impose an attitude on top of the bare semantic content of what is being said. This is one of the most important functions of intonation, and why any written text must be deficient in at least one respect to the spoken word. When reading out loud, the reader automatically superimposes a series of attitudes on the author's words (not always necessarily those intended by the original writer). This is one of the most important factors in allowing different interpretations of prose, drama and poetry.

We can only broadly connect attitudes to the nuclear tones since so much depends on context and on the basic semantic content of the words in the intonation group. Nevertheless, two tones – **fall-rise** and **rise-fall** – seem noticeably attitudinally marked, i.e. these tones are inherently laden with certain implications:

Fall-rise: doubt, uncertainty, reservation.
Rise-fall: impressed, arrogant, confident, self- satisfied, mocking, putting down.

It is also possible to make the following broad distinctions:

Two tones – **high fall** and **low rise** – can be regarded as neutral.
Two tones – **low fall** and **high rise** – have a strengthening function. These tones tend to reinforce, emphasise or exaggerate a speaker's basic attitude.

In particular, low falls tend to be associated with boredom, resignation and even surliness. High rise tends to be associated with excitement and curiosity.

(3) **Grammatical function**, which permits speakers to distinguish certain syntactic relationships, e.g. phrase and clause boundaries, question vs. statement. One occasional example of the grammatical function of intonation in English is where a grammatical statement is converted to a question. Compare:

You're ˈgoing to ˋ Canterbury.
You're ˈgoing to ˏ Canterbury?

In some languages (notably French) a rising intonation pattern is probably the most frequent way of producing questions in colloquial speech (although it is possible to produce questions by other means):

(Falling intonation) Vous allez à Dijon. ('You're going to Dijon.') 🎧 ***Recording*** B4.56.
(Rising intonation) Vous allez à Dijon? ('Are you going to Dijon?')

Perhaps just as common in English is the reverse effect where a grammatical question takes on the meaning of an emphatic statement or exclamation. Compare:

(We might be able to go to Brazil.) ˈWouldn't that be ex ˏ pensive? (question)
(We might be able to go to Brazil.) ˈWouldn't that be ˋ wonderful! (emphatic statement)

What might also be considered a further grammatical function of intonation is illustrated in the section on English tag- questions below.

(4) **Discourse function**, which covers such diverse matters as the organisation of conversation between two or more speakers (e.g. signals for turn-taking), the indication of speaker/listener relationship (e.g. in relation to

power and authority) and the indication of new vs. old information. In this context, we can broadly allocate the nuclear tones to two categories on the basis of whether they are falling or not:

Falling tones (i.e. high fall, low fall and rise-fall) suggest: (a) finality, (b) unloading of information.

Non-falling tones (i.e. high rise, low rise, fall- rise and mid- level) indicate: (a) nonfinality, (b) information is sought or anticipated, rather than unloaded.

Consequently, we usually find that completed statements and commands involve falling tones, whereas *yes-no* questions and introductory non-final clauses more typically have rising nuclei, e.g.

Statements:	Fanny ˈcarefully repeated the inˋstructions.
Commands:	ˋTell me about it.
Yes – no questions:	ˈWill it be ready by ˌFriday?
Wh-questions:	ˈWhat's the best way to roast a ˋgoose?
Non-final clauses:	Al↘though Oliver promised to ˅help | (he let us ˋdown).

However, these are broad categorisations and there are notable exceptions, often reflecting a combination of discourse and attitudinal function.

To take one example,*wh*-questions (beginning with a *wh*-word like *what, why, where* and also *how*) may be said with one of two patterns: either with a rising pattern, which makes them sound friendly, engaging and leading on to more; or with a falling pattern (sounding more neutral, businesslike and as if there is a conclusive answer to the question). Compare the same set of sentences, first with falling patterns:

ˈWhat's your ˋ name?
ˈWhere do you ˋ live?
ˈWhat were you thinking of ˋ doing this evening?

This tends to sound neutral and businesslike. It sounds rather like a policeman interviewing a suspect.

And now the same sequence with rising patterns:

ˈWhat's your ˌ name?
ˈWhere do you ˌ live?
ˈWhat were you thinking of ˌ doing this evening?

This sounds far more friendly, as opposed to interrogation, and could quite easily be a stage in making a date!

The overall correlation of non-falls with non-finality and falls with finality can be shown by an intonation pattern often heard in lists, e.g.

We've invited ˌDelia, | ˌFanny, | ˌJamie | and ˈall the `neighbours.

Below we shall look at different types of utterance – statements, commands, *wh-* questions, *yes-no* questions – and outline which type of intonation pattern tends to be associated with them.

Statements

Unmarked (default) pattern

Falling tunes are most frequent with **statements**.

(1) ˈDelia's bought a turkey from some guy in `Swindon. 🎧 ***Recording*** B4.8
(2) It's really ˈwell worth a `visit. 🎧 ***Recording*** B4.8
(3) (When did Keith leave?) A `month or so ago. 🎧 ***Recording*** B4.8

Note that a low fall could also be used in each of these cases. However, the low fall is cooler and more distant.

(4) A ˌmonth or so ago. 🎧 ***Recording*** B4.8

Activity B4.5 🎧 Recording B4.4

Practise the following sentences with high level head + high fall. Cue sentence: *Why did old Grigson leave so early?*

He ˈclaimed he was `tired. He ˈwanted to go `home. He was as ˈdrunk as a `skunk. He had a ˈnother ap`pointment. He ˈcouldn't stand that awful `mu sic.

Now with high level head + low fall:

He ˈclaimed he was ˌtired. He ˈwanted to go ˌhome. He was as ˈdrunk as a ˌskunk. He had a ˈnother apˌpointment. He ˈcouldn't stand that awful ˌmusic.

Other patterns

If a rising rather than a falling tune is used with a statement (often with no head), an element of non-finality is imposed on the utterance. Sometimes it will imply that the speaker is questioning a statement:

(5) It's ˈwell worth a ˌvisit? (Well, I don't think so.) 🎧 ***Recording*** B4.8
(6) ˈDelia's bought a turkey from some guy in ˌSwindon? (How could she be so gullible?) 🎧 ***Recording*** B4.8

Statements said on a fall-rise add reservation, doubt, disagreement. They are used as a polite means of contradicting or correcting a speaker:

(7) (Floyd arrived this morning.)˅Yesterday. A˅month ago (all implying disagreement or doubt). 🎧 ***Recording*** B4.8
(8) (Did you finish the report?) I've↘finished writing the intro˅duction … (implying 'but I still need to do the rest'). 🎧 ***Recording*** B4.8

If the statement consists of several intonation groups, usually only the last will have a fall (i.e. completed utterance). The remainder will be said on a rise or a fall-rise (implying non-finality, 'more to come'). (See further below on intonation sequences [non-finality].)

(9) If you↘want a˅good job | it's imˈportant to possess `management skills. 🎧 ***Recording*** B4.8

Commands

Unmarked (default) pattern

Commands are often said with a falling pattern. This is particularly the case if a superior is talking to an inferior (e.g. teacher to student, parent to child, boss to employee) and if there is no possibility of discussing the issue.

(10) ˈShut the ˋwindow. 🎧 ***Recording*** B4.8
(11) ˈStack the books on those ˋshelves. 🎧 ***Recording*** B4.8

Other patterns

Commands said on a rising nucleus express a gentler, warmer tone, with a kind of deference to the other person's feelings. The discourse effect given is one of non-finality, i.e. that something will soon follow:

(12) ˈMeet us on ˏThursday. (And then we can sort it out later.) 🎧 ***Recording*** B4.8
(13) ˈDon't ˏworry. (It'll be alright.) 🎧 ***Recording*** B4.8

Wh-questions

Unmarked (default) pattern

If the utterance is neutral or businesslike, the most common pattern for *wh* -questions is a fall – often a low fall:

(14) How can we ˈpossibly pay this ˌbill? 🎧 ***Recording*** B4.8
(15) Who on ˈearth can we ask to ˌhelp? 🎧 ***Recording*** B4.8

Other patterns

Wh-questions frequently have rising tunes. As in the case of commands, a rise makes the utterance friendlier and more intimate. More account is taken of the other person's feelings than is the case with a fall:

(16) ˈHow can I ˌhelpyou? 🎧 ***Recording*** B4.8
(17) ˈWhen shall we next ˌmeet? 🎧 ***Recording*** B4.8

Yes–no questions

Unmarked (default) pattern

A common pattern for *yes-no* questions is a rise:

(18) Has ˈPrue booked her flight to ˌParis? 🎧 ***Recording*** B4.8

Activity B4.6 🎧 Recording B4.5

Practise the following sentences with low rises. Cue sentence: *We saw Jim the other day.*

ˈHas he ˌchanged? ˈIs he still married to ˌLisa? ˈDid he eventually get a new ˌjob? ˈHad he cut his ˌhair? ˈHas he moved to ˌDenmark? ˈIs he still playing ˌfoot ball?

Other patterns

If *yes-no* questions are said on a falling pattern they give the impression of insistence.

(19) Do we ˈhave any ˋchoice? (It doesn't look as if we have.) 🎧 ***Recording*** B4.8

Summary

Table B4.1 summarises the main patterns found in various types of utterance.

Table B4.1 Patterns of intonation

Utterance type	*Default pattern*	*Other patterns*
Statements	Fall	(1) Rise (adds non-finality or questioning)
		(2) Fall-rise (adds non-finality with an implication of an additional but unspoken message)
Commands	Fall	Rise (turns command into request)
***Wh*-questions**	Fall	Rise (adds warmth, interest)
***Yesno* questions**	Rise	Fall (turns question into exclamation)

Intonation group sequences

Up till now we have concentrated mainly on the isolated intonation group. In this unit, the types of pattern employed in certain *intonation group sequences* are discussed.

Non-finality

As has already been stated, non-falls (i.e. low rise, high rise, fall-rise, mid-level) have a discourse implication of non-finality. Consequently, such patterns are often used as lead-ins to further information:

(20) Ken was ˈdriving home from ˌwork. | when he ˈsuddenly had this great iˌdea. 🎧 ***Recording*** B4.8

(21) On theˇ oth er hand | it would be ˈwrong to conclude that Elizabeth was in any `dan ger. 🎧 ***Recording*** B4.8

Lists

As mentioned earlier, lists provide a very clear illustration of the discourse divide of finality vs. non-finality. Here, one common pattern is for all the items, except the last, to have a series of low rises. The last is said on a fall.

(22) You can have ˌpasta, | ˌrice,| boiled poˌtatoes | or ` chips. 🎧 ***Recording*** B4.8

(23) (What did Alan buy?) A ˌbook,| a ˌpen,| and ten `min idiscs. 🎧 ***Recording*** B4.8

Parenthetic intonation

Another discourse effect is parenthetic intonation. Certain intonation groups may be said on a sustained low pitch, if they contain information which could be regarded as additional and possibly enclosed in brackets (parentheses). The intonation pattern frequently used in these cases is a low rise preceded by low-level syllables:

(24) After having ˈwatched the ˌplay| something I didn't do very ˌwillingly | I'm conˈvinced of Marguerite's `tal ent. 🎧 ***Recording*** B4.8

Parenthetic intonation is especially common in more formal registers, e.g. speeches, lectures, broadcast talks, and in reading aloud.

Tag-questions and tag-type responses

We shall examine this area in somewhat greater detail since it is something peculiar to English and follows regular patterns. Tag-questions and tag-type responses are typical of all varieties of native English, and so the advanced non-native learner needs at least a passive knowledge of the crucial significance of their intonation patterns.

System of tags

Tag-questions are short yes-no-type questions attached to the main statement. They repeat the information through an appropriate auxiliary verb plus a pronoun, e.g.

> Peter's seen a jaguar, hasn't he?

No other major language appears to possess corresponding structures. Their equivalents are stylised exclamations, mostly said on a rising tune, e.g.

> French *n'est ce pas?*
> Standard German *nicht?*
> Southern German *gell?*
> Spanish *verdad?*
> Dutch *hè? niet?*
> Danish *ikke? vel?*
> Italian *non è vero? no?*
> Polish *nie? prawda?*

These set phrases lack both the syntactic and intonational complexity of the English tags.

Balanced and unbalanced tags

The typical pattern for a tag-question is that if the main statement is positive, the tag is negative, and vice versa. These we term **balanced tags**.

Peter's seen a jaguar | hasn't he?	
(positive)	(negative)
Peter hasn't seen a jaguar | has he?	
(negative)	(positive)

A less common type is the **unbalanced tag**, i.e. either positive/positive:

> Fiona's offered to pay, | has she?

or, more rarely, negative/negative (often preceded by 'so'):

> So Rick wouldn't acknowledge his mistake, | wouldn't he?

Nucleus location in tags

In all tags, the nucleus *invariably* falls on the verb –*never* on the pronoun. An intonation pattern such as the following, with the pronoun as the nucleus, is completely unacceptable in English, but is sometimes produced in error by non-native learners:

> *ˈPeter's seen a ˋjaguar, | hasn't ˏhe?

Intonation in tag-questions

Unbalanced tags are typically (not invariably) uttered with rising patterns. Balanced tags are regularly said on one of two main intonation patterns, giving two different meanings which can be viewed as an example of the grammatical function of intonation. If the tag rises, as in example (25) below,

the implication is that the speaker is not really certain of the statement (perhaps 60 per cent). It is, in meaning terms, equivalent to *a true question*.

(25) ˈPeter's seen a ˋjaguar, | ˏhasn't he? 🎧 ***Recording*** B4.8

If the tag has a fall pattern, as in example (26) below, this indicates a far greater confidence in what the speaker is saying (perhaps 90 per cent). Despite the conventional question mark, the falling tag is here not so much a true question as a request for confirmation of the statement.

(26) ˈPeter's seen a ˋjaguar, | ˋhasn't he? 🎧 ***Recording*** B4.8

Activity B4.7 🎧 Recording B4.6

Say the following tag-questions using first a fall and then a rise.

He missed the train, | ˋdidn't he?
We don't owe them any money, | ˋdo we?
Nicola wouldn't do that, | ˋwould she?
He missed the train, | ˏdidn't he?
We don't owe them any money, | ˏdo we?
Nicola wouldn't do that, | ˏwould she?

Tag-type responses

A very frequent feature of native speaker conversational English is the occurrence of brief responses of a similar structure to the tags just discussed, but in this case a positive sentence requires a positive response and vice versa. These **tag-type responses** are of special interest since, because they lack any real semantic content, they allow the significance of intonation to be displayed most clearly.

(27) (Mrs Beeton's moved to France) ˏHasshe? (Oliver couldn't have written this book) ˏCouldn't he? 🎧 ***Recording*** B4.8

(28) (Mrs Beeton's moved to France) `Has she? (Oliver couldn't have written this book) `Could n't he? 🎧 ***Recording*** B4.8

Tag responses with falling nuclei indicate acceptance of what has been said. High falls give a far more sympathetic acceptance than low falls, which may have undertones of hostility and lack of interest. Compare the responses in (29) with those of (28):

(29) (Mrs Beeton's moved to France) ˏHasshe? (Oliver couldn't have written this book) ˏCouldn't he? 🎧 ***Recording*** B4.8

The complex tones have an inherent heavily laden attitudinal function. The fall-rise is employed to indicate doubt, correction or polite disagreement:

(30) (Mrs Beeton's moved to France) ˅Has she? (Oliver couldn't have written this book) ˅Couldn't he? 🎧 ***Recording B4.8***

Activity B4.8 🎧 Recording B4.7 (Answers on website)

Try to hear whether the tag-type response in the examples below is on (1) high fall, (2) low fall, (3) low rise, (4) fall-rise.

(Rebecca said she's moving in with David.) Did she?
(Mrs Craddock's a silly old fool.) Is she?
(The neighbours will look after your hamsters.) Will they?

B5

Pronunciation Change

Pronunciation change in the past

Speech habits vary not only geographically, but also chronologically. Changes take place not only from one area to another but also from one generation to another. You are probably aware that you don't speak in quite the same way as your parents do and that your grandparents speak or spoke differently again. And you may have noticed that if you watch old films, or see extracts from newsreels on TV, the pronunciation of, say, fifty or 60 years ago is in many ways different from that used today.

If we move further back in time, then the differences become much more obvious. When reading Shakespeare (sixteenth century) you have undoubtedly noticed the changes that have taken place in grammar and vocabulary between his English and ours. But it is not perhaps as immediately apparent that Elizabethan pronunciation would also have been quite different from ours. The English of Chaucer's time (fourteenth century) strikes us as being very far removed from modern English, while Old English (sometimes called Anglo-Saxon), which was spoken in England before the Norman Conquest in 1066, looks like – and certainly would have sounded like – a totally alien language, as just a couple of lines (ll. 312–13) from a famous poem,*The Battle of Maldon*, will indicate.

Old English: the battle of Maldon (anon., tenth century) 🎧 *recording B5.1*

Hiȝe sceal þe heardra, heorte þe cenre,
mod sceal þe mare, þe ure mæȝen lytlað

ˈhiːjə ʃæl ðə ˈhæərdrɑ, ˈheərtə ðə ˈkeːnrə,
ˈmoːd ʃæl ðə ˈmaːrə, ðeː uːrə ˈmæjən ˈliːtlɑθ

(*Thought shall be the harder, heart the keener, courage the greater, as our might lessens.*)

Although, obviously, we can't dig up our ancestors and get them talking, it's nevertheless possible to reconstruct their pronunciation from the historical evidence that's available. We can do this in a number of ways. For instance, we can derive a great deal of information from the orthography: the current spelling of *knight* indicates that this word was probably originally pronounced as [kniçt]. In addition, we can examine poetry to see how certain words in previous eras rhymed where they don't rhyme today (for example, Shakespeare rhymed *love* and *prove* while Pope rhymed *tea* and *obey*). In some cases, present-day regional accents still preserve older pronunciation forms which have been lost in the majority of English varieties. And, finally, a very important source of information are books written by the phoneticians of previous eras, who published either works on elocution for native speakers or books to help non-natives acquire English (one of the earliest and best examples was produced in 1550 by a Welshman, William Salesbury, in an attempt to persuade the Welsh to learn English, and the English to learn Welsh). Assembling and analysing information from these various sources has enabled historical linguists to construct patterns of sound change and apply these to many areas of pronunciation.

Let's now have a look at the changes which took place in English over a period of several centuries, from about 1350 to 1750, by examining the reconstructed English pronunciations of three famous writers – Geoffrey Chaucer, William Shakespeare and Alexander Pope.

English pronunciation in the fourteenth century

Middle English: Geoffrey Chaucer (1345–1400) 🎧 *recording B5.2*

Whan that Aprille with hise shoures soote
The droghte of March hath perced to the roote
And bathed every veyne in swich licour
Of which vertu engendred is the flour
Whan Zephirus eek with his sweete breeth
Inspired hath in euery holt and heath
The tendre croppes and the yonge sonne
Hath in the Ram his halfe cours yronne
And smale fowles maken melodye
That slepen al the nyght with open eye
So priketh hem nature in hir corages
Thanne longen folk to goon on pilgrimages

(*from the* Prologue *to the* Canterbury Tales)

ˈʍan ðat ˈaːprɪl wɪθ hɪs ˈʃuːrəs ˈsoːtə
ðə ˈdrʊxt ɔf ˈmartʃ haθ ˈpɛrsəd toː ðə ˈroːtə
and ˈbaːðəd ˈɛːvrɪ ˈvæin ɪn ˈswɪtʃ lɪˈkuːr
ɔf ˈʍɪtʃ vɛrˈtiu ɛnˈʤɛndərd ɪs ðə ˈfluːr
ʍan ˈzɛfɪrʊs ˈɛːk wɪθ hɪs ˈsweːtə ˈbrɛːθ
ɪnˈspiːrəd ˈhaθ ɪn ˈɛːvrɪ ˈhɔlt and ˈhɛːθ
ðə ˈtɛndər ˈkrɔppəs and ðə ˈjʊŋgə ˈsʊnnə
ˈhaθ in ðə ˈram his ˈhalvə ˈkʊrs ɪˈrʊnnə
and ˈsmɑːlə ˈfuːləs ˈmaːkən mɛlɔˈdiːə
ðat ˈsleːpən ˈɑːl ðə ˈnɪçt wɪθ ˈɔːpən ˈiːə
sɔː ˈprɪkəθ ˈhɛm naːˈtiur ɪn ˈhɪr kʊˈraːʤəs
ðan ˈlɔːŋgən ˈfɔlk toː ˈgɔːn ɔn pɪlgrɪˈmaːʤəs

(*Adapted from Cruttenden 2014: 66*)

Even though the grammar was somewhat different and certain vocabulary items like *eek* ‘also’ and *holt* ‘wood’ may strike us as strange, the Middle

English of the fourteenth century was perfectly recognisable as the forerunner of the language we speak today.

As you can see from the transcription above, the basis of the modern consonant system was already present in Chaucer's day. The most noticeable differences were the existence of the voiceless velar and palatal fricatives [x ç] (spelt **gh**) in words like 🎧 *droghte, nyght* and the consistent use of voiceless /ʍ/ in wh-words (e.g. 🎧 *whan* or *which*). In addition, the English language is at this period rhotic. (You'll find all these features still present today in Scottish English varieties, which are the most conservative of modern regional accents. See Section C3.)

The fourteenth-century vowel system, however, would seem less familiar to us. Shortly after Chaucer's time, a massive change, known as the Great Vowel Shift, was to take place in the pronunciation of English vowels. Up till the fourteenth century, for example, many present-day FLEECE words (e.g. 🎧 *sweete*) had the vowel [eː], while GOOSE words (e.g. 🎧 *roote*) were said as [oː]. Modern FACE words (like 🎧 *Aprille, bathed*) contained the [aː] vowel; MOUTH words (e.g. 🎧 *flour* 'flower') were pronounced with [uː]; and PRICE words (e.g. 🎧 *inspired*) with [iː]. All this was to change in the space of a century or so.

English pronunciation in the sixteenth century

Elizabethan English: William Shakespeare (1564–1616) 🎧 *recording B5.3*

Friends, Romans, Countrymen, lend me your ears:
I come to bury Caesar *, not to praise him:*
The euill that men do, liues after them,
The good is oft enterred with their bones,
So let it be with Caesar.*The Noble* Brutus,
Hath told you Caesar *was Ambitious:*
If it were so, it was a greeuous Fault,
And greeuously hath Caesar *answer'd it.*

(*from* Julius Caesar,*Act III, Scene ii, original spelling and punctuation as in 1623 Folio edition*)

ˈfrɛndz | ˈroːmənz | ˈkɤntrɪmɛn | ˈlɛnd miː juːɪ ˈiːɪz ||
əɪ ˈkɤm tə ˈbɛrɪ ˈseːzəɪ | ˈnɒt tə ˈprɛːz hɪm ||
ðɪ ˈiːvɪl ðət mɛn ˈduː | ˈlɪvz ˈæftəɪ ðɛm ||
ðə ˈguːd ɪz ˈɒft ɪnˈtaːrɪd wɪð ðɛːɪ ˈboːnz ||
ˈsoː lɛt ɪt ˈbiː wɪð ˈseːzəɪ || ðə ˈnoːbl ˈbrjuːtəs |
həθ ˈtoːld juː | ˈseːzəɪ wəz æmˈbɪsɪəs ||
ɪf ɪt ˈwɛːɪ soː | ɪt ˈwəz ə ˈgriːvəs ˈfɒːlt |
ənd ˈgriːvəslɪ həθ ˈseːzəɪ ˈænsərd ɪt ||

([ɤ]*indicates unrounded* [o],*secondary CV 7. See IPA chart, p. 317*). (*adapted from Jones 1956a: 210*)

Even though in modern times Elizabethan theatres have been reconstructed with close attention to minute detail (the Globe in London is perhaps the most famous example), few amongst the present-day audience probably ever stopped to consider how the actors' words would have sounded in the Elizabethan era. In fact, Shakespeare's own pronunciation would have been very different from the English of modern actors like Helen Mirren, Judi Dench or Ian McKellen.

The situation changed totally when in 2004 the British linguist David Crystal decided to mount an experimental production where an entire play

would be performed in Elizabethan English. Using the linguistic techniques we have already referred to (pp. 163–4), Crystal reconstructed the original pronunciation (sometimes abbreviated by the drama world to OP) of Shakespeare's *Romeo and Juliet*. This was not the first endeavour of this sort; for instance, in 1949 the BBC had engaged Daniel Jones to devise a radio programme with actors performing excerpts from Shakespearean plays in original pronunciation. But Crystal's project was far more ambitious than anything attempted so far and, furthermore, the production was to take place in the authentic atmosphere of the recreated Globe theatre. It proved to be a great success, attracting large audiences on three successive evenings. Subsequently, Crystal revealed the background to it all by setting down his experiences in a book,*Pronouncing Shakespeare, the Globe Experiment* (Crystal 2005), in which he describes the origins and development of the whole project, as well as explaining the linguistic analysis employed to reconstruct the pronunciation of the period.

As you can see from our transcription above, Shakespeare's English, like Chaucer's, was rhotic (🎧 *ears*). By this time, the velar fricative [x] had disappeared from the consonant system, although [ʍ] lived on. With the advent of the Great Vowel Shift, the vowel system had become much closer to that which we know today. Sixteenth-century English had a STRUT-FOOT contrast (even though STRUT as in 🎧 *come*, was not yet as open as it is now). The pronunciation of GOAT in🎧 *bones*) would be recognisable to the present day, even though the vowel was steady-state and not a diphthong. Certain modern FACE words were now pronounced with an open [ɛː] vowel, sounding similar to present-day SQUARE. PRICE(🎧 *I*) and MOUTH were by now diphthongs but with central starting points [ə]. There was no separate set of BATH words; all were said with TRAP (e.g🎧 *after, answer'd*).

English pronunciation in the early modern period

Eighteenth-century English: Alexander Pope (1688–1744) 🎧 *recording B5.4*

True ease in writing comes from art, not chance,
As *those move easiest who have learnt to dance.*
'Tis not enough no harshness gives offence,
The sound must seem an echo to the sense.

(*from* An Essay on Criticism)

truː ˈeːz ɪn ˈrəɪtɪn ˈkʌmz frəm ˈæːt | nɒt ˈʧæːns |
əz ˈðoːz muːv ˈeːzɪəst | hʊ əv ˈlæːnt tə ˈdæːns ||
tɪz ˈnɒt ɪˈnʌf | ˈnoː ˈhæːʃnɪs ˈgɪvz oˈfɛns |
ðə ˈsəʊnd məst ˈsiːm ən ˈɛkoː tə ðə ˈsɛns ||

By the eighteenth century, the pace of change slowed down somewhat. This was the result of greater literacy and a new respect for spelling forms. The efforts of lexicographers (culminating in 1755 with Dr Samuel Johnson's dictionary) had by now fixed the modern English spelling system with all its shortcomings and inconsistencies.

Pope's English had both the consonant and the vowel systems much as we have them today. London speech was by now non- rhotic (🎧 *art*), and few people bothered to say /ʍ/ in *wh* - words. Final -*ing* was said as [ɪn] (🎧 *writing*) – a feature (sometimes loosely called **g** - dropping) still found today in non- standard English worldwide. In educated pronunciation, /h/ was dropped in many words, not just as today in *hour* and *honour*, but also in, for example,*hospital, humble, herb* (the last word is still h- less in American English).

The modern NURSE words spelt **er**, **ear** (🎧 *learn*) at this point contained [æː], not [ɜː]. Certain FLEECE words, e.g. 🎧 *ease*, had the vowel [eː] (as they still do today in some southern Irish varieties).

Vowels differed from modern English mainly in terms of realisation. Much had been retained from Shakespeare's time: FACE and GOAT (🎧 *those*) were still steady-state vowels, and MOUTH (🎧 *sound*) and PRICE (🎧 *writing*) retained their central starting points, but STRUT (🎧 *comes*) was now moving towards its modern central open quality. Perhaps the most significant change was taking place with the TRAP vowel, which was lengthening before certain consonants. This had already affected TRAP before /r/ (as in *harsh*). The final /r/ was then dropped leaving a lengthened vowel [æː] as its only trace. In many words, a similar change was now taking place before fortis fricatives /f θ s/ (e.g.*draft, pass, path*) and nasal + consonant (e.g. 🎧 *dance, chant, demand, branch*). During the nineteenth century, the new long front vowel [æː] then retracted to become the modern back [ɑː], thus giving rise to the complex vowel distribution in the BATH words in southern British varieties. But this process was not completed in the Midlands or north of England, nor, crucially, in the USA and Canada.

A corresponding effect took place with LOT words before fricative consonants, where a long vowel similar to present- day THOUGHT developed in words like *cost, off, cloth*, giving /kɔːst ɔːf klɔːθ/. It survives in much American English (see Section C1) and was until recently also a feature of traditional RP and certain southern regional varieties (notably Cockney). See below for the current situation.

Change in recent times and in progress

Regularly in the newspapers you will come across journalists deploring the changes taking place in the English language. Or you may find members of the public complaining in letters to the editor on the lines of: 'Will the younger generation totally destroy our beautiful language? Will it ever stop? Is there anything we can do about it?' The answer in each case is, in all probability, 'no.' Even if you wanted to, there's nothing you can do to stop linguistic change; it has always taken place and always will. Nevertheless, although linguistic change must, by definition, alter certain aspects of our language, English will survive. One cannot charge the upcoming generation with ill- treating their linguistic inheritance any more than one can accuse the people of Pope's or Shakespeare's time of destroying the English that had gone before them.

To take a more positive attitude, linguistic change is always interesting to explore – and especially so when it is change in progress happening all around us. So let's move on to examine how speech has developed in relatively recent years: changes which have taken place in your parents' and grandparents' lifetimes, and also some changes which are going on at this very moment.

Activity B5.1

This satirical poem appeared in 2002 in a British magazine aimed at the older generation. How accurate are the phonetic observations made by the authors of young people's speech habits? What influences do they appear to believe are at work? Can you yourself think of any personal experiences which demonstrate the irritation of older people with the way the younger generation speak?

She's barely twelve, and Hayley Howells
Has virtually abandoned vowels.
Her teachers say she's over- text,
Which makes her ma and pa perplexed.
Now they find their Hayley drops
Her aitches, and her glottal stops
Are so pronounced, she speaks in code –
This makes her Mum and Dad explode.
Although they pay the highest fees
To educate their daughter, she's
Already fuelled by the hopes
Of a long career in soaps.
When Hayley's daily on our screens
They'll know what modern living means:
That kids today must show forbearance
With their over- cautious parents.

(*Paul Evans and Bernadette Evans*, The Oldie,*September 2002*)

Changing consonants

The only change to the phonemic system in seven centuries has been the loss of the palatal/velar voiceless fricative (see p. 166). In addition, there has been the virtual loss of /ʍ/ in most varieties.

Listening to early twentieth- century recordings of British English speakers, one is struck by the clearer quality of syllable- final /l/. Nowadays, **l** - vocalisation, i.e. a dark *l* with a back vowel quality of an [ʊ] type, is especially noticeable following back vowels, e.g. in *doll* [dɒʊ],*ball* [bɔːʊ], etc. Until recently such pronunciations would have been regarded as 'Cockney,' and they may indeed have come into late twentieth-century speech from London English.

The same London influence may be at work in the spread of glottal stop – a feature which is often thought of as a 'slipshod Cockneyism' that has invaded young people's speech in the last few years. In fact, glottalisation in one form or another is something which has been around in English for a long time. It can be heard in the speech of George V – born in 1865, and hardly a Cockney![1] The King's pronunciation provides evidence that, contrary to what is sometimes believed, glottalisation was actually to be found in traditional RP – even though it only occurred in pre- consonantal syllable-final contexts (and not medially or before dark *l*). See also p. 67.

T- voicing, giving a rapid tap, with slight voicing carrying on through the articulation, is getting very common indeed. In colloquial speech, many speakers tap intervocalic /t/, especially across word boundaries (e.g.*that I, not a bit, get it*) and medially in high- frequency words like *better, getting, later, little*, e.g.*but I'd better get it a little later* [bəṭ aɪd ˈbeṭə ˈgeṭ ɪṭ ə ˈlɪṭl ˈleɪṭə]. Nevertheless, there is no sign in British English of the medial /t – d/ contrast being lost in colloquial speech, as is true of much General American, e.g.*writing – riding*.

Even though /ʍ/ in wh- words has largely disappeared, curiously, /hj/ in words like *huge, humour*, etc. is now universal. Not so long ago, one could still hear old-fashioned speakers who would pronounce /juːʤ ˈjuːmə/, but this had died out in RP by the 1970s and has no place in modern GB. It is still, however, to be heard from a minority of General American speakers, and is common in South African English.

Nevertheless, yod- dropping is on the increase (see p. 75). After /l/, as in *lute* /ljuːt/, /j/ has effectively died out, although it is still shown in some dictionaries. It is rare nowadays to hear /sjuːt ˈsjuːpə/ for *suit, super*, etc., and the vast majority pronounce /suːt ˈsuːpə/. On the other hand, /j/ lives on in *assume* and *presume*, where /əˈsuːm prəˈzuːm/ are minority variants. Furthermore, there's no tendency in GB – or indeed in most British English – to remove /j/ from *duke, tune, news* /djuːk tjuːn njuːz/. Pronunciations such as /duːk tuːn nuːz/ (all of which are the majority form in America) are confined to regional accents, notably some Cockney, East Anglia and parts of the West Country. In fact, /tj/ and /dj/ are increasingly replaced by /ʧ/ and /ʤ/, e.g.*tune* /ˈʧuːn/,*duke* /ˈʤuːk/; this has been true for many years, but still starts alarm bells ringing for many speakers of traditional RP.

Activity B5.2

Say these words:*suitable, supermarket, presume, consume, news, lute, avenue, revenue, Luke, enthusiastic*. Do you pronounce a /j/ before /uː/? See if you can find native English speakers from a variety of areas to ask. Can you discover any geographic patterning?

Changing vowels

The only change to the GB vowel system from that of traditional RP is that /ɔə/ as in *shore* – still shown in most pre- 1970 dictionaries – has disappeared. This, of course, does not take account of speakers of varieties which contrast words of the FORCE-NORTH type, common in Wales, Scotland, Ireland and much of northern England and the USA. Nor does it include Londoners who contrast *paws – pause* /ɔə – ɔː/. But in GB, there is no longer any /ɔə – ɔː/ contrast, so that *oar/ore –awe* are homophones.

One other possible change to the phonemic system that could take place in the near future is that GB English will lose both of its centring diphthongs NEAR and CURE. Of these, NEAR /ɪə/ is the more stable, although it tends nowadays to have a closer starting point [iə]. Many speakers replace it by a long steady- state vowel of a KIT type, e.g.*really* ['rɪːli]. In mainstream GB, CURE /ʊə/ is nowadays more and more replaced by /ɔː/, especially in high-frequency words like *poor, sure, your*, etc. Traditional RP also had a third centring diphthong in SQUARE represented with /eə/. In GB, this is now overwhelmingly a steady- state vowel – something which was first noted in certain contexts well over a hundred years ago.[2] We have recognised this development by using a steady- state vowel transcription symbol ɛː.

Activity B5.3

Say the following words. All traditionally had /ʊə/. Do you yourself pronounce /ʊə/, /uːə/ or /ɔː/? Ask your friends what they say. Can you think of any other words of this type?

cure, sure, furious, cruel, insure, tourist, endure, reviewer

In terms of lexical variation (i.e. the choice of one phoneme or another in a specific set of words, see p. 211), there was a change in the eighteenth century involving THOUGHT replacing LOT before fricatives in words like *cost, off, cloth* (see p. 167). This process seemed to have become almost universal by the early twentieth century, but has now boomeranged and all such words are now pronounced with LOT. In words such as *halt, malt, salt* the use of /ɔː/ is much more prevalent, but even so is diminishing. Another change is that the FOOT vowel, formerly used in words like *room, broom* /rʊm brʊm/, etc. is now generally replaced by GOOSE, i.e. /ruːm bruːm/. Our Estuary speaker (p. 6) retains this archaism.

An example of change involving the distribution of phonemes is that in *happ* Y words the final vowel is now FLEECE – rather than the KIT of traditional RP – most GB speakers realising it as a short FLEECE vowel [i]. Only regional varieties in Yorkshire, Lancashire, Scotland and Northern Ireland overwhelmingly keep the KIT vowel.

In endings such as - **ate**, - **less**, - **ness**, - **ity**, the KIT vowel has largely been replaced by /ə/. Words such as *obstinate, careless, softness, calamity* are now overwhelmingly said as /ˈɒbstɪnət ˈkɛːləs ˈsɒftnəs kəˈlæməti/.

A notable change in the realisation of vowels has been that the TRAP vowel /æ/ is now much more open (similar to [a]). In traditional RP it sounded a little like present- day SQUARE, something which can be clearly heard in old British newsreels and feature films (Celia Johnson in *Brief Encounter* is a famous example). A close TRAP vowel is also found in most other world varieties (American, Australian, New Zealand and South African; see Units C4 and C5). And a small minority of traditional RP speakers (almost all now 80- plus – listen to recordings of the cricket commentator Henry Blofeld on YouTube) retain the traditional closer quality of the vowel. Nevertheless, in twenty- first- century Britain, old- fashioned RP realisations of TRAP as [ɛə ɛː] are found comic by the younger generation. (Interestingly, as early as 1918, the phonetician Daniel Jones warned non-native learners against over- close /æ/, and cited possible confusion of *ballet*

dancer and *belly dancer*.). Note that the more open realisation of TRAP has also resulted in DRESS becoming more open.

The FLEECE and GOOSE vowels (/iː/ and /uː/) are typically slightly diphthongal (especially FLEECE) in all contexts except before fortis consonants. A much commented- on change in the speech of the younger generation is that the GOOSE vowel /uː/ is becoming front and losing its rounding. The effect is particularly striking following palatal /j/ and also palato- alveolar /ʧ ʃ/, as in *few, music, new, Tuesday, shoe*, etc., making a young person's *shoe* sound rather like *she* to older people. The FOOT vowel /ʊ/ is typically also more central in GB, markedly so with many younger speakers. In addition, it often lacks lip- rounding, especially in common words, e.g.*good, put* sounding almost like [gɪd pɪt]. See also Section A8 for more detail on all these changes. The THOUGHT and LOT vowels have become closer. STRUT, which underwent a fronting process during the twentieth century, possibly under the influence of London speech, now seems to be moving back again as TRAP has lowered.

The diphthongs MOUTH /ʊ/ and PRICE /aɪ/ have swapped their traditional RP starting points. They are now either the same or – as with many younger speakers – /aʊ/ has a *front* starting point while /aɪ/ starts *back*. The modern tendency with GOAT is for the glide to be towards a fronter position, like that of modern FOOT. This realisation may be confusing to older speakers, who interpret it as the FACE vowel, thus understanding younger- generation *road* as older- generation *raid*.

Activity B5.4

This is an extract from Stephen Fry's *The Stars' Tennis Balls* (2001: 32). Suggest some possible reasons why the character speaking might want to change his accent in these ways. Explain Fry's examples, using phonetic symbols for the purpose.

But firstly, there must come the accent. When I arrive, the accent will be in place and they will never know. I have my exercises all written out:

Don't say good, say gid
Don't say post, say paste
Don't say real, say rail
Don't say go, say gay

Changing stress and intonation

Intonation

One striking intonation change which has occurred in the last few years is the increase in what has been dubbed 'upspeak' or 'Australian question intonation,' referring to terminal rising patterns employed particularly for narrative. Since this is a well-known feature of Australian English, its popularity in British accents has been put down to the influence of Australian 'soaps.' But it's worth noting that very similar patterns existed in regional British English (e.g. certain West Country and South Wales accents, notably Bristol and Cardiff) long before Australian English penetrated the airwaves. Whatever the origins, it is without doubt the most obvious instance of ongoing change affecting intonation.

Stress

In 1855, the writer Samuel Rogers complained about the way words were changing their stress patterns: 'The now fashionable pronunciation of several words is to me at least very offensive: CONtemplate is bad enough; but BALcony makes me sick' (quoted in Crystal 1988: 64). The stress patterns indicated seem pretty normal to us in the twenty- first century, but Rogers was regretting the passing of the pronunciations of his youth /kənˈtemplɪt bælˈkoʊnɪ/.

Changes in stress have affected a number of words in the course of the twentieth century. Examples are:

exquisite, formerly ˈ*exquisite*, now instead *exˈquisite*
dispute, formerly *diˈspute*, now also ˈ*dispute*
comparable, formerly ˈ*comparable*, now also *comˈparable*

primarily, formerly ˈ*primarily*, now also *priˈmarily*
laboratory, formerly ˈ*laboratory*, now instead *laˈboratory*

There is a strong tendency for stress change in longer words (three syllables or more) to result in stress shifting to the antepenultimate syllable (two from the end). This will usually also affect the vowels in the word.*Primarily* shows this tendency. Other examples of this stress change are:

minuscule, formerly *miˈnuscule* /mɪˈnʌskjuːl/, now instead ˈ*minuscule*
pejorative, formerly ˈ*pejorative* /ˈpiːʤərətɪv/, now instead *pe* ˈ*jorative*
etiquette, formerly *etiˈquette*, now instead ˈ*etiquette*
marital, formerly *ma* ˈ*rital* /məˈraɪtl̩/, now mostly ˈ*marital*
kilometre, formerly ˈ*kilometre*, now also *kiˈlometre*
controversy, formerly ˈ*controversy*, now also *conˈtroversy*
lamentable, formerly ˈ*lamentable*, now also *laˈmentable*
formidable, formerly ˈ*formidable*, now also *forˈmidable*

Ongoing change is to be observed in many of these items, in some cases with a strong rearguard action being fought by older- generation speakers against what they consider to be upstart pronunciations –*controversy* being a notorious example.

Activity B5.5

How would you stress the following words?

controversy, hospitable, contribute, applicable, lamentable

Certain compounds formed from verb plus particle, e.g.*make- up, breakdown, hold- up, lock- out*, have changed their stress pattern. Final element stress has been replaced by initial element stress so that what was formerly said as *make-* ˈ*up* is now pronounced ˈ*make- up*. This change, which appears to have taken place in the 1920s, is now completely established in the present- day language. It is interesting that certain

European learners of English (for example, the Dutch and Danes) tend to retain the outdated stressing both in their own language and when speaking English – probably because the word was borrowed a long time ago. It now counts as a non- native learner's error.

Other influences

Spelling influences

A significant influence affecting ongoing pronunciation change is the regularisation of pronunciation to fit the spelling. A common phenomenon is the restoration of former 'silent letters,' i.e. examples of historical elision, e.g. /t/ in *often* /ˈɒfn̩/, /l/ in *falcon, almond* /ˈfɔːkən ˈɑːmənd/, or a vowel changing to conform with its typical spelling. There are many examples, notable ones being:

waistcoat, formerly /ˈweskɪt/, now instead /weɪstkəʊt/
landscape, formerly /ˈlænskɪp/, now instead /ˈlændskeɪp/
forehead, formerly /ˈfɒrɪd/, now generally /ˈfɔːhed/
nephew, formerly /ˈnevjuː/, now generally /ˈnefjuː/
portrait, formerly /ˈpɔːtrɪt/, now generally /ˈpɔːtreɪt/
retch, formerly /riːʧ/, now /reʧ/
ate, formerly /et/, now generally /eɪt/
covert, formerly /ˈkʌvət/, now also /ˈkəʊvɜːt/
fortune, formerly /ˈfɔːʧən/, now also /ˈfɔːʧuːn/
handkerchief, formerly /ˈhæŋkəʧɪf/, now also /ˈhæŋkəʧiːf/
often, formerly /ˈɒfən, ˈɔːfən/ now also /ˈɒftən/
towards, formerly /tɔːdz/, now /təˈwɔːdz/

There are signs that more words may nowadays be going the same way. One candidate (by the way, do you yourself say /ˈkændɪdət/ or /ˈkændɪdeɪt/?) is the word *says* – traditionally /sez/, but people are starting to pronounce /seɪz/. Others are *solve, involve, proven*, traditionally /sɒlv ɪnˈvɒlv ˈpruːvən/ but now sometimes /səʊlv ɪnˈvəʊlv ˈprəʊvən/.

American influences

It's a commonly heard moan from the older generation that American English is beginning to overwhelm British English, but it's actually very difficult to assemble any evidence to support this claim with respect to pronunciation. Although indeed much American vocabulary is streaming into Britain speech, pronunciation seems remarkably impervious to USA influences – apart from the mock- American assumed by the majority of popular vocalists. Curiously, clear- cut examples of straightforward Americanised pronunciation are in fact very difficult to find. An exception is *harass* and *harassment*: formerly pronounced as /ˈhærəs ˈhærəsmənt/, an American- style /həˈræs həˈræsmənt/ seems now to be taking over.

In other cases where an American pronunciation has gained in popularity, there has probably also been influence from the orthographic form. A notable case is *ate* (formerly /et/ but increasingly /eɪt/). Another example is *schedule* (formerly only initial /ʃ/ but now increasingly with /sk/ as with other words beginning with **sch**, such as *scheme, school, scholar, schizophrenic*).

One further possible American influence is the pronunciation of certain nouns containing the prefix *re-*, e.g.*research, resource, relapse*, where the traditional British rendering with stress on the second syllable occurs side by side with forms commoner in American English stressed on the first syllable.

Ironically, American English, rather than being the source of new British pronunciations, frequently preserves traditional forms that were formerly common in British English but which are now extinct or going out of favour. Examples are stress on first syllable in *laboratory* and *controversy*, use of /aɪ/ rather than /ɪ/ in *privacy, vitamin* and elision of /w/ in *toward*.

Place names

The pronunciation of English place names is increasingly influenced by orthography, leading to a rendering closer to the spelling taking over from a traditional form. Examples are:*Romford* and *Margate* (formerly /ˈrʌmfəd ˈmɑːgɪt/, nowadays more often /ˈrɒmfəd ˈmɑːgeɪt/). Not all names are affected in this way – size matters. Big towns, like *Leicester* /ˈlestə/ and *Worcester* /ˈwʊstə/, seem more stable – but smaller towns, suburbs and villages are much more likely to change.

Activity B5.6 (Answers on website)

Try to find out the traditional and the modern pronunciations of the places listed below. You can get a lot of help from pronunciation dictionaries. See if you can transcribe them phonemically.

Chesham, Cirencester, Coventry, Grantham, Lewisham, Pontefract, Todmorden, Uttoxeter, Walthamstow

Are there any English place names in an area you know where two pronunciations exist side by side? Is one an old pronunciation and the other a replacement closer to the spelling?

For many years now there has been a tendency for foreign words, particularly place names, to trade their traditional English pronunciations for something more exotic. Some names have altered totally, as is true of *Prague, Marseilles* and *Lyons* (formerly /preɪg mɑːˈseɪlz ˈlaɪənz/, now /prɑːg mɑːˈseɪ ˈliːɒ̃/). Interestingly, the new forms are also far removed from the original [ˈpraha maʁsɛj ljɔ].˜ In other cases, an ongoing battle carries on between, for instance, those who say *Copenhagen* as the traditional /kəʊpən

ˈheɪgən/ and those who use the newer form /kəʊpənˈhɑːgən/ (neither sounds much like Danish *København* [købənˈhauʔn]). An interesting oddity is the holiday resort *Ibiza*. At one time most British visitors pronounced this /iːˈbiːtsə/. Nowadays a pronunciation /iːˈbiːθə/, not too far away from Spanish [iˈβiθa], seems more popular.

Activity B5.7

If you know any English native speakers who are over 70, ask them how they would say these place names and then say them yourself. Are there any differences in the way you and the older generation pronounce them?

Copenhagen, Hiroshima, Ibiza, Lyons, Majorca, Marseilles, Milan, Munich, Prague, Valencia, Ypres

Activity B5.8 🎧 Recording B5.5 (Answers on website)

Listen to the audio recording of the text below. It has been read as it might have sounded in the early nineteenth century. Listen and then read through the text yourself. Note the words which have changed their pronunciations over the course of the last two centuries. See if you can produce two columns, using phonemic transcription, with what one might term (1) 'outgoing forms' (in some cases already extinct) and (2) 'incoming forms,' reflecting respectively the characteristic pronunciations of previous eras, and pronunciations either established in the twentieth century, or those now coming into vogue in the twenty- first. Check by looking at the key on the website.

I was all set to go to the theatre in Coventry Street last Wednesday. I'd bought seats in the balcony for me and Sophia and was just putting on a waistcoat when I lost my footing and knocked my forehead on a painting – not the portrait of nephew Ralph but that huge landscape I got at the auction in Hol-born. I went over to contemplate my bruised profile in the looking- glass. It was exquisitely odious. No easy cure to be sure – but off to the chemist to get some iodine. Even though it wasn't the result of a controversy, etiquette demands that I re- schedule all my plans. Truly lamentable. Shan't see the girl again either. Soon she'll be gadding off towards Prague – lucky thing! Via Marseilles, Lyons and Milan. And I'll have to stay in my rooms in Lewisham. And no peace or privacy – Aunt Maria's coming across from Cirencester.

Notes

1 A good example is George V's speech at the launch of the liner *Queen Mary* in 1934 (BBC audio cassette ZCD 593).

2 Laura Soames employed monophthongal [ê] to transcribe non- final /ɛː/ as in *Mary, scaring*, etc. in her (1899)*Introduction to English, French and German Phonetics*.

B6

Teaching a Foreign Language

Hierarchy of error

One of the most useful day-to-day applications of phonetics courses is learning the pronunciation of a foreign language. In the next sections, we deal with (1) teaching English to non- native learners; (2) the problems native speakers of English have in learning a foreign language. We shall use the abbreviation **L1** (i.e. first language) to refer to the learner's mother tongue (also termed 'source language') and **L2** (i.e. second language) to refer to the language which is being learned (also termed the 'target language').

In learning a language, it is necessary to have realistic goals. Unless you begin in your infancy, it is very unlikely that you will ever achieve a perfect command of a language. Nowhere is this more true than of pronunciation. Even if you start in your teens, and go to live in the country concerned, it is likely that you will have some traces of a foreign accent all your adult life. If perfect pronunciation is your target, then you must accept that you will inevitably fall short of it. A realistic aim is therefore to speak in a way which is clearly intelligible to your listeners and which does not distract, irritate or confuse them.

So a major consideration when dealing with pronunciation is to discover which errors are the most significant. Not all deviations from native- speaker pronunciation are of equal importance (see Jenkins 2000). Some pass unnoticed, whereas others may be enough to cause total lack of comprehension on the part of the listener. In trying to establish a hierarchy of error, we must take into account the reactions of native speakers. In general terms, we can rank errors in the following way.

1. Errors which lead to a breakdown of intelligibility.
2. Errors which give rise to irritation or amusement.
3. Errors which provoke few such reactions and may even pass unnoticed.

Obviously, the first category of error listed above is crucial and requires the most attention from teacher and student. The second group can also be of significance and are often those features which draw attention to the foreignness of an accent. The third category is of far less importance. In fact, it is unusual for an *isolated* error even of a category 1 type above to lead to a breakdown of intelligibility. But an important factor – which is often underestimated or ignored in **contrastive analysis** (the systematic study of two languages side by side to establish points of difference and similarity) – is that pronunciation errors do not typically occur in isolation. Especially with beginners or less proficient speakers, the L2 speech of the learner is likely to be peppered with numerous errors in every sentence. Consequently, a build- up effect results and causes problems of intelligibility. For example, there may be confusion of fortis/lenis consonants, together with loss of significant vowel contrasts like KIT-FLEECE and TRAP-DRESS. On top of that, there may be problems with stress and rhythm. If one then adds the likelihood of other linguistic errors (for instance, grammatical, or choice of vocabulary), then it's not surprising that the English of non- natives can sometimes be difficult, or even impossible, to understand.

Below, examples will be given of each of the three types of error with an indication of speakers' L1. Note that 'widespread' implies an error that is likely to be made by people from a large number of language backgrounds.

Error rankings for English

For an overview, see Table B6.1, p. 179.

Category 1: errors leading to potential breakdown of intelligibility

1. Confusion of crucial phonemic contrasts in vowel system, e.g. /ɪ – iː/ (widespread), /e – æ/ (German, Dutch), /ɜː – ɑː/ (West African languages), /ɒ – ʌ/ (Danish).
2. Confusion of fortis/lenis, e.g. final fortis/lenis (German, Dutch, Danish, Russian), /f – v/ (Dutch).
3. Consonant clusters (widespread, e.g. Arabic, Spanish, Japanese).
4. Crucial consonant contrasts, e.g. /b – v/ (Spanish), /v – w/ (German), /f – h/ (Japanese), /l – n/ (some Chinese), /l – r/ (Japanese, some Chinese), /ʃ – s/ (Greek).
5. Deletion of /h/ (widespread, e.g. French, Italian) or replacement by /x/ (Spanish).
6. Word stress, especially if not on initial syllable (widespread, e.g. French, West African, Indian languages).

Category 2: errors which evoke irritation or amusement

1. Inappropriate /r/ articulations, e.g. uvular [ʁ] (French, German, Hebrew), strong alveolar trills (general).
2. Dental fricative problems (‘**th** - sounds’) (widespread), e.g. replacement of /θ/ by /t/ (Dutch) or /s/ (French, German, Danish); of /ð/ by /d/ (Dutch) or /z/ (French, German), etc.

3. Less significant vowel contrasts, e.g. /uː – ʊ/ (widespread), /ɒ – ɔː/ (widespread).
4. Incorrect allophones of /l/, especially replacement by dark *l* throughout (Portuguese, Russian), or by clear *l* throughout (French, German, Italian).
5. Lack of weak and contracted forms (widespread).
6. Inappropriate rhoticism/non- rhoticism for particular models of pronunciation (widespread).
7. Strong retroflex setting (Indian languages).

Category 3: errors which provoke few such reactions and may even pass unnoticed

1. Intonation errors (widespread).
2. Lack of syllabic consonants (widespread).
3. Compound stress (widespread).

Contrastive/error analysis

Errors made by language learners frequently reflect the sound systems of their L1. If we compare the L1 sound system with that of the L2, we can often predict the nature of errors which they will make. Let's take as an example the case of a speaker of European Spanish (or *Castellano*, see below) learning English.

Spanish learners' errors

Spanish lacks a phoneme contrast similar to English /b – v/, the Spanish /b/ having a range of allophones similar to the *two* English consonants. There will be regular deletion of /h/ or replacement by the velar fricative [x]. On the other hand, unlike many languages, European Spanish has a voiceless dental fricative /θ/, and [ð] exists as an allophone of /d/, even though in the latter case English words containing /d/ and /ð/ will be regularly confused.

The syllable structure of Spanish is less complex than that of English. For example, there are no onset clusters with initial /s/, and the possibilities in coda position are far fewer (only final /n l r s d θ/ occur with any frequency). Final consonants and consonant clusters in general are a major problem area for Spanish speakers. This means that *spam* will be produced by learners as */espan/.

European Spanish has a five- vowel system with a number of additional diphthongs. There is no equivalent to the checked/free vowel distribution in English, nor are there any central vowels similar to /ə ɜː ʌ/. From this one would predict that a Spanish learner would have considerable problems with the English vowel system, and that the checked/ free vowel contrasts and the central vowels would be especially problematical. For example, vowel contrasts such as /ɪ – iː, ʊ – uː, æ – ɑː/ might pose difficulties.

Spanish has syllable- timed rhythm – very different from the stress- timed rhythm of English (see Sections B3 and B7). A characteristic of Spanish English is the absence of vowel reduction in unstressed syllables. The range of intonation is less extended than in the English of native speakers. Spanish learners will not possess the elaborate systems of weak and contracted forms which characterise native- speaker English.

This table is intended only as a very simplified overview. More detailed analyses for a range of European and Asian languages can be found in Swan and Smith (2001) and Walker (2010); Deterding and Poedjosoedarmo (1998) provides much useful information on the pronunciation of the languages of South- East Asia.

Japanese learners' errors

Let's now examine the situation of learners who speak Japanese – a language with far more discrepancies from English.[1] Again, many of the problems can be traced back to the differences between the phonemic inventories of the two languages. A well- known problem area is the English contrast /l – r/ as in *rate – late* or *fright – flight*. This results from the Japanese /r/ phoneme having a range of allophones which to English ears sound similar to either English /l/ or /r/. As in Spanish, Japanese [b] and [v] are allophones of a single phoneme /b/; consequently, learners confuse English words like *banish – vanish* and *TB – TV*. Japanese /h/ has an allophonic range comprising [ɸ h ç]. In some contexts, Japanese /h/ transfers successfully into English, but there is also negative transfer. Before the close back vowels GOOSE and FOOT, learners replace English /h/ by what English speakers perceive as a type of /f/ sound (actually, it's a bilabial fricative [ɸ]), so that a Japanese attempt at *who'd* is heard as *food*. Preceding close front vowels FLEECE and KIT, the /h/ replacement is palatal fricative [ç]; to an

Table B6.1 Survey of English pronunciation errors in a selection of languages and language groupings

	Final fortis/ lenis	*Aspir-ation of initial* p, t, k	b – v	f – v – w	θ, ð	s – ʃ – z – ʒ	ŋ	h	r *articulation*	*Consonant clusters*	ɪ – iː	e – æ	əʊ, ɔː, ɒ	*Centr. vowels* ə – ʌ – ɜː	*Stress and rhythm*
Arabic	•	X	•	X	•/?	X	X	•	X	X	X	•	X	X	X
Cantonese	X	•	•	X	X	X	•	•	X	X	X	X	X	•	X
Danish	X	•	•	X	X	X	•	•	•	•	•	X	•	•	•
Dutch	X	X	•	X	X	X	•	•	•	•	•	X	•	•	•
French	•	X	•	•	X	•	•	X	X	•	X	•	X	•	X
German	X	•/?	•	X	X	•	•	•	X	•	•	X	X	•	•
India/S. Asia	•	X	•/?	X	X	•/?	X	•	X	X	•	X	X	•	X
Italian	•	X	•	•	X	•	X	X	X	•	X	•	X	X	X
Japanese	X	•	X	X	X	X	•	X	X	X	X	X	X	X	X
Malay/Bahasa	X	X	•	X	X	X	•	•	•	X	X	X	X	•	X
Mandarin	X	•	X	•	X	•	•	X	•	X	X	X	X	•	X
Polish	X	X	•	•	X	•	X	X	X	•	X	X	X	X	X
Portuguese	•	X	•	•	X	X	X	X	X	X	X	X	X	•	•/?
Russian	X	X	•	X	X	•	X	X	X	•	•	X	X	•	•
Spanish	•	X	X	•	•/?	X	X	X	•	X	X	•	X	X	X
Swed./Norw.	•	•	•	X	X	X	•	•	•	•	•	•	X	•	•
Turkish	X	•	•	X	X	•	X	•	•	X	X	X	X	•	•
West African	•	X	•	•	X	•	X/?	•	X	X	X	•	X	X	X

x *Highly significant* problem areas
• Although some difficulties may arise, these errors are (in general) *less significant* problem areas
? *Variation* between one language/language variety and another

English ear, the Japanese pronunciation of *he* sounds a little like *she*. Phonetic training is helpful in all of these cases to assist the learners in knowing which allophone is appropriate for which phonetic context.

Like many languages, Japanese lacks dental fricatives. Learners replace English /θ/ by /s/, and /ð/ by /z/, making *theme* sound like *seem*, and *breathe* like *breeze*. In Japanese, alveolar consonants /s z t d n/ are palatalised (see pp. 59–61) before /i/. This feature is transferred to English so that before close front FLEECE and KIT, /s/ sounds like English palato- alveolar /ʃ/, blurring the contrast /s – ʃ/ and making *seat* sound like *sheet*; the contrast /z – ʒ/ is also affected.

Like Spanish, Japanese has an economical basic vowel system of just five vowels. English checked/free vowel contrasts such as FLEECE-KIT GOOSE-FOOT (e.g.*beat –bit* and *pool –pull*) indeed prove problematical. Nevertheless, since Japanese has many vowel sequences which have some similarities to English long vowels and diphthongs (see pp. 205–6), it is possible with phonetic training and practice for learners to approximate to a wider range of English vowel sounds. Japanese speakers will still find it difficult to master the differences in vowel length resulting from pre- fortis clipping (see p. 59), but, once again, raising phonetic awareness can be of great help. As in Spanish, a

crucial gap is the complete lack of any central vowels. Problems arise with English / ə/ (the *bon*US vowel), both in weak forms (see pp. 21–5) and with vowel reduction in unstressed syllables. As a first step, learners should be made aware that any letter can represent /ə/. Japanese learners regularly replace the central NURSE vowel by PALM, so that *stir* sounds like *star*. English TRAP, STRUT and PALM may all be perceived by learners as Japanese /a/, and this will transfer to pronunciation so that *hut* and *hat*, and possibly *heart*, all sound alike.

Japanese has simpler syllable structure than English (see p. 206). Since in Japanese only one consonant – the velar/uvular nasal [N] – can occur as a coda, learners will have problems with English closed syllables. The lack of Japanese final nasal contrasts transfers to English so that syllable-final nasals /m n ŋ/, as in the words *ram, ran* and *rang*, all sound the same. A serious Japanese error is to add an epenthetic vowel to a word-final consonant, e.g. 'petto'*pet*, 'doggu'*dog*. Except before /j/, no consonant clusters exist in Japanese, and learners also often add epenthetic vowels to English with most unfortunate results, e.g.*club* as [kurabu] and *dream* as [dori:mu]. These superfluous vowels are perhaps the most significant errors for beginners, regularly leading to intelligibility breakdown.

Japanese intonation has a narrower pitch range than English and learners find it difficult to distinguish a nucleus. Nevertheless, on the whole, intonation is not a major problem. Far more significant are the complications of mora-based rhythm (see p. 206), which mean that Japanese rhythm is much closer to syllable-timing than it is to the stress-timing of English. This, together with the lack of vowel reduction (see above), and absence of weak forms, explains why learners find it difficult to reduce the length of English unstressed syllables.

A useful simplified summary of Japanese learners' errors in English is provided by Shimizu (2010).

Other language backgrounds

The problems of learners from other language backgrounds also reflect transferred features of their L1s. For example, speakers of Polish and Italian – languages which have simple vowel systems with no central vowels – will have difficulties with the complexities of the richer English vowel system. In particular, the English central vowels, such as *bon* U *s*, NURSE and STRUT, prove major problems. Even if you speak a language with a complex vowel system like French, errors may arise from gaps in the L1. In fact, French learners of English stumble over checked vs. free vowel contrasts (confusing the KIT-FLEECE vowels), and the diphthongs vs. steady-state vowels (confusing GOAT and THOUGHT).

An overall lack of word-final lenis consonants affects English learners from many language backgrounds including German and Polish. This implies that pairs such as *bet–bed, safe–save* will be confused. Apart from Spanish, none of the languages we have dealt with have dental fricatives similar to /θ ð/, so that learners from all the other language backgrounds we discuss here usually replace these sounds with /t d/ or /s z/, e.g.*these things* as /diːz ˈtɪŋz/, or /ziːz ˈsɪŋz/. Many learners also replace /θ/ by /f/ so that *death* sounds like *deaf*, and *three* sounds like *free*. We have already mentioned that English /h/ poses problems for Spanish and Japanese learners of English, and this also applies to learners with French, Italian or Polish as L1. The articulation of English post-alveolar /r/ is frequently an obstacle (especially for beginners) for French and Germans, whose /r/ is uvular. Unlike Japanese and Spanish learners, speakers of Polish, German or French will have fewer problems with English consonant clusters, since their own languages contain many complex consonant sequences.

Although languages show considerable intonational variation, and exact mimicry of intonation patterns is extremely difficult for most learners, deficiencies in this area hardly ever cause any breakdown in intelligibility, so its importance should not be overestimated. Much more significant is rhythm, and the impact of English stress timing (see pp. 136–9), where speakers from many language backgrounds, including French, Spanish, Italian, Polish and Japanese, will encounter difficulties. French speakers, whose language lacks word stress, have particular problems here. On the other hand, speakers of

German, Dutch or Scandinavian languages, whose L1s also have stress timing similar to English, are at a considerable advantage.

It will be seen that the main areas of difficulty for learners can indeed be largely predicted from contrastive analysis. Interestingly, not all learners' difficulties can be predicted in this way, while some expected problems may fail to materialise. It is, however, no exaggeration to say that a great many second-language pronunciation problems can indeed be traced back to the sound system of the learners' L1.

Other errors may arise through difficulties derived from confusing spelling systems – particularly in the case of languages like English (or French or Danish), which have archaic orthography incorporating many perplexing sound-spelling relationships. In other cases, we may be faced with teaching traditions which are inaccurate or out of date – this may be the reason for the German reluctance to distinguish TRAP and DRESS when two reasonably adequate vowels for the contrast exist in their L1 (namely /a/ as in *acht* 'eight' and /ɛ/ as in *Bett* 'bed').

For an overview of the chief learners' pronunciation errors from a variety of languages, see Table B6.1, p. 179. For a general survey and discussion of the many factors involved in teaching the pronunciation of a language to non-native learners, see the extracts from Avery and Ehrlich (1992) and Crystal (2018), reprinted in Unit D4.

Hints on teaching pronunciation to non-native learners

It is essential to decide on a model for your students – this will normally be either British GB or General American, for the reasons outlined in Unit A1. Your own speech does not have to conform to the model, but you should be aware of where you deviate markedly from it.

You should also make yourself aware of the problems your students have by giving them brief diagnostic tests. If you're based in a non-English-speaking country, and your students all have the same L1, you can assume that they will probably have a large number of pronunciation problems in common. If, as is generally the case when teaching in an English-speaking country, you're faced with students from many different language backgrounds, you have to approach the problems of each language separately.

In all cases, your task will be helped if you gain some phonetic knowledge of the L1s of the students in your classes. There are a number of practical ways in which this can be done. If, for example, you are teaching a class of Italian students, you can:

- ❑ use books and audio material designed to teach Italian;
- ❑ read courses on English, aimed at Italians, where pronunciation problems are discussed;
- ❑ talk about the pronunciation of Italian with the students themselves;
- ❑ try to learn at least a smattering of Italian (see pp. 190–5 on learning a foreign language);
- ❑ go to websites for information (Wikipedia has useful descriptions of many languages).

Note

1 Thanks to Masaki Taniguchi for much help with this section.

B7

Learning a Foreign Language

How to learn a foreign language

How can phonetics help you if you're an English native speaker learning a foreign language? If you have acquired the language in school, perhaps the first thing to recognise is that you may need to do a lot of repair work. Many language teachers feel they do not have sufficient time to give their students prolonged pronunciation training. Some, indeed, devote no time to it whatsoever. All too often, language labs, where they exist, are locked up gathering dust whilst the students who should be allowed to use them plod away on written exercises.

Nevertheless, it's amazing how quickly great improvements can be achieved in your pronunciation by applying a few basic phonetic principles.

1. Choose an appropriate variety as a model and stick to it.
2. Discover differences and similarities between the target language and English in terms of:

    - ❑ consonant and vowel systems;
    - ❑ sound and spelling relationships;
    - ❑ stress, rhythm and other features of connected speech.

Here are four concise overviews which will help you use your phonetic expertise to gain a better understanding of the pronunciation of Spanish, French, Italian and German – all very popular languages for non-natives to learn. We go on to discuss two major languages, Polish and Japanese, which are less commonly studied outside their national borders, but which have many interesting phonetic/phonological features. Note that these summaries are all very brief and deliberately simplified.

Spanish 🎧 recording B7.1

Model

There may be as many as 350 million native speakers of Spanish worldwide. This implies that Spanish has overtaken English as the second most widely spoken language in the world (after Mandarin Chinese) in terms of native speakers, although not in terms of total language usage.

Over forty million native speakers, plus five million fluent bilinguals, live in Spain itself. It is worth noting that Spain not only has a number of regional varieties but also has several other languages spoken within its borders, e.g. Catalan, Galician and the non-Indo-European language Basque.*Castellano* /kaste'jano/ is the term used in the Spanish-speaking world for the educated variety spoken in northern Spain, including the capital Madrid and the provinces of Castile. This is the model of Spanish usually chosen by European learners, but an alternative is a Latin American variety, such as Argentine Spanish. European and Latin American Spanish are at variance in many respects, but the most significant pronunciation difference is the existence in Castellano of a phoneme /θ/ represented by orthographic **z** (e.g.*zapata* 'shoe') and by **c** preceding front vowels (*cinco* 'five'). In all of Latin America, and also in Andalusia in the south of Spain, /s/ is employed in this context. As is always the case in language learning and teaching, it is best to be consistent – choose one model and stick to it. We shall assume in what follows that you are a British GB speaker aiming at Castellano.

Spanish consonant system

p	*paso*	'step'	/'paso/

b	*vaca, abeto*	‘cow, fir tree’	/ˈbaka/ /aˈbeto/ [aˈβeto]
t	*tapas*	‘snacks’	/ˈtapas/
d	*dos, nada*	‘two, nothing’	/dos/ /nada/ [naða]
k	*casa*	‘house’	/ˈkasa/
g	*gafas, amigo*	‘spectacles, friend’	gafas/ /a migo/ [aˈmiɣo]
ʧ	*chico*	‘boy’	/ˈʧiko/
f	*fino*	‘delicate’	/ˈfino/
s	*seis*	‘six’	/ˈseis/
θ	*cerveza*	‘beer’	/θeɾˈbeθa/
x	*jefe*	‘boss’	/ˈxefe/
m	*mucho*	‘a lot of’	/ˈmuʧo/
n	*noche*	‘night’	/ˈnoʧe/
ɲ	*caña*	‘cane’	/ˈkaɲa/
l	*luna*	‘moon’	/ˈluna/
r	*rana, parra*	‘frog, vine’	/ˈrana ˈpara/
ɾ	*para*	‘for’	/ˈpaɾa/
w	*bueno*	‘good’	/ˈbweno/
j	*yo, ciento, llave*	‘I, hundred, key’	/jo ˈθjento jabe/ [jaβe]

Some speakers have an additional phoneme /ʎ / in words containing orthographic **ll**, as in *llave* /ˈʎabe/. The voiced plosives /b d g/ have fricative allophones [β ð ɣ] when occurring between vowels, as indicated in the list above.

Spanish vowel system

i	*si*	‘yes’	/si/
e	*este*	‘this’ (masc.)	/ˈeste/

a	*hasta*	‘until’	/ˈasta/
o	*poco*	‘little’	/ˈpoko/
u	*yú*	‘you’	/tu/
ei	*rey*	‘king’	/rei/
ai	*hay*	‘there is/are’	/ai/
au	*aun*	‘yet’	/aun/
oi	*hoy*	‘today’	/oi/

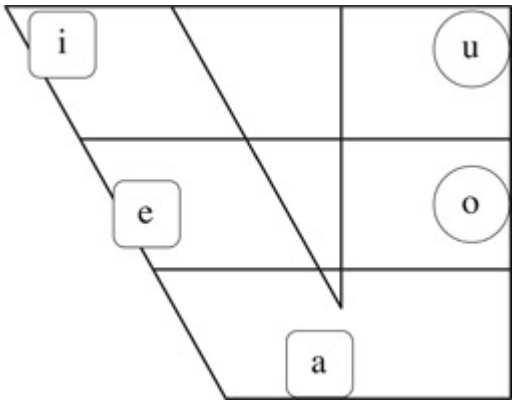


Figure B7.1 Basic Spanish vowels

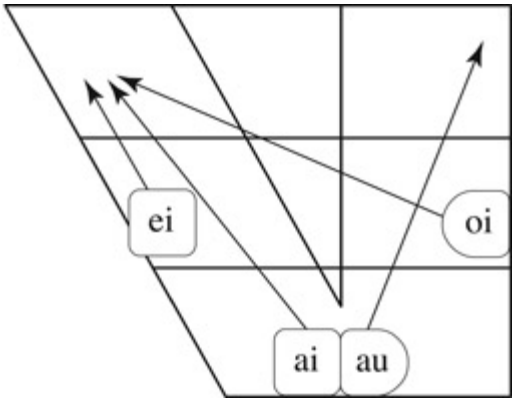


Figure B7.2 Frequent Spanish diphthongs

All vowels can combine to form diphthongs, e.g. /ei ai au oi/. Vowel sequences having initial /i/ and /u/ are regarded as semi-vowels /j/ and /w/. See below.

Description of consonants

A new sound which must be mastered by the English learner of Spanish is the velar fricative /x/ – spelt **j** or **g** (before **i** and **e**), as in ***j****efe* 'boss,' ***g****eneral* 'general.' Double **ll**, as in *paella*, was traditionally a palatal lateral [ʎ] (a rough approximation is to pronounce it as in English /lj/), but is nowadays overwhelmingly said as [j] (far easier for an English learner to copy).

Unlike non-rhotic English, Spanish /r/ is pronounced in all contexts; deleting /r/ is a common British learner's error. The Spanish sounds are also articulated very differently from English /r/, being typically a tongue-tip trill [r] or tap [ɾ]. A major problem occurs in word-medial position where single **r** (alveolar tap) and double **rr** (alveolar trill) produce minimal pairs, contrasting, for example,*para* 'for' and *parra* 'grapevine.'

The *tilde*˜ accent placed over **ñ** indicates a palatal nasal /ɲ/ as in *mañana* 'tomorrow.' Replacement by /nj/ similar to English *o* ***ni****on* is only an approximation, but it doesn't seriously affect intelligibility.

The voiced plosive consonants /b d g/ have weaker voiced fricative allophones [β ð ɣ]. The plosive allophones occur word-initially and following nasals; the fricatives are used elsewhere.

It is recommended, if you're imitating Castellano, that **c** (before front vowels) and **z** are pronounced as /θ/ rather than /s/. In Spain, using /s/ in this context is associated with particular regional varieties and may attract social comment.

Description of vowels

Standard Spanish has an attractively simple five-vowel /i e a o u/ system plus a number of diphthongs, the most significant of these being /ei ai oi au/. The two main problems are:

- ❑ to avoid diphthongisation of /o/ and /e/ (which will cause confusion with diphthongs /ei/ and /ou/);

- ❑ to avoid reducing unstressed vowels to [ə]. (Note that there is no central vowel of any kind in Spanish.)

Spelling

In general, Spanish orthography is highly reliable and efficient. Nevertheless, there are potential pitfalls. Note that **h** is invariably a 'silent letter' and either the letter **b** or **v** could be regarded as superfluous as they are exact equivalents, both representing the /b/ phoneme. The letter combination **qu** represents [k]*queso* 'cheese'; **c** represents [θ] before front vowels **i** and **e**, e.g.*cine* 'cinema,'*cero* 'zero' but [k] elsewhere:*calle* 'street.'

Vowel spellings in Spanish are very straightforward with effectively no complications.

Connected speech

Word stress in Spanish operates on a basic rule system whereby stress falls regularly on the penultimate syllable if the word ends in a vowel, **n** or **s**, e.g.*ven*ˈ*tana*, 'window,' ˈ*manos* 'hands,' ˈ*cantan* 'they sing.' Words ending in a consonant (other than **n** or **s**) are stressed on the final syllable, e.g.*ani*ˈ*mal* 'animal,'*co*ˈ*ñac* 'brandy,'*ha*ˈ*blar* 'to speak,' etc. All of the fairly large number of words which are exceptions to these rules have stress indicated by an accent placed over the stressed syllable, e.g.*volcán* 'volcano,'*cámara* 'room,'*compás* 'compass,'*difícil* 'difficult.' Note that word stress is significant in Spanish and can change the meaning of words:*término* (noun) 'end,'*termino* 'I finish,'*terminó* 'he finished.'

There is no reduction of unstressed syllables to a fully central vowel. Rhythm is essentially syllable-timed, each syllable giving the impression of having roughly equal duration. English speakers accustomed to the stress-timing of their own language have to try to give every syllable in Spanish full value.

In Spanish, there is no clear separation of syllables across word boundaries. ‘All the words seem to run into each other’ is one of the commonest complaints of students attempting to acquire the language – and this feature is indeed one of the major listening comprehension problem areas for the non-native learner.

Further information

Mott (2011) contains much contrastive information on Spanish and English pronunciation.

French 🎧 recording B7.2

Model

Europe has perhaps as many as 70 million native speakers of French (over 60 million in France, well over four million in Belgium, and two million in Switzerland). In addition, there are approximately seven million Canadian native speakers. There are also large numbers of second-language speakers, most especially in vast areas of West and Central Africa, where French is the official language.

Although France has many regional accents, only one variety of the language is normally chosen as a model for foreign learners. This is the educated standard variety of Paris and the north, which has no commonly used special name, but has been termed *français neutre* (Lerond 1980).

French consonant system

p	*pas*	'step'	/pa/
b	*bas*	'stockings'	/ba/
t	*tôt*	'early'	/to/
d	*dos*	'back'(n.)	/do/
k	*quand*	'when'	/kɑ̃/
g	*gant*	'glove'	/gɑ̃/
f	*fer*	'iron'	/fɛr/
v	*verre*	'glass'	/vɛr/
s	*celle*	'saddle'	/sɛl/
z	*zèle*	'zeal'	/zɛl/

ʃ	*choux*	‘cabbage’	/ʃu/
ʒ	*joue*	‘cheek’	/ʒu/
m	*mont*	‘mountain’	/mɔ̃/
n	*non*	‘no’	/nɔ̃/
ŋ	*camping*	‘camping’	/kɑ̃piŋ/[1]
ɲ	*cygne*	‘swan’	/siɲ/
l	*lire*	‘to read’	/lir/
r	*rire*	‘to laugh’	/rir/
w	*oui*	‘yes’	/wi/
j	*yeux*	‘eyes’	/jø/
ɥ	*huile*	‘oil’	/ɥil/

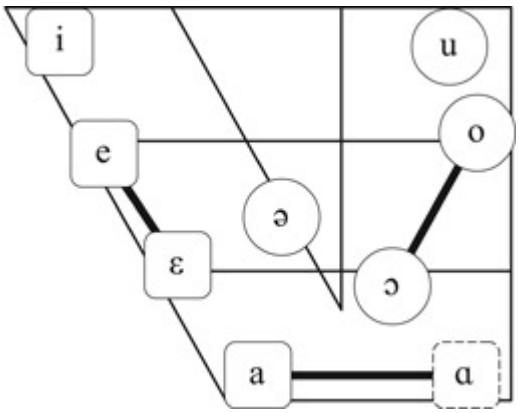


Figure B7.3 Basic French vowels. The lines joining pairs of vowels indicate close phonological relationships

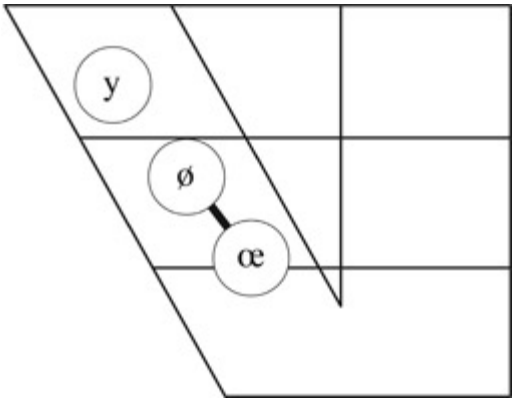


Figure B7.4 French front rounded vowels. The line indicates a close phonological relationship

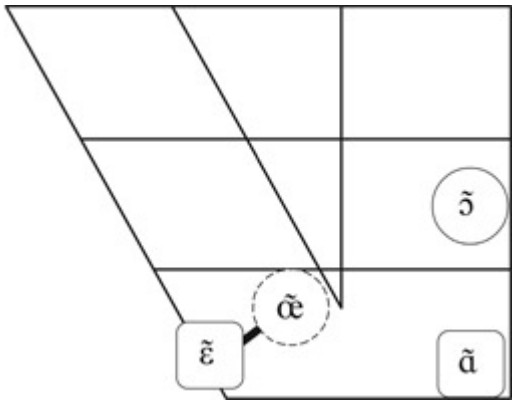


Figure B7.5 French nasalised vowels. The line indicates a close phonological relationship

French vowel system

i	*vie*	'life'	/vi/
e	*fée*	'fairy'	/fe/
ɛ	*crème*	'cream'	/krɛm/
a	*patte*	'paw'	/pat/
ɔ	*homme*	'man'	/ɔm/
o	*eau*	'water'	/o/
u	*cou*	'neck'	/ku/
ə	*me*	'me'	/mə/
y	*rue*	'street'	/ry/
ø	*peu*	'little'	/pø/
œ	*bœuf*	'beef'	/bœf/
ɛ̃	*bain*	'bath'	/bɛ̃/
ɑ̃	*temps*	'time'	/tɑ̃/
ɔ̃	*pont*	'bridge'	/pɔ̃/

The bands in the vowel diagram indicate vowels where there is a close relationship of some kind. The vowels /ɛ/ and /ɔ/ occur in closed syllables, whereas /e/ and /o/ are found mostly in open syllables. Some speakers, mainly of the older generation, have an additional nasalised vowel /œ̃/, as in *un, brun* /œ̃ brœ̃/. Others (especially older Parisians) make a distinction between two open vowels /a/ and /ɑ/ as in *patte* 'paw' and *pâte* 'paste.' Neither of these extra contrasts is nowadays heard in the French of younger speakers of the standard language.

Description of consonants

While there is much overall similarity in the consonant systems of French and English, there are also some notable differences. Unlike English /p t k/, French voiceless plosives are unaspirated and never glottalised. Getting rid of aspiration and glottalisation (see pp. 65–7) is one of the most important problems the English-speaking learner has to face. Unlike GB, French /r/ is typically sounded in all contexts; it is a totally different articulation from its English counterpart, being realised as a back tongue uvular approximant [ʁ]. English post-alveolar /r/ is completely unacceptable if transferred to French. If you want to sound even remotely authentic in French, uvular [ʁ] is the one essential consonant to master.

French /l/ is invariably clear – there is no dark *l* as in GB and most types of English (modern English vocalised dark *l* may sound like a back vowel to French ears). Note that final **m** and **n** are not true consonants, but normally merely indicate that the preceding vowel is nasalised (see below). The palatal nasal /ɲ/ in *cygne* 'swan' and *agneau* 'lamb' can nowadays safely be replaced by /nj/.

Description of vowels

All French vowels can vary in duration, for instance being longer in open syllables, but this vowel length is phonemically insignificant. Vowels are all steady-state, not diphthongs, and it is important not to diphthongise vowels such as /o/ in *beau* 'beautiful' and /e/ in *fée* 'fairy.' Two crucial features of the French sound system which you have to master are (1) front rounded vowels and (2) nasalised vowels.

(1) Front rounded vowels are made with the front of the tongue raised but with rounded lips (see Section A7). They include /y/ as in *tu* 'you' (similar to a lip-rounded [i] vowel), and /ø/ in *peu* 'little' (similar to a lip-rounded [e]); a third vowel /œ/ (similar to a lip-rounded [ɛ]) occurs in closed syllables, e.g.*neuf* 'nine' /nœf/.

The vowel /y/, always spelt **u**, must be kept distinct from /u/, always spelt **ou** as in *tout* 'all.' There are many pairs where the meaning is dependent on this contrast. Make sure that French /u/ is a true back vowel (lots of young GB speakers produce a central vowel for English /uː/). Many English speakers hear the vowels in *peu* and *neuf* in terms of the vowel in VOWEL in NURSE. However, the French vowels are strongly lip-rounded and this rounding must be imitated. Check by looking in a mirror.

(2) There are three nasalised vowels in French, namely /ɛ̃/, as in *vin* 'wine' (similar to a nasalised English /æ/), /ɑ̃/, as in *banc* 'bench' (similar to a nasalised English /ɑː/), and /ɔ̃/ as in *bon* 'good' (similar to a fully rounded nasalised English /ɔː/). Note that it is essential to distinguish the vowels /ɑ̃/ and /ɔ̃/ (most English people don't!). On the other hand, the old /ɛ̃/ – /œ̃/ contrast, still taught in most British schools (when pronunciation *is* taught), is superfluous. As mentioned above, the vowel /œ̃/ is extinct in most standard modern French, having effectively been replaced by /ɛ̃/, e.g. /brɛ̃/*brun*, 'brown,' /lɛ̃di/*lundi* 'Monday.' Note that many younger speakers use an open central vowel in between the two.

Nasalised vowels are indicated in the spelling by syllable-final **n** or **m**. These orthographic consonants are not themselves sounded, which means, for example, that *conte* 'tale' and *compte* 'account, charge' sound exactly the same: /kɔ̃t/.

Spelling

The French spelling system is archaic and full of confusing complexities, but some useful generalisations can be made. 'Silent consonants' abound; to give just a few examples:*heure* 'hour,' *nez* 'nose,' *tabac* 'tobacco,' *banc* 'bench,' *sirop* 'syrup,' *sot* 'stupid,' *respect* 'respect,' *frais* 'cold,' *tard* 'late.' A number of words show variation:*aout* 'August' may be pronounced /ut/ or /u/;*tous* 'all' can be /tu/ or /tus/.

Silent consonants, especially in the commonest words, often return in connected speech as liaison forms. Compare:

vous /vu/ 'you'	*vous avez* /vuz ave/ 'you have'
vingt /vɛ̃/ 'twenty'	*vingt-et-un* /vɛ̃t e ɛ̃/ 'twenty-one'

Orthographic **e** (without any accent) is silent when word-final (e.g.*huile* 'oil' /ɥil/), and often when word-medial; see below.

There are frequently numerous ways of indicating the same sound. For instance, the words *tan* 'tan,' *taon* 'horsefly,' *tant* 'so much,' *tend* 'stretch,' *temps* 'time, weather' are homophones, all pronounced identically as /tã/, despite the different spellings.

Note that two of the orthographic accents of French are in phonetic terms largely superfluous. The circumflex (ˆ) no longer serves its original purpose of indicating vowel length, and in reality there is no longer any consistent difference between **è** (*accent grave*) and **é** (*accent aigu* or 'acute'). However, the presence of an accent on **e** still has a very important function: **é** indicates that the vowel is fully sounded and not reduced to [ə] or elided, cf.*ménage* /mɛnaʒ/ 'household' and *menace* /m(ə)nas/ 'threat.'

Note that on other vowels a grave accent serves only to distinguish words which would otherwise be spelt identically (e.g.*ou* 'or' vs.*où* 'where'), and has no phonetic function.

Connected speech inline image 🎧 recordings B7.3 and B7.4

Like Spanish, French has no clear separation of syllables across word boundaries. Learners usually find the effect of 'words running into each other' to be the most difficult aspect of listening comprehension, while liaison processes (see above) add further complications.

Stress is not essential to the phonological structure of the word in French. This makes French very different from English (or indeed most European languages) where the correct placement of stress is crucial for the recognition of polysyllabic words. See also Section B3.

In French, stress is predictable, falling on the final syllable of any word or phrase if pronounced in isolation, or on the final syllable of each intonation group in connected speech. (English-speaking learners of French are usually totally unaware of this important basic principle.) For example: 🎧 ***Recording B7.3***

é'tat |	'state'
les Etats-U'nis |	'the United States'
Je voudrais par'tir | *pour les Etats-U'nis* | *de'main.*| 'e'd like to go to the United States tomorrow'.	

Furthermore, French is syllable-timed, which implies that one needs to pronounce all syllables with roughly equal force and length. An important extra complication – especially in terms of listening comprehension – is that syllables spelt with unaccented **e** (1) reduce to /ə/ and (2) are almost invariably elided, so producing sequences of two consonants, e.g.*demi* 'half' /dəmi/ → /dmi/,*petit* 'small' /pəti/ → /pti/,*boulevard* /buləvar/ → /bulvar/. (🎧 ***RecordingB7.4***)

Note, however, that spoken French avoids sequences of three consonants, and where these could potentially exist, orthographic **e** is sounded as /ə/, e.g.*carte bancaire* ‘bank card’ /kartə bɑ̃kɛr/. If no **e** occurs in the spelling, an epenthetic /ə/ may be inserted, e.g.*un film fantastique* ‘a fantasy film’ /ɛ̃ filmə fɑ̃tastik/.

Further information

A useful brief summary is Fougeron and Smith (1999). More detail is to be found in Tranel (1987). A reliable French pronunciation dictionary is the Larousse *Diction-naire de la prononciation* (Lerond 1980).

Italian 🎧 Recordings B7.5 and B7.6

Model

Italian is spoken throughout Italy and is one of Switzerland's official languages.[2] Although there are many local accents and dialects, what is regarded as the standard language – and a model for non-native learners – is based on a geographically central variety (including the city of Rome) but lacking marked regional features. This accent is heard on the media and is sometimes referred to as 'RAI' /rai/ pronunciation (after the Italian national broadcasting service *Radiotelevisione Italiana*), though this latter label is to be associated more with speech training and elocution than with phonetics.

Italian consonant system 🎧 *Recording B7.5*

p	*pepe*	‘pepper’	/ˈpepe/
b	*banca*	‘bank’	/ˈbanka/ [ˈbaŋka]
t	*tavolo*	‘table’	/ˈtavolo/
d	*dove*	‘where’	/ˈdove/
k	*carne*	‘meat’	/ˈkarne/
g	*gatto*	‘cat’	/ˈgatto/
ʧ	*cena*	‘dinner’	/ˈʧena/
ʤ	*giorno*	‘day’	/ˈʤorno/
ts	*grazie*	‘thanks’	/ˈgrattsje/
dz	*mezzo*	‘half’	/ˈmɛddzo/
m	*mamma*	‘mother’	/ˈmamma/
n	*nove*	‘nine’	/ˈnɔve/
ɲ	*agnello*	‘lamb’	/aɲˈɲɛllo/
f	*figlia*	‘daughter’	/ˈfiʎʎa/
v	*valle*	‘valley’	/ˈvalle/
s	*sale*	‘salt’	/ˈsale/
z	*sbaglio*	‘mistake’	/ˈzbaʎʎo/
ʃ	*scienza*	‘science’	/ˈʃɛntsa/
ʒ	*abat-jour*	‘table lamp’	/abaˈʒur/[3]
w	*uomo*	‘man’	/ˈwɔmo/
j	*niente*	‘nothing’	/ˈnjɛnte/
r	*rosso*	‘red’	/ˈrosso/
l	*luna*	‘moon’	/ˈluna/
ʎ	*biglietto*	‘ticket’	/biʎˈʎetto/

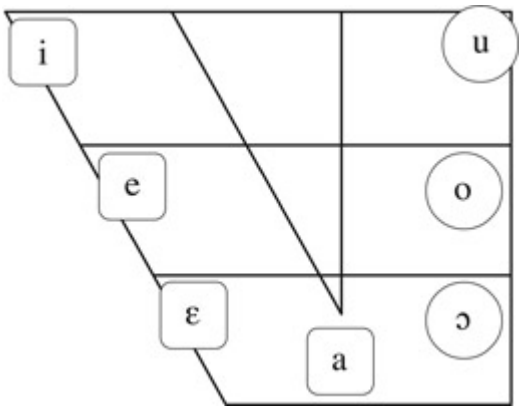


Figure B7.6 Basic Italian vowels

Italian vowel system 🎧 Recording B7.6

i	*vini*	'wines'	/ˈvini/
e	*sera*	'evening'	/ˈsera/
ɛ	*bello*	'beautiful'	/ˈbɛllo/
a	*quattro*	'four'	/ˈkwattro/
ɔ	*cuore*	'heart'	/ˈkwɔre/
o	*ovale*	'oval'	/oˈvale/
u	*uva*	'grapes'	/ˈuva/

Vowels combine to produce a number of diphthongs, the most significant of these being /ai/ and /ɛi/: giocherai /ʤokeˈrai/ 'you will play' (2nd person sing.); giocherei /ʤokeˈrɛi/ 'I would play.' Other diphthongs include /au/ as in cauto /ˈkauto/ 'cautious,' /oi/ as in voi /voi/ 'you' (pl.), and /ɔi/ as in *poi* /pɔi/ 'then.'

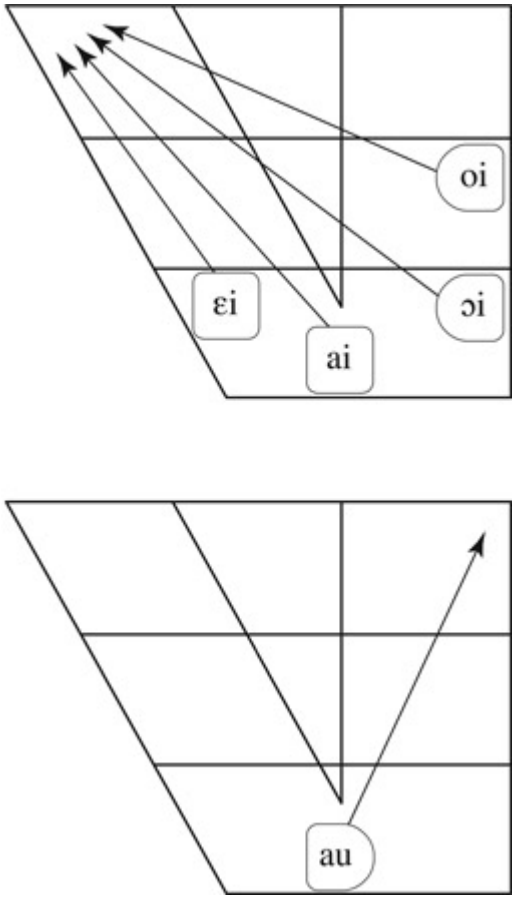


Figure B7.7 Frequent Italian diphthongs

Description of consonants

Most of the Italian consonants have counterparts in English, although often with considerable phonetic differences. See below for the significance of consonant doubling and spelling conventions.

Consonant doubling

All consonants, except /z ʒ j w/, can be 'doubled' – an effect which in Italian is termed *raddoppiamento*. Doubling a consonant not only lengthens the consonant itself but also shortens the preceding vowel. These effects can at first be difficult for the beginner to hear and might therefore be thought

unimportant – but nothing could be further from the truth! To Italians it is one of the most significant features of the language, and it can often change or blur the meaning in a pair of words, e.g.*nono* ‘ninth’ /ˈnɔno/ vs.*nonno* ‘grandfather’ /ˈnɔnno/. Other examples (with a different mid-vowel) are:*sete* ‘thirst’ /ˈsete/ vs.*sette* ‘seven’ /ˈsɛtte/ and *velo* ‘veil’ /ˈvelo/ vs.*vello* ‘fleece’ /ˈvɛllo/. Note that *raddoppiamento* is not only indicated by a double letter but also by the spellings **sc**, **z**, **gl** and **gn**.

Start imitating Italian doubling by taking account of a similar effect in English which normally occurs across word boundaries. If you say phrases like *har**dd**isk, rou**gh**figures, ni**ces**auce, o**nen**ation*, and *fu**lll**ength*, you’ll notice that you’re not in fact articulating two separate consonants, [d d, f f, s s, n n, l l], but just a single prolonged consonant sound: [dː, fː, sː, nː, lː]. This effect is somewhat similar to Italian *raddoppiamento*. In addition to the doubling indicated in the spelling, Italian also has word-initial doubling, usually termed *raddoppiamento (fono)sintattico*, triggered by contact with certain ‘doubling’ words, as in *a te* /atˈte/ ‘to you.’ This phenomenon shows much regional variation and is in fact absent from most northern accents. If you’re aiming merely at intelligibility, it’s of little significance.

New sounds which the learner needs to master are: (1) the palatal lateral /ʎ/, as in ***agli**o* ‘garlic’ and (2) the palatal nasal /ɲ/ as in *ba**gn**o* ‘bath(room).’ These sounds can be approached by modifying English /lj/ and /nj/, as in *mi**lli**on* and *o**ni**on*. Even without modification there should be little problem with intelligibility.

Italian is rhotic (unlike GB English) and /r/ is sounded wherever indicated by spelling. Italian /r/ is typically realised as a tap although it is sometimes pronounced as a tongue-tip trill in emphatic speech:*raro* [ˈraɾo] ‘rare, infrequent.’ Doubling gives rise to pairs like *caro* [ˈkaɾo] ‘dear’ and *carro* [ˈkaro] ‘cart.’

Italian /l/ is invariably clear. You may find that Italians perceive your English dark *l* as an [u] type back vowel.

Although [ŋ] isn’t a phoneme in Italian, it functions as an allophone of /n/ in prevelar contexts, e.g.*banca* ‘bank’ /ˈbanka/ [ˈbaŋka].

Unlike English, the Italian voiceless plosives /p t k/ are unaspirated and never glottalised; the voiced plosives /b d g/ have stronger voicing. Italian /t d/ are dental rather than alveolar. When stops are affected by doubling, only the hold stage is lengthened (see p. 69 for a similar effect in English). Italian has four phoneme affricates: /ts dz ʧ ʤ/. Initial **z** is today usually pronounced as /dz/, although /ts/ is also to be heard:*zucca* /ˈdzukka/ or /ˈtsukka/ 'pumpkin.' Medial **z** can be either /ts/ or /dz/, e.g.*razza* /ˈrattsa/ 'race' and /ˈraddza/ 'ray (sea fish).' There are no reliable guidelines for such variation. Both /s/ and /z/ occur as phonemes, not dissimilar from their English counterparts; confusingly, both sounds can be spelt with the letter **s**.

Description of vowels

Like Spanish, Italian has a simple basic vowel system together with a number of diphthongs. There are seven steady-state vowels in standard Italian /i, e, ɛ, a, ɔ, o, u/; except for /a/, all the vowels have close to cardinal values. Many regional accents have only five vowels, not distinguishing the mid-vowel pairs: /e/ vs. /ɛ/ and /o/ vs. /ɔ/. Standard Italian also fluctuates between /e, ɛ/ and /o, ɔ/, even in the same word:*collega*, for instance, is according to the dictionaries /kolˈlɛga/ when it means 'colleague' and /kol ˈlega/ when it means 'it connects,' but in fact many Italians can regularly be heard to say /kolˈlɛga/ for both. In consequence, the distinction between /e, ɛ/ and /o, ɔ/ may not be of great importance for the non-native if you are aiming merely at intelligibility.

Unlike English diphthongs, which have a weaker second element, Italian diphthongs show little such effect. English learners should therefore pronounce fully the final element in words such as *ma**i*** /ma**i**/ 'never, ever,' *po**i*** /pɔ**i**/ 'then,' *vo**i*** /vo**i**/ 'you' (pl.),*de**i*** /dɛ**i**/ 'gods,' *de**i*** /de**i**/ 'some,' ***au**to* /ˈa**u** to/ 'car.' Furthermore, the first elements in diphthongs beginning with [i] or [u] are generally said as /j/ and /w/:*dieci* /ˈdjɛʧi/ 'ten,' *uomo* /ˈwɔmo/ 'man,' although in less rapid – or more emphatic – speech, /diˈɛʧi/ and /u ˈɔmo/ are also sometimes to be heard.

Unlike GB English, Italian vowel length is not phonemic and is largely predictable. As a general rule, a vowel is phonetically long when followed by a single consonant which is initial in a following syllable, e.g.*mano* [ˈmaːno] ‘hand.’ In other cases, vowels are normally short. Remember the vowel shortening effect of consonant doubling (see above).

The most important errors to tackle are: (1) avoiding diphthongal glides similar to the English vowels FACT /eɪ/ and GOAT /əʊ/, where Italian has the steady-state vowels /e ɛ/ and /o ɔ/; and (2) avoiding vowel reduction to [ə] or [ɪ] in unstressed syllables (standard Italian has no central vowels of this type).

Spelling

Italian spelling is more complex than that of Spanish, but nevertheless presents far fewer problems than the orthographic horrors of English or French.

Word-initial letter **s** may indicate either /s/ as in ***s**olo* ‘only, alone’ or, if combined with a voiced consonant, /z/, as in ***sb**aglio* /ˈzbaʎʎo/ ‘mistake,’ ***sg**uardo* /ˈzgwardo/ ‘look’ (n.), ***sm**alto* /ˈzmalto/ ‘enamel.’ In other contexts, **s** may represent either /s/ or /z/:*casa* /ˈkaza, – sa/ ‘house, home.’ There are no clear guidelines, but incorrect usage is unlikely to cause misunderstanding. The letter combination **sc** is pronounced as /ʃ/ before **e** and **i**, e.g. ***sc**endere* ‘descend,’ and as /sk/ before **a**, **o** and **u**, e.g. ***sc**arpa* ‘shoe,’ ***sc**usa* ‘excuse,’ and when letter **h** intervenes, e.g.*pe**sch**e* ‘peaches.’ Letter **z** may be either /ts/, as in *silen**z**io* /siˈlɛntsjo/ ‘silence,’ or /dz/, as in *zero* /ˈdzɛro/ ‘zero.’ Once again, there are no clear guidelines. Both pronunciations are usually found word-initially as alternatives, e.g. ***z**ia* /dzia, tsia/ ‘aunt.’

Letter **h** occurs rarely (mostly in foreign loanwords) and is not pronounced, e.g.*hotel* /oˈtɛl/ ‘hotel.’ See below for **ch** and **gh**.

Before front vowels (**e** and **i**), **c** is pronounced as /ʧ/ (similar to English /ʧ/), e.g. ***c**entrale* /ʧenˈtrale/ ‘central,’ ***c**irca* /ˈʧirka/ ‘approximately.’ Before open and back vowels (**a**, **o** and **u**), letter **c** represents /k/, e.g. ***c**orrere* ‘to

run.' The letter combination **ch** represents /k/, e.g. ***ch****iuso* 'closed,' while **qu** is used for /kw/, e.g. ***qu****attro* 'four.' Similarly, letter **g**, when preceding **e** or **i**, is pronounced /ʤ/, e.g. ***g****elato* 'ice cream,' but as /g/ before **a**, **o**, **u**, e.g. ***g****amba* 'leg' and when **h** intervenes, e.g.*spa****gh****etti*.

The spelling of Italian vowels is extremely reliable apart from letter **e** representing both /e/ and /ɛ/, and letter **o** both /o/ and /ɔ/. In the case of final stressed vowels, an acute accent is usually employed to indicate /e/, and a grave accent for /ɛ/, e.g.*finché* 'until,'*caffè* 'coffee.' However, elsewhere there are no clear guidelines on these mid vowels.

Connected speech

Similarly to Spanish, standard Italian has no clear separation of syllables across word boundaries. Except in emphatic speech, Italian makes frequent use of elision, dropping one of two adjacent identical vowels in phrases such as *cinquanta anni* [ʧiŋˌkwanˈtanni] 'fifty years.' This kind of simplification process is also to be found when non-identical vowels are involved, as in *otto e trenta* [ˌɔtteˈtrɛnta] 'half past eight.'

Stress, rhythm and intonation

Italian is similar to English in having clearly defined word stress and sentence stress. Words are mostly stressed on the penultimate syllable, but nevertheless a significant number (including many high-frequency items) are stressed elsewhere. Final stress is marked with an accent (see above) but unfortunately this is not usually used for earlier stressing.

Stress in longer Italian words is somewhat tricky. Words like *salubre* 'healthy,' for instance, tend to fluctuate between stress on the penultimate syllable /saˈlubre/ and the antepenultimate /ˈsalubre/. Despite being extremely widespread, the antepenultimate pattern is often regarded as

'incorrect' by some Italian native speakers, including elocutionists and certain linguists.

Unlike English, Italian connected speech has syllable-timed rhythm (see pp. 138–9), with most syllables having roughly equal duration. In the standard language (as stated above) there is neither reduction of vowels in unstressed syllables to [ə] or [ɪ], nor are there any weak forms (see pp. 21–5). The use of such incorrect English-type vowel reductions in unstressed syllables is a frequent source of error for English-speaking learners of Italian.

However, Italian intonation does show some features similar to English. Notably, there is regularly one obviously prominent lengthened syllable in the intonation group, corresponding to the nucleus. Furthermore, certain Italian intonation tunes bear some similarity to those of English, and may have similar implications.

Further information

See Rogers and d'Arcangeli (2004) for more detailed information. Chapallaz (1979) is a very full treatment but somewhat dated.

German 🎧 Recording B7.7

Model

German has about 130 million native speakers.[4] As an official language (judicial system, legislature, government), it is used in several countries, e.g., Germany, Austria, Switzerland, Liechtenstein, Luxemburg and South Tyrol. German-speaking minorities exist in about 25 countries, e.g. Argentina, Brazil, Australia, Denmark and Israel.

The model usually chosen for non-native learners is educated German as heard from newsreaders on many German TV and radio stations. The model reflects a supra-regional pronunciation with no regional colouring; it enjoys high prestige and is frequently used and expected to be used in official situations. There are many varieties, often widely differing regionally, e.g. North German, Middle German and Southern German, each with its subdivisions.

German consonant system

p	*Punkt*	'point'	/pʊŋkt/
b	*Bild*	'picture'	/bɪlt/
t	*tot*	'dead'	/toːt/
d	*dick*	'thick'	/dɪk/
k	*Kopf*	'head'	/kɔpf/
g	*gelb*	'yellow'	/gɛlp/
pf	*Pfanne*	'pan'	/ˈpfanə/
ts	*zwei*	'two'	/tsvaɪ/

ʧ	*Deutsch*	‘German’	/dɔɪʧ/
ʤ	*Dschungel*	‘jungle’	/ˈʤʊŋəl/
f	*falsch*	‘wrong’	/falʃ/
v	*Vase*	‘vase’	/ˈvaːzə/
s	*es*	‘it’	/ɛs/
z	*Sohn*	‘son’	/zoːn/
ʃ	*Schal*	‘scarf’	/ʃaːl/
ʒ	*Genie*	‘genius’	/ʒeˈniː/
[ç]	*China*	‘China’	[ˈçiːna]
[x]	*Bach*	‘brook’	[bax]
h	*Hund*	‘dog’	/hʊnt/
l	*Leid*	‘grief’	/laɪt/
j	*ja*	‘yes’	/jaː/
r	*rot*	‘red’	/roːt/
m	*Mensch*	‘person’	/mɛnʃ/
n	*nein*	‘no’	/naɪn/
ŋ	*Ring*	‘ring’	/rɪŋ/

German vowel system

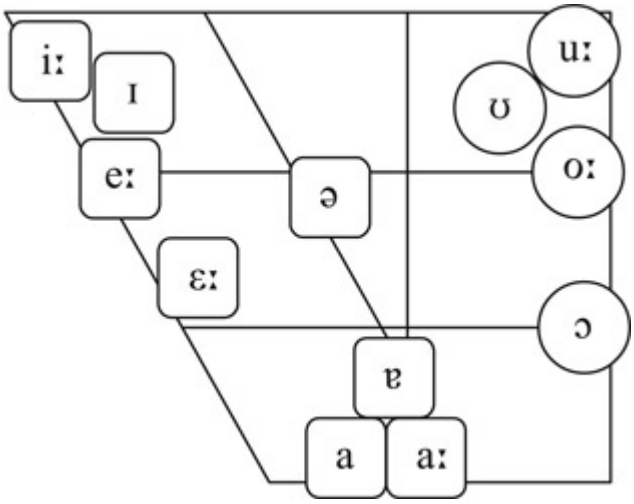


Figure B7.8 Basic German vowels

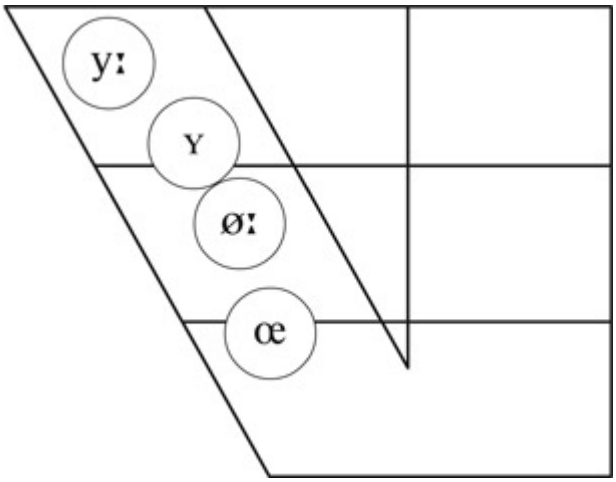


Figure B7.9 German front rounded vowels

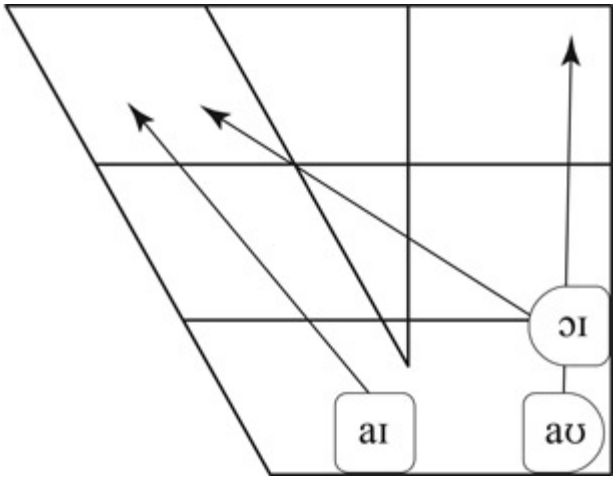


Figure B7.10 German diphthongs

German vowel system

iː	*tief*	‘deep’	/tiːf/
i	*Bitumen*	‘bitumen’	/biˈtuːmən/
ɪ	*Schiff*	‘ship’	/ʃɪf/
eː	*See*	‘sea’	/zeː/
e	*Methode*	‘method’	/meˈtoːdə/
ɛː	*Käse*	‘cheese’	/ˈkɛːzə/
ɛ̃ː	*Timbre*	‘timbre’	/ˈtɛ̃ːbrə/
ɛ	*Bett*	‘bed’	/bɛt/
aː	*Bahn*	‘track’	/baːn/
a	*Samt*	‘velvet’	/zamt/
ɑ̃ː	*Grand (Prix)*	‘Grand (Prix)’	/grɑ̃ː/
oː	*so*	‘so’	/zoː/
o	*loyal*	‘loyal’	/loˈjaːl/
ɔː	*Callboy*	‘call boy’	/ˈkɔːlbɔɪ/
ɔ̃ː	*Fond*	‘fund’	/fɔ̃ː/
ɔ	*Gott*	‘god’	/gɔt/
ɔ̃	*Fondue*	‘fondue’	/fɔ̃dyː/, /fɔnˈdyː/
uː	*Schuh*	‘shoe’	/ʃuː/
u	*publik*	‘public’	/puˈbliːk/
ʊ	*Bund*	‘union’	/bʊnt/
ə	*Geschichte*	‘history’	[gəˈʃɪçtə]
ɐ	*Fischer*	‘fisherman’	/ˈfɪʃər/ [ˈfɪʃɐ]
y	*Hypothek*	‘mortgage’	/hypoˈteːk/
yː	*grün*	‘green’	/gryːn/

ʏ	*fünf*	‘five’	/fʏnf/
øː	*schön*	‘beautiful’	/ʃøːn/
ø	*Ökonom*	‘economist’	/økoˈnoːm/
œ	*zwölf*	‘twelve’	/tsvœlf/
aɪ	*Teil*	‘part’	/taɪl/
aʊ	*Raum*	‘room’	/raʊm/
ɛɪ	*Catering*	‘catering’	/ˈkɛɪtərɪŋ/
ɔɪ	*neun*	‘nine’	/nɔɪn/
ɔʊ	*Download*	‘download’	/ˈdaʊnlɔʊt/
ʊɪ	*hui*	‘wow’	/hʊɪ/

Description of consonants

German /r/ is a back (velar to uvular) approximant. However, unlike French, syllable-final **r** is normally unsounded, but note that the orthographic final **r** does have an effect on the length or quality of the preceding vowel. In word-final position (e.g.*Vater* ‘father’ [ˈfaːtɐ]) as well as in syllable-final position after long vowels (e.g.*Lehrling* ‘apprentice’ [ˈleːɐlɪŋ]), it is normally realised as [ɐ]. German /l/ is clear in all contexts, and as a result, many varieties of English dark *l* might sound vowel-like to German ears. One of the most difficult consonants is the phoneme /x/. It has two main places of articulation, palatal [ç], as in *nicht* ‘not,’ *weich* ‘soft,’ *Kelch* ‘chalice’ or *Mönch* ‘monk,’ and the velar [x] as in *hoch* ‘high’ or *Dach* ‘roof.’ Both are spelt **ch**; they are allophones occurring virtually in complementary distribution, [ç] usually appearing after front vowels and also after certain consonants, and [x] elsewhere. But there are exceptions. Note that orthographic **s** is pronounced /z/ when followed by a vowel, as in *Seite* /ˈzaɪtə/ ‘page,’ and is said as /ʃ/ when it occurs before /p t/, e.g.*Sprache* ‘language’ /ˈʃpraːxə/,*Stadt* ‘city’ /ʃtat/. Orthographic **z** is an affricate /ts/, e.g.*Zeit* /tsaɪt/ ‘time.’

Description of vowels

German has a large number of vowels – similar to the English vowel system. Besides the core vowels in native German words, there is an additional, peripheral stock of mainly English and French loans which have not been completely Germanised, e.g.*C<u>a</u>llboy* /ˈkɔːlbɔɪ /, *C<u>a</u>tering* /ˈkɛɪtərɪŋ/, *W<u>or</u>k-out* /ˈvœːɐkaʊt/, *Code* /kɔʊt/,*T<u>im</u>bre* /ˈtɛ̃ːbrə/, *Ch<u>an</u>s<u>on</u>* /ʃãːˈsõː/. Vowel length is important in German, which has a checked/free contrast similar to English. The greatest problems for most students are the front rounded vowels, two long and two short: /yː ʏ øː œ/, virtually all of which are indicated in the spelling by an *umlaut*, e.g.*grün* 'green' /gryːn/,*hübsch* 'pretty' /hʏpʃ/,*schön* 'beautiful' /ʃøːn/,*zwölf* 'twelve' /tsvœlf/. Vowels /eː oː/, e.g.*zehn* 'ten,'*so* 'so' are steady-state. The close vowels /iː uː/ (e.g.*tief* 'deep' /tiːf/ and *Schuh* /ʃuː/ 'shoe') are peripheral and not diphthongised. /ə/ has a more open allophone (represented phonetically as [ɐ]), particularly in unstressed syllables before syllable-final **r**; see 'Description of consonants' section.

Spelling

Although not as consistent as that of Spanish, German orthography is much more reliable than that of English or French, with a good correspondence between sound and spelling. It is important to absorb the rules for vowel length; the most significant are perhaps that long vowels are shown with double vowel letters or **h**, e.g.*Saal* /zaːl/ 'hall,' *Wahl* /vaːl/ 'choice,' and short vowels are often followed by double consonant letters, e.g.*dann* /dan/ 'then.' Even so, there are exceptions.

The phoneme /k/ is a case in point. It can be spelt in various ways: **c***Clown* 'clown,' **cc***Broccoli* 'broccoli,' **cch***Zucchini* 'courgette,' **ch***Ochse* 'ox,' **ck***Hecke* 'hedge,' **g***Königreich* 'kingdom,' **gg***joggt* 'jogs,' **k***kalt* 'cold,' **kk***Akkord* 'chord,' **qu***Boutique* 'boutique.'

Connected speech

Unlike Spanish and French, Standard German has clear word separation, and stressed initial vowels are typically preceded by a glottal stop [ʔ], e.g.*einundachtzig* 'eighty-one' [ˈʔaɪnʊntˈʔaxtsɪç] (also [ˈʔaɪnʊntaxtsɪç]),*Beamter* 'civil servant' [bəˈʔamtɐ]. This is totally different from English, where a word-final consonant tends to be connected to a following word starting with a vowel, e.g.*an apple* [ən ‿ æpl̩]. In German *ein Apfel* 'an apple' is not pronounced as *ei Napfel* */aɪ ˈnapfl/. Linking *r* and intrusive *r* are not used in German, e.g.*aber ich* 'but me' is not pronounced as *abe rich* */aːbə ˈrɪç/ and *sah enttäuscht aus* 'looked disappointed' is not said as */ˈsaː rənˈtɔɪʃt aʊs/.

Word stress

Stress assignment in German polysyllabic words is as unpredictable as it is in English. In unstressed syllables containing the letter **e**, there is considerable vowel reduction to /ə/, and unstressed **er** is reduced to [ɐ] (see p. 198). Polysyllabic loanwords often have a stress pattern different from their English originals, e.g.*Buckingham* ˈ*Palace* becomes ˈ*Buckingham Palace* and *Stone*ˈ*henge* is stressed ˈ*Stonehenge* in German. The prefix **un-** is usually unstressed in English, e.g.*un*ˈ*friendly*,*un*ˈ*tidy*; in their German equivalents, the main stress falls on the first syllable – ˈ*unfreundlich*, ˈ*unordentlich*. Like English, but unlike French, German is stressed-timed, i.e. the rhythm is essentially based on fairly regular intervals between stresses.

Further information

Kohler (1999) provides an excellent brief description. More detailed information is to be found in Hall (2003). Reliable German pronunciation

dictionaries are *Duden Das Aussprachewörterbuch* (2015) and *Deutsches Aussprachewörterbuch* (2010).

Polish 🎧 Recording B7.8

Model

Polish is spoken by almost forty million Poles in Poland and by perhaps as many as five million people of Polish descent elsewhere. The standard variety, as described here, is the norm in the media and education.

Polish consonant system

p	*papuga*	‘parrot’	/paˈpuga/
b	*babka*	‘grandmother’	/ˈbapka/
t	*tak*	‘yes’	/tak/
d	*dobry*	‘good’	/ˈdɔbrɨ/
c	*kiedy*	‘when’	/ˈcɛdɨ/
ɟ	*ogień*	‘fire’	/ˈɔɟɛɲ/
k	*kubek*	‘mug’	/ˈkubɛk/
ɡ	*guzik*	‘button’	/ˈguʑik/
ts	*co*	‘what’	/tsɔ/
dz	*dzbanek*	‘jug’	/ˈdzbanɛk/
ʧ	*czas*	‘time’	/ʧas/
ʤ	*dzdżownica*	‘worm’	/ʤdʒɔvˈɲitsa/
tɕ	*ciocia*	‘aunt’	/ˈtɕɔtɕa/
dʑ	*dziadzio*	‘grandad’	/ˈdʑadʑɔ/
m	*mimo*	‘despite’	/ˈmimɔ/
n	*noc*	‘night’	/nɔts/

ɲ	*niania*	‘nanny’	/ˈɲaɲa/
[ŋ]	*re˛ka*	‘hand’	[ˈrɛŋka]
f	*futro*	‘fur’	/ˈfutrɔ/
v	*wiatr*	‘wind’	/vjatr/
s	*sól*	‘salt’	/sul/
z	*za˛b*	‘tooth’	/zɔmp/
ʃ	*szyja*	‘neck’	/ˈʃɨja/
ʒ	*rzeka*	‘river’	/ˈʒɛka/
ɕ	*siostra*	‘sister’	/ˈɕɔstra/
ʑ	*zima*	‘winter’	/ˈʑima/
x	*chleb*	‘bread’	/xlɛp/
w	*lamal*	‘he broke’	/ˈwamaw/
j	*jajko*	‘egg’	/ˈjajkɔ/
r	*rura*	‘pipe’	/ˈrura/
l	*lalka*	‘doll’	/ˈlalka/

In pre-velar contexts, [ŋ] functions as an allophone of /n/, e.g.*tango* ‘tango’ [ˈtaŋgɔ],*kaszanka* ‘black pudding’ [kaˈʃaŋka]. Note that [ŋ] also occurs in words containing the letter **ę** or **ą**, e.g.*potęga* ‘power’ [pɔˈtɛŋga],*mąka* ‘flour’ [ˈmɔŋka].

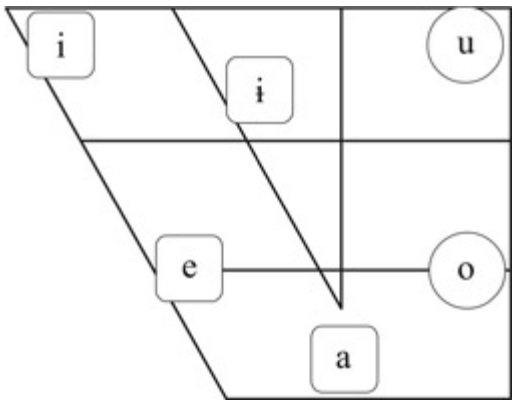


Figure B7.11 Basic Polish vowels

Polish vowel system

Oral vowels

i	*lis´c*	‘leaf’	/liɕtɕ/
ɨ	*mysz*	‘mouse’	/mɨʃ/
ɛ	*krew*	‘blood’	/krɛf/
a	*lato*	‘summer’	/ˈlatɔ/
ɔ	*kot*	‘cat’	/kɔt/
u	*chmura*	‘cloud’	/ˈxmura/

Nasalised vowels

ɛ̃	*gęś*	‘goose’	/gɛ̃ɕ/
ɔ̃	*mąż*	‘husband’	/mɔ̃ʃ/

The oral vowels can be followed by glides towards [i] or [u]. The final element is normally represented phonemically by /j/ or /w/ respectively, e.g.*kij* ‘stick’ /kij/,*pił* ‘he drank’ /piw/,*mój* ‘my’ /muj/,*daj* ‘give!’ /daj/,*dał* ‘he gave’ /daw/.

Description of consonants

Let’s start with the most complex sounds. Learners from virtually all language backgrounds experience difficulty distinguishing the Polish palato-alveolars /ʃ ʒ ʧ ʤ/ and alveolo-palatals /ɕ ʑ tɕ dʑ/. English speakers initially perceive both sets as sounding like the English palato-alveolars /ʃ ʒ ʧ ʤ/. Therefore, it’s crucial to realise that in Polish the palato-alveolars and the alveolo-palatals are distinct phonemes. There are countless minimal pairs,

e.g.*wiesz* ‘you know’ /vjɛʃ/ vs.*wieś* ‘village’ /vjɛɕ/,*miecz* ‘sword’ /mjɛʧ/ vs.*mieć* ‘to have’ /mjɛtɕ/.

For the palato-alveolars /ʃ ʒ ʧ ʤ/, start from English [ʃ ʒ], maintaining the rounded protruding lip shape (see p. 41). Keep the blade of the tongue close to the alveolar ridge, and the front of the tongue away from the hard palate. The alveolo-palatals /ɕ ʑ tɕ dʑ/ can also be formed from the English [ʃ ʒ]. Modify the articulation by: (1) unrounding and spreading the lips, and (2) raising the body of the tongue close to the hard palate. Note that the friction of the palato-alveolars is graver than the relatively sharp friction of the alveolo-palatals.

For the palatal plosives /c ɟ/, start from the English sequences /kj/ and /gj/ (as in *cute* /kjuːt/ and *argue* /ɑːgjuː/). The same place of articulation is used for /ɲ/. Start from the /nj/ in *onion*. When articulating any of these palatal sounds, remember to hold the tip of the tongue down behind the lower front teeth. In the flow of speech, Polish /r/ is usually realised as a single tap [ɾ] rather than a trill (see pp. 50–1). Polish /l/ is invariably clear; unlike English, there is no dark *l* (see pp. 112–3).

The remaining consonants should cause relatively few problems, but remember that, unlike English (see pp. 65–7), the Polish voiceless plosives are unaspirated and never glottalised. Voiced obstruents are fully voiced.

As in German, word-finally Polish obstruents /b d g v z ʒ ʑ dz ʤ dʑ/ are replaced by their voiceless counterparts /p t k f s ʃ ɕ ts ʧ tɕ/. As a result of leading voice assimilation, medial voiced obstruents are devoiced preceding an adjacent voiceless obstruent, e.g.*ryba* ‘fish’ /ˈrɨba/ becomes *rybka* ‘fish (diminutive)’ /ˈrɨpka/.

Description of vowels

Like Spanish and Italian, Polish has an economical basic vowel system. It consists of six short steady-state vowels (note there are no long vowels). Polish lacks [ə], and English speakers must avoid vowel reduction to [ə] in unstressed syllables. Four Polish vowels /i ɛ ɔ u/ are very similar to cardinal

vowels (see p. 84). English GB speakers need to use a fully back vowel for /u/, and avoid making /i/ and /u/ either long or diphthongal. The DRESS vowel will serve for Polish /ɛ/, while Polish /ɔ/ is similar to a short open version of the THOUGHT vowel. The open central Polish /a/ is about halfway between TRAP and PALM. Polish /ɨ/ is somewhat more difficult to acquire, being about halfway between [ə] and KIT. It is similar to the English allophone of KIT before dark *l*, as in *ill*.

The nasalised vowels occur only before fricatives, e.g.*rzęsa* 'eyelash' /ˈʒɛ̃sa/,*wąz* 'snake' /vɔ̃ʃ/ and, in the case of /ɔ̃/, in word-final position, e.g.*s ą* 'they are' /sɔ̃/. These vowels have both steady-state [ɛ̃, ɔ̃] and diphthongal [ɛ̃ũ, ɔ̃ũ] allophones. The diphthongs are used for the names of the letters **ę** and **ą**, and for /ɔ̃/ when final; in other contexts, usage varies.

Spelling

Whilst it may seem somewhat forbidding at first, Polish orthography is actually very consistent. A phoneme can sometimes be represented by different letters (or letter combinations), but any particular letter (or letter combination) can represent only one sound. So there's no difficulty in working out the pronunciation of an unknown word from its spelling – but it's not possible to deduce the spelling from a word's pronunciation. Consequently, quite a few Poles make spelling errors – even with familiar words. (Since non-natives usually begin learning through the written medium, they have no such difficulties.)

The following phonemes are spelt very much as might be expected.

- ❑ **i e a o** = vowels /i ɛ a ɔ/; note that y represents /ɨ/ q
- ❑ **p b t d k g** = plosives /p b t d k g/
- ❑ **f s z** = fricatives /f s z/
- ❑ **m n l r** = nasals, lateral and tap *r* /m n l r/

More unexpectedly: **w** = /v/ whilst **ł** = /w/; orthographic **ki gi c dz cz dż** represent the phonemes /c ɟ ts dz ʧ ʤ/. Three phonemes /x ʒ u/ can be represented by two different spellings:

- **h** or **ch** = /x/ (e.g.*herbata* 'tea' /xɛrˈbata/,*chata* 'cottage' /ˈxata/)
- q **ż** or **rz** = /ʒ/ (e.g.*może* 'maybe' /ˈmɔʒɛ/,*morze* /ˈmɔʒɛ/ 'sea')
- **u** or **ó** = /u/ (e.g.*but* 'shoe' /but/,*ból* 'pain' /bul/)

Palatal approximant /j/ is generally spelt **j**, e.g.*jak* 'how' /jak/,*klej* 'glue' /klɛj/. But note that it is represented by **i** after **p b f w** if preceding a vowel, e.g.*pięta* 'heel' /ˈpjɛnta/,*kwiat* 'flower' /kfjat/. The phonemes /ɕ ʑ tɕ dʑ ɲ/ are written **si zi ci dzi ni** before a vowel but as **ś ź ć dź ń** both before a consonant and at the end of a word. The nasalised vowels only occur before fricatives; in other contexts, the letters **ę** and **ą** represent /ɛ/ and /ɔ/ plus the nasal consonant that is homorganic with the following stop (e.g.*d ąb* 'oak' /dɔmp/,*r ęce* 'hands' /ˈrɛntsɛ/,*piękny* 'beautiful' /ˈpjeŋknɨ/). Word-finally, **ę** represents non-nasalised /ɛ/. Note that the letters **q v x** are not used in native Polish words.

Syllable structure

Polish syllables can have initial and final clusters of up to four consonants, e.g.*mnie* 'me' /mɲɛ/,*ssak* 'mammal' /ssak/,*ć ma* 'moth' /tɕma/,*krtań* 'larynx' /krtaɲ/,*mgła* 'fog' /mgwa/,*źdźbło* 'blade of grass' /ʑdʑbwɔ/,*pstrąg* 'trout' /pstrɔŋk/,*warstw* 'layers (gen.)' /varstf/. Many of these clusters are unfamiliar to English speakers and difficult to combine.

In contrast with English, where an epenthetic plosive may be inserted in nasal-fricative consonant sequences (see p. 126), in Polish the nasal consonant is elided and the preceding vowel is nasalised e.g.*kunszt* 'craftmanship' [kũʃt],*szansa* 'chance' [ˈʃãsa].

Connected speech (stress and rhythm)

Polish word stress (with few exceptions) falls on the penultimate syllable, as can be seen from the examples already cited. The Polish preference for penultimate stress is also evident from the pronunciation of certain constructions where stress falls on the first of two monosyllabic words. This occurs:

- when the word *nie* 'not' /ɲɛ/ is used with a verb of one syllable (e.g.*nie wiem* 'I do not know' /ˈɲɛ vjɛm/,*nie masz* 'you do not have' /ˈɲɛ maʃ/);
- when a monosyllabic preposition is used with a monosyllabic pronoun (e.g.*do niej* 'to her' /ˈdɔ ɲɛj/,*o tym* 'about it' /ˈɔ tɨm/,*o czym?* 'about what?' /ˈɔ ʧɨm/);
- in certain frequently used phrases (e.g.*na czczo* 'on an empty stomach' /ˈna ʧʧɔ/,*na wsi* 'in the country' /ˈna fɕi/,*na dół* 'downstairs' /ˈna duw/).

Although there is some controversy over whether Polish can truly be considered a syllable-timed language, its rhythm is clearly very different from the obvious stress-timing of English. Polish vowels in unstressed syllables have little variation in length (they're always short). Unlike English, there is little obvious centralisation and no reduction to [ə]; see pp. 130–1.

Further information

Jassem (2003) provides an authoritative brief description of the Polish sound system.

Japanese 🎧 recording B7.9

Model

Japanese is spoken by about 120 million native speakers in Japan and by minorities in Hawaii and parts of South America.[5] An appropriate model for foreigners is the educated Tokyo accent.

Japanese consonant system

The examples of vowels and consonants below are shown both in the Japanese Hepburn romanisation system and also in *kanji* characters (see below).

p	*ippan* (一般)	'general'	/ippaN/
b	*bamen* (場面)	'scene'	/bámeN/
t	*takara* (宝)	'treasure'	/takará/
d	*dan* (段)	'step'	/dáN/
k	*kin* (金)	'gold'	/kíN/
g	*gin* (銀)	'silver'	/gíN/
ʦ	*tsuki* (月)	'moon'	/tˢukí/
m	*mazu* (まず)	'first'	/mázu/
n	*na* (名)	'name'	/na/
N	*tenki* (天気)	'weather'	/téNki/
r	*riku* (陸)	'land'	/riku/
s	*sakura* (桜)	'cherry'	/sakura/

z	*zen* (善)	‘goodness’	/zéɴ/
h	*haiku* (俳句)	‘haiku’	/haiku/
j	*yama* (山)	‘mountain’	/jamá/
w	*wakai* (若い)	‘young’	/wakái/

Japanese vowel system

Japanese vowel system			
i	*iki* (息)	‘breath’	/íki/
e	*eki* (駅)	‘station’	/éki/
a	*aki* (秋)	‘autumn’	/áki/
o	*oki* (沖)	‘offshore’	/oki/
u	*uki* (雨季)	‘rainy season’	/úki/

Some common vowel sequences

Some common vowel sequences			
ai	*mai* (舞)	‘dancing’	/mai/
ei	*rei* (礼)	‘bow, gratitude’	/rei/
au	*mau* (舞う)	‘dance’	/mau/
ae	*mae* (前)	‘front’	/máe/
ui	*sui* (酸い)	‘sour’	/súi/

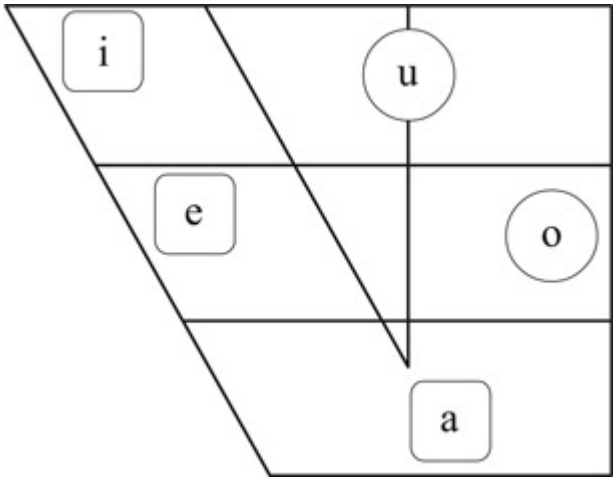


Figure B7.12 Basic Japanese vowels

Description of consonants

Certain Japanese consonants have counterparts in English, although often with considerable phonetic differences. Other English consonants, namely /f v θ ð r l/, have no such direct counterparts in Japanese.

Before /i/, Japanese /s z/ are realised as [ɕ ʑ], e.g.*shiika* (詩歌 'poetry') /síika/ [ɕiika],*aji* (味 'taste') /azi/ [aʑi]. The Japanese /h/ is palatalised before /i/, being realised as a voiceless palatal fricative [ç] as in *hikari* (光 'light') /hikari/ [çikarí]. Before /u/, it is realised as a bilabial fricative [ɸ], and before the remaining vowels as glottal fricative [h]. However, in the past fifty years or so, it's become possible to use [ɸ] before /i a e o/ in addition to /u/.

The realisation of coda /N/ is determined by the place of articulation of the following consonant, i.e. [m] before bilabials, [n] before alveolars and [ŋ] before velars, e.g.*kenmei* (賢明 'wise') /keNmei/ [kemmei],*tennen* (天然 'nature') /teNneN/ [tennẽ],*ténki* (天気 'weather') /téNki/ [téŋki]. In an open syllable the realisation is as a nasalised vowel, e.g.*án* (案 'idea') /áN/ [áã],*ín* (印 'seal') / ÍN/ [íĩ],*ún* (運 'fortune') /úN/ [úũ].

Description of vowels

Japanese has five short vowels: /i e a o u/, as illustrated in the diagram. Japanese /u/ is a close back vowel which can be realised as either unrounded or slightly rounded, and is generally accompanied by lip compression. An unusual feature of Japanese is that the close vowels, /i/ and /u/, are devoiced and often elided when they occur between voiceless consonants, or in unaccented syllable-final position following a voiceless consonant, e.g.*kishi* (岸 'shore') /kisí/ [cị̥ɕi, cɕi],*kushi* (櫛 'comb') /kusí/ [kụ̥ɕi, kɕi].

Japanese has no true diphthongs or long vowels. Native-speaker intuition determines that what may sound like diphthongs and long vowels to English (or non-Japanese) ears are treated phonologically as vowel sequences. A vowel sequence consisting of two different vowels will sound somewhat like a diphthong; a double identical vowel sequence sounds like a long vowel.

All vowels can enter into vowel sequences in Japanese. With sequences of different vowels, those with a rising tongue movement similar to a closing diphthong, e.g.*saiwai* (幸い 'happiness') /saiwai/ [saiwai], are much more frequent than those with a lowering tongue movement similar to opening diphthongs, e.g.*shiawase* (幸せ 'happiness') /siawase/ [ɕiawase]. The double identical vowel sequences are all about equally common, e.g.*haaku* (把握 'grasp') /haaku/ [haaku],*ii* いい 'good') /íi/ [ii], *yuu* (結う 'tie') /júu, juu/ [júu, juu],*keeki* (ケーキ 'cake') /kéeki/ [kéeci],*Ōsaka* (大阪 Osaka (place name)) /oosaka/ [oosaka].

Syllable structure

Japanese has a simple basic syllable structure of (CC)V(C), i.e. an obligatory vowel with the possibility of up to two consonants in the onset and one consonant in the coda. The second onset consonant is invariably /j/. The coda consonant is either (1) the velar/uvular mora (see below) nasal /ɴ/, or (2) a mora obstruent shown phonologically as /Q/. The mora obstruent is realised by consonant doubling, e.g.*ippai* (一杯) 'one cup' /íQpai/ [íppai]/,*sakka* (作家) 'writer' /saQka, sáQka/ [sakka, sákka].

Writing systems

Japanese is notorious for the complicated nature of its writing systems – there are no fewer than four in total! They comprise *kanji* (漢字) (derived from Chinese characters),*hiragana* (ひらがな),*katakana* (カタカナ) and romanisation. In the Japanese *kanji* system, each character can have more than one pronunciation, often with different meanings, which has led to the invention of *hiragana* and *katakana*. In both *hiragana* and *katakana*, each symbol has a fixed pronunciation representing a complete mora (so these systems are syllabic and not alphabetic).*Hiragana* is used mainly for native Japanese words, whilst *katakana* is employed for foreign words and loanwords.

Several romanisation alphabets have been devised for Japanese, but nowadays the Hepburn system – which we've employed here for the Japanese examples – is the most popular. It uses the familiar letters of the Roman alphabet, representing the mora nasal by a letter **n**, and the mora obstruent by consonant doubling, e.g.*sakka* 'writer.' A long (i.e. doubled) vowel is shown with a macron accent, e.g.*Ōsaka* 'Osaka' (place name).

Connected speech

An important aspect of Japanese phonology is the mora, which relates to the length of a syllable. In brief, the typical Japanese CV syllable (e.g.*na*) is regarded as a single mora. Syllables containing lengthening elements such as vowel sequences, long vowels, doubled consonants or coda final /N/ (e.g.*mai, yuu, sakka, dan*) contain two moras.

Japanese native speakers feel that Japanese rhythm is mora-timed, rather than syllable-timed or stress-timed, so that each mora has approximately the same duration. It becomes apparent when they recite haikus and other verse containing mora nasals, mora obstruents and long vowels. A haiku normally consists of a five-mora first line, a seven-mora second line and a five-mora third line, giving in total seventeen moras.*Kaki kueba kanega narunari*

Hōryūji (柿 食えば鐘が鳴るなり法隆寺) ‘As I eat a persimmon, I hear the bell tolling from Horyuji temple’ is a haiku by the renowned poet Shiki Masaoka.*Hōryūji* consists of three syllables but five moras, each long vowel containing two moras. The song that begins with *Y ūyake koyakeno akatonbo* (‘red dragonflies in the red sunset’) is sung ‘yu-u-ya-ke-ko-ya-ke-no-a-ka-to-n-bo’ (ゆ - う - や- け- こ - や- け- の- あ- か - と - ん- ぼ) (hyphens indicate mora boundaries).

Intonation

Japanese is a pitch-accent language as opposed to the stress accent found in English. Two pitch levels are used in Japanese: high (H) and low (L). Pitch drops sharply from H to L immediately following an accented mora if there is one. In the examples above, an accented mora is shown with an acute accent. Rising or falling intonation can be added at the end of a sentence. For instance,*atsui* /atˢ úi/ (‘hot’) can take either a rising intonation /atˢ úi↗/ ‘Is it hot?’ or a falling intonation /atˢ úi↘/ ‘It’s hot.’ The pitch contour for the first will be LHLH, and that for the second, LHL. For the first, the final mora will be lengthened to allow an additional H.

Further information

A good brief treatment of the Japanese sound system is Okada (1999). For fuller detail, see Vance (2008).

Notes

1 /ŋ/ is a marginal phoneme (see Section B1) found only in loanwords ending in -**ing**.

2 This section on Italian has been co-written with Alessandro Rotatori of the Saint Camillus International University of Health and Medical Sciences, Rome, Italy. Our thanks go to him for sharing with us the benefit of his phonetic expertise and native-speaker knowledge of Italian.

3 /ʒ/ is a marginal phoneme (see p. 115) found mainly in French loanwords.

4 This section has been adapted/updated with the generous help of Professor Petr Rösel, University of Mainz, Germany. We are also grateful to him for making a new recording of the German vowels and consonants.

5 This section on Japanese and that on Japanese learners' errors on pp. 178–80 have been co-written with Masaki Taniguchi, Professor Emeritus of Kochi University, Japan. Our thanks go to him for sharing with us the benefit of his phonetic expertise and his native-speaker knowledge of Japanese.

Section C
Exploration

C1

Accent Variation: General American

Types of variation found in accents

The basic set of GB reference vowels (p. 16) is not adequate to deal with all the features encountered in other English varieties. For this purpose, we've used five additional keywords: BATH,JUICE, FORCE, NORTH,*happ*Y. Our full list of keywords is printed in Table C1.1.

It has become common practice to classify pronunciation variation between accents along the following lines (cf. Wells 1982: 72–80).

Systemic variation: where one accent possesses more or fewer phonemes than another accent in a particular part of the sound system.

- ❑ Northern English lacks the contrast /ʌ – ʊ/ in STRUT/FOOT; such varieties have no phoneme /ʌ/ as found in other types of English.
- ❑ South Wales English has an additional contrast in GOOSE/JUICE with an extra phoneme /ɪu/ not found in other accents.
- ❑ Scottish, Irish and some General American speakers have an extra /ʍ – w/ contrast: e.g.*which – witch*.
- ❑ GA lacks the LOT/PALM contrast. Words belonging to GB LOT are generally said with PALM (though see p. 214). This means that *bomb* and *balm* (GB /bɒm – bɑːm/) are both said as /bɑːm/ in GA.

Distributional variation accounts for cases where two accents may have the same phoneme system but where environments in which a particular phoneme may occur differ. Note that distributional variation is not restricted to a particular set of words but operates 'across the board' as an integral part of the phonological system of the accents concerned. There are (in principle) no exceptions to the rule.

Table C1.1 Keywords for reference vowels

KIT	FLEECE	FACE

DRESS	SQUARE	GOAT
TRAP	PALM	PRICE
LOT	THOUGHT	MOUTH
STRUT	NURSE	CHOICE
FOOT	GOOSE	NEAR
BATH	JUICE	CURE
*bon*US	NORTH	
*happ*Y	FORCE	

Source: Table adapted from Wells (1982: 120); the keyword JUICE is additional to Wells's categorisation

Examples of distributional variation are:

- In rhotic accents (see Unit A6), **r** is pronounced wherever it occurs in the spelling. In non-rhotic accents, it is pronounced only before a vowel.
- Accents differ in the range of vowels which can occur in final open unstressed syllables. Some accents (e.g. Scots, Northern Ireland, traditional RP and most northern English accents) have KIT in *happ* Y words (e.g.*happy, pretty, Julie, committee*, etc.) while most other accents (e.g. London, Birmingham, General American, Australian and GB) select FLEECE.

Lexical variation: where the phoneme chosen for a word or a specific set of words is different in one accent as compared with another. This can affect either a very large group of words (such as our first two examples below), or a very small group or even a single word (as in our third and fourth examples).

- In the BATH words, e.g.*bath, pass, dance*, etc. (see Unit A8), northern England and Midland accents generally select the TRAP vowel; so do most other varieties worldwide, e.g. American. Cockney and GB, however, select the PALM vowel. Australians vary.

- The historical distinction between words with GOAT before /r/ (known as the FORCE words) and THOUGHT before /r/ (known as th NORTH words) is lost in most accents but retained in some. The FORCE category contains words spelt with **o** like *force, store, sport* and also *hoarse, course* spelt with an extra letter. The NORTH words include *north, cork, absorb, horse*. The manner in which these groups are differentiated varies, but in Scottish English, for example, FORCE words have [o] while NORTH words have [ɔ], giving /fors/ and /nɔrθ/.
- In parts of Lancashire, words spelt *-ook* such as *book, took, look* have the GOOSE vowel. In other English varieties, GOOSE only occurs in a few examples of this type (e.g.*snooker, spook*). Otherwise FOOT is found.
- In GA *tomato* is pronounced with the FACE vowel whereas it is said with PALM in GB, and in South Wales *tooth* has FOOT, not GOOSE.

There is no easy way of predicting which words will be susceptible to lexical variation. Furthermore, speech habits may vary within one accent. For example, GB speakers vary in their choice of vowel for orthographic **o** in words such as *constable, accomplish*. Most people use the STRUT vowel, but some choose LOT. Note that the distinction between lexical and distributional variation is not always clear-cut. A good example of this is the case of yod-dropping in American varieties (see p. 213). Even though we have classed this as an example of distributional variation, as it is in principle possible to state a clear rule for the occurrence of this feature, there is in fact much variation on an individual speaker level.

Realisational variation: all variation which is not covered by any of the categories above will relate to the realisation of phonemes:

- FACE and GOAT are narrow diphthongs or steady-state vowels in Scots, Irish, Welsh and northern English accents, but wide

diphthongs in Cockney, Birmingham, Australian, New Zealand and most of the accents of the southern USA.

- Initial /p t k/ are aspirated in most accents (including GB and General American) but are unaspirated in Lancashire, South African and most Indian English.
- DRESS and TRAP have closer realisations in Australian, New Zealand and South African English, but are more retracted in northern English accents, Welsh English, Scottish English, northern Irish and Canadian English.

Once again, some realisational variation will occur even within a specific accent. Notoriously, even within GB, glottalisation varies tremendously, as do realisations of vowels such as GOAT and GOOSE.

Patterns of realisational variation often affect more than one phoneme in similar ways, as is the case with both examples above. Such variation frequently shows interesting patterning, for instance in the symmetry of the vowel system, or modifications to articulations determined by specific phonetic contexts which affect a whole range of consonant or vowel phonemes.

In our brief overview of General American (as compared with GB) below, we mention all four types of variation.[1] Systemic, distributional and lexical variation are structurally the most significant types, since in their different ways they involve phonemic change. Realisational variation (the commonest type, but less significant since it involves no phonemic change) is regarded as the default.

General British and General American (GA) compared

In this and the following sections we are going to discuss some of the important varieties of English spoken worldwide. We shall begin with a comparison of the two major models of English – GB and GA. Although we shall be concentrating here on the differences between these two varieties, in fact they are most notable for their great similarity. It may be worth emphasising again (see Unit A1) that educated British and American speakers communicate with ease, and rarely experience any problems in understanding each other's pronunciation.

Consonants

The consonant system of General American is in essentials the same as that of British accents and can be represented with the same phonemic symbols. Note, however, the following differences.

1. GA is rhotic (distributional variation), e.g.*farmer* /ˈfɑrmər/; /r/ often functions as a syllabic consonant (see Unit A2), e.g. /ˈfɑrm̩/.
2. A salient feature of GA and all varieties of American English is **t-voicing** (an effect already mentioned briefly on p. 69), shown in transcription by [t̬] (realisational variation). Normally /t/ is realised as a brief voiced tap between vowels when the following vowel is unstressed e.g.*heating, university, I hate it* /ˈhit̬ɪŋ, junəˈvɜrsət̬i, aɪ ˈheɪt̬ ɪt/. This is also true if /r/ intervenes, e.g.*party* /ˈpɑrt̬i/, and before syllabic /l̩ r̩/, e.g.*metal* /ˈmet̬l̩/,*traitor* /ˈtreɪt̬r̩/. Note that in GA (and in American English generally), **t** -voicing typically leads to neutralisation of the contrast /t – d/, so that *heating – heeding* and *hit it – hid it* sound the same. Although we are dealing here with an allophone of /t/ and not a phoneme, nevertheless, because of its high frequency in American English, it is normal to show it in slant brackets. Medial /nt/ is regularly reduced to /n/, so that *winter* /ˈwɪnr̩/ becomes identical to *winner*.
3. A decreasing minority use an extra phoneme /ʍ/ for words spelt with **wh**, e.g.*whale, wail* /ʍeɪl weɪl/ (systemic variation). In England, /ʍ/ died out as a common feature of the language several hundred years ago and its use is often considered an affectation.
4. Most Americans (not all) have yod-dropping following the dental and alveolar consonants /θ t d s z n l/, e.g.*studio* /ˈstudioʊ/,*nude* /nud/,*duke* /duk/. The modern GB alternative /ʧ ʤ/ for /tj dj/ (see Section A6) is regarded as substandard in America. In GB some

words have a less common alternative form without /j/. In American, this is the normal form (distributional variation).

	GA (normal form)	GB (normal form)
enthusiastic	/mθuziˈæstɪk/	/mθjuːziˈæstɪk/
assume	/əˈsum/	/əˈsjuːm/
presume	/prəˈzum/	/prəˈzjuːm/

5. In GA, PALM and THOUGHT may both be PALM. As a result,*cot* and *caught* are both /kɑt/ (systemic variation).
6. Some American speakers have dark *l* in all contexts, e.g.*level* /ˈɬevɬ̩/. To British ears the initial [ɬ] can sometimes sound similar to /w/, so that *life* sounds rather like *wife* (realisational variation).

Table C1.2 The vowels of General American

Checked	*Keyword*	*Free steady-state*	*Keyword*	*Free diphthong*	*Keyword*	*Pre-r*	*Keyword*
ɪ	KIT	i	FLEECE	eɪ	FACE	ir	NEAR
e	DRESS	ɑ	PALM	oʊ	GOAT	er	SQUARE
æ	TRAP	ɔ	THOUGHT	ai	PRICE	ɑr	START
ʊ	FOOT	u	GOOSE	ɔi	CHOICE	ɔr	NORTH
ʌ	STRUT			aʊ	MOUTH	or	FORCE
ə	*bonus*					ʊr	CURE
æ	BATH					ɜr	NURSE
i	*happy*					ər	*letter*

Note
NORTH (e.g. *horse*) and FORCE (e.g. *hoarse*) are usually identical in GA (distributional) (see p. 211 and p. 215, no. 10)

Vowels

Compared with the consonants, there is less similarity between the vowel systems of GA and GB. Nevertheless, for the most part we can employ the same symbols. For GA varieties, the 'length mark' for free vowels has been omitted since American varieties do not show the close correlation of length with free vowels found in British GB. Other important differences are listed below.

1. Since GA (like most American varieties) is rhotic, there are differences in words spelt with **r**, where in GA the counterparts of GB /ɑː ɛː ɔː ɜː ə ɪə ʊə/ take the form of a vowel followed by /r/ (systemic variation): see Table C1.2. Note that the vowels have a special quality known as r-colouring (p. 217).
2. The GOAT vowel is typically more back and rounded (we represent it here with /oʊ/, e.g.*solo* /ˈsoʊloʊ/), although more fronted rounded starting points are not unusual.
3. In GA (and other American varieties), the TRAP vowel is often closer and lengthened, sounding rather like [ɛː], similar in quality to SQUARE in GB (realisational variation). It can also be heard with a centring glide (particularly before nasals, e.g.*chance*). Furthermore, TRAP is selected in all BATH words (see Unit A6), instead of GB PALM /ɑː/, e.g.*bath* /bæθ/,*laugh* /læf/,*chance* /ʧæns/,*ask* /æsk/ (lexical variation).
4. In American English many foreign names and loanwords spelt with **a** are said with PALM /ɑ/ rather than TRAP /æ/, e.g.*pasta* /ˈpɑstə/,*Mafia* /ˈmɑfiə/,*macho* /ˈmɑʧoʊ/,*Picasso* /pɪˈkɑsoʊ/,*kebab* /kəˈbɑb/ (lexical variation).
5. Before /r/, many Americans use /er/ where GB has /ær/, e.g.*carry, Paris*. Furthermore, they make no difference between words which

in GB have /e/, /æ/, /ɛː/ before /r/ (e.g.*merry, marry, Mary*), pronouncing all three as /ˈmeri/ (distributional variation).

Activity C1.1

Say this sentence:*Hairy Harry married merry Mary*. Unless you're American, you'll probably have three vowels (in GB they come in this sequence /ɛː æ æ e ɛː/). See if you can find some Americans willing to say the same sentence. Note how many vowels they have in their various idiolects.

6. The STRUT vowel is generally closer (realisational variation) – more like /ə/ than in GB. Before /r/, in words where GB has /ʌ/, American uses /ɜ/, e.g.*hurry* /ˈhɜri/,*courage* /ˈkɜrɪʤ/ (distributional variation).
7. Americans have no LOT vowel, using PALM for both GB LOT and PALM words, so *bomb* and *balm* both have PALM (systemic variation). For a sizeable minority (for example, most New Yorkers) words equivalent to GB LOT are split into two different sets – THOUGHT or PALM – depending largely on the consonant that follows (lexical variation, but with strong patterning).

    (a) Before /g ŋ s f θ/, the THOUGHT vowel /ɔ/ (similar to GB /ɔː/) tends to be used, e.g.*log* /lɔg/,*song* /sɔŋ/,*lost* /lɔst/,*coffee* /ˈkɔfi/,*moth* /mɔθ/.
    (b) Elsewhere, PALM /ɑ/ (similar to GB /ɑː/) is employed, e.g.*top* /tɑp/,*job* /ʤɑb/,*shock* /ʃɑk/.

This type of patterning is particularly common in the New York conurbation and other eastern areas, but is also found to a degree elsewhere especially in high-frequency items such as *dog, wrong, cost, off*, etc.

8. Many GA speakers (particularly of the younger generation) also have no contrast between PALM and THOUGHT (except before /r/). Thus the pairs *cot* and *caught*, and *collar* and *caller*, are pronounced identically (all with PALM) (systemic variation). However, many Americans feel that the vowel before /r/ in words like *four* and *cord* belongs to their GOAT vowel. This is a trend which is already established in Canada, and seems to be rapidly gaining ground in the United States. A distinction is maintained before /r/, e.g. GA *far* and *four* /fɑr fɔr/,*card* and *cord* /kɑrd kɔrd/.
9. Many words ending in -*ile* have /əl/ or /l̩/ in GA compared with /aɪl/ in GB, e.g.*fertile* /ˈfɜrt̬l̩/,*missile* /ˈmɪsl̩/. For certain words, alternative pronunciations with /aɪl/ also exist (lexical variation).
10. Some GA speakers (particularly of the older generation) still maintain the FORCE – NORTH contrast discussed above (lexical/systemic variation).

Stress and stress-related features

There are some significant differences between British and American in (1) the allocation of stress, (2) the pronunciation of syllables such as *-ary*, *-ery* and *-ory*.

1. Words borrowed from French are generally stressed on the first syllable in British English but they often have final-syllable stress in American.

	GA	GB
ballet	/ˈbæleɪ/	/bæˈleɪ/
Bernard (first name)	ˈbɜːnəd/	/bərˈnɑrd/
blasé	/ˈblɑːzeɪ/	/blɑˈzeɪ/
brochure	/ˈbrəʊʃə/	/broʊˈʃur/
buffet	/ˈbʊfeɪ/	/bəˈfeɪ/
baton	/ˈbætn̩/	/bəˈtɑn/
cliché	/ˈkliːʃeɪ/	/kliˈʃeɪ/
garage	/ˈgærɑːʒ/	/gəˈrɑʒ/
perfume	/ˈpɜːfjuːm/	/pərˈfjum/
tribune (newspaper)	/ˈtrɪbjuːn/	/trɪˈbjun/

2. Longer words ending in *-ary*, *-ery* and *-ory* take a secondary stress on those endings, and the vowel is neither reduced to /ə/ nor elided.

	GA	GB
military	/ mɪlə teri/	/ mɪlɪtəri/ or / mɪlɪtri/
cemetery	/ semə˧teri/	/ semətəri/ or / semətri/
mandatory	mændə	/ mændətəri/ or / mændətri/

Frequent individual words

The following is a short list of individual words showing lexical variation not covered above. The pronunciations cited are those which appear to be found most commonly either side of the Atlantic. Note that in some cases a minority of American speakers may use forms which are more typical of British speakers and vice versa. Words of this type are indicated by arrows (→ and ← respectively).

Stress shift	GA	GB
address (n.)	/ˈædres/ →	/əˈdres/
chimpanzee	/ʧɪmˈpænzi/ →	/ʧɪmpænˈziː/
cigarette	/ˈsɪgəret/ →	← /sɪgəˈret/
detail	/dəˈteɪl/ →	/ˈdiːteɪl/
inquiry	/ˈɪŋkwəri/ →	/ɪŋˈkwaɪəri/
laboratory	/ˈlæbrətɔri/	← /ləˈbɒrətri/
moustache	/ˈmʌstæʃ/	/məˈstɑːʃ/
	Consonant variance	
erase	/ɪˈreɪs/	/ɪˈreɪz/
figure	/ˈfɪgjər/	/ˈfɪgə/
herb	/ɜrb/	/hɜːb/
Parisian	/pəˈrɪʒn̩, pəˈriʒn̩/	/pəˈrɪziən/
puma	/ˈpumə/	/ˈpjuːmə/
schedule	/ˈskeʤul/	←/ˈʃeʤuːl/
suggest	/səgˈʤest/ →	/səˈʤest/
	Vowel variance	

anti-	/ˈæntaɪ/ →	/ˈænti/
ate	/eɪt/	← /et/
borough	/ˈbɜroʊ/	/ˈbʌrə/
thorough	/ˈθɜroʊ/	/ˈθʌrə/
clerk	/klɜrk/	/klɑːk/
depot	/ˈdipoʊ/	/ˈdepəʊ/
dynasty	/ˈdaɪnəsti/	/ˈdɪnəsti/
docile	/ˈdɑsl̩/	/ˈdəʊsaɪl/
either	/ˈiðər/ →	← /ˈaɪðə/
epoch	/ˈepək/	/ˈiːpɒk/
multi-	/ˈmʌltaɪ/ →	/ˈmʌlti/
neither	/ˈniðər/ →	← /ˈnaɪðə/
leisure	/ˈliʒər/	/ˈleʒə/
lever	/ˈlevər/ →	/ˈliːvə/
process (n.)	/ˈprɑses/	/ˈprəʊses/
progress (n.)	/ˈprɑgrəs/	/ˈprəʊgres/
record (n.)	/ˈrekərd/	/ˈrekɔːd/
semi-	/ˈsemaɪ/ →	/ˈsemi/
shone	/ʃoʊn/	/ʃɒn/
simultaneous	/saɪməlˈteɪniəs/	/sɪməlˈteɪniəs/
tomato	/təˈmeɪt̬oʊ/	/təˈmɑːtəʊ/
vase	/veɪz, veɪs/ →	/vɑːz/
vitamin	/ˈvaɪt̬əmɪn/	← /ˈvɪtəmɪn/
what	/wʌt/ or /wɑt/	/wɒt/
z (in alphabet)	/zi/	/zed/

Names

The pronunciation of similarly spelt names frequently varies between Britain and the USA, with a tendency for American versions to reflect spelling more closely. Some of the more familiar examples are the following:

	GA	GB
Berkeley	/ˈbɜrkli/	/ˈbɑːkli/
Birmingham	/ˈbɜrmɪŋhæm/	/ˈbɜːmɪŋəm/
Burberry	/ˈbɜrberi/	/ˈbɜːbri/
Derby	/ˈdɜrbi/	/ˈdɑːbi/
Warwick	/ˈwɔrwɪk/	/ˈwɒrɪk/

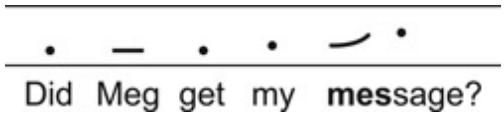
Differences in setting, intonation and rhythm

Setting

One of the most noticeable differences between GA and GB setting is that American vowels are influenced by **r-colouring**, affecting adjacent consonants as well as vowels. For example, in *partner*, not only the vowels are affected but also the /t/ and the /n/. The body of the tongue is bunched up to a pre-velar position and the root of the tongue is drawn back in the pharynx. As compared with GB, American English also appears more coloured by semi-continuous **nasalisation** running throughout speech. Many Americans, particularly of educated varieties, have noticeable creaky voice (see Section A4).

Intonation

Much of what has been said about British intonation applies to GA intonation with this important difference: American intonation tends to have fewer of the rapid pitch changes characteristic of GB, and rises and falls are more spread out over the *whole* tune. A very typical pattern, for instance, is this sort of rising tune for questions:



Perhaps because of these differences, American English is sometimes claimed to strike a British ear as ‘monotonous.’ On the other hand, British English intonation is said to sound ‘exaggerated’ or ‘affected’ to Americans.

Rhythm

A second difference concerns rhythm. American English, because of a tendency to lengthen stressed checked vowels (e.g. TRAP) and an apparently slower rate of delivery, is stereotyped by the British as 'drawled.' British English, because of the general tendency to eliminate weakly stressed vowels, together with an apparently more rapid rate of delivery, seems to strike many Americans as 'clipped.'

Sample of General American 🎧 recording C1.1

well – being a – semi-geek – in high school – I – was also in the marching band – and – basically – we had to – perform at football games – at the 4th of July Parade of course – and we had to wear these horrible uniforms – that were – in our school colours of course – red white and blue – made of 120 per cent polyester – and – we had to march in formation out on the football field – before the games and during half time – and one time we were marching – doing our little – kind of – sequence of movements on – the field – right before a game and the football players were – warming up – and I played the flute – and – at one point some guy from the opposing team – kicked the ball – out of control – and – the ball came flying towards me and hit me in – the mouth – which – hit my flute as well – luckily I didn't have any broken teeth but I had a broken flute – and – a bloody lip – anyway – there was mass panic – the whole formation kind of fell apart – and – all these – you know – panicking women were running out onto the field to see what was wrong – and I was holding my – hand to my mouth – and – some women from the – I don't know – what do you call it – the – what is it called – it's kind of sports – this group of people who raise money for sports and kind of you know distribute the money and stuff for school activities – came over and started yelling at me to not get blood on my white gloves – that those white gloves cost ten dollars a pair or something – here I am – blood streaming from my mouth – my thousand-dollar flute in pieces – on the ground – and lucky to be alive – and she's screaming at me about getting blood on my – gloves – anyway I quit marching band after that

Note

geek = socially inept person

Description

Our informant, Kathy, is a translator from the American Midwest. General American displays a degree of variation, so many, but not all, of the features described above can be identified in this small sample of Kathy's speech. Her pronunciation is rhotic (🎧 *marching, warming, started*) with noticeable **r**-colouring. She has consistent **t**-voicing (🎧 *little, started, getting*). There is no **h**-dropping (🎧 *high, holding*). In words like 🎧 *during*, Kathy has yod-dropping. She uses TRAP in BATH words (🎧 *half*). She has no vowel equivalent

to GB THOUGHT and uses PALM instead (🎧 *also, ball, called*). Kathy doesn't exhibit all the American features we have mentioned; for instance, initial /l/ isn't noticeably dark, and her TRAP vowel is more open than average GA. Kathy (not being an easterner) doesn't split GB LOT words up into THOUGHT and PALM sets (see above) but uses PALM for both (🎧 the vowels in *dollar* and *wrong* are the same), nor does she have any evidence of a FORCE-NORTH split. Like most younger GA speakers, she doesn't contrast words spelt with **w** and **wh** (🎧 *white, what, which* are all said as /w/).

Note

1 A more detailed comparison of American and British pronunciation can be found online at www.yek.me.uk/gavgb.html.

C2

Accents of the British Isles 1: England

Introduction

This section discusses the regional accents (concentrating on the largest cities and conurbations) of England. The remainder of the British Isles (together with Liverpool, which is in many ways a special case) is covered in Section C3. The accompanying audio recordings provide samples of the types of speech discussed. The material for this and the two subsequent sections has been provided by genuine speakers of the variety of English concerned (nobody here is 'putting on an accent'). Furthermore, it's all from real conversation – not reading or acting.

Salience and stigmatisation

In discussing local accents of a basilectal type, it is useful to introduce two concepts which are often of significance in determining people's attitudes to the speech concerned. **Salience** is a term used to pick out a feature which outsiders notice, and may also be known and remarked upon by local members of the community. Well-known examples of **salient** features are:

- ❑ the uvular [ʁ] of traditional Geordie;
- ❑ the 'lilting' intonation of Welsh English;
- ❑ rhoticism in the English of the West Country;
- ❑ fronted vowel [aː] in Australian English PALM.

Certain salient features may also suffer **stigmatisation**. A stigmatised accent characteristic is one which has low status, and accordingly is the subject of social disapproval. Such disapproval can range from correction by parents or teachers to the feature being the butt of humour or ridicule. Given this scenario, the linguistically upwardly mobile will ensure that their first

step is to drop any such feature from their idiolects and substitute an alternative socially approved pronunciation.

Some significant features of the selected accents

1 TRAP*or* PALM*vowel in the* BATH*words (lexical variation)*

GB, Cockney and other south-eastern accents have the PALM vowel in a set of words which have been termed the BATH words (most of which are spelt with the letter **a** followed by a fricative or nasal, e.g.*craft, bath, pass, chance, plant*). Here, most other accents have the TRAP vowel (see also pp. 94–5 and 211).

2 *Final vowel in* happY *words (distributional variation)*

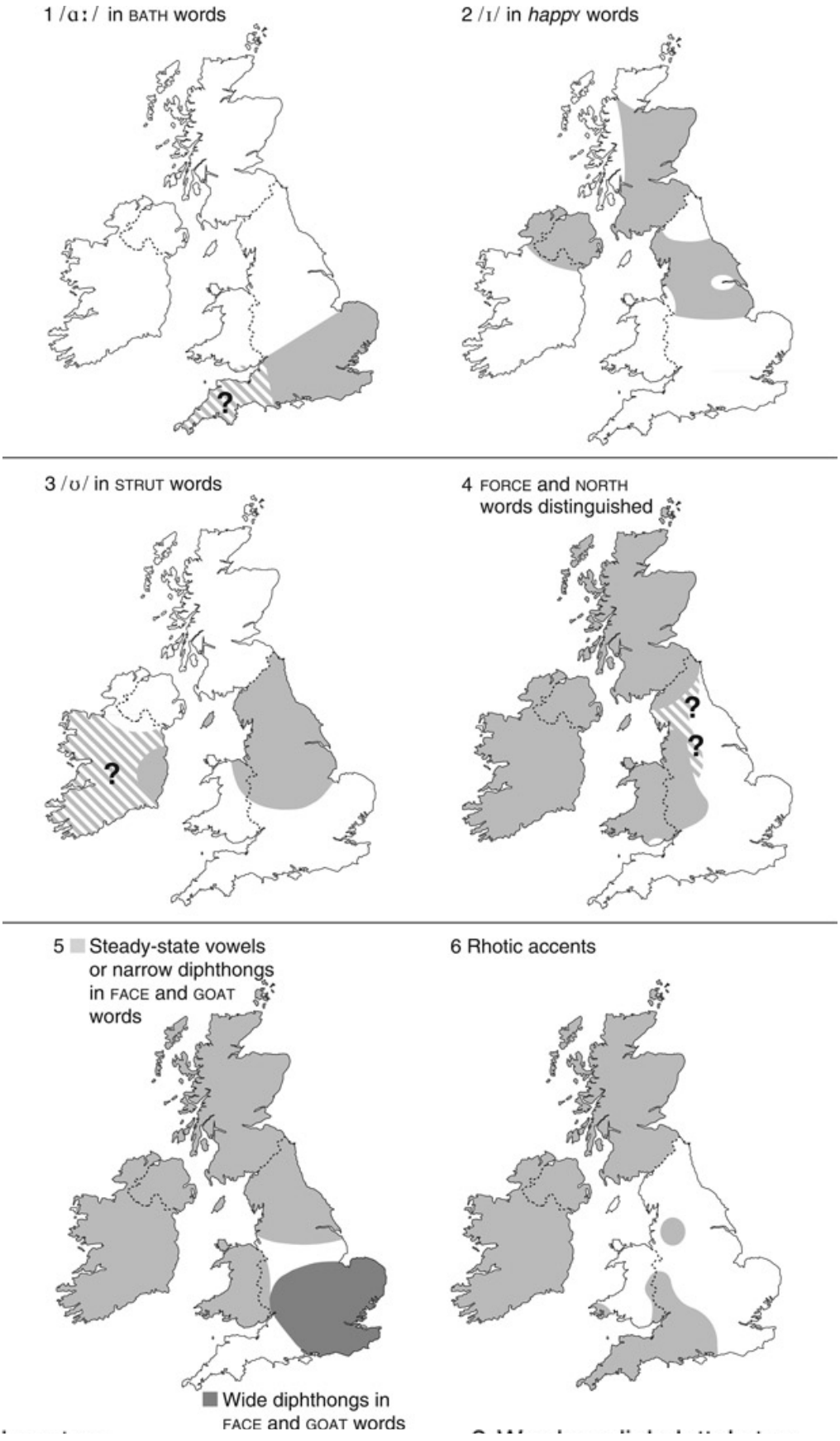
The *happ* Y vowel (see pp. 94, 210–11) has FLEECE in some accents and KIT in others.

3 *Vowel /ʊ/ or /ʌ/ in the* STRUT *words (systemic variation)*

All northern and some Midland accents in England lack the STRUT vowel. In these varieties,STRUT is replaced by FOOT in *rush, bus, blood*, etc. See pp. 115 and 210.


Shetland
Orkney
Highlands &
Islands
Scotland
Scottish
Lowlands
North
East
England
Northern
Ireland
Northern Irish
Isle of
Man
North
Greater
Dublin
Southern
Irish
Merseyside
North
Wales
Wales
Midlands
East
Anglia
Ireland
South
Wales
South
East
Greater
London
West Country
Indicates areas where a Celtic language
was still in common use up to the beginning
of the 20th century

Figure C2.1 Approximate accent areas of Britain and Ireland


1 /ɑː/ in BATH words
?
2 /ɪ/ in happy words
3 /ʊ/ in STRUT words
?
4 FORCE and NORTH words distinguished
?
?
5 Steady-state vowels or narrow diphthongs in FACE and GOAT words
Wide diphthongs in FACE and GOAT words
6 Rhotic accents

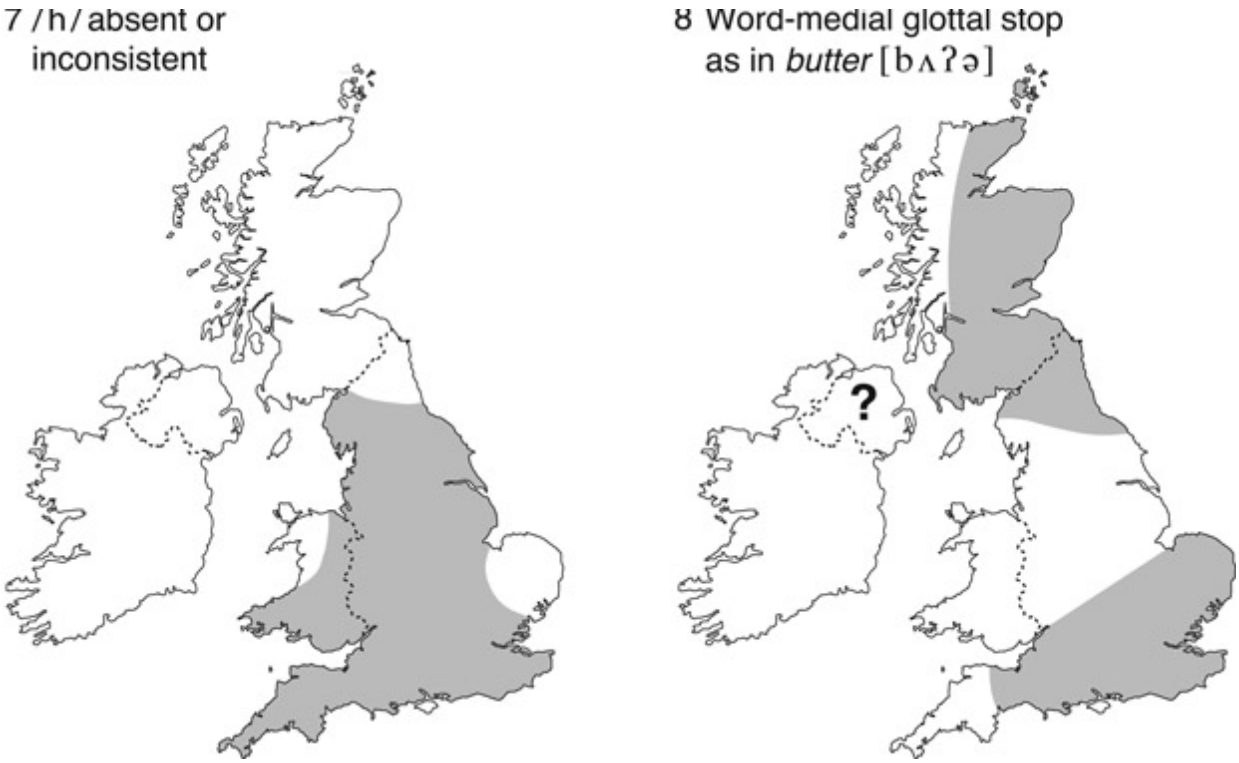


Figure C2.2 Regional variation in British and Irish accents showing approximate geographical distribution of eight accent features. A question mark (?) indicates where occurrence is variable, or where data are unreliable

4 FORCE-NORTH *(lexical variation)*

Certain accents divide words spelt **or** into two sets: NORTH words (e.g. *north, cord, form, cork*) and FORCE words (e.g. *force, port, more, four*). In Scottish, words in the NORTH set have the vowel [ɔ] found in THOUGHT, while the FORCE words have the vowel in GOAT (realised as [o]), i.e. [nɔrθ] vs. [fors]. (see p. 211.)

5 *Narrow or wide diphthongs in the* FACE *and* GOAT *words (realisational variation)*

The FACE and GOAT vowels can be realised either as narrow diphthongs, possibly steady-state vowels, e.g. [eː oː] (as in South Wales English) – or as wide diphthongs, e.g. [æɪ æʊ] (as in Cockney).

6 *Rhotic or non-rhotic distribution (distributional variation)*

GB and most English and Welsh varieties are non-rhotic. Scots, Irish, West Country and parts of Lancashire are rhotic (see p. 75).

7 *h-dropping (systemic variation)*

Most urban accents in England and Wales have **h**- dropping, thus potentially levelling contrasts such as *hedge* – *edge*. A totally **h**- less accent would mean the lack of the /h/ phoneme and hence systemic variation. In reality, because **h**- dropping is one of the most frequent and best known phonetic social markers in English and is severely stigmatised, virtually all **h**- droppers strive, with varying degrees of success, to produce /h/ in more formal situations. Consequently, in the descriptions this is labelled 'variable **h**-dropping' (examples quoted from the recording will normally refer to /h/ deletion).

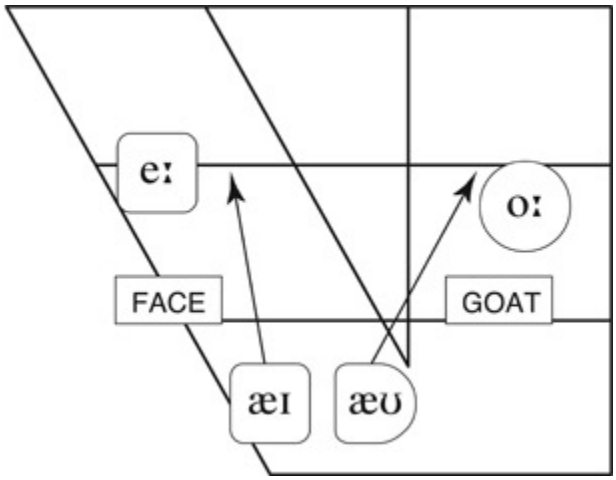


Figure C2.3 The FACE and GOAT vowels realised as (1) steady-state vowels (South Wales), (2) wide diphthongs (Cockney). See Map 5, p. 221 where dark shading indicates wide diphthongs

8 *Medial* /t/ *realised as glottal stop* [ʔ] *(realisational variation)*

Many British accents have more extensive glottalisation than that described for GB (see p. 67). Most noticeably, these varieties have glottal replacement of medial /t/, e.g. *letter, bottle* [ˈleʔə ˈbɒʔl̩].

Details of individual accents

In the transcripts contained in this and the following section we have followed the normal practice in linguistic work of removing most punctuation and also capitalisation at the beginning of sentences. Breaks in the flow of speech corresponding roughly to intonation group boundaries are shown with a dash. Hesitation markers ('ums' and 'ers') have been omitted. Sections which are garbled or difficult to interpret are indicated by a question mark in brackets (?). Italics are used (sparingly) to indicate particularly emphatic speech. In the accent descriptions, slant brackets have been used where appropriate for individual phonemes, but the transcription of connected speech has been placed in square brackets. The sign 🎧 indicates that a specific feature is exemplified on the audio CD. Brief explanations have been offered in the notes for words and phrases which might puzzle readers who are non-native English speakers.

Some of the English varieties have nicknames which are in common use, e.g. Cockney, Geordie, Scouse, Brummie, and we have noted and explained these. The location of the sample taken is shown in brackets. Population figures are approximate estimates. Names of informants have been changed.

1 *Cockney (Greater London)* 🎧 *recording C2.1*

Steve: there was one of our blokes – one of his family – like cousins or uncles – or you know – in that range – had had an accident – and been taken to hospital – so he spent – I think most of his weekend without any sleep at all – at this hospital like – until he knew – that the person was going to be OK – anyway – come Monday morning – he decides to go straight to work – and – he comes to work – and say he has had no sleep at all and he's got a job to do in this house to

provide – an extension phone – you know – and usually – it's – you run the cable upstairs into a bedroom – it's the usual place to have the phone – and – the bed – was fitted into slots in the floor – so he couldn't sort of – move it over. I mean – he could only get two legs out of the hole in the floor and he couldn't – he needed two people to actually lift it and move it – so he laid across the bed – to – finish the cabling – and screw the – terminal box on the wall – and – not having had any sleep – he just sort of drifted off – and the thing is – the gentleman who let him in – but said he was going to work – and his wife would be in shortly – and *she's* come in – and not knowing the telephone man was there – I mean – to see a van outside – but she didn't – you know – sort of put two and two together – she's come in – she's gone upstairs – into the bathroom – and she's – taken her clothes off like – you know – and gone into the bedroom to get her housecoat – she was going to have a bath – and there's a strange man laying on the bed – snoring his head off – needless to say – our bloke spent about six hours in the nick – trying to explain what had happened – yes – spent six hours in the police station

Notes

bloke (colloquial) =*man*
laying = *lying*. Many varieties conflate the two verbs *lie* and *lay*.
the nick (general slang) =*police station, prison*

Description

The traditional word for the broad accent of London is 'Cockney.' The origins of the word, which go back at least 700 years, are uncertain; one attractive theory is that it may come from an old tale of the ignorant city dweller who believed in a 'cocken ey,' a cockerel's egg. A Cockney is allegedly someone

born ‘within the sound of Bow Bells’ – that’s to say where you can hear the bells of St Mary-le-Bow church in the East End of London. That definition would cut the number of Cockneys down to a few thousand, but ‘Cockney’ is generally used to refer to all London, and to the speech of the Greater London area, which has a population of nearly seven million. Outer London, where most people speak with accents similar to London, covers a huge area and takes in twelve million inhabitants. Our speaker, Steve, is a telephone engineer from Lewisham in south-east London.

Cockney is non-rhotic with variable **h**-dropping. Steve, for instance, pronounces 🎧 /h/ in *hospital* on two occasions but drops /h/ in 🎧 *hole*. Syllable-final stop consonants are strongly glottalised. In final position, Steve often replaces intervocalic /t/ by glottal stop [ʔ] (e.g. 🎧 *without any, move it over*). Post-vocalic /l/ is very dark, showing **l**-vocalisation and sounding rather like [ʊ] (e.g. 🎧 *usual, terminal, wall*). Many speakers replace /θ ð/ by /f v/ (termed **th-fronting**), e.g.*three feathers* = [ˈfrəi ˈfevəz] (not heard in this sample). Yod-dropping can be heard but – unlike GA – only following /n/ (🎧 *knew*).

Londoners use virtually the same vowel system as GB, but the realisations of the vowels are very different. The STRUT vowel is front and open [a] (e.g. 🎧 *come Monday*). FLEECE and GOOSE are extended glides [əi əu] (e.g. 🎧 *needed, move*). The diphthongs FACE, PRICE and GOAT (e.g. 🎧 *straight, like* and *phone*) sound like GB diphthongs PRICE, CHOICE and MOUTH – an effect which is termed **diphthong shift**. The Cockney MOUTH vowel (e.g.🎧 *house*) is fronted and often raised ([aː] or [ɛə]), sounding rather like GB SQUARE. Front checked vowels DRESS and TRAP (e.g. 🎧 *bed, van, family*) tend to be closer. Like GB, but unlike most other British accents, Cock-ney has the PLAM rather than the TRAP vowel in the BATH words (e.g.🎧 *bathroom*).

An interesting development has hit inner London in the last fifteen years or so. As a result of increasing numbers of **in-migrants**, especially people of Caribbean origin, a new type of accent has emerged. This new variety is sometimes popularly termed ‘Jafaican’ by journalists, and by Londoners

themselves, although linguists prefer to call it '**Multicultural London English**' (abbreviated to MLE).

The resulting English is like a cross between traditional Cockney and Jamaican Creole, hence the name Jafaican ('fake Jamaican'). MLE retains many typical London consonantal features such as l-vocalisation, glottal reinforcement and replacement, and **th**-fronting. However, the vowel system is much affected by West Indian English. Perhaps the most spectacular effect is that the diphthong shift (see above) has been cancelled out and FACE, PRICE and GOAT now sound much more like Caribbean English (see pp. 252–3) than traditional Cockney. So FACE and GOAT are now [fe:s], [go:t], while PRICE also has a long steady-state vowel [pra:s]. While this type of English seems to have originated in the Afro-Caribbean community, its use has now spread to other ethnic groups, such as Bengalis and Pakistanis, and also to young working-class whites ('Anglos'). At the moment, it's essentially associated with youth – it seems rarely to be heard from the over-forties. For more information, see Cheshire et al. (2011).

2 West Country (Bristol) 🎧 recording C2.2

Joe: well I think all these – countries are – are like that – now this Saudi Arabia and all – they got – high rise flats or whatever they call them – they got the finest hospitals in the world see

Interviewer: they're rich now

Joe: oh – millions – millions – I was listening to a man on the wireless here one day this week – when they come over these princes – 'cos of course there's about three thousand princes – in Saudi Arabia – like – on account of the – king or prince – Mohammedan – look he can have three wives – that's why they've got so many children – isn't it – this prince had a house in a well-known street in London and the window cleaner used to call there – this man was saying this on the wireless the other night – and – the prince come out to him and – said to the window cleaner – how much is that 'cos he cleaned all the windows in

the front of the house – and of course the – window cleaner said two forty – and – this prince give him a cheque for two hundred and forty pound

Linda: did he

Joe: aye

Linda: cor – I wish that would happen to me

Joe: ooh – that's what I thought

Notes

Mohammedan (archaic) =*Muslim*
two forty = £2.40
aye = yes
cor is a mild expletive.

Description

The West Country (in Britain this means only the *south-west* of England) is often thought of as being essentially rural in character, but it also takes in some very large, densely populated urban areas, such as Bristol–Bath, Plymouth, Bournemouth and Torquay. West Country accents are spoken by perhaps as many as five million people in total. As a result of a long seafaring tradition, many of the original English immigrants to other countries hailed from the south-west so it is thought likely that this English accent has had considerable influence on the English speech of America, Canada, the Caribbean and possibly elsewhere. Our speakers come from Bristol, the largest city in the west of England, which with its suburbs has a population of about three-quarters of a million.

The accent is consistently rhotic (🎧 *world, forty, course*), with /r/ often realised as a retroflex approximant [ɻ] and with strong vowel colouring (in some ways reminiscent of General American). There is variable **h**-dropping (

🎧 *high, Mohammedan*) and extensive glottalisation; as in Cockney, /t/ may be replaced by [ʔ] (e.g. 🎧 *whatever*, second rendering of *forty*). Joe frequently replaces initial /ð/ by /d/ (🎧 *this (week), these (princes)*), but this is not true of all Bristolians. Connected speech exhibits a great deal of consonant assimilation and elision.

STRUT is close (🎧 *countries, much*). A number of BATH words are said with theTRAP vowel. The PLAM vowel is very front, giving a contrast with TRAP which is of length rather than of quality. The starting point of PRICE is closer (🎧 *rise, wives, wireless*). Much of the West Country has many features similar to those just described, but the city of Bristol is unique in that words ending in orthographic **a**, **ia** have a very close final allophone of /ə/. This sounds almost like FOOT [ʊ] and is interpreted by non-Bristolian ears as a kind of dark *l* (🎧 *Arabia*), giving rise to what has come to be known as 'Bristol-**l**.'

3 Midlands (Birmingham) 🎧 recording C2.3

Interviewer: well she's trying to get an exchange back – is she

Joyce: well you see – they want to come back – but she's got a daughter – twenty – one – and she doesn't want to come back – so what can you do – got to study the kids I suppose

Gran: and yet er's courting and er's going to get married

Joyce: – and yet er's courting – and I suppose er'll get married one of these days and her mother will be left there –'cos er's twenty-one in January – but our Margie wants to come back because she's epileptic you know – my sister – she has been for a few years since the bombing – isn't she – and of course er suffers badly you know – and

Gran: er lives right away from all of us

Joyce: er lives right away from all of us – and he's like my chap – he works at the same firm as him – and they had to work seven days a week – well I mean – if my – she was here I mean we could see more of her –'cos I mean we can't go unless her husband takes us in the car

Gran: and then stop the night

Joyce: and then you have to stop the night – well I mean it's our babby
Interviewer: yes
Joyce: they've got no cot for her to sleep in or anything – and
Gran: the other boy's fifteen and the girl's twenty-two – her boy's fifteen and her girl's twenty-one
Joyce: I mean if I want to go over there I got to go from here to Lichfield – and then from Lichfield to Rugeley – and I think the buses only run about once a fortnight
Interviewer: it does seem silly doesn't it – you know – it's all very well but they need to put buses and trains and things on
Gran: I mean they ask the people to go on these housing estates – to leave their houses here in Birmingham – but they don't cater for them
Interviewer: no
Gran: no

Notes

my chap: Joyce is referring to her husband.
study the kids = consider the needs of the children
babby = baby, young child

Description

Birmingham is the largest city (one million) in the West Midlands conurbation, which in total has a population of about two and a half million people. The inhabitants often call it by the nickname of 'Brummagem' – actually derived from an older form of the name. Consequently, people from Birmingham are called 'Brummies,' and Midlands speech is often informally referred to as the 'Brummie accent.' Our two informants, Joyce and her mother – 'Gran' in the family circle – come from Small Heath, an inner-city

district of Birmingham. The interviewer is also from Birmingham, but has a much modified form of the accent.

The accent is non-rhotic (🎧 *courting, our Margie*) and has variable **h**-dropping. Joyce and Gran delete /h/ very consistently (🎧 *here, houses*). A frequent realisation of /r/ is a tap [ɾ] (🎧 *married, January*). Medial (and sometimes final) **ng** has sounded /g/ (🎧 *anything*). Lexical variation is found in BATH words, which generally have the TRAP vowel (🎧 *ask*). A lexical variation feature found in almost all Midland and northern English is that LOT rather than STRUT is used in the common words 🎧 *one* and also *none*.

The realisation of the front checked vowels KIT and DRESS is closer than in other varieties. KIT in fact sounds as close asFLEECE in other accents (🎧 *sister, Lichfield*). The FLEECE and GOOSE vowels are both extended glides (🎧 *sleep, do*). Many dialectologists have claimed that in this accent there is no SRTUT-FOT contrast. In fact, although these vowels sound very similar (at least to a non-Midlander), a contrast certainly exists. SRTUT is similar to an unrounded [ʊ] (🎧 *study, suffers*), whereas FOOT is closer and more rounded than in most other types of English (🎧 *could*). LOT is unrounded [ɑ] and sometimes fronted (🎧 *cot, bombing*). NURSE is close, front and may have a degree of lip-rounding [øː] (🎧 *work, firm*). Like Cockney, Birmingham has diphthong shift with wide glides in FACE, GOAT (🎧 *away,days, over*). As in Cockney, the PRICE diphthong starts further back, sounding like the CHOICE of most varieties (🎧 *right, night*). The *happ* Y vowel is FLEECE realised with a wide glide. Broad Birmingham English is notable for extended intonation patterns with frequent sharp falls, sustained low pitches or rise-falls, and there are plenty of examples of these in the speech of Joyce and Gran.

'Er' in our text represents the all-purpose (*he,she, it*) 3rd person pronoun /ɜː/ (weak form /ə/). Interestingly, this seems to be a relic of what Shakespeare (also a Midlander!) frequently indicates by *'a* or *a* in the speech of his 'low' characters. It occurs frequently, for instance, in *Henry IV, Parts 1* and *2*. But it is also to be found in *Hamlet* coming from the lips of the Prince of Denmark himself: 'Now might I doe it, now a is a-praying' (Act III, Scene ii, l. 73;*Arden Shakespeare*, H. Jenkins 1982).

4 North (Lancashire) 🎧 *recording C2.4*

Dave: another instance – I was on a – I was at Romiley – that's in – near Marple – and I give the driver the sign – I was going for a Jimmy Riddle – I had all my machine on and my bag of money on – and I gets in – was having a wee there in t' toilet – and I heard the ding ding – I thought – oh it can't be – and I heard the bus set off – so I thought oh Christ – what can I do now – so I saw this motorbike – which was coming up – so I stopped him – and he gave me a lift – down to Woodley – and I found out – that it was a bloke who were drunk on the back seat – as always – wanted to leave the guard so he decided to ring the bell and leave me stood at Romiley… we had another incident – I had a driver called Brian Craven who suddenly phoned an inspector up at Stalybridge Garage – to say that he'd lost a guinea pig – left a guinea pig on the bus on the 330s went from Hyde to Ashton which in them days you had three corporations – you had Stockport corporation – Ashton corporation – and you had SHMD – and we said to this driver – this inspector – if the guinea pig's *not* found it'll die – so he had a look in the lost property office – and he come back – he says – well – he says – there's no guinea pig here – and then he asked us – very sarcastically – was it on a *blue* bus – a *red* bus – or a *green* bus – so he said a *red* bus – so he put the phone down on us

Notes

incident: the speaker mispronounces this word
Jimmy Riddle: one of many colloquial expressions for *urination*. This is what is known in Britain as 'rhyming slang' where a rhyme is used for another word – in this case,*piddle*, also a slang word meaning *urination*. Rhyming slang is mostly associated with Cockney, but is also heard elsewhere.
wee (general colloquial): another word for *urination*

guard = bus conductor. The word is used in this sense only in this part of the north of England.
leave me stood (general non-standard) =*leave me standing*
them days (general non-standard) =*those days*
Stockport corporation, Ashton corporation, SHMD: all public transport companies
a red bus: all the various bus companies had their buses painted different colours. Once the inspector heard it was a *red* bus, he knew it had nothing to do with his particular bus company, so he just abruptly stopped speaking and hung up.

Description

The phrase 'northern accent' is popularly used for the kind of speech heard over a large area of England, more especially in the populous counties of Yorkshire and Lancashire (not so often for Merseyside or the north-east). Perhaps as many as ten million people speak English of this type, making it the second most widely spoken variety in Britain. This is a region of great contrasts, taking in the huge industrial conurbations of Greater Manchester, West Yorkshire (Leeds–Bradford) and South Yorkshire (Sheffield–Rotherham), but also having large stretches of sparsely populated hills and moorland in between, where rural populations maintain distinct forms of local dialect speech. Our speaker, Dave, is a bus conductor from the Lancashire town of Dukinfield in Greater Manchester, and there are some features in his speech which are characteristic of that particular area.

Northern English has variable **h**-dropping (🎧 *having, Hyde*). One salient feature is to replace the definite article *the* by /t/, which is often glottalised or elided (🎧 *in t' toilet*). /p t k/ tend to have weak aspiration. Note the way Dave says *bus* with final /z/ as /bʊz/ – a northern pronunciation often found also with the pronoun *us* /ʊz/. There are many noticeable differences in the vowels. PRICE vowels have a very narrow glide (or even a steady-state vowel), sounding rather like a long [a:] vowel (🎧 *motorbike, Hyde*). The FACE

and GOAT vowels have little or no glide (🎧 *say, days, bloke*). DRESS is more open (🎧 *left, bell*) and TRAP is retracted (🎧 *Ashton, back*). Systemic variation is found in the lack of a STRUT vowel, FOOT being used where other varieties have STRUT (🎧 *coming, up, bus*). The TRAP vowel is used in most BATH words, e.g. 🎧 *asked*. The *happ* Y vowel is clearly KIT rather than FLEECE (🎧 *guinea (pig)* [ˈgɪnɪ]). Southerners often accuse northerners of having 'flat' intonation, and certainly Dave tends to have less variation in the pitch of his voice than is to be found in the recordings of many of the other accents.

There are distinct differences between Lancashire and Yorkshire. Some areas of Lancashire (but not normally Yorkshire) have sounded /g/ for medial **ng**, i.e. /ŋg/, e.g.*singer* = [ˈsɪŋgə]. Moreover, even though this does not emerge in Dave's speech, quite an extensive area of Lancashire adjacent to Manchester (but not the city itself) is rhotic. Yorkshire English is notable for frequent lenis to fortis energy assimilation, e.g.*Bra df or d C ity* [ˈbratfət ˈsɪtɪ] – which is something a Lancastrian like Dave wouldn't say.

Activity C2.1

Explain the phonetic features and comment on the social judgements contained in this extract from Stephen Fry's novel *The Stars' Tennis Balls* (2001: 30).

> Slowly you have become infected by a northern accent. Not obvious, just a trace, but to your sensitive, highly attuned ears as glaring as a cleft palate. You began to pronounce 'One' and 'None' to rhyme with 'Shone' and 'Gone' instead of 'Shun' and 'Gun,' you gently sounded the g's in 'Ringing' and 'Singing.' At school you even rhyme 'Mud' with 'Good' and 'Grass' with 'Lass.' Fair enough, you would be beaten up as a southern poof otherwise, but you have trailed some of that linguistic mud into the house with you.

5 Geordie (Newcastle) 🎧 recording C2.5

Kathleen: last Sunday – come right out of this wind – and I'm sure that it'd been open – he would have been (?) been in – well – he went away – I put one or two crumbs on that side – and he came back a few times back and forward – but we haven't seen him since – you want a bag of grain here every morning for the starlings and the sparrows and the what (?) little

Dora: blue tits

Kathleen: blue tits – I have nowt to say

Peggy: have you not

Kathleen: I've run out of words

Peggy: hardly – are they still – are they still getting all the – cows and things down there

Kathleen: no they haven't been out – just – I think – last Sunday was it – they were in that field – just one or two of them – but there's no small – but there's no calves aren't out just now

Peggy: but what did they do – what did they do when all that snow was on the ground –

Kathleen: they weren't out

Peggy: were they not

Kathleen: no they weren't out – not in neither of the fields – I just seen in the latter end there was one or two out in yon field – but that's the lot – I wonder where – where Elaine's gone and

Peggy: they went down – they went down Nobby's – oh there they are – they're just coming back up from down the Mill Road there – you can just see them

Kathleen: oh – they're making a lump of difference on there – the big turn they have – at the corner

Peggy: it's a bad road though coming up there

Kathleen: up there – up the Mills

Peggy: you get your tree cut

Kathleen: I hope

Peggy: it's a pity because it spoils our view doesn't it really – you know if we had a little bit more –

Kathleen: when it's fuller – the foliage and the green leaves – it makes this very dark – you see – but still we've got compensations – we can see the other part of the valley – beautiful

Peggy: still – you got a nice – you've got a nicer view here than what you've got – or had down home – I mean – down the back yard

Kathleen: what – looking at the chimney pots

Peggy: uh-huh (?) before – the back yard – the back wall

Kathleen: the back wall

Peggy: I know – my Dad used to sit and he used to look – across the – the – roof didn't he – to tell the weather

Kathleen: oh aye – he was a cold weather man – he used to sit around and they used to have lays

Peggy: oh dear – I suppose he'd be here watching all the traffic going along the road

Kathleen: oh – he would have seen nothing – nothing at all

Notes

nowt = nothing
yon = that over there (now archaic in most English varieties)
lays = naps

Description

The most northerly conurbation of England is Tyneside in the north-east, dominated by the city of Newcastle-upon-Tyne. This region has nearly a million inhabitants, of whom nearly 300,000 live in Newcastle itself. The popularity of the name 'George,' locally modified to 'Geordie,' is the reason for the nickname applied to both the Tynesiders and their mode of speech. Our two main speakers are Kathleen, who grew up in Blaydon, a suburb to the south-west of the city, and has a conservative form of speech; her

daughter Peggy, being younger, speaks with a more modified form of the accent.

Geordie has considerable phonetic/phonological differences from other England varieties and is in some ways closer to Scottish accents (see Section C3). It is, for instance, the only large conurbation in England (or Wales) where the accent shows no **h**-dropping (🎧 *home*). But, unlike Scots, it is non-rhotic (🎧 *other part*). Most Tyneside speakers reinforce medial /p t k/ with glottal stop, e.g.*better, paper* [ˈbɛʔ tɑ ˈpeːʔ pɑ], but this isn't noticeable with our informants; but note Peggy's glottalised [ʔ t] in for example 🎧 *get your tree cut*. For both Kathleen and Peggy, /l/ is invariably clear in all contexts (🎧 *still, little*). Broader speakers (only of the older generation and usually outside Newcastle itself) sometimes realise /r/ as a uvular fricative or approximant and Kathleen, but not Peggy, regularly pronounces it in this way (🎧 *grain,green,very*).

Figure C2.4 Map of British and Irish accent locations exemplified in this book

BATH words regularly have the TRAP vowel (e.g. 🎧 *last*). The STRUT vowel is absent from the system (pp. 219, 221) (🎧 *crumbs, run*). Both final /ə/ and the second element of the centring diphthongs NEAR and CURE are very open, e.g.*better* [ˈbɛʔ tɑ],*beer* [biɑ],*cure* [kjuɑ]. The PALM words spelt **ar** (e.g. 🎧 *starlings*) have a very back vowel. An extra vowel /aː/ is used for THOUGHT words spelt with **al**, e.g.*walk* = [waːk] so that *talk* and *yawn* contain different vowels /taːk – jɔːn/. In broad accents, NURSE and THOUGHT words are

merged so that 🎧 *words* is pronounced as [wɔːdz] and, in some words, MOUTH may be replaced by /uː/, e.g.*house* /huːs/ (cf. Scots). PRICE has a narrow glide, e.g.*Tyneside* [ˈtɛɪnsɛɪd]. FACE and GOAT are steady-state vowels [eː oː] (🎧 *away*,*snow*). Tyneside is renowned for its extended 'lilting' intonation with many final rising patterns, and in this respect Kathleen and Peggy are both typical Geordies.

Activity C2.2 🎧 Recording C2.6 Accent detective work 1 (Answers on website)

Listen to the extracts on the website. In each case, there is another voice speaking with one of the accent varieties discussed and which you have already heard. Try to locate the speaker geographically and state which par ticular phonetic features enable you to do this.

C3

Accents of the British Isles 2: Celtic-Influenced Varieties

Introduction

This section deals with the regional varieties of English in the United Kingdom and the Republic of Ireland which are in some way Celtic-influenced. There are samples of Belfast, Dublin, Edinburgh, South Wales and also the English city of Liverpool. The last-mentioned may seem a bit surprising, but Liverpool is actually strongly influenced by Irish and North Wales Welsh, as we shall see later (pp. 238–9).

1 *Scottish (Edinburgh)* 🎧 *recording C3.1*

Alison: when I was a psychiatric nurse – when – when I was training to be a psychiatric nurse – I think I was about eighteen or – nineteen or something like that – and I can remember going in to like what was the – the dayroom where everybody sat – and everybody had their meals and stuff like that – and – used to try and sort of facilitate various – pieces of conversation with people – you're trying – find out what was going on – and and whatever – and I remember we took the dinner trolley in one day – and – the food was disgusting – there was absolutely no doubt about it that the food was absolutely disgusting – and this guy started going absolutely bananas about the food – do you know – you cannot possibly expect me to eat this – this is absolutely disg[usting] – no – it was an Essex accent he had actually – because I trained to – used to call everybody Jock – I was a Jock – anyway I've lost part of the story – anyway aye – I'm bringing in the dinner trolley – and him going on about the food being disgusting and whatever – and this guy went absolutely bananas in the dinner hall – he tried – started sort of chucking stuff around – I was really frightened – I think – no no what was going on here –

eventually I moved out of this sort of dinner hall place to go and get some sort of help to find out what should happen –'cos I was just a student – I did not understand any of this – and this guy chased me out of the dayroom – with – what I thought was a big stick – or – I thought he'd broken a chair – or something like that – and I thought he was chasing me up a corridor with this piece of wood or something like that – and at one point I looked behind me and I had to – just burst out laughing because he had this huge big cucumber – he had this huge big cucumber in his hand – and he just looked absolutely ridiculous – and it was fine – it was fine – I sort of went –*hah*

Notes

Essex: the speaker had undergone her nurse's training in the south-east of England.
Jock: traditional Scottish form of 'John.' Used as a nickname for all Scots – even females!
aye = yes

Description

Scottish accents are in many ways the most conservative varieties of English and preserve many features which have been lost elsewhere (pp. 163–7). Scottish English, spoken by nearly all of Scotland's five million population, is very different from the English of England. It is a descendant of a quite separate language called Scots (this is what is found in written form in Robert Burns's poems and the dialogue in Walter Scott's novels). Don't confuse it with Scots Gaelic /ˈgælɪk/ – a Celtic language, very similar to Irish, now mostly confined to the islands off the western coast. But although Scots think of themselves as Celts, there is in fact very little influence from Gaelic on present-day Scottish English. Our speaker, Alison, is a nurse from

the capital, Edinburgh, which is situated together with Glasgow (Scotland's largest city) in the densely populated Central Lowlands area.

Perhaps the most noticeable feature of Scottish English is that it is rhotic (🎧 *burst, dinner hall*) and that /r/ is realised with a tap (🎧 *remember*). Scottish is **h**- pronouncing and voiceless /ʍ/ occurs in words spelt **wh** (e.g. 🎧 *what*). There is systemic variation in the form of an extra consonant phoneme /x/, used for **ch** in a small number of specifically Scottish words, e.g.*loch, och!* /lɔx ɔx/ (none occurs in this sample). Plosives /p t k/ are only weakly aspirated and there is considerable glottalisation of final/medial /p t k/, with glottal replacement of /t/ (e.g. 🎧 *eat this, started*). Like many Scots, Alison has a relatively dark variety of /l/ in all contexts (e.g. 🎧 *absolutely, looked, trolley*).

The vowels of Scottish English are quite dissimilar in their patterning from other kinds of English. Vowel length also operates on very different principles. A major systemic variation is the lack of a FOOT – GOOSE contrast. Words like 🎧 *wood,took* are pronounced with the GOOSE vowel, exactly the same as 🎧 *food, moved*. Like the vowels of northern English and Welsh English, Scottish FACE and GOAT are steady-state vowels and not diphthongs 🎧 *dayroom, chased, going*. TRAP is retracted 🎧 *sat, absolutely*. Many Scots would appear to lack a consistent contrast between TRAP and PALM – a characteristic of basilectal Scottish English.

The LOT vowel is very close and similar to THOUGHT in England varieties (🎧 *Jock, trolley*). In fact, many speakers have no LOT – THOUGHT contrast and *cot –caught* are homophones. On the other hand, the NURSE words may be represented by /ɪr/ as in *sir*, /ʌr/ as in *burst, word* (🎧 *burst*), /ɛr/ as in *heard*. The KIT vowel is very open, sounding rather similar to [ə] (🎧 *think, big, stick, dinner*) and is used instead of FLEECE in *happ* Y words (🎧 *everybody*). In broader varieties, the incidence of many vowels may be radically different from the norm, e.g.*good* = KIT[gɪd];*home* = FACE[hem];*dead* = FLEECE[did]. The FORCE – NORTH distinction can be heard in Alison's speech in 🎧 *story* vs.*sort*. The PRICE and MOUTH vowels have very close starting points [əɪ, əu] (🎧 *frightened, fine, around*). In a few high-frequency words (e.g.*round, about,*

house, out) the MOUTH vowel may even be replaced by GOOSE (🎧 *find out*) in more relaxed styles of speech. Note also the salient feature of *cannot, did not* as [ˈkanə ˈdɪnə].

Within the speech of the Scottish lowlands, there are interesting 'east-west differences,' as they are known. This is particularly true of intonation; for instance, Glasgow (in the west) is noteworthy for terminal rising patterns, but these are largely absent from the speech of our Edinburgh (eastern) informant.

2 *Irish Republic (Greater Dublin)* 🎧 *recording C3.2*

Paul: this one girl that I was with when I – when I saw that – don't know – Mrs White we used to call her – afterwards anyway – because it was all white – and – in *her* house – they have a fireplace yeah – and it's small tiles – marble tiles – and on one tile – it's about the third one across – and about the fourth one down or something like that – if you look at it – (*alarm clock rings*) shut up – if you look at it

Ray: time to get up

Paul: If you look at it – you can see – the shape of a head – and it's like our Lord's head – you know like you see in the holy pictures and that – but there's only two people that can see that – and that's me and her – and the rest of our family don't believe her – and they can't see it – so she never talks about it – and nobody else ever saw that in the house – in Gerry's house – O'Leary's – yeah – I had a look at it when I was at home

Sean: it's still there

Paul: it's still there

Sean: hasn't followed you to Holland

Paul: I said it to her – she says 'don't say that' – they think I'm going mad… yes but it's funny though – it's – it's like – a vision of our Lord's head – like you know – just see that head there like it's – just

like that – it's almost as plain – but it's in kind of brown tiles – you know – oh it's clear really clear to me anyway – and *she* sees it clear

Interviewer: are there colours – are there colours – or is it black and white

Paul: yeah well the tiles are in – a kind of brownish tiles – d'you know you get streaks going through them like

Sean: yellow streaks

Paul: yellow – you know it's really a low yellow one kind of dark yes – kind of black – not really black black – white black – but that's – I was really amazed at that

Notes

Mrs White: the speakers are talking about a white ghost of a woman, which one of them claims to have seen.
Hasn't followed you to Holland: the recording was made in the Netherlands.

Description

Irish English is of two distinct kinds – southern Irish English spoken in most of the Republic of Ireland, and Northern Irish English which is spoken not only in the British province of Northern Ireland but also in the adjacent parts of the Irish Republic.

Ireland has its own Celtic language, Irish. Although there are relatively few everyday users of Irish now left, in 1850, well over a million people had it as their mother tongue. Consequently, Irish has had an important influence on much present-day Irish English, especially in rural areas. Our sample is from Dublin, which with nearly a million speakers in the surrounding region is by far the largest Irish urban area. The speakers, Paul and Sean /ʃɔːn/, are two young men from Sallynoggin, near Dublin.

Dublin has no **h**-dropping (🎧 *her house*) and has variable use of /ʍ/ in wh-words (listen to Paul's inconsistent pronunciations of 🎧 *white*). Ireland

generally has rhotic pronunciation, but Dublin is variable, with non-rhoticism being associated with basilectal varieties; final /r/ is sounded by Paul in, for example, 🎧 *her (house), dark*, but not in 🎧 *(it's still) there, ever, never*. Non-final /r/ is frequently realised as a tap (🎧 *Gerry*), especially in clusters (🎧 *brown*), varying with an approximant (in realisations of 🎧 *really*). /θ ð/ are replaced overwhelmingly by dental [t̪ d̪] (🎧 *think, third, fourth, the, that*) or affricated [t̪θ, d̪ð] (cf. Liverpool) and with many speakers the contrasts /θ – t/ and /ð – d/ are lost. This type of effect is termed **th-stopping**. Word-final /t/ may be realised as a weak dental fricative or approximant (e.g. in the frequent repetitions of 🎧 *that* [daθ]). Sequences such as /rm/ and /lm/ may be produced with /ə/-insertion, e.g.*arm, film* = [ˈarəm ˈfiləm] (does not occur in this sample).

The Dublin vowel system lacks the links to Scottish English found in Northern Ireland (see below), but there is nevertheless much significant variation compared with most accents in England. FLEECE is used in *happ* Y words rather than KIT (🎧 *holy, family*). FACE and GOAT are narrow glides (or steady-state vowels) (🎧 *say, holy*). The TRAP vowel is more open (🎧 *black*), while NURSE is more back, sounding a little like GB THOUGHT (🎧 *her*). The STRUT vowel is closer and back, similar to FOOT to non-Irish ears (🎧 *funny*). Furthermore, for some speakers, the contrast LOT/FOOT may also be uncertain with a vowel of an [ɔ] type being employed. Broader speakers (of the older generation) may replace the vowel in certain FLEECE words by the FACE vowel, e.g.*feet, tea* = [feːt teː] (not to be heard in the present sample). The contrast CHOICE/PRICE may be absent with both having a vowel similar to [ɔɪ] (🎧 *tile*). GOOSE is a wide glide (🎧 *two*). MOUTH begins fronted [ɛʊ] (🎧 *about, brown*).

Rural Southern Irish English has an extended 'lilting' intonation range, and this is one of the main features of what is sometimes referred to by English people as an 'Irish brogue,' i.e. a stereotypical Irish accent. Nevertheless, this is not so much a part of Dublin speech, and Paul and Sean (who both grew up in the Dublin urban area) lack the Celtic-influenced intonation of their country cousins.

3 Northern Ireland (Belfast) 🎧 recording C3.3

Interviewer: was there more country when you were younger

Martin: oh yes oh yes – there was more country – more – in fact all that Springfield Road – well there weren't houses at all – there was no houses there at all – all fields – lovely fields – big rivers – you could even have went up and had a swim in them – in the summer – instead of going away out – out of Belfast at all – could have went up there – and five or six of us – went in the water and had a swim – we even picnicked out in it and all – but now you see you can't do all that – all houses were all built in it – now they're all wrecked – you know

Interviewer: no it's terrible

Martin: isn't terrible – shut in altogether – it used to be great round here – you know – you used to say to your mummy – I'm away up – away up the fields – away up – forget the name – up the Forth river for a swim – and then your mummy would have knew where you were like you know instead

Interviewer: there was no worries

Martin: – there was no worries – because you knew it was safe enough

Interviewer: d'you get people now – you know kind of going out into the country for outings – because it is very close still – you know you got the mountains at the back of the Falls or

Martin: but you see – that's very funny – you can't because it's very dangerous – you see – you can't leave your own district hardly now – you know – because if you do you're taking your – your – life in your own hands – going out – you see – unless you went in a car during the day – and just keep driving – or something – out there right round the countryside – but to go for a walk – can't – you can't – you wouldn't guarantee you'd come back again

Notes

Falls: district in Belfast.
The recording dates back to the period of social conflict in Northern Ireland.

Description

As a result of massive immigration from Scotland in previous centuries, the accents of Northern Ireland sound quite different from those of the Irish Republic, being similar to Scots in many ways. Many rural accents in Northern Ireland, some of which are commonly called 'Scotch-Irish,' show even more Scottish features. In fact, overall there is a vast range of variation in Northern Irish speech. Our speaker, Martin, comes from West Belfast and has the speech more typical of the older generation. The information below applies particularly to Belfast and the surrounding area.

Northern Ireland English has no **h**-dropping (🎧 *houses, hands*). Many rural speakers have /ʍ/ in **wh**-words (but this is not true of Martin, or indeed of most Belfast speakers, 🎧 *where*). The accent is rhotic (🎧 *rivers*). Fortis stops are sometimes glottalised. Older speakers (like Martin) may have dental /t/ before /r/ (🎧 *country*). Medial /ð/ is either a very weak approximant or may be elided (🎧 *altogether*). Many Northern Irish speakers have clear *l* in all positions (🎧 *fields*).

KIT is very open and central [ɛ] (🎧 *picnicked, built, big, district*), and is used instead of FLEECE in the *happy* vowel. DRESS and TRAP are also very open, TRAP in addition being retracted (🎧 *hands*). STRUT is more back (like an unrounded [ɔ] vowel) (🎧 *country*). The PRICE vowel has a much closer starting point [ɛi] (🎧 *kind, life, driving*). The MOUTH vowel is fronted and lip-rounded and, like PRICE, has a closer starting point [œy] (🎧 *houses, now, out*). FACE has a centring diphthong (🎧 *dangerous, safe*). Broader varieties have considerable lexical variation in vowels, as compared with most accents of England, e.g.*bag* = DRESS [beg];*doll* = THOUGHT [dɔːl]. Northern Irish speech is notable for its characteristic intonation in which there are more rising than falling tunes, and Martin is very typical in this respect.

4 South Wales (Glamorgan, Carmarthenshire) 🎧 recording C3.4

Gwen: do you know – remember I was telling you – about – that I – played and spoke outside school in Welsh – inside school it was all English – but you'd – once we were in the playground we played in Welsh – but that my sister who is nine years younger than me – by the time she came – they were – they were – it was English – now I was reading a piece about Gwyn Thomas – the writer – the novelist

Owen: oh yes

Gwen: he was the youngest of a family of about six children – all his brothers and sisters were Welsh-speaking – but by the time he came along – you see to go to school – he was English-speaking – he didn't speak Welsh – that might – but you know that might be psychological because he was the only one in the family who was not brought up to speak Welsh

Owen: it probably was a psychological thing – yes it might have been – but what you say now has amazed us quite often – you'll get certain members of the family speaking Welsh – and then in a matter of years – it's lost

Gwen: I only spoke Welsh at home – you know – we weren't allowed to speak English – my father wouldn't let us – but by the time she came to school – the school had changed – the classroom had changed – she used to play in English – all the children were speaking English – you know

Owen: yes, that's it

Gwen: it was in that short space of time – it's always amazed me

Interviewer: what do you put this down to

Gwen: well – a lot of it was put down to parents thinking it was posher to speak English to their children than to speak Welsh – you know – you'd often find a father and mother speaking Welsh to each other – and they'd turn round and speak English to their children

Owen: that's true

Gwen: specially in the Valleys
Owen: that's always been to the detriment of the Welsh language – yes they've always thought too you know
Gwen: it was more the thing – my mother-in-law was like that – she was Welsh-speaking – brought up Welsh-speaking – but she spoke English to her children

Notes

Gwyn Thomas (1913–81): a Welsh author (who wrote in English).
the Valleys: the densely populated mountainous area of South Wales where over a million people live in strings of small towns and villages built along the river valleys in between steep hillsides.
posh(er) (general British colloquial) =*upper-class, smart*

Description

Wales has a population of three million, most of whom live in the south. Welsh certainly is the liveliest of the Celtic languages. It was spoken by the majority of Welsh people until the beginning of the twentieth century, and still survives as the everyday language in many areas – over half a million people claim to speak it to some degree. So it is not surprising that Welsh English often has an echo of the old language about it. There are several distinct varieties of Welsh English. North Wales English is very different from the accent of the south; within South Wales, the Cardiff-Newport area is quite unlike the rest.

South Wales English is spoken by about two million people. Our informants are of the older generation and are both native Welsh speakers. Gwen is a retired teacher from Aberdare in Glamorgan, and Owen is a language researcher from Carmarthen-shire. Having academic backgrounds, they speak a mesolectal type of Welsh English.

Broad South Wales accents have **h**-dropping, but this stigmatised feature is not found in the speech of our informants. Welsh English is non-rhotic (except for some older-generation native Welsh speakers). /r/ is realised as a tap [ɾ]. Plosives lack glottalisation. /l/ is clear in all contexts, e.g. 🎧 *Welsh, children.*

Most Welsh English has extra vowel contrasts. The GOOSE vowel splits systemically into GOOSE words /uː/ (e.g.*goose, blue, mood,* 🎧 *too*) and JUICE /ɪu/ (e.g.*juice, blew, nude, include,* 🎧 *used*). This means that words like *through – threw* [θruː – θrɪu] form minimal pairs. As in Scottish English, there is a FORCE – NORTH contrast /oː – ɔː/ (🎧 *more* vs.*short*). The STRUT vowel is often more front, while NURSE is sometimes closer and rounded. TRAP is retracted (🎧 *family*) and differentiated from PALM mostly by length (🎧 *matter, father* [ˈmatə ˈfaːðə]). Many BATH words have TRAP rather than PALM (🎧 *classroom*). FACE and GOAT are usually narrow glides or steady-state vowels [eː oː]; notice how the vowels in words like 🎧 *came, amazed* and *home, spoke* are pronounced by Gwen with hardly any glide. But in FACE and GOAT words which are spelt **ai**, **ay** and **ow** (🎧 *played, know*) glides are used. PRICE and MOUTH have centralised first elements [əi, ʌu] (🎧 *writer, allowed*).

Gwen's English has extended 'lilting' intonation patterns, reflecting those of the Welsh language with abrupt falls and rise-falls being particularly common; these are less obvious in Owen's speech. A salient rhythmic feature is the frequent lengthening of intervocalic consonants in strongly stressed syllables (e.g. 🎧 *lo**t**of, po**sh**er*).

5 Scouse (Liverpool) 🎧 recording C3.5

Pete: I was working on an – see for these people here
Interviewer: yes – coincidence
Pete: Rainford's Demolition – on a place up by the Bullring I think it was an old tannery – it was the first job after I left school – can lad

Interviewer: yes

Pete: and the floor collapsed – you know – the place we were – demolishing – you know – one fellow got killed – but only three of us went through – you know – but I fell clear – to the others like – and what was you saying – what was I thinking like

Interviewer: uhm

Pete: well I – I found out that – every – every – see I was on like a slab – and what – when I went down – have you ever thrown a plate in the water – and it goes

Interviewer: yes

Pete: sinks to the bottom and – and well that's the way this flag seemed to go as I was going down – it was only a matter of about – twelve feet

Interviewer: oh dear

Pete: but there was heavy stuff falling round us – you know – these – other two were buried alive – but – the first thing that – what I was thinking of down there (?) – I never went to mass on a Sunday – you know what they say what happens when you're drowning

Interviewer: that's right yes

Pete: that was the first thing I thought of

Notes

can lad = teaboy
flag = flagstone

Description

Liverpool is the centre of the Merseyside conurbation (population about one and a half million) and it has a long history as a major port with a famous seafaring tradition. It was the popularity of 'lobscouse' – a stew made of cheap meat, potatoes and ship's biscuit – which gave rise to the inhabitants'

nickname of 'Scousers,' and led to their speech being dubbed 'Scouse.' Merseyside English sounds strikingly different from other types of northern English, probably as a result of a massive influx of inmigrants over the last three centuries from two Celtic countries – southern Ireland and neighbouring North Wales. Our speaker, Pete, is a building worker who was asked to describe a dangerous moment in his life.

Scouse is non-rhotic and has variable **h**-dropping (🎧 *heavy, happens*). Like many Scousers, Pete has virtually no glottalisation, but /p t k/ are heavily aspirated or affricated (🎧 *tannery*) (possibly an influence of North Wales Welsh where the same effect is heard). Medial /ŋ/ is followed by sounded /g/. Typically, /r/ is realised as a tap [ɾ] (found in Welsh and Irish) (🎧 *buried*). Medial /t/ often shows **t**-voicing and may also be realised as a tap [ɾ], e.g. 🎧 *matter* ['maɾə]. Many speakers (including Pete) frequently exhibit **th**-stopping replacing /θ ð/ by /t d/ (🎧 *think, that's*) (this is probably an Irish influence, compare Dublin).

Like other northern England varieties, Scouse has no STRUT vowel, this being replaced by FOOT (🎧 *others, stuff*). Furthermore, there is another notable systemic variation in that there is no SQUARE/NURSE contrast (🎧 *first, there*). PALM is very fronted [a:] (no occurrence in sample). BATH words have TRAP (🎧 *after*). The starting point of PRICE is retracted (🎧 *like*).

The intonation of Scouse is characterised by rise-fall intonation patterns. Liverpool is often noted for its velarised setting (an effect sometimes pejoratively called 'adenoidal'). Despite popular fantasies about this being the result of the damp climate and adenoidal infections, a more likely source is the similar pharyngealised setting characteristic of North Wales Welsh.

Activity C3.1 Recording C3.6 🎧 Accent detective work 2 (Answers on website)

Listen to the extracts on the website. In each case, there is another voice speaking with one of the accent varieties discussed and which

you have already heard. Try to locate the speaker geographically and state which particular phonetic features enable you to do this.

C4

World Accent Varieties 1: North America

Introduction

In the next units, we shall examine four more types of North American English (Unit C4) and three southern hemisphere accents (Australia, New Zealand and South Africa) (Unit C5). In Unit C6, we consider second-language varieties (represented by Singapore and Indian English) and creole-influenced speech (Caribbean and Sierra Leone). See Figure C4.1 for the locations of these varieties.

Below we discuss three accents of the USA (Texas, Kentucky, New York) and Canadian.

1 *Southern USA (Texas)* 🎧 *recording C4.1*

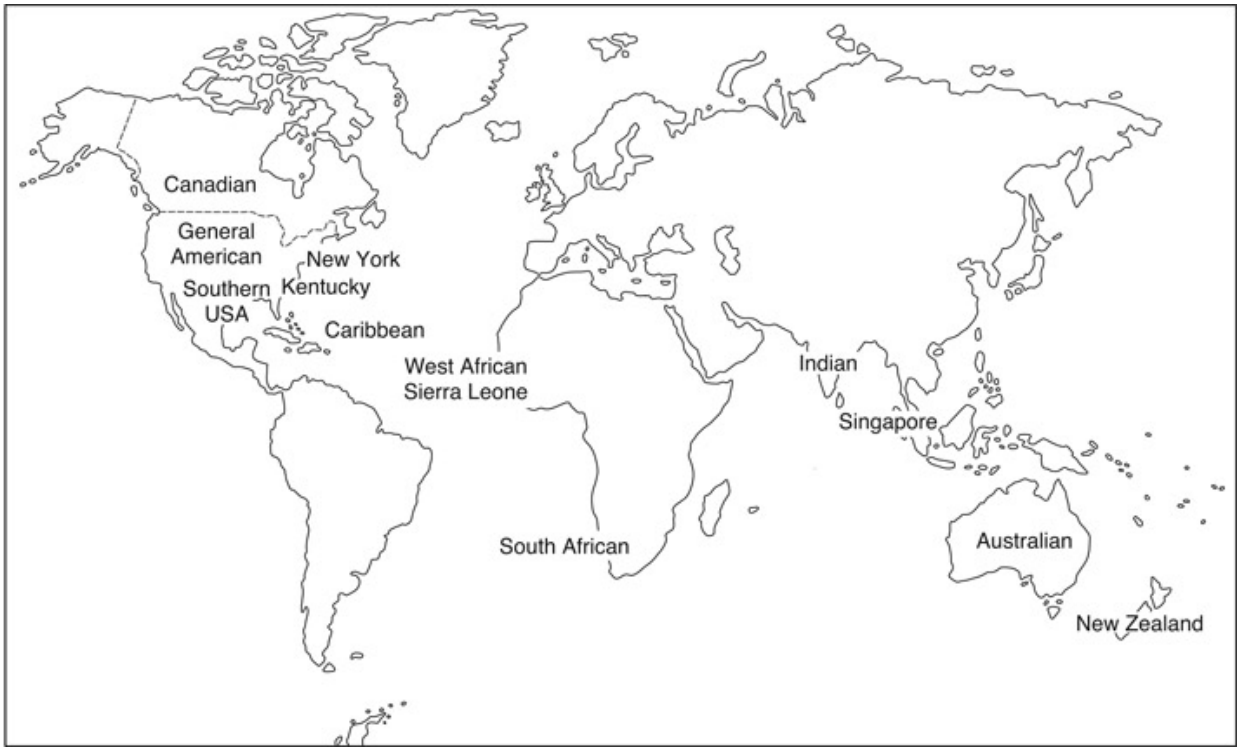


Figure C4.1 Map showing locations of world accent varieties exemplified in this book

Gary: Nacogdoches people look down their noses at Lufkin people – we think we're – we think we're – far superior to Lufkin –'cos they're

Interviewer: do they make bad jokes about them

Gary: yeah – and they always beat us at football – we – we haven't beat them since 1941 – no – well that's not true – but – but – we our smashing football victory over Lufkin was in 1941 – when Lufkin was to be – Lufkin was – destined to be the state champs – state champions in their district – and Nacogdoches was not supposed to beat'em – and I was only six years old but Daddy – took me to the ball game I remember – and we beat Lufkin seven to six

Interviewer: all right

Gary: and I could remember – I wasn't but six years old – and but I remember – after the game – Daddy going to town – took me to town – in the car – and we drove around the – square – around the – what's now the library – used to be the post office – and Daddy was honking the horn – honking the horn – and I said Daddy, why are you honking the horn? – he said'cos we beat Lufkin – but we have *not* beat Lufkin at football many times since that time – we *have* beat them a few times – but – anyway – but Lufkin has some – some nice areas and Lufkin has a lot of industry

Interviewer: OK

Gary: that we do not have over here – it's sort of a blue collar – it's sort of a working-class – town – and Nacogdoches – we've always thought we were a little – little above Lufkin – of course actually we're just jealous of Lufkin because they have all the good industries now – and our main – the best thing Nacogdoches has going for *it* – is the college – is the university – that's our main source of – income

Description

The English of the southern United States sounds quite different from that of the north of the country. Traditionally, the southern states have always been

regarded as the poorer, more backward parts of the USA, but they have been catching up rapidly since the mid-twentieth century. But perhaps because of the long-standing economic differences, northerners have tended to look down on the accents of the south, and stereotype them as sounding amusing and uneducated. As a result, some southerners try to modify their speech and make it sound closer to the language of their northern neighbours.

Gary is a lawyer with an educated, but quite distinctly Texan, accent. He mentions two towns, Nacogdoches /nækəˈdəʊʧəz/ and Lufkin, which are situated about 30 kilometres' distance from each other in eastern Texas in the southern USA. As Gary explains, there has always been a friendly rivalry between the neighbouring communities.

Unlike General American (GA), some southern USA English is variably nonrhotic. Notice how Gary deletes /r/ in 🎧 *horn, years* and *remember*, but pronounces it in *far superior*. As in other American varieties, there is **t**-voicing (🎧 *forty, beat'em, little*). Unlike Kathy (see Unit C1), Gary, a southerner, and from the older generation, uses /ʍ/ in wh-words (🎧 *what's*). A salient feature is the replacement of fricative /z/ by a stop /d/ preceding nasal /n/ in 🎧 *wasn't* [wɑdn̩t].

Much of what we have said about General American also applies to southern USA English. But southern USA English has several distinctive characteristics – notably in the vowel system. For instance, the PRICE vowel often lacks any glide, sounding like a long vowel [aː] (🎧 *times, I, library*). Another noticeable feature is the phenomenon called 'breaking,' which involves inserting [ə] between a vowel and the following /r/ or /l/. Notice, for instance, how the vowels in 🎧 *square, ball, old* become [ɛiə, ɔːə, əʊə].

The absence of contracted forms with *not* is also characteristic of southern speech (🎧 *'Nacogdoches was not supposed to beat'em, that we do not have over here'*).

One of the most striking things about southern USA English is its rhythm and intonation. It is often described as 'drawling,' implying that it sounds slow and drawn out to other Americans. Intonation tunes also appear more extended than in GA. Notice how high-pitched the syllable 🎧 *Luf-* is in '*but Lufkin has some…*', '*Lufkin has a lot of industry*'.

2 Kentucky 🎧 recording C4.2

Bill: well I'm – right now we're living In Louisville – Louisville Kentucky, which – we don't have accents in Louisville any more but – that – I went – I was raised about two hours east of here in the – Appalachian Mountains in Irvine Kentucky – which is a town of thirty-five hundred – and now if you want to hear accents we just call Jobie – he lives there in Irvine – and I guess that – you get a sampling of what – what the dialect would be up that way – but – usually when I call home I really get my old – accent back in a hurry – and then when I call California I lose it so – but – I've been trying to get Jacob to come up there and spend a couple of days on the farm and relax a little bit – but – he's got another two thousand miles to go – here you're going to have to go up there – Mike and Barb – Mom's sister has a – farm up there – they have like – seven horses – and it's up in – near Red River Gorge – which is just one of the prettiest parts of the state – and we go horseback riding up there – and when you come we're going to have to hop on one of those things – I guess you ride horses don't you – but – it's beautiful up there and you put – especially here in two weeks when the leaves will have turned – it's going to be nice

Description

Bill would also regard himself as a middle-class speaker, but is proud of his country origins. Kentucky is geographically a South Midland state but, at least in its rural forms, has many affinities with the south. Nevertheless, one exceptional feature (heard clearly in Bill's speech) is consistent rhoticism (🎧 *farm, horseback*). Final-ing is pronounced as /ɪn/ rather than /ɪŋ/ (🎧 *riding*). The FLEECE, GOOSE, FACE and GOAT vowels are extended (🎧 *leaves, lose, raised, home*), whereas the PRICE vowel is steady-state (cf. Texas) (🎧 *dialect, riding, miles*). A feature characteristic of many southern American varieties is the distribution of the KIT and DRESS vowels before /n/, KIT being used for both (🎧

spend [spɪnd]). The final syllable in 🎧 *accents* shows no vowel reduction. Bill also has extended intonation patterns similar in some ways to southern varieties (🎧 *'which is a town of thirty five hundred,' 'and spend a couple of days on the farm and relax a little bit'*).

3 New York 🎧 recording C4.3

Lorraine: right because I didn't pay enough all along – but the – I work a whole lot harder than I ever did – he might not get work in till three o'clock four o'clock sometimes five o'clock – comes in – so I'll stay and I'll work – it's not unusual for me to work till eight or nine o'clock – I may sit around for three hours four hours during the day – sometimes I leave – usually I (?)

Tony: do they pay you on a job basis –

Lorraine: they pay – they pay me for as many hours as I work

Tony: OK

Lorraine: in the beginning he paid me whether I was working or not – and then as my relationship got a little better with him – I felt that – not that it really wasn't fair – but – I'm using his telephone – like when I call Connecticut I charge that on my own bill – you know I charge it to my home – but I use his phone for local calls – I use his photocopy machine – he's not exactly the best payer but he pays – and he lets me use his facilities – and so I'm there answering you know his phone and what's good is – I may need a week off – or – Monday for example I normally would have worked but now I made an appointment – and I have an appointment in the afternoon – so if I had a regular job – I couldn't work for anyone else – because my schedule wouldn't allow it – I miss having a steady pay check every week – I miss that'cos at least – whether it's two hundred or it's eight hundred dollars it's steady and you know what you have coming in – so I miss that – I don't like all the book-keeping I have to do now – I hate doing billing – I don't like doing that stuff – no – I just went for another freelance job – right

over here – they make machinery that folds – things – or packages – products – like if you buy a new shirt – it's folded into that plastic bag – it's the ugliest piece of equipment – they have the ugliest work – so no matter what you do – it's nicer than what they had before and they like it

Description

Even though it may no longer be the biggest city in the world, New York is still enormous. Over eight million people live in the city itself, while the metropolitan area has a population of approximately twenty million. New York is famous for its cosmopolitan atmosphere, and for being home to a bubbling mixture of races, religions and languages. Many New Yorkers don't even have English as their first language (Spanish is widely spoken, and you also can hear languages such as Chinese, Russian, Italian, French and Yiddish, to name just a few, at any street corner). Nevertheless, the city's brand of English is famous all over America, and thanks partly to artists like the Marx Brothers and Woody Allen, the New York accent is instantly recognisable (at least in its stereotypical form) throughout the USA. For whatever reason, the accent has a poor image for Americans, being held in low esteem even by New Yorkers themselves – as is testified by the large number of courses available through the Internet offering New Yorkers the chance to 'improve their accent.' Our speaker, Lorraine, is a university graduate who lives in a suburb on Long Island. She works freelance for several New York companies in the field of graphic design. While she has a middle-class occupation and life style, nevertheless she speaks with an unmistakably New York accent, although lacking some of the now stigmatised basilectal accent features.

Unlike GA and most other American accents, a salient feature of New York English is its non-rhoticism. This was formerly heard from all social classes, but for a long time this situation has been changing, and nowadays r-dropping has become a strongly stigmatised feature. Nevertheless, mainstream New York speech is notable for variable non-rhoticity, and this is

also the source of much linguistic insecurity. Lorraine is no exception, and is indeed variably non-rhotic; in 🎧 *here, better, fair, payer, morning* /r/ is deleted, yet it is pronounced in 🎧 *work, charge, shirt.* New York speech is often mocked for instances of intrusive *r* (see p. 125), but Lorraine produces no examples in this sample. If /r/ is absent, an off-glide is heard with THUOGHT, SQUARE and NURSE, e.g. 🎧 *morning* [mɔəniŋ], 🎧 *fair* [feə],*bird* [bɜɪd]. In fact, many New Yorkers who are in general non-rhotic seem regularly to use an r-coloured vowel in NURSE words. This might well have its origins in an attempt to avoid the old-fashioned highly stigmatised pronunciation [bɜɪd] (often misrepresented as 'boid') which was a traditional feature of New York speech; Groucho Marx made this vowel almost his trademark.

In common with all United States accents, there is no **h**-dropping (🎧 *whole, having*), and like the vast majority of present-day Americans, Lorraine has no /ʍ – w/ opposition; 🎧 *whether* and 🎧 *work* both start with /w/. New York /l/ is often very dark (velarised) even pre-vocalically (🎧 *along, lets, don't like all, ugliest*); note that both the allophones of /l/ in 🎧 *local* sound rather similar.

Like GA, intervocalic /t/ almost invariably has t-voicing (🎧 *better, but I, facilities, matter*). New York is notorious for the prevalence of **th**-stopping. The fricatives /θ ð/ tend to be produced as dental stop articulations [t̪ d̪], and since the plosives /t d/ may also be dental stops, this results in confusion of /θ – t, ð – d/. Because **th**-stopping is heavily stigmatised, most New Yorkers attempt to remove this feature from their speech. So it is not surprising that Lorraine varies, producing fricatives for the most part, but showing **th**-stopping in, for instance, 🎧 *three, they pay they pay, felt that – not that.*

Like the rest of America, New Yorkers use the TRAP vowel in BATH words (🎧 *freelance, asking, answering, afternoon*). TRAP is often very close and a salient basilectal feature is a centring off-glide [ɛə] or even [ɪə]. Lorraine's TRAP vowel is indeed relatively close, but it lacks the stigmatised glide (🎧 *freelance, bag, packages*). A characteristic feature of New York speech is that the THOUGHT vowel is used for both THOUGHT (e.g. 🎧 *morning, four, call*) and for most words spelt **o** preceding /f θ s g ŋ/ (e.g. 🎧 *off, along*). The vowel is relatively close and can sound rather similar to the equivalent sound in British GB. Like TRAP, it sometimes has a centring glide [ɔə]. This means that

in basilectal New York accents, words like *law, lore* and *lost* all have the same vowel. The PALM vowel (🎧 *charge, o'clock, job*) is much more back and often somewhat closer than in GA. Two well-known salient New York features which Lorraine regularly produces are a PRICE diphthong with a back starting point (🎧 *nine, buy*), and MOUTH with a very fronted starting point (🎧 *allow, now*).

In terms of supra-segmental features, Lorraine has characteristic New York intonation. She has a somewhat extended pitch range as compared with GA, with numerous rise-falls, and conspicuous rising and high falling tones (a mixture often popularly stigmatised as the 'New York whine'), e.g. 🎧 *because I didn't pay enough all along; work a whole lot harder than I ever did; it's not unusual for me to work till eight or nine o'clock*. Along with her somewhat velarised and nasalised voice quality combined, these features are typical of a New York accent.

4 Canadian 🎧 recording C4.4

Anne: the set-up of the university is very different than what I found here – I mean – there's – all the buildings are in one location – and there's probably – well at least fifty different buildings – all – centred right there – I mean and then there's the residences – so – first-year students usually stay in residences – and then once you've met a couple of friends in second year and – up until fourth year you usually live in a house – with a couple of your friends right around – the – all the buildings of – of campus – we like to call it the student ghetto – so I mean we still only have a five-minute walk to class or so – so it's very different – than here – because here you find you only have to bike from building to building – and from your house to – and everything is so much more spread out here…

It's the most beautiful place – like in Canada that I've really ever been to – it is so pretty – it's along the Ottawa river – and so I mean – the whole town is on the river – so there's beaches everywhere – and it's a very

outdoorsy outdoorsy – kind of – nature town – and – I mean if you enjoy skiing – like cross-country skiing is very big there – and just all kinds of water sports like – canoeing – or fishing – even biking – just anything outdoors – you know you'll find it in my town – it's very active – outdoorsy town – yeah

Description

Canada has a population of twenty-nine million people, but a sizeable minority of these are French speakers, while many recent immigrants don't have English as their mother tongue. Nevertheless, this still leaves perhaps as many as eighteen million English native speakers. The overwhelming influence on Canadian pronunciation (uniquely amongst the major countries of the former British Empire) is USA English, but Scottish and Irish influences are also claimed. In fact, Canadian English, although recognisably a distinct variety, is much closer to General American than are many regional varieties of the USA itself. Within Canada, there is considerable variation on the Atlantic seaboard, notably the 'Newfie' speech of Newfoundland.

The speaker, Anne, grew up in a rural area (the Ottawa Valley) 200 kilometres west of Ottawa, and was an exchange student in a European university at the time of recording. Like most American English, Anne's Canadian accent is **h**-pronouncing (🎧 *house*), rhotic (🎧 *river, water, fourth*) and has **t**-voicing (🎧 *Ottawa, water, beautiful*). Yod-dropping is variable, but generally less prevalent in Canada than in the USA; Anne retains /j/ in 🎧 *student*. Her realisation of /l/ tends to be dark in all contexts (🎧 *along*).

BATH words have the TRAP vowel (🎧 *class*). Anne's front vowels, KIT, DRESS and TRAP, are all rather open (🎧 *r***i***ver, r***e***sidence, C***a***nada*). The THOUGHT and PALM vowels are merged, both sounding like PALM, e.g. 🎧 *pr***o***bably, walk*. Possibly the most salient feature of Canadian English is the centralised [ə]-like nature of the starting points of the diphthongs PRICE [əɪ] and MOUTH [əʊ] when they precede fortis consonants, e.g. 🎧 *right, bike, like, house, out*; compare the non-centralised diphthongs in 🎧 *five, find, found, town*. Note the

upspeak terminal rise intonation patterns in 🎧 *of campus; walk to class or so; just anything outdoors*. See pp. 247, 248 and 172.

C5

World Accent Varieties 2: The Southern Hemisphere

The most important varieties of English spoken in the Southern Hemisphere are Australian, New Zealand and South African English. These areas were populated with English settlers at the end of the eighteenth century.

1 Australian recording C5.1

Helen: university is a lot different from school – do you want to know about that – it's a little bit just – the holidays – because – university – now have holidays in semesters – whereas the schools still have them in terms – and schools are really trying to get their holidays in semesters – because that's what you work in – and it seems strange having term holidays when you're working in semesters – but at university we have – three – well it all depends on when your exams finish – there's – you have two weeks of holidays – but – most exams – you have three weeks of exams – and then – say two weeks of holidays – but – not many people have exams – towards the end of those three weeks – most people will be finished with their exams within the first – what – at least two weeks – so you'll have probably at least three weeks' holiday – and you can go home as soon as you've finished your exams – and so – well I – I had over – I had three and a half weeks' holiday – this year – that was in the middle and – you really need the break – and we also have mid-semester holidays – which – this year – in the semester that I had the first semester before I came over here – it wasn't – it wasn't in the middle of semester – it was – I suppose they shouldn't be really called mid-semester because it was just a week off – and the week was two weeks before we started swot-vac

Note

swot-vac: Australian informal term for a non-teaching period (vacation) which allows students to work intensively (colloquial 'to swot') for their examinations.

Description

Australia, with a present-day population of over twenty million and growing, appears set to become one of the chief standard forms of English of the future. Until recently, most of its population came from the British Isles, with a majority from southern England, and this is reflected in the nature of Australian speech today. Australian is a relatively young variety of English, and there are as yet no distinct regional accents in Australia; all over this vast country, people sound surprisingly similar. However, as mentioned in Section A1, there are distinct social differences. This speaker, Helen, is a university student, and speaks what would be classified as 'General Australian' English (i.e. neither 'Broad' nor 'Cultivated,' see pp. 7–9).

Australian English is non-rhotic (🎧 *working, semesters*). Broad accents have some **h**-dropping, but this is much less common than in England, and there is no trace of this in Helen's speech (🎧 *holidays, home*). Helen has regular medial **t**-voicing similar to that found in much General American (🎧 *university, started*). Her /l/ is noticeably dark. Systemically, the Australian vowel inventory is identical to that of GB. Lexical variation is a feature of certain BATH words, where the TRAP vowel rather than PALM is often found in words like *dance, example*, i.e. before nasal plus obstruent coda clusters. When preceding fricatives, e.g.*path, grasp*, 🎧 *half*, PALM is much more frequent.

In terms of realisational variation, the front vowels DRESS and TRAP are close (🎧 *sem* **e***sters, ex* **a***ms*). There is diphthong shift with wide glide realisations in FACE and GOAT (🎧 *break, go home*). The PALM vowel (🎧 *started*) is very fronted [aː] while NURSE is close and fronted, sometimes with rounding [øː] (🎧 *work*).

Helen's speech provides some good examples of one very well-known feature of Australian English: namely, 'upspeak' terminal rise intonation (in fact, another term occasionally used is 'Australian question intonation'). Note the terminal rises in 🎧 *so you'll have probably at least three weeks' holiday – and you can go home as soon as you've finished your exams.*

2 New Zealand 🎧 recording C5.2

Simon: Thursday night we decided to go down to the pub – and that made me feel quite good because I really wanted to have a beer – and so – we went down there and we had a beer – and then on the way home – we were there for a couple of hours – we got back to the flat – and – we saw that the back door was open – and – some people thought that maybe – there was – other flatmate had got home – forgotten to close it – but I had this sinking feeling in my stomach – that maybe – maybe that something dodgy was going on – because the lights were on and the door was open – and I had this bit of a sick feeling in my stomach – and so as we walked in the door – we saw that all the cupboards – the food cupboards – were all opened – and that's when we knew that something wasn't right – and I thought to myself – oh no – this is very bad – and so we walked through the house – we came down to – Rachel and I came down to *her* room – and everything had been turned out on to her bed – the desk was trashed – some money was stolen – you know – things were all rifled through – and – it was a very very bad scene – it's not – it makes – you know – it makes you feel really bad when you see that your stuff's been gone through – and – it turns out that – one of the flatmate's cars had been stolen as well – to carry all the stuff – and – one of the other flatmate's – all his guitars – heaps of – thousands and thousands of dollars' worth of stuff was stolen – everybody felt really – unhappy about the whole situation I have to say – and – the police came around – and we told them what had happened – but nobody was insured – and so everybody felt a bit sick – and I felt really sorry for everybody – even though I didn't have that much stuff here – and – the next day – the crime scene investigator guy came but – they're not very confident of catching anyone – so – I feel a bit let down by

> society in – in this respect – that we don't live in a safe place – and my – and my faith in humanity has been – severely knocked –

Description

Most of New Zealand's four million people speak English as their first language – even though there are still a significant number of Maoris who are bilingual. Located geographically over two thousand kilometres from Australia, New Zealand nevertheless shares many cultural ties with its closest neighbour, so it isn't surprising that we find similarities between these two antipodean varieties. Our speaker, Simon, is a post-graduate student at Canterbury University in the South Island and speaks an educated variety of New Zealand English. His speech, like that of most New Zealanders (all except those from the extreme southern portion of South Island), is non-rhotic (🎧 *hours, insured*).

Although New Zealand English resembles Australian English in many ways, there are some interesting differences, and the pronunciation of the KIT vowel is a sure-fire way of picking out a New Zealander. KIT is noticeably central for Simon as for most New Zealanders, and is levelled with /ə/ (🎧 *sick, live*). DRESS and TRAP are both even closer than in Australian English (🎧 *desk* – sounding very like *disk* in most other varieties –*everybody*;*flat, bad*). The SQUARE vowel is often very similar to English GB NEAR (there are no instances of SQUARE on this recording).

Other features are indeed very like Australian. Simon's NURSE vowel is front and rounded (🎧 *Thursday, turned*) and PALM is extremely front (🎧 *cars, guitars*). The NEAR vowel is often disyllabic (🎧 *here, beer* [hiːə biːə]). A feature of the consonant system is a noticeably dark *l* (🎧 *police, feeling*). There is frequent medial **t**-voicing (🎧 *investigator*). As with Australian speakers, rising terminal upspeak intonation patterns frequently occur (🎧 … *to carry all the stuff… were all opened*). Simon's mesolectal variety lacks the

extended diphthong shift forms of FACE and GOAT found in broader New Zealand accents.

3 South African 🎧 recording C5.3

Nicole: it depends – English schools in South Africa are far more formal – especially the school I went to – which is the Pretoria High School for Girls – an only girls' school – an Anglican school at that – so it was quite formal – and – I didn't really enjoy my time there – the Afrikaans school was *much* more fun – not as posh and la-di-da as the – as the – English school – but – the people were much warmer – they loved the idea of having an English person wanting to learn *their* language – that was a whole new idea to them – since they were usually the ones having to adapt – and there was – there was lots of fun…*Bobotie* is very – OK it's actually a mince dish – with raisins and cloves in it – and – some special kinds of leaves – what are they called again – I can't remember what the leaves are called – funny name – bit of an exotic name – and it's – it's eaten with rice – which you – that yellow kind of rice also with raisins – and you basically bake it in the oven – so it's a very spicy meat dish – South Africans eat a lot of meat by the way – a lot of meat – they're real carnivores – and they also like eating potatoes and rice together – so a typical South African dinner – would be meat potatoes rice and a vegetable – something else that's – is eaten in South Africa very often – especially among the black people – is what they call *putupap* or *mealiepap* – it's basically – crushed – crushed corn – and that's really ground into a into a sort of a powder – and then cooked up – and then you get this type of white porridgy substance – and that's very filling – although not very nutritious – so – many poorer black people eat that – very often – but – are malnourished because of it – so – those things are eaten quite often – and what the black people also love eating – is – you know the intestines and brains and eyes and those things – those really are delicacies among the amongst the black people so

Interviewer: but you don't eat them
Nicole: no – I couldn't – I couldn't really

Description

Some people may still be surprised to hear that mother-tongue English speakers are very much in the minority in South Africa, numbering no more than about three and a half million in total. The English of South Africa is much influenced by Afrikaans – a language similar to Dutch, with perhaps as many as six million speakers. It has been said that South African English ranges all the way from broad accents strongly influenced by Afrikaans to upper-class speech which sounds very similar to British traditional RP (Crystal 2010: 40). In the new South Africa, many black South Africans who speak African languages, such as Zulu, Xhosa and Sotho, now speak English as a second language.

Our speaker, Nicole, is a student who had spent one year at an Afrikaans-speaking school, but had the rest of her schooling from English-speaking institutions. Although Nicole's speech is very recognisably South African, hers is a middle-class mesolectal variety lacking many of the potentially stigmatised features (such as voiced /h/ and unaspirated /p t k/).

There is no **h**-dropping (🎧 *high, having*) (but broad South African accents have voiced /h/) and the accent is non-rhotic (🎧 *are far more formal*). The distribution of clear vs. dark *l* is as in GB and many other varieties, but dark *l* has a hollow pharyngealised quality (🎧 *else, school, people*). /t/ is strongly affricated (🎧 *wanting, eating, a lot of*), perhaps a slight over-compensation for the lack of aspiration in much South African English. Nicole has very little glottalisation (🎧 *went to, it was, much*).

DRESS and TRAP are close (🎧 *together, went, black, adapt*). In certain words, the KIT vowel is central resembling [ə] (🎧 *dinner, mince*, cf. New Zealand). STRUT is relatively front (🎧 *much, fun*). LOT is open and unrounded (🎧 *wanting, not*). The *happ* Y vowel is said with a close short FLEECE vowel (🎧 *really, funny, basically*). The PALM vowel is very back (e.g. 🎧 *far, carnivores*).

PRICE and MOUTH have relatively narrow glides (🎧 *time, kinds, rice, ground, south, powder*). SQUARE is very close (🎧 *their*). The weak form of *the* is consistently /ðə/ whether it occurs before a vowel or a consonant (🎧 *the idea, the English, the oven*). The PALM vowel is used in BATH words (🎧 *can't*).

C6

World Accent Varieties 3: Second-Language Varieties and Creole-Influenced Speech

In this unit we shall take a look at two second-language varieties (Singapore and Indian English) and two varieties illustrating creole-influenced speech (Caribbean and Sierra Leone).

1 Indian English 🎧 recording C6.1

Rajiv: and of course the politics – they keep on going on with all stupid things I think – I don't know why – but – that is the reason I think because the rest I don't understand because – India and Pakistan used to be – they were in the beginning like – let's say – before the partition – were in a – yeah – it was a big country – and half of them were in India and the other half was in Pakistan – I don't know how come the friction came but – why we have this friction I think maybe – both countries want to prove that I'm better than another – that is the reason I think – but the rest yeah – if you talk to the Pakistani like – Wasim the other guy – if you talk sometime about the politics (?) – why we have problem – then I say because of the politics – the politician they – they look for their own interest – and he say – absolutely the same thing – the politics – the politician they look for their own interest – that they – just – this way they keep – they keep their own their seats – if you ask the people – maybe people don't allow – they don't want any – this kind of a nonsense – because life itself is pretty hard

Description

In terms of numbers, Indian English is without doubt a major world variety; estimates vary, but it could have as many as thirty million speakers. 'Indian English' is used loosely to include the English spoken in all the Southern Asian area, i.e. that part of Asia which includes India, Pakistan, Bangladesh and Sri Lanka. The chief languages, including Hindi, Urdu, Bengali and Punjabi, are all spoken by many millions of people. Because there are so many different languages all over Southern Asia, English is recognised as an

official medium which all educated people can use. Consequently, in India, as in all the countries of Southern Asia, English means essentially second-language English. Our speaker, Rajiv, comes from Delhi and is a Hindi speaker, but from his schooldays onwards has been speaking English on a day-to-day basis.

One of the most striking things about much Indian English, and this is true of Rajiv's speech, is that many consonants are retroflex (see p. 46); this is true of /t d s z l n r/ (🎧 *be* **tter**, *ha* **r***d, pre* **tt***y*). Rajiv regularly has **th**-stopping whereby the dental fricatives /θ ð/ are replaced by /t d/ (🎧 *think, both, that, they*). The consonants /v/ and /w/ are not consistently distinguished (🎧 *why, we*), or a compromise (a labio-dental approximant) is used for both. As with most Indians, Rajiv's English is rhotic (🎧 *hard, partition*); initial and medial /r/ are generally taps (🎧 *reason, rest*). /p t k/ are unaspirated (🎧 *politics, talk, keep*) and /b d g/ are voiced throughout (🎧 *because, guy, big*).

Most types of Indian English use the vowels of the local Indian language and these will sound quite unlike those of native English. Note also that some Indian words are said differently in English from the way they are pronounced in India itself. For instance, the name *Gandhi* has a long PALM vowel in Indian languages but a short vowel in British English.

Indian English is notable for its syllable-timed rhythm, a feature it shares with many Indian languages (🎧 *life itself is pretty hard*). In many Indian languages stress does not appear to fall on any particular syllable (cf. French, pp. 132, 190), resulting in unexpected stress patterns in Indian English (🎧 *beginning*). These effects can cause intelligibility problems for non-Indians trying to understand these Indian varieties of English.

2 Singapore 🎧 recording C6.2

Ben: everybody has to go through national service in Singapore – I mean not everybody – every – every male citizen has – have to go through national service in Singapore – from – I think after sixteen you can – you can enlist – but you have to do it from within two to two and a h – – you have to do it – you have to – you have to serve – in the army – I mean – you have to join the national service for two to two and a half years – so you have some – you're just trained as a soldier and – I think basic training – they have lots of accidents and – dangerous stuff like live firing – live explosives and – yeah – and – lots of military training – so I think – I think the rate of – I think this is – I've seen – I've – of I've heard stories that people get killed – and they're reading – I'm not really sure if it's real but – maybe it's a story to scare all of us – but I've seen – people – I've think I've seen – people – one person commit suicide before – because uh – it's quite – pressurising in – in the army – of course – I mean – I mean the – your – I mean most people can take it but some people – are not suited to do military service – but they're still forced to because it's – it's by law that you have to do it – so – they can't really – probably can't take the pressure and kill themselves – so – yeah I've seen – once – someone just jumped down a building – and – there was a huge commotion – everyone surrounding him – and they had uh – they had to get a helicopter from somewhere – and carried him off to a stretcher – I don't know if he's still alive – but I mean he jumped from the fifth floor I think – so yeah

Interviewer: not a good thing

Ben: yeah and – yeah we – we didn't like – we do – grenade throwing – live firing – everything – and uh – we do – obstacle courses where – they actually fire live rounds two metres from the ground level – but I

mean – unless we – unless you jump up you get hit – so for that obstacle course we all just on our – on our hands there – I mean we are crawling on the ground – through barbed wire and everything and – yeah

Description

Singapore is a truly multicultural country. Most of its inhabitants are of Chinese origin, but a variety of languages are spoken by the 5.6 million people crowded onto this small island. English is only one of four official languages, but it has a special position since most Singapore children go to English-language schools. They understand English well and speak their own variety – sometimes called 'Singlish' – fluently. Our speaker, Ben, is typical of many educated Singapore people. Although he is fluent in two types of Chinese, he regularly speaks English both for his work and in conversation with his friends. He can move with ease between more formal English for work to something much closer to Singlish when relaxing with friends.

Ben has no **h**-dropping (🎧 *has to, helicopter*) and his speech is non-rhotic (🎧 *heard, barbed wire, person*). The dental fricative /θ/ is variably replaced by /t/ (🎧 *through, throwing*). Final dark *l* is regularly completely vocalised, sounding like an [u] vowel (🎧 *killed, level*). Final stops are typically unreleased. There is extensive glottalisation, with complete replacement of /t/ even in intervocalic position or before pause (🎧 *rate of, quite*). Ben regularly reduces consonant clusters to a single consonant (🎧 *ground, think, jump*).

LOT is articulated with considerable tension in the pharynx (🎧 *lots*). The *happ* Y vowel is said with a short FLEECE vowel (🎧 *actually, stories, army*). THOUGHT and PALM are also tense and shorter than in other accents (🎧 *forced to, before, half*). BATH words typically have the PALM vowel (🎧 *after, half*). FACE and GOAT lack a glide (🎧 *rate of, commotion, most*).

Ben's speech is also characterised by patterns of stress and intonation which are typical of Singapore English. Many of these are traceable to the influence of his Chinese origins. Note the high level tones in 🎧 *everybody, I've seen, but some people, we do*. There is little reduction of unstressed syllables, giving a syllable-timing effect, 🎧 *military training*.

3 Caribbean (West Indian) 🎧 recording C6.3

Gregory: old fellow in Golden Rock – they call him Jim – and it seems as if the estate owner of the land was Mr Moore – had some grudge against him – and he always want to whip Jim – the whip man was Hercules – so any time he's finished eat – and he having a smoke he would sit – I remember the old window that he used to sit in – he showed me – and it was a big tamarind tree right outside there – the house close this window and he used to sit there and smoke – they say you see all those holes there – in that window in the sill there – that's where he spit his tobacco out – spit – and he said (?) rotten holes like that – he say now – when he want fun – and he finish eating – he want a smoke he light a cigar – and he call the whip man to bring Jim – he say – Her[cules] bring Jim – and they would bring old Jim – and they would tie him – a rope up in the tree and it would come down and tie Jim around his waist – and he can't go no further than where that rope would let him go – and they would keep whipping – so when they – he start whipping him – asked well – how many lashes to give him – some time he say ah – give him a round dozen – a round dozen meaning twelve time twelve – is one forty four – hundred and forty-four lashes – say give him a round dozen – some time he would say – well – give him as much as I take a puff – each puff he take from his cigar is a lash for Jim

Interviewer: he could get away with that – just that – like that

Gregory: well he was the slave own[er] – he was the owner of the slave

Notes

Hercules: slaves were frequently given names from classical mythology. (Note the pronunciation [ˈhaːkləs] conserving the probable eighteenth-century pronunciation: see p. 167).
round dozen: in fact, this phrase means 'twelve' and not what Gregory believes.

Description

Caribbean English in one form or another stretches across a large area of the Atlantic, throughout the West Indies and over Guyana on the mainland of South America. There are also sizeable numbers of first-and second-generation speakers with some competence in Caribbean creoles in Britain and the USA.

Our sample comes from one of the smallest speech communities, St Eustatius in the Leeward Islands, more commonly known by its nickname of 'Statia.' Here, just over two thousand people live on a tiny island which is still a colony of the Netherlands. Dutch is the official language that everyone learns in school, and many islanders also have a knowledge of Spanish. Nevertheless, the main language of daily communication is a variety of English. Because of the official status of Dutch, there is no continuum from an acrolectal form of English through to a basilectal creole variety (as is true of Jamaica or Trinidad, for example). Our speaker, a member of the older generation, Gregory, is retelling stories that he has heard concerning one of the most notorious of the nineteenth-century slave owners.

Caribbean English divides along rhotic and non-rhotic lines, and Statian English is of the latter type (🎧 *further, there*). A salient feature is the simplification of consonant clusters, heard throughout this sample, often eliminating the past tense /t d/ or third person /s z/ markers of verbs (🎧 *waist, finish(ed), start(ed)*). One common word with a typical Caribbean pronunciation is 🎧 *asked* [akst]. Unlike Caribbeans in, for example, Jamaica, Gregory is not a regular **h**-dropper. The only indication here of the frequent Caribbean uncertainty concerning the occurrence of this consonant is the

hint of epenthetic /h/ in the emphatic pronunciation of 🎧 *owner*. The realisation of /w/ is at times a labio-dental approximant (🎧 *whip*). **Th**-stopping (replacement of dental fricatives by stops /t d/) is heard throughout the Caribbean, and Gregory is typical in this respect (🎧 *further than*).

Like most Caribbean speakers, Gregory has an open TRAP vowel (🎧 *land*) – more like British than American realisations. The PALM vowel is very fronted (🎧 *start, cigar*). The FACE and GOAT vowels are narrow diphthongs or steady-state vowels [eː oː] (🎧 *take, smoke*). Final /ə/ is open (🎧 *owner* [oːna]). In 🎧 *forty*, THOUGHT is open. The PRICE and MOUTH vowels consistently have the typical central starting points of Caribbean English (🎧 *light, round*).

4 West African (Sierra Leone) 🎧 recording C6.4

Aminata: To him what happened was – he went – a Dutchman in Sierra Leone – I call it – he went to Sierra Leone – he make appointment with the police – and he has appointment for one o'clock – he was there ten to one or quarter to one – and he found out the person he has appointment with was sleeping – so he was standing there – waiting – he was – he has been sleeping for two hours – and he's still sleeping – I say – look I have an appointment one o'clock and it's now three o'clock – I say – yes I know – I know I'm coming – so he went in – into another room – he came after forty-five minutes – so my husband has been there for – since one o'clock – didn't (?) – his appointment was actually four o'clock – so he become so irritated he blushed and so – I said now – take it easy – this is Sierra Leone – they say one o'clock – they mean three o'clock – it's African time – that's what we call it – African time – never you go again when they say one o'clock – make sure you're there three o'clock or ten past three to be precise – he says oh OK – yes and when he goes to the market – now that's what I find terrible – he can't buy in the market because then he has to pay three times the real price – when he goes – one day I was sick so I sent him – I said please go buy some pepper and onions and I want to make soup – so he went – he bought pepper onions tomato – and he came to me – he says it's about fifty thousand leones – and fifty thousand leones is about twenty-five dollar – I said what – fifty thousand leones – he says yes – for onions tomato and pepper – yeah yeah – I said now – now what we're going to do we go back – so I went with him – I was sick in my night's (?) dress and so I – I went to the market – everybody was looking at me (?) as if I am a mad woman – I said where did you buy this – show me – because I know – well actually this man – is a white man with a black woman – so

now you people sell give to me what I want for the normal price – so I end up pay five thousand leones – so he pay fifty – forty-five thousand leones extra – so I end up pay five thousand leones for a few things and I come home – yeah – since then when he went to the market – then he say my wife says – then he buy normal – otherwise

Notes

Dutchman: Aminata's husband is Dutch.
leones: Sierra Leone's unit of currency.

Description

Sierra Leone has its own creole language, Krio, derived originally from English. Some Sierra Leonians are only able to speak Krio and indeed have grown up speaking it exclusively as their mother tongue. Others, like Aminata, although able to speak Krio, also speak English as a second language. They can switch easily between Krio and English, and indeed constantly vary their use of Krio and English according to the circumstances and the persons with whom they're conversing.

Aminata has much in her English which is common to many West African countries, but some features are peculiar to Sierra Leone. Unlike most West African varieties, there is variable **h**-dropping (🎧 *he, his*). /p k/ are unaspirated and there is no devoicing of /l/ following the fortis plosives (🎧 *appointment, o'clock, coming*). The dental fricatives /θ ð/ are replaced by stops /t d/, i.e. **th**-stopping (🎧 *three, thousand, with, there, this*). An unusual Sierra Leone feature compared with other varieties of African English is that /r/ is uvular (🎧 *irritated, dress*). The accent is non-rhotic (🎧 *quarter, forty-five, market*).

Aminata's realisations of vowels are typical of Sierra Leonian English. TRAP vowel is open (🎧 *mad, back, black*) while STRUT is back (🎧 *onions,*

Dutch, coming). NURSE is a back vowel rather like GB THOUGHT (🎧 *person*). The *happy* vowel is said with a short steady-state FLEECE vowel (🎧 *forty, actually*). Syllables which are unstressed in most other varieties of English are pronounced with a degree of stress and not reduced to /ə ɪ ʊ/ (🎧 *market, African, police, woman*). The BATH words are said with the PALM vowel (🎧 *after, past, can't*). FLEECE and GOOSE are noticeably short (🎧 *sleeping, soup*).

Activity C6.1 🎧 Recording C6.5 Accent detective work 3 (Answers on website)

Listen to the extracts on the website. In each case, there is another voice speaking with one of the accent varieties discussed and which you have already heard. Try to locate the speaker geographically and state which particular phonetic features enable you to do this.

Section D
Extension

D1

Attitudes to Accents

Daniel Jones

Daniel Jones (1881–1967) is generally considered to be the greatest British phonetician of the twentieth century, and the man who laid the foundations worldwide for phonetics as we know it today. Although one of his important contributions was his detailed description of English pronunciation on the basis of traditional RP, he was perhaps the first linguist to set down clearly his opposition to prescriptivism in speech training and to advocate respect for native accents of all kinds.

Aim and methods of phonetics

The aim of the phonetician is twofold: (1) to determine with precision the movements made by the tongue and other parts of the organs of speech in pronouncing words and sentences, (2) to cause his pupils to perform unaccustomed movements with their organs of speech; in other words, to pronounce new sounds or new combinations of sounds.

The processes of phonetics can be applied in various ways. For instance, it is possible by means of them to teach an apt pupil to pronounce a foreign language in a manner almost indistinguishable from a native, whether that language is one such as French, which has certain affinities with English, or whether it is an absolutely remote one such as Chinese or Zulu. It is also possible to teach a pupil to make changes in his pronunciation of his mother tongue; and it is this aspect of phonetic work in which this [paper] is chiefly interested.

It should be explained here that phonetic work is not concerned with voice-production. The phonetician is concerned with tongue articulations, etc.; we leave the manner of producing the voice to those who are specialists in that subject. These two branches of speech training should, in my view, be kept distinct; any *pronunciation* can be combined with either good or bad *voice-production*. There are plenty of people, for instance, who speak what is called ‘good’ English but use bad voice-production. And conversely one not unfrequently hears good voice-production combined with quite incorrect pronunciation; this may be observed notably when good singers sing foreign songs.

‘Good’ and ‘bad’ pronunciation

Another point to be noted is that the phonetician concerns himself with the recording of facts, and his teaching is based on such records; he does not (or at any rate it is better that he should not) concern himself with what is ‘good’ or ‘bad’ in pronunciation, or with what is ‘right’ or ‘wrong’ or with the ‘prettiness’ or ‘ugliness’ of sounds.

In fact, it is his function to take up a rather detached attitude in regard to such questions. By doing so he finds that much of what is sometimes called ‘beautiful’ or ‘ugly’ in speech is not intrinsic beauty or ugliness at all, but is merely convention. The use of a certain sound recalls an unpleasant circumstance or reminds us of somebody we do not like or whom we despise, and (often without realising the connection) we attribute ugliness to the *sound* instead of to the circumstances recalled by it.

To give an example: many people think it ugly to pronounce *face* as [fais]. But if you come to think of it there is nothing intrinsically ugly about this syllable or about any parts of it; we use the vowel sound [ai] in *nice, twice* and *ice* without thinking it ugly, and the sound cannot become ugly simply because someone puts an *f* in front of it. In fact, I can imagine that if we are thinking of snow and ice or skating, many people might consider the sound of the word *ice* rather pretty. But if I were to make exactly the same sound [ais] in speaking of the ‘[ais] of clubs,’ some of those people might regard that same sound as being ugly. This instance shows that we are not dealing with intrinsic prettiness or ugliness: the sound [ais] cannot vary its inherent prettiness according as a person uses it to denote frozen water or a certain card in a pack.

The real reason why people who pronounce [feis] do not like the sound of [fais] is that they connect the variant [fais] with Cockneys and slums and what they call ‘vulgarity,’ while they connect by a convention [feis] with

gentility or elegance or culture. (Incidentally, it may be remarked that [feis] and [fais] may both be said with either good or bad voice-production.)

This detached attitude of merely regarding sounds as sounds (apart from any inherent beauty they may possess, if any), of examining them as we find them, of analysing their mode of formation and noting who are the people who use them, leads to very useful results. When we come to study pronunciation with this attitude of mind, we make many interesting discoveries, some of which may cause surprise. One discovery which the observer of phonetic phenomena makes at quite an early stage of his studies is that he finds he actually uses a great many pronunciations which at first he might have been tempted to condemn. Another is that when you listen carefully to the speech of those who condemn particular forms of pronunciation, you will often hear them use the very pronunciations they are condemning. It is also interesting to find out the effect which one's own pronunciation has on different people; my pronunciation was, for instance, once described by a teacher of some position as 'the speech of costermongers and servant girls,' and on another occasion by a provincial amateur philologist as a 'nauseating London simper.'

We learn from such experiences to be very tolerant about other people's pronunciation; and that tolerance greatly facilitates the task of practical teaching. If one is trying, for instance, to teach the sort of English I am now using to a class of Cockney schoolboys, and if one is intolerant about their speech and tells them that their way is 'wrong' or 'bad' or 'ugly,' it simply antagonises them. They do not like being told that the kind of English they have always used and which is used by their parents, their brothers and sisters and friends, is 'bad.' But if the teacher takes up a more tolerant attitude and explains that they have a language which serves its purpose well for home use, but that there exist many other ways of talking; that some of these ways are only understood well in restricted areas, say London, or South Lancashire, or the neighbourhood of Dundee, while others are readily understood over much wider areas – some, in fact, over the whole of the English-speaking world; that it often comes in very usefully if a man can talk a kind of English which is easily understood everywhere, and that is

why a special kind of English is taught in school; then the teacher can get the boys on his side, and they become willing to learn the school pronunciation instead of thinking it silly and affected.

As to details of the methods of applying phonetics in the teaching of speech, I could, of course, give many examples to show what can be done, but it is hardly necessary to do so here, since most if not all of [us] are familiar with modern methods of teaching pronunciation. But I should like to emphasise one thing, namely, that phonetic methods deal not only with the articulations of consonants but also with the more difficult problem of the utterance of vowels. It is a relatively easy thing to teach a child to say *butter* when his home pronunciation is to use what we call the 'glottal stop' instead of the *t*, or to say *getting* when his home pronunciation is *gettin;* and it is generally not difficult (provided you can induce the pupil to co-operate willingly) to cure lisping and other individual mispronunciations of consonants. But it is a good deal more difficult, though none the less feasible, to teach the so-called 'cultured' pronunciation of *face, tea* and *two* to pupils accustomed to say [fais], [t^h əi], [t^h əu]. Such things are mainly a matter of directing the pupils to put their tongues and lips into certain positions, and helping them by suitable dictation exercises to discriminate by ear between different shades of sound-quality.

Conclusions

Any pronunciation can be combined with either good or bad voice-production.

Much of what is sometimes called ‘beautiful’ or ‘ugly’ in speech is merely convention. The beauty or ugliness applies to certain environments, and we are apt to attribute beauty or ugliness to sounds which remind us of those environments.

A study of phonetics often reveals that we ourselves use pronunciations which at first sight we might be tempted to condemn. We thus learn to become very tolerant of other people’s pronunciation; this tolerance on the part of a teacher of speech makes him more efficient.

Questions, suggestions and issues to consider

1. We have included this extract because it is one of the very first examples of what might be termed a liberal approach to social variation in speech. What do you think might have been the reactions to this paper in the Britain of the 1930s? What might be the reactions in Britain today?
2. Are there nowadays any reasons for teaching children to change their natural speech? Do Jones’s arguments that people should be encouraged to speak in a manner which is widely intelligible still hold?
3. Would you agree that it is easier to change the pronunciation of consonants than that of vowels? Go back to Sections A5 and A7 for help in this discussion.
4. Do you consider that there are such things as ‘ugly’ or ‘pretty’ speech sounds? Would you agree with Jones that ‘much of what is

called “beautiful” or “ugly”… is merely convention’? Or do you think aesthetic criteria can indeed be applied to pronunciation?

5. From what you have learned of phonetics so far, do you find that you actually use pronunciations which at one time you might have been tempted to condemn? If so, draw up a list. Talk to other members of the class and exchange your views on this matter.

D2

Preliminaries to Teaching Pronunciation

Peter Avery and Susan Ehrlich

Peter Avery and Susan Ehrlich (reprinted from *Teaching American English Pronunciation* (1992), Oxford: Oxford University Press, xiii–xvi)

Although this introduction to a pronunciation training course was written over twenty-five years ago, it nevertheless deals with matters which are still under discussion today. Peter Avery and Susan Ehrlich first consider the 'critical period hypothesis,' an idea borrowed from biology, which suggests that in the course of human development there is a limited window of opportunity for acquiring certain abilities. Originally applied in linguistics to first language acquisition, it has long been disputed to what extent it can also be of relevance to learning a second language. After mentioning the part played by sociocultural factors and the student's own personality, the authors go on to introduce contrastive analysis (though not employing the term) with respect to the 'role of the native language' (cf. pp. 176–8 of this volume) and hint at the significance of the phonetic/phonological approaches which are detailed in their textbook. They conclude by stressing the importance of 'setting realistic goals' – a matter which is the subject of much lively debate at the present moment.

Preliminary considerations in the teaching of pronunciation

Let us begin by considering two opposing views on the teaching of pronunciation in the ESL classroom. One view holds that the purpose of teaching pronunciation is to eradicate all traces of a 'foreign' accent through pronunciation drills. The other view holds that the teaching of pronunciation is futile after a certain age due to a decreasing ability among learners to develop native-like pronunciation in a second language. In this section, we will point out that neither of these views is completely accurate by considering biological, sociocultural, personality, and linguistic factors which are known to affect the acquisition of the sound system of a second language. This will lead to the understanding that while practice in pronunciation may not make perfect, ignoring pronunciation totally can be a great disservice to ESL students.

Biological factors

A common observation made by people involved in the field of second-language learning is that adult second-language learners almost always have a 'foreign' accent while child second-language learners almost always attain native-like pronunciation. One hypothesis that has been proposed to explain this difference between adults and children is the 'critical period hypothesis.' This hypothesis holds that languages are learned differently by children and adults, and that this is a direct result of the maturation of the brain.

As all experienced ESL teachers know, adult learners do have difficulty in acquiring native-like pronunciation in a second language. Thus, there may be some truth to the critical period hypothesis. However, it is also true that some adult learners do achieve native-like pronunciation and, among other

adult learners, the degree of pronunciation accuracy varies considerably from individual to individual. The critical period hypothesis, therefore, does not absolve ESL teachers of the responsibility of teaching pronunciation. The very fact that variability exists among adult learners means that ESL classroom time can profitably be devoted to improving students' pronunciation.

Sociocultural factors

The great variability in pronunciation accuracy of adult learners has led other researchers to conclude that it is sociocultural factors that largely determine this success or lack of success in achieving native-like pronunciation. More specifically, it has been claimed that the more strongly second-language learners identify with members of the second-language culture, the more likely they are to 'sound' like members of that culture. Conversely, if it is important for learners to preserve their own cultural identity, they may hold on to their foreign accent as a marker of this identity.

We can see examples of this phenomenon in our own experience with native speakers of English who speak a different dialect (British English, Jamaican English, Australian English, etc.). Such speakers rarely lose their 'accent' primarily because their accent serves as a strong marker of their social identity. This is especially true when the accent is viewed positively by members of the society in which they live. However, even when the particular accent is viewed negatively by members of the culture at large, the accent may be retained because the speaker may feel at a social distance from members of that culture.

For ESL teachers, it is important to be aware of the way in which these sociocultural factors may influence their students. Students may wish to improve their pronunciation in order to make themselves more comprehensible but, at the same time, they may not be interested in

sounding like native speakers of English. Such considerations become important in setting realistic goals in the pronunciation class.

Personality factors

Other factors affecting the acquisition of the sound system of a second language are related to the personality of the learner. Learners who are outgoing, confident, and willing to take risks probably have more opportunities to practise their pronunciation of the second language simply because they are more often involved in interactions with native speakers. Conversely, learners who are introverted, inhibited and unwilling to take risks lack opportunities for practice.

ESL teachers should be aware that such personality factors can affect progress in a second language and should strive to create a non-threatening atmosphere in their classrooms so that student participation is encouraged. Furthermore, students should not be forced to participate if they are not ready, as the pressure to perform can be paralysing for some students.

The role of the native language

The nature of a foreign accent is determined to a large extent by a learner's native language. Thus, speakers of English are able to recognise Spanish accents, Russian accents, Chinese accents, etc. This is an indication that the sound patterns of the native language are being transferred into the second language. Every language has a different inventory of sounds, different rules for combining these sounds into words, and different stress and intonation patterns. The pronunciation errors that second-language learners make are not just random attempts to produce unfamiliar sounds. Rather, they reflect the sound inventory, rules of combination, and the stress and intonation patterns of the native language.

The sound system of the native language can be seen to influence our students' pronunciation of English in at least three ways. First, difficulties may arise when a learner encounters sounds in English that are not part of the sound inventory of the learner's native language. As we will show in the following sections, the pronunciation of sounds depends on the proper use of the musculature in the mouth. Thus, adult learners may be unable to produce new sounds because they have never exercised their mouth in the particular way required to pronounce certain English sounds. Secondly, difficulties may arise because the rules for combining sounds into words are different in the learner's native language. This type of difficulty can occur even when a particular sound is part of the inventory of both English and the native language. Thirdly, the patterns of stress and intonation, which determine the overall rhythm and melody of a language, can be transferred from the native language into the second language.

The native language not only affects the ability to produce English sounds but also the ability to hear English sounds. Experienced teachers certainly know the frustration involved in having students continually repeat a mispronounced word in the same way. Students may seem impervious to correction but, in fact, the problem often arises because the word is heard through the sound system of the native language. Thus, sounds which occur in the native language will be heard rather than the actual sounds of English which are being produced by the teacher. This highlights a very important point concerning the influence of the native language. It is as if learners hear the second language through a 'filter,' the filter being the sound system of the native language.

One question that a teacher might ask concerns the degree of difficulty that different native languages pose for learning the pronunciation of English. For example, because the sound systems of English and Cantonese differ more than the sound systems of English and Polish, is it more difficult for a Cantonese speaker to acquire English pronunciation than for a Polish speaker? If so, does this mean that it is more important to teach pronunciation to Cantonese speakers than to Polish speakers? The answer to both of these questions is 'perhaps.' Cantonese speakers' pronunciation

problems may cause their speech to be more incomprehensible than the speech of Polish learners. This, of course, would suggest that it is more important to teach pronunciation to Cantonese speakers. However, it is not necessarily the case that their English will be more incomprehensible than Polish speakers' English. Sociocultural and personality factors such as those discussed above will also determine the degree of a learner's pronunciation problems. In other words, the native language of a learner is not the only factor affecting pronunciation ability in a second language. It is one of several factors, suggesting that teachers cannot decide, without first listening to their students, which learners will necessarily need more pronunciation practice.

Setting realistic goals

Given that biological, sociocultural, and personality factors may prevent a student from ever attaining native-like pronunciation in a second language, it is important that teachers set realistic goals. Attempting to completely eradicate a foreign accent is an unrealistic goal. However, this is not to say that pronunciation should be ignored in the ESL classroom. We know that it is possible for adult learners to improve their pronunciation. And sometimes these improvements can be quite dramatic.

What the teacher must focus on in the pronunciation class are critical errors, features of a student's speech most responsible for incomprehensibility. This requires work in two areas. First, students must be made aware of aspects of their pronunciation that result in other people being unable to understand them. Students will not necessarily have this awareness before entering the classroom due to the 'filter' of their native language. In other words, they may not hear the points at which their pronunciation does not correspond to that of a native English speaker. Secondly, students must be given the opportunity to practice aspects of the English sound system which are crucial for their own improvement. It is important that this be done in meaningful contexts as students often

produce sounds correctly in isolation but are unable to carry this over into their everyday speech.

Note

ESL: English as a second language.

Questions, suggestions and issues to consider

1. Looking back on your own experience of learning the pronunciation of a second language, do you think the 'critical period hypothesis' applies in your case?
2. Think of other language learners you know. Are there any non-native adults who sound almost like native speakers? If so, can you think of any special reasons there might be for this?
3. Do you agree with the authors that some language learners may not wish to sound totally native? Are there any disadvantages to losing one's foreign accent completely?
4. Do you agree with the idea that extroverts ('out-going, confident, and willing to take risks') are better than introverts at learning the pronunciation of foreign languages? If so, what strategies could a teacher adopt to assist introverted language students?
5. Go back to Section C1 (pp. 210–12), where we discussed systemic, distributional, lexical and realisational variation between different native accents of English. To what extent can we apply such categories to the errors made by non-native learners?
6. Of the types of error above, systemic errors are often thought of as being the most significant. Do you think this is always true?
7. At the moment a great deal of attention is being given to the idea of English as a Lingua Franca (ELF) – namely a type of English intended primarily as a means of communication between non-

natives (Jenkins 2000). Amongst other things, ELF involves reducing pronunciation training so as to deal only with the most crucial problems from a non-native speaker point of view and ignoring the rest. It has been implied, for example, that the English dental fricatives /θ ð/ are 'unteachable' and that weak forms are insignificant. Argue for or against such an approach to pronunciation training. Would it be wise to extend it to teaching pronunciation to both (1) ELF learners using it to interact with other non-native users of English and (2) learners who are going to communicate with native speakers? To what extent do you think that non-native learners of English tend to have similar targets and ambitions?

D3

English Accents and their Implications for Spelling Reform

J. C. Wells

J. C. Wells (part of a talk originally given to the Simplified Spelling Society (henceforth SSS) in 1986, and now made available in revised form (2003) on the author's website, see below)

Apart from being the editor of the Longman Pronunciation Dictionary,*John Wells (emeritus Professor of Phonetics at University College London) is perhaps best known for having written the massive standard work on English pronunciation varieties* Accents of English *(1982). He is also an enthusiastic advocate of spelling reform and was President of the English Spelling Society (formerly the Simplified Spelling Society) from 2003–2013. In this extract from a talk which he originally gave to that organisation, Wells examines the need for a reformed alphabet to take account of the ways in which pronunciation varies from one accent to another. The full version of this text can be accessed on: www.phon.ucl.ac.uk/home/wells/accents_spellingreform.htm*

Some basic problems

The alphabet

An ideal spelling system, we all know, will have one symbol for one sound, one graph-eme for one phoneme. But this principle throws up certain difficulties in practice. If we confine ourselves to consideration of the Latin alphabet, one major difficulty is that it is an arbitrary list of twenty-six letters which do not necessarily correspond to the sound systems of the languages which have to use it. In particular, they do not correspond to the sound system of English. On the one hand, the Latin alphabet provides us with no unambiguous way of spelling English sounds that Latin lacked (e.g. the sound we often spell **sh**, the two sounds we spell **th**, and many of our vowels and diphthongs); on the other, it contains at least two letters, **q** and **x**, that were unnecessary even from the point of view of Latin. In this article, however, I am concerned not so much with the deficiencies of the alphabet and how we might remedy them (the 'grapheme' part) as with the problems arising from the fact that we English speakers do not all pronounce our language in the same way (the 'phoneme' part).

As my eminent predecessor Daniel Jones pointed out in his article about phonetics and spelling reform (1944),[1]

> people in different parts of the country speak differently [...] what is a phonetic representation of a word for one person is not necessarily phonetic for another.

In raising these problems I do not want to detract from the fact that there are large numbers of words in our language where they do not arise. All speakers of English, no matter where they come from, pronounce *friend* so that it rhymes with *bend, send, tend.* So a reformed spelling **frend** ought to be uncontroversial. Everyone pronounces *sight, site* and *cite* identically, so it is absurd (except for advocates of etymological spelling) that we have to

learn to spell them all differently. Everyone distinguishes the verb *to advise* from the noun *the advice*, so we can see the justification for distinguishing them in spelling – yet we all make the same pronunciation difference between *to use, to house, to excuse* and the nouns *the use, the house, the excuse* where we make no spelling distinction.

Danger of parochialism

The sounds of any language can be viewed as a system of contrasting phonemes. The pronunciation of any word can be specified in terms of the string of phonemes that represent it, together perhaps with information about relevant prosodic features (in the case of English, about stress placement). In designing a scheme of spelling reform, we face a certain danger of insularity or parochialism, of assuming that everybody has the same set of phonemes, and uses the same phonemes in particular words as we do ourselves. Unfortunately, this is not the case. What seems obvious and normal to one speaker may be exotic, unusual, subtle and strange to another. There are all sorts of little facts about how English is pronounced round the world by native speakers which may give us pause in our reforming zeal. Here is a simple example. The traditional spelling of the words *any* and *many* conflicts with the way most of us say them. It may seem obvious to most of us that they rhyme with *penny* and so ought to be spelt in the same way, perhaps as **enny** and **menny**. In making such an assumption, however, we are ignoring the awkward fact that many southern Irish people pronounce them to rhyme with *nanny*, so that they would see nothing strange about writing them with the letter **a**. Maybe they would want to write **anny** and **manny** rather than **any** and **many**, but that is not my point. I concede that in English as a whole the preferences of the southern Irish may have to give way before those of the vast majority of other English speakers – but we should be aware of what our proposals imply.

Consonant variations

Spelling the past tense

Ought *mist* and *missed* to be spelt identically because they are pronounced identically? Or should we give the past tense a consistent spelling shape with **d**, even when, as in *missed*, it is pronounced /t/? In deciding this issue, we should perhaps consider the Nigerians, who do not usually pronounce *missed* like *mist*. This is because – under the influence of traditional orthography – they typically use a /d/ sound in *missed*, and in fact usually assimilate the /s/ sound to a /z/, so saying /mizd/, with voicing throughout. For them *kicked*, likewise, tends to rhyme with *rigged* rather than with *strict*. I am not necessarily saying that we have to let our reform proposals be determined by how Nigerians pronounce English, even though they do constitute a substantial body of users of English. But I am saying that we should at least be aware that a reform that makes spelling more logical for one group of speakers may make it less logical for another.

Spell or omit r?

From *New Spelling* (Ripman and Archer 1948)[2] onwards the importance of catering for accents other than Received Pronunciation has been clear from the treatment of historical **r**. Like most English people, in my speech I don't distinguish *stork* and *stalk*. If spelling reform proposals do make a distinction, as they usually do, then the reason is (a) historical and (b) because they are pronounced differently from one another in other accents. Historically,*stork* had /r/, and *stalk* did not. In many varieties of English (Scottish, Irish, west of England, most American, Canadian – the *rhotic* accents) the distinction is still made in speech. Similarly, pairs such as *larva*

– *lava, rotor – rota*, homophonous for English people like me, are distinct in the rhotic accents. This justifies our keeping the distinction in spelling, even though the task of learning which words to write with **r** and which without will impose some burden on those of us whose English is non-rhotic. And those of us who pronounce intrusive /r/, saying perhaps *rotar of duties*, will have to remember not to write r in some positions where we pronounce it, as well as sometimes writing it where we do not pronounce it. Faced with this problem, spelling reform has little alternative to accommodating the rhotic speakers, even if the consequence is that we non-rhotic speakers must learn by rote when to write **r** and when not.

Singer and finger

A similar problem arises with **ng**. Consider the pair *singer-finger*. For most speakers these words do not rhyme exactly, because *finger* has a /g/ sound after the nasal. It seems logical to write **singer** but **fingger** (Ripman 1941).[3] The trouble here is that people in the trapezium linking Birmingham–Manchester–Liverpool make these words rhyme, with /g/ in both. So if we show a difference in spelling, some Midlanders and Northerners will have to learn an extra arbitrary distinction. Alternatively, I suggest, it is a distinction we might well decide to ignore – so incidentally also simplifying the spelling of the comparative and superlative of *long, strong, young*, whose irregular pronunciation in most accents would otherwise be reflected in reformed spelling as *longger, longgest* etc.

Social factors

Accents as social labels

A complication with the northern pronunciation which merges the vowels of *cut* and *put* is that it bears considerable sociolinguistic value. As everyone knows (in England), the vowel sounds you use in the STRUT set tend to flag your social class and to symbolise educated versus uneducated speech. The same is true of many other pronunciation variables. A reformed spelling that seems to buttress a low-prestige pronunciation will encounter resistance.

Hypercorrection

Aware of social prejudice, northerners not uncommonly attempt to use a southern-or RP-style vowel in STRUT words – but may do the same thing in FOOT words (since they do not natively distinguish the STRUT and FOOT vowels). Hence the phenomenon of northerners pronouncing *sugar* to rhyme with RP *rugger*, and *pudding* like RP *budding*. Phrases like *good luck* are particularly problematic: northerners attempting to sound posh may easily change the first word as well as the second, or indeed sometimes the first word but not the second. The word *gasmask* gives rise to the same problem: if your basic pronunciation is with a short vowel in each word, and you later discover that it is considered better to use a long vowel in *mask* and *grass*, you might well lengthen the vowel in *gas* as well. If people have these problems in hitting the intended target in pronunciation, they would obviously have similar problems in reformed spelling if it were to follow RP too slavishly.

Accent prejudice and spelling reform

Spelling reformers have to confront sociolinguistic facts of this kind. Many ways of pronouncing are liable to be condemned as ugly and uneducated and not to be encouraged. Though this may well depend on the unfavourable stereotyping of the social groups who pronounce in these ways, we have to recognise that such stigmatisation exists. If in a spelling reform we make provision for such stigmatised pronunciations, we could be seen as bolstering vulgarity and ignorance. The objective, scientific observer of course discounts these social views and refuses to make such value judgments, but a reforming movement does have to take such prejudices into account.

H-dropping

A case in point is h-dropping. Millions of English people do not pronounce /h/ consistently: they omit it most or all of the time. We can still understand them. So it might seem logical to omit the letter **h** from our reformed spelling, and write pairs such as *harm* and *arm* identically, in line with that pronunciation. But no! That would go against the social attitude that it is incorrect to drop /h/ and that therefore the spelling ought to reflect its presence; and it would shock all the Scots, Irish and Americans who are strangers to h-dropping. Obviously we should not continue to write **h** in the words *honest* and *hour;* but it would certainly be wise to continue to write it in *harm* and *house*, to reflect the prestige pronunciation that does distinguish *harm* from *arm* – even if this is going to constitute a spelling problem for h-droppers.

Northernisms

So with some of the other phonetic variables we have considered. These prejudices might well say that we must retain the difference between the STRUT and FOOT vowels in our reformed spelling, perhaps by writing **u** and **oo** respectively. This is not the only vowel-sound contrast which some people don't make, despite a widespread feeling that it would be better if they did so. Another example is the vowel contrast between the lexical sets SQUARE and NURSE. Liverpudlians,[4] for example, typically have these vowel sounds merged, so that *fair* and *fur* are not distinguished, and the name *Mary* is pronounced to rhyme with *furry*. Again, perhaps we ought to keep the distinction in a reformed orthography, despite the problems that Liverpudlians will then face in remembering the correct spelling. That is to say, we ought to reflect the vowel-sound contrasts that everybody makes except northerners. This is hard on the northerners, but maybe that's life as it is – unless we can somehow remove these prejudices about accents.

The -ing ending

Similar considerations apply to the ending *-ing*. Almost everywhere where English is spoken there is a rivalry between a relatively high-status pronunciation with a velar nasal (as in *sing*) and a relatively low-status pronunciation with an alveolar nasal (as in *sin*). The low-status variant is reflected in our current orthographic conventions by writing *n'*, thus *runnin'* rather than *running*. Again, I think there would be general agreement that we have to keep the *ing* spelling, to reflect the prestige pronunciation.

Other pronunciation variables

Declining status of RP

I have the impression that reform proposals this century – those originating in Britain, at least – have been very firmly based upon RP, together with some nods in the direction of archaising tendencies (which is why historical **r** is reflected). It is clear that in the last quarter of a century in England the position of RP has been very seriously eroded, in that RP no longer enjoys the unquestioned status that it previously did. There are now many people who not only don't speak it – that was always the case – but who also don't aspire to it, and who would regard it as quite unrealistic to aspire towards it. In fact, I think what has changed is the perceived model of beautiful or ideal speech, which is for many people no longer RP. This can be seen in all sorts of ways. Teachers of English as a foreign language, for example, get increasingly dissatisfied with the transcriptions the phoneticians offer them as the models for foreigners to imitate. This is what lies behind the change in the phonetic transcription of the final vowel in words like *happy*. Until the 1980s it was identified with the vowel of *bit*. But now [2003] the many people who use a final *beat*- like vowel no longer feel it as lacking the prestige that formerly attached to using only a *bit* -like vowel. Current pronouncing dictionaries *(EPD* 1997;*LPD* 1990, 2000)[5] write it with a compromise symbol, to accommodate the many speakers whose vowel is more similar to that of *beat*.

Allophonic variation

I have yet to discuss various technical phonological questions like the phonemic principle. It is clear that where we have allophonic differences,

that is, realisational differences within a phoneme, we can ignore them. This means that essentially where two sounds are used in such a way that we can predict from the surrounding sounds which will be used, then we can ignore any such difference. This is why we can ignore the difference between an ordinary **t**-sound and a glottal stop: whichever way you say *that is, not only but also*, the meaning is the same and your choice of pronunciation should not influence your choice of spelling. Contrary to popular belief, there are certain positions in a word where a glottal stop is by now the norm, as in *department* or *atmosphere*, and many other where it is very widely used, as in *network, football*. Another example is the really rather sharp difference between the o-sound that many people use in most cases (*go, show*) and the o-sound they use before /l/ (*goal, shoulder*). As long as we can set up a rule that our long o-sound has a special pronunciation before /l/, there is no problem: the two sounds are just allophonic variants of the same phoneme. They may sound a bit different but the difference is predictable, and so it may be ignored in an orthography.

American intervocalic t

American intervocalic **t** is an interesting case, because it is moving from being allophonic to involving a neutralisation and therefore becoming phonemic. As you know, in words such as *city, waited* and in phrases such as *right away*, Americans tend to use a d-like sound. Indeed, increasingly it is identical with their **d**-sound, so that *atom* and *Adam* are pronounced identically. Or there may be a subtle distinction, perhaps more in the mind of the speaker than perceptible for the hearer. In 1961 *Webster's Third International*[16] was the first American dictionary to transcribe these words with /d/. For this it incurred considerable criticism: the /d/ pronunciation was said to be slovenly speech which should not be admitted to the dictionary. Nevertheless, it is a fact; and I have even encountered reverse spellings: I read an American novel in which somebody gave an 'involuntary shutter,' *shutter* and *shudder* for the author clearly not being distinct. But we

shall not want to admit this to a reformed spelling scheme. Americans will have to learn by rote which words are written with **t** and which with **d**. That would accord with their prejudices in many cases anyhow, so is not yet a problem; but it may be so in a hundred years' time, particularly if this sound change spreads, as seems likely, to all other accents of English. Already it occurs in Australia, South Africa and England, being heard as a stylistic variant even in RP. I don't see a major problem, particularly since in most cases the pronunciation of related words (*wait, atomic*) will make it clear whether the spelling should be **t** or **d**.

Conclusion

What I hope I have done is to highlight the dangers of parochialism in designing a reformed orthography for English, of being unaware of the varying patterns of contrast in different accents. But even with this awareness, it is impossible to satisfy all of the speakers all of the time; the best that can be hoped is that a proposed reform will satisfy most of the speakers most of the time.

Notes

1 Daniel Jones was Wells's predecessor in two ways; he was the first Professor of Phonetics at London University, and was also a previous President of the SSS.

2 *New Spelling*: a publication first produced by the SSS in 1910 under the title *Simplified Spelling*. The sixth edition was revised by the same authors and brought out in 1948 retitled *New Spelling*.

3 Ripman 1941: the *Dictionary of New Spelling* also published by the SSS.

4 *Liverpudlian*: popular term for an inhabitant of Liverpool.

5 *EPD*: see *Cambridge English Pronouncing Dictionary* (Jones 2011);*LPD*: see *Longman Pronunciation Dictionary* (Wells 1990, 2008).

6 *Webster's Third International*: the 1961 edition of the most authoritative dictionary of American English.

Questions, suggestions and issues to consider

1. Go back and read the brief discussion of the history of English spelling in Unit A9, and if you want more information, look at the sections in Crystal (2003) and McArthur (1992).
2. What would you think of proposals to have different alphabets for (say) British English, American English and Australian English? Consider the pros and cons.
3. If a new spelling system were to be imposed for English, would it be reasonable to ask those people whose pronunciation didn't conform to it to change their speech habits?
4. The most frequent sound in English is /ə/, and yet proposals for reformed spelling typically have no symbol for it. Why should this be?
5. Explain the underlying causes for the following genuine spelling errors (most of which have been noted in real life by one or other of the authors):*vanilla* as *vaniller*, *basically* as *basicly; affect* as *effect; receive* as *recieve; principal* as *principle; steamed pudding* as *steam pudding; tour* as *tore; glitter* as *glidder*?
6. Would *all* the examples above be problems for speakers of *all* kinds of English?
7. If not, what would be the crucial features of the accents concerned?
8. If you are a non-native speaker of English, would you be likely to make all or any of the errors quoted in 5 above? If not, what aspects of English orthography might be a problem for you or other speakers of your L1?
9. Apart from the linguistic problems noted by Wells, what would be the practical difficulties of making radical changes to English spelling worldwide?

10. Do you believe English to be unique in the extent of its spelling problems? If you are a native speaker of another language, or have a good knowledge of one, what is the situation regarding that language's writing system? Try to find out about the spelling or writing systems of more languages, for example, French, Finnish, Danish, Japanese, Chinese.

D4

Teaching the Pronunciation of English

David Crystal

David Crystal (reprinted from *Sounds Appealing: The Passionate Story of English Pronunciation* (2018), London: Profile Books, pp. 267–74.)

In this extract, the linguist, writer and broadcaster David Crystal outlines some issues one has to consider when teaching pronunciation. Note that Crystal employs the term 'RP' in the sense we have used GB in this book.

As any teacher of English as a foreign language (EFL) will tell you, teaching pronunciation isn't easy. When it comes to replacing one sound system with another, it's difficult to change the habits of a lifetime. So it's no surprise that, even in the most fluent of English learners, with very few exceptions, there remain traces of the speakers' first language in their English accent. There was a time when that 'foreign accent' was something learners wanted to eradicate. These days, teachers tend to be more relaxed about residual accents – as long as they aren't so broad that they interfere with intelligibility – and learners are gradually coming to realise that they can be proud of them.

[…] Just as native speakers of English are happy to 'sound British, American, Australian […]', so second-language learners can feel happy to 'sound French, German, Japanese,' and so on – again, as long as their speech is easily intelligible. Diversity is part of the richness of a language, and there's no reason why this should be restricted to native speakers. It's an

inevitable consequence of a language being used globally that there will be an increase in the number of identifiable accents reflecting the countries of origin.

In mother-tongue settings, the issues are different, but not entirely. Large numbers of children in the schools of a multicultural society do not have English as a first language, and come from different linguistic backgrounds. Many who *are* native speakers find themselves, because of family house moves, in a school in a different part of the country from where they were previously brought up. Their accents are alien, for a while. The younger they are, the more they will accommodate naturally to the new setting […], but this process is greatly facilitated if they find themselves in schools where there is a comfortable acceptance of diversity. Such acceptance is not yet universal, especially in schools where RP is the norm: newcomers can feel that their regional accent is somehow inferior to the traditionally respected standard. But the negative phonetic climate at home is changing, as is the climate abroad. The achievement of fluent and eloquent intelligibility need not be at the expense of a proud and personal identity.

A certain amount of explanation in class about these two forces – intelligibility and identity – will help set the scene for teaching pronunciation, as it would for teaching grammar, vocabulary and other aspects of language. It's important to point out that both forces rely on the same set of processes: the use of the vocal organs, several of which work together to produce the sounds of speech. An early goal should therefore be to familiarise students with the layout of the vocal organs, and the associated terminology […]. There aren't many terms, and some – such as *lips* and *teeth* – will be part of their everyday vocabulary, so the focus needs to be on the less visible areas, such as the palate and larynx. Here, a three-dimensional anatomical model or an ENT (ear, nose and throat) poster is well worth the purchase […]. (There are many companies online that provide these products.)

The earlier that students familiarise themselves with the anatomy of speech, the better. Teaching about pronunciation is different from teaching about grammar or punctuation, where it's wise to postpone expounding the

terminology until it's really needed in order to talk about how sentences work [...]. The situation in phonetics is more like what we have to do when we teach spelling: students will not be able to proceed at all until they have learned the names of the letters of the alphabet.

That is the next step: to learn the International Phonetic Alphabet (IPA) – or, at least, as much of it as needed to transcribe an English accent. [...] Draw attention to the fact that the written alphabet has twenty-six letters (graphemes) whereas the spoken 'alphabet' has forty-four phonemes (in most accents). The majority of the consonant symbols will need no explanation, as they are the same as the letters of the writing system:*b* in writing closely corresponds to the use of /b/ in speech (with just a few spelling exceptions, as in *debt*). The focus needs to be on those sounds where there is no equivalent – the two kinds of 'th,' for instance, or the symbols that capture the consonants of *church* and *judge*. Introduce consonant symbols first, before dealing with the more complex issues raised by vowels.

In doing this, it's important to check whether there will be any interference from earlier terminology that has been encountered in relation to the teaching of reading. An obvious point is to make it clear that *phonetics* [...] is not the same thing as *phonics*, an approach to reading. Also make sure that the symbols are seen as representations of phonemes, and are not thought of as ordinary letters of the alphabet. Introduce the transcriptional convention of putting phonemes into slant brackets as early as possible: /t/, /e/, etc. Simple phonemic crosswords will reinforce the growing awareness of the difference between pronunciation and spelling [...]. As soon as some symbols are in place, give students practice in the two dimensions of pronunciation: listening and speaking. In phonetic terms:*ear-training* and *performance*. Listening should always precede speaking, as is natural in child language acquisition. A dictation exercise is a typical procedure in an English phonetics course. Students hear the teacher say a sequence of words (minimal pairs [...]), such as /pat/, /pet/, and /pɪt/, and write them down using phonetic symbols. Then it is their turn to say them. The more frequent words in English should be used as much as possible – for example, when teaching /ð/,*they, then* and *that* rather than *though,*

other, or *breathe*. After a while, they are given short sequences, such as *that pet* – made as interesting to the age range as possible (one teacher, working with teenagers, got a great response by using the minimal pair *hip-hop*). Then there needs to be a slightly more testing exercise, to see just how carefully the students have been listening: an assimilation, perhaps, such as /ðap pet/ […].

This is a critical stage. Up to that point, students will assume that people speak as they write, with every sound relatable to the way in which a word is normally spelled. They will not be expecting a pronunciation which does not correspond to the usual spelling. They will expect there to always be a /t/ at the end of *that*, and a /v/ to be always at the end of *of* in *cup of tea (cuppa)*. It is the moment when there needs to be a classroom discussion about formal and informal pronunciation. Teachers sometimes introduce role play at this point, such as contrasting the speech of a television news-reader with that of someone speaking colloquially. Again, the settings need to relate to the age range or background of the students.

It's also important, when bringing listening and speaking together, to take account of the accent(s) of teacher and student. If the accents are the same, there won't be an issue, as the sounds will coincide. But if the teacher has a different accent from the students, care needs to be taken to ensure that sounds aren't unconsciously introduced into the ear-training that the students wouldn't normally use in their own speech. For example, teachers (e.g. from Scotland) who unconsciously pronounced /r/ after a vowel […] would immediately introduce a confusion if working with a class where the accent is RP. An RP-speaking teacher in Scotland would experience the opposite problem. A session of in-house training, in which teachers ear-train each other, usually brings to light any such issues – an especially useful exercise in schools where the teachers come from a variety of accent backgrounds. Also useful is making an accent profile of each of the students. Apart from anything else, it brings to light any students who might have special pronunciation needs.

It should go without saying that, before any ear-training is begun, teachers should be satisfied that their students have normal hearing. A

degree of hearing loss will usually have been picked up before a child arrives in school, but it is surprising how often it is missed. The loss may be very specific. For example, a child who has no problem distinguishing between /p/ and /t/ may have trouble with /s/ and /θ/ because of the higher acoustic frequencies of those sounds. The point can be checked by working through the contrasts in an *auditory discrimination test*. It is the sort of thing that speech therapists do routinely, but anyone can do it if they follow the procedure exactly. It typically involves showing students a pair of cards, say of a *thumb* and a *sum*, and asking: 'Which is the thumb?' or 'Which is the sum?' The ability to hear the difference needs to be checked for other parts of the word: 'Which is the *mouth?*' vs. 'Which is the *mouse?*' Several publishers produce card sets of this kind. And doing the same sort of test for EFL learners can produce some surprising results. Even if hearing is normal, there may be a confusion because of interference from the sounds of their first language – as in the well-known difficulty Japanese learners have in distinguishing English /r/ and /1/.

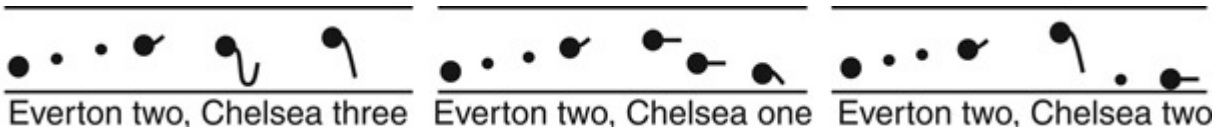
When it comes to teaching English sounds from scratch, as happens routinely in EFL, or in a speech therapy setting where a child has a severe delay, a decision has to be made about the sequence in which sounds (both segmental and non-segmental […]) are to be taught. Practice varies widely, though speech therapists, and many EFL teachers, respect the stages that have been established in normal child language acquisition […]. EFL teachers also have to take into account sounds that are the same in the learner's first language and in English, and those that are different – not only because they are unfamiliar sounds, but because they may be familiar sounds in unfamiliar places. Both English and German use the /ʃ/ phoneme, for example, but […] German allows it before /t/, whereas English does not – and also before /p/: a German learner is likely to say 'shport' for *sport* (and an English learner of German likely to make the opposite error).

Of especial importance in teaching pronunciation is to work with minimal pairs *within sentences:* the critical task is not the ability to produce a sound in isolation but to use it in a word that is playing a meaningful role in a sentence. Children may have the ability to imitate /s/, but before this ability

is linguistically useful, they need to be able to use it contrastively. That means more than contrasting two words (as in the auditory discrimination task). We need to hear those words in real sentences, because often the position of a word within a sentence causes a phoneme to vary its articulation (as seen in relation to assimilation). A danger is to over-articulate – for example, pronouncing *cup* as 'cup-uh,' and *cub* as 'cub-uh.' Putting the words into sentences (*The cup is on the table, The cub is in the zoo*) helps avoid that.

The principle of teaching sounds through contrast also applies to the nonsegmental dimension to pronunciation […]. Again, a certain amount of ear-training is required. Most students will have no problem hearing the difference between loud and soft or fast and slow, but pitch contrasts will take more time. Although there are important differences between speech and music […], the task of teaching English intonation can be facilitated by tapping into students' musical awareness and preferences. (Be suspicious of anyone with normal hearing who says they are 'tone-deaf': it can happen, but it's extremely rare.) Several books on intonation provide methods for visually representing intonation patterns and describing in detail the tones that change meanings […].

It's wise to begin with settings where there is a clear pitch distinction conveying a semantic contrast that the students use all the time, such as in asking vs. telling or uptalk […]. British football-mad students will appreciate learning about the difference between a home win, an away win, and a draw, in the reading aloud of results on the radio, where the result can be predicted from the intonation used on the second team: 'Everton two, Chelsea –.' If the tone rises on *Chelsea*, it anticipates a higher score; if it has a lower level tone, a lower score; and if it falls in a glide, the same score. In an intonation textbook we might see these contrasts represented using a 'tadpole' transcription, in which parallel lines show the upper and lower limits of the voice, the black 'head' marks the stressed syllable, and the 'tail' the direction of the following pitch glide:



These are patterns that are used in everyday speech, as people convey different moods (excitement, as in the first result; gloom, as in the second; a sense of balance, as in the third), so the exercise has relevance that goes well beyond that sporting situation. […].

Notes

Picked up: noticed, spotted

Questions, suggestions and issues to consider

1. Crystal says that there was a time when learners wanted to 'eradicate' a foreign accent, but that things have changed in the twenty-first century. What are your feelings about getting rid of all traces of a foreign accent? If you are a non-native speaker of English, do you yourself want to sound as authentically English as possible? If so, which accent of English do you wish to acquire? Or do you wish to retain traces of your own language? Discuss the advantages and disadvantages of both choices. If you are a native speaker of English, which accent do you think should be taught to learners?
2. Crystal mentions two issues which should be considered when choosing a target accent: intelligibility and identity. Discuss these two aspects, in particular the role played by language in identity formation. Which other factors shape one's identity?
3. Discuss what teachers who themselves use a non-standard variety of English should do when teaching learners.
4. Crystal believes 'teaching about pronunciation is different from teaching about grammar or punctuation' as one needs to introduce the appropriate terminology as soon as possible. Do you agree? If not, why not, and what would your own approach be?
5. When learning the pronunciation of English, 'the focus needs to be on those sounds where there is no equivalent.' If you are a non-native speaker of English, which consonants would be new as compared with your own language? If you are a native speaker of English and have a knowledge of a foreign language, which consonants would be new?
6. A major hurdle in teaching English pronunciation is that students often assume that 'people speak as they write.' Find examples where

the orthography does not match the pronunciation. If you are a non-native speaker of English, consider how reliable the sound–spelling relationship in your own language is. Discuss with students hailing from other language backgrounds. If you are a native speaker, try to find examples where the spelling fails to conform to different pronunciations in different accents of English. Consult reading D3 by John Wells (pp. 263–8).

7. If a class comes from a range of different language backgrounds, it can be useful to make an 'accent profile of each of the students.' How would you go about this? Discuss the advantages and drawbacks of using minimal pairs for this purpose.
8. Apart from learning new sounds, it's also sometimes necessary to learn to use a sound one is familiar with in a new context. If you are a non-native speaker of English, can you think of a phoneme that occurs in both your own language and English, but which occurs in different contexts? If you are a native speaker, try to find examples of sounds that occur in different contexts in different accents of English.
9. Crystal describes the different English intonation patterns used to read aloud football results. If you are a native speaker, test if you yourself are able to predict the results. If you are a non-native speaker, consider if there a similar system in your language.

D5

Syllabification and Allophony

J. C. Wells

J. C. Wells (reprinted from 'Syllabification and allophony' (1990), in S. Ramsaran (ed.) *Studies in the Pronunciation of English: A Commemorative Volume in Honour of A.C. Gimson*, London & New York: Routledge, 76–86).

In Unit B1 we discussed syllable structure and how we can rank sounds according to their sonority in order to divide words into syllables (i.e. syllabification). The question arises, however, of whether the consonants at syllable boundaries should be assigned to the preceding or following syllable. John Wells discusses the system he arrived at through writing his Longman Pronunciation Dictionary,*a system based on the allophones of sounds in different positions in the syllable.*

Introduction

In his complete revision of Daniel Jones's *English Pronouncing Dictionary* (1977), Gimson did away with the hyphen symbol which Jones had considered 'necessary… [as] a means of showing "syllable separation"… in all circumstances where the absence of suitable marking might lead to ambiguity in the interpretation of a phonetically transcribed word' (Jones 1963: xxvi). Thus in the twelfth edition, his last, Jones transcribed *toe-strap* as /ˈtəu-stræp/ but *toast-rack* as /ˈtəust-ræk/. In Gimson's revision these words appear simply as /ˈtəʊstræp, ˈtəʊstræk/. While recognising that 'the situation of the syllable division (juncture) has implications for the duration and quality of the sounds involved,' Gimson justifies his decision on the grounds that 'such divisions and their implications for pronunciation are generally evident from the orthography and from the meaningful segmentation (morpheme boundaries) of the word' (Jones 1977: xiv).

I think this decision was unfortunate. Not only did it mean the removal of information which is undoubtedly part of the specification of a word's pronunciation, but it also made it impossible to show competing pronunciations that differ only in syllabification. Jones was able to indicate that the word *teaspoon* is commonly pronounced in RP as if it were monomorphemic: he gave /ˈtiːspuːn/ as the first pronunciation, /ˈtiː-spuːn/ only as a less common variant. Under Gimson's revision this information disappeared from the dictionary. Another of Jones's examples is *shellfish* /ˈʃel-fiʃ/, where the /l/ 'is treated as if it were final and is consequently pronounced long,' while the absence of any hyphen in *selfish* /ˈselfiʃ/ implies that the /l/ 'is not so treated, but is short' on account of the presence of the following /f/ (1963: xxvii). In Gimson's revision the two words are transcribed as if they were perfect rhymes (which they are not): /ˈʃelfɪʃ, ˈselfɪʃ/.

Both *shellfish* and *selfish* contain internal morpheme boundaries. Yet, as Jones implicitly recognised, it is not necessary to give any explicit notational recognition to the boundary between *self-* and *-ish* in *selfish*. If we compare *selfish* with the monomorphemic *dolphin* /ˈdɒlfɪn/, we find that they are rhythmically identical. In both cases it is clear that the /f/ exerts its duration-reducing influence on the preceding sonorant sequence /ɒl/, an influence which is blocked in the case of *shellfish*. Thus the only morpheme boundaries that for Jones need to be reflected in the phonetic transcription are those that upset the implicitly expected syllabification.

Many analysts would claim that the syllable boundary in *dolphin* lies between the /l/ and the /f/. I believe this to be wrong. Rather, the correct syllabification is /ˈdɒlf.ɪn/, as an adequate account of English syllabification ought to predict. And this syllabic division is not 'evident from the orthography and from the [morphology].' (Here and henceforth I symbolise all word-internal syllable boundaries explicitly, using a dot /./ for the purpose.)

In his *Introduction*, in the discussion justifying the taking of the word as the basis for phonemic analysis, Gimson (1980: 55) refers to the two phrases *plum pie* and *plump eye*. If we were to ignore the word boundaries they contain, he argues, we should be faced with the necessity to recognise 'two /p/ phonemes, one with, one without aspiration.' As long as we recognise word boundaries in our phonemic analysis, this absurdity is avoided. In his section on juncture (1980: 255–6) he rightly modifies the argument to allow for the possible influence of morpheme boundaries, too, as *highness* vs.*high-ness, nitrate* vs.*night-rate*.

For Gimson the syllable is relevant mainly as a possible phonetic category (1980: 56) or as a category to which phonotactic constraints may be referred (1980: 57–8). He is sceptical of the first, and for the second prefers the word (1980: 237–53). Yet English has a fair number of important allophonic rules which can best be described by specifying 'syllable boundary' as part of the conditioning environment. It is this fact which makes syllabification phonologically relevant.

Phonetic rules conditioned by syllable boundary

Prime among such rules are the one which conditions presence or absence of aspiration, and the one which determines the duration of vowels and sonorant consonants before a fortis consonant. Others include those specifying allophones of /t/ and of /r/, those determining possible epenthesis and elision, and those governing many minor duration details. Most were pointed out by Jones (1931, 1956b).

Aspiration

English /p t k/ are aspirated when initial in a full-vowelled syllable. Elsewhere they have less aspiration or none. Hence the aspiration of the /p/ after the /m/ in *plum pie*, but its absence in *plump eye*. The /t/ of *a tease* is aspirated, as is that of *attack* /ə.ˈtæk/, but not that of *at ease*.

Pre-fortis clipping

This is the name which some of us have come to adopt for the rule making the / el/ of *shelf* durationally different from the /el/ of *shelve*, and the /iː/ of *feet* different from that of *feed*. (Gimson refers sometimes to 'shortness' of the sounds involved, sometimes to 'reduction.' Calling such sounds 'short' leads to confusion when pairs of phonemically distinct vowels such as /iː/ and /ɪ/ are also categorised as 'long' and 'short' respectively; calling them 'reduced' is to be avoided since this term for most phoneticians denotes change of quality, a 'reduced' vowel being of the [ə] type. The term 'clipping' avoids these difficulties.)

English vowels are subject to pre-fortis clipping, then, when they are followed by a fortis consonant within the same syllable. The /f/'s in *self,*

selfish /ˈself.ɪʃ/, and *dolphin* /ˈdɒlf.ɪn/ trigger clipping, but not those in *shellfish* /ˈʃel.fɪʃ/ or *funfair* /ˈfʌn. feə/. So do the /t/ in *feet* and the /ʧ/ in *feature*, but not the /p/ in *fee-paying* or the /k/ in *tea-kettle*. The vowel /æ/ undergoes pre-fortis clipping in *lap, lamp, happy* /ˈhæp.ɪ/, and *hamper* /ˈhæmp.ə/, but not in *slab* or *clamber*.

/t/*tapping*

'For some speakers [of RP], and generally in American English, /t/ is realized in weakly accented intervocalic positions as a lenis, rapid tap resembling a /d/ or one tap [ɾ], e.g.*butter, latter, put it over there*' (Gimson 1980: 164–5). More generally expressed, those who tap /t/ do so when it is syllable-final. (Other constraints are that the /t/ is not preceded by an obstruent, and is immediately followed by a vowel in the next syllable). Candidates for tapping include the /t/ of *might I*, but not that of *my tie*.

/t/*glottalling*

'Increasingly, /t/ in syllable-final positions is reinforced or replaced by a glottal closure unless a vowel or syllabic /n/ or /l/ follows' (Gimson 1980: 165). Rightly said: though nowadays a following syllabic /n/ exhibits a distinctly waning influence in this regard […], and the other constraints are weakening too. (But a preceding obstruent, as in *beastly*, continues to block glottalling.) A glottal stop is a distinct possibility for the syllable-final /t/'s of *Atkins, Gatwick* and *jointly*, but not for the syllable-initial /t/'s of *twice* or *atomic*.

/r/*allophony*

'Within RP, the frictionless continuant variety [ɹ] is frequently replaced by an alveolar tap [ɾ] in intervocalic positions, e.g.*very, sorry,… for ever…*'

(Gimson 1980: 207). Those whose speech follows this pattern may also have [ɾ] in *your ice*, but not in *your rice*. That is to say, [ɾ] is a realisation of their /r/ in syllable-final position but not in syllable-initial. Others (I am surely not alone in this) have markedly greater lip action (protrusion, rounding) in syllable-initial /r/ than in syllable-final: greater labialisation in *red* /red/,*key-ring* /ˈkiː.rɪŋ/,*her rice* /hɜː ˈraɪs/ than in *berry* /ˈber.ɪ/,*fearing* /ˈfɪər. ɪŋ/,*her ice* /hɜːr ˈaɪs/. (There are also speakers who tap and/or labialise independently of syllable position.)

Plosive epenthesis

'Few RP speakers regularly maintain the distinction between /ns/ and /nts/ …, /nts/ tending to be used in all cases' (Gimson 1980: 187). Yet although many people pronounce [t] in *fence* and *dance*, no-one does in *inside* or *rain-soaked*. Epenthesis happens only within a syllable, not across a syllable boundary.

Elision of /t/ *and* /d/

'In PresE [Present-day English] simplification of clusters continues to take place, especially involving the loss of the alveolars /t, d/ when medial in a cluster of three consonants' (Gimson 1980: 236). The /t/'s in *strong* and *mistrial* prima facie conform to Gimson's conditions for elision. Yet no-one elides them. Elision of English /t/ and /d/ is a possibility only when the /t/ or /d/ is part of a syllable-final cluster. Thus in *first-rate* /ˌfɜːstˈreɪt/ the word-medial /t/ is elidable; in *mistrial* /ˌmɪsˈtraɪəl/ it is not.

Other duration rules

The difference between *a name* and *an aim* is well-known (Gimson 1980: 295). It is easily accounted for by distinguishing between the longer, stronger

allophone in syllable-initial position (*annoy* /əˈnɔɪ/,*a name*) and the shorter, weaker, perhaps tapped allophone in syllable-final prevocalic position (*penny, an aim*). More subtly, /n/ is shorter in syllable-final clusters (*standing* /ˈstænd.ɪŋ/,*brandish* ‘wield, wave’ /ˈbrænd.ɪʃ/) than when a following consonant is in a separate syllable (*bran-dish* ‘dish for bran’ /ˈbræn.dɪʃ/).

The main syllabification principle

If allophonic rules are to be allowed to refer to syllable boundaries as part of their conditioning environments, we need a principled way of specifying the location of such boundaries. I propose that English syllabification is governed by a straightforward principle:

1. Subject to certain conditions (discussed below), consonants are syllabified with the more strongly stressed of two flanking syllables.

Thus the /k/ in *packet* belongs to the first, stressed, syllable. This analysis is supported by its homophony with *pack it*: both are /ˈpæk.ɪt/. The /f/ of *dolphin* belongs in the first syllable: /ˈdɒlf.ɪn/ has the same rhythm as *selfish* /ˈself.ɪʃ/, where this division is supported by the morphology. The /p/ in *happy* belongs in the first syllable, as evidenced by its relative lack of aspiration and by the pre-fortis clipping of the /æ/: /ˈhæp.ɪ/. Both the /n/ and the /t/ of *enter* /ˈent.ə/ belong in the first syllable, since the /t/ triggers clipping of both the /e/ and the /n/. The /p/ of *typing* /ˈtaɪp.ɪŋ/ conditions clipping of its syllable-mate /aɪ/: compare *tiepin*, where the /p/ exerts no such influence. (Such clipping of the /aɪ/ as there is in this latter word falls under the different heading of 'rhythmic clipping,' the isochronising effect of unstressed syllables on a preceding stressed syllable.)

Similarly,*crisis* is /ˈkraɪs.ɪs/: compare *rising* /ˈraɪz.ɪŋ/, with a lenis syllable-final consonant, hence less clipping. The rhythmic difference between *hearty* /ˈhɑːt.ɪ/ and *hardy* /ˈhɑːd.ɪ/ has the same explanation, and is to be referred to the durational difference between *heart* and *hard*. In *driver* /ˈdraɪv.ə/, as in thousands of other words, the phonology parallels the morphology (*pace* Fudge 1969: 20). In *banker* we see this even more clearly (pre-fortis clipping, /ˈbæŋk.ə/);*anchor* rhymes with it perfectly, but *fan club* has a different rhythm.

As the influence exerted by suffixes causes the stress to shift, so the syllabic affiliations of consonants change. In *note* and *noting* /ˈnəʊt.ɪŋ/ the /t/ of *not(e)* is syllable-final, but in *notation* /nəʊ.ˈteɪʃ.n/ and *annotate* /ˈæn.ə.teɪt/ it is syllable-initial and aspirated. In *attest* /ə.ˈtest/ the first /t/ is strongly aspirated, attracted into the second syllable by the stress; in *attestation* /ˌæt.e.ˈsteɪʃ.n/ it has less aspiration or none, since the second syllable is now unstressed while the first has secondary pre-tonic stress, which makes it capture the /t/ back. In *apply* /ə.ˈplaɪ/ the /l/ is voiceless, as it carries the aspiration of the syllable-initial /p/; in *application* /ˌæp.lɪ.ˈkeɪʃ.n/ it is less so. In *magnetic* /mæg.ˈnet.ɪk/ the /t/ is syllable-final and a candidate for possible tapping; in *magnetism* /ˈmæg.nə.ˌtɪz.əm/ the tertiary (post-tonic) stress on /ɪz/ is sufficient to attract the /t/ into syllable-initial position, triggering aspiration while blocking tapping.

Stress levels

The expression ‘more strongly stressed’ in (1) has to be interpreted as referring to position on a five-point scale: 1. primary word stress; 2. pretonic secondary stress; 3. tertiary (post-tonic) stress; 4. unstressed but with full vowel; 5. weak (reduced) vowel. All five grades are illustrated in the word *substitution-product* /ˌsʌb.stɪ.ˈtjuːʃən.ˌprɒd. ʌkt/, where the syllables are of grades 2, 5, 1, 5, 3, 4 respectively. In *magnitude* the /t/ goes with the final syllable, /ˈmæg.nɪ.tjuːd/, because the third syllable (grade 4) outranks the second (grade 5).

Adjacent syllables of equal rank

The only cases in English where immediately adjacent syllables have equal grade are those involving weak vowels (grade 5). They are governed by the principle:

2 Where adjacent syllables are of equal grade, consonants are (again subject to the stated conditions) syllabified with the leftward syllable.

The /t/ allophones in *carpeting* /ˈkɑːp.ɪt.ɪŋ/,*covetous* /ˈkʌv.ɪt.əs/ and *purity* /ˈpjʊər.ət.ɪ/ make this clear.

Americans seem agreed that they can tap the /t/ in *quality*, but not the /t/ in *politics*. This must be because the /ɪ/ of *-ics* counts as a full vowel, sufficient to outrank the weak vowel of the second syllable and thus capture the /t/; but the /ɪ/ (or /iː/) at the end of *quality* counts as weak, leaving the /t/ syllable-final in the second syllable, by (2), and thus tappable.

Words like apex

According to (1), the /p/ in *apex* should go with the first, stressed, syllable: /ˈeɪp.eks/. This seems correct for RP, though it may well not be correct for some other varieties of English. If we consider the contrived examples *A pecks* (in some classification of kinds of *peck*, with *A pecks, B pecks, C pecks*…) and a possible product brand name *ape-x* (compare *Timex, Durex*), it is clear that their syllabification follows the morphology:*A pecks* /ˈeɪ.peks/,*ape-x* /ˈeɪp.eks/. And the ordinary word *apex* is like the second and unlike the first. The /p/ of *apex* does indeed condition pre-fortis clipping of the /eɪ/, and must therefore be in the first syllable.

The morpheme boundary condition

Morpheme boundaries such as those between the elements of a compound normally block the operation of (1). The /p/ of *fee-paying* remains initial in the second syllable, so that there is no pre-fortis clipping of the /iː/ (compare *deep*). The same applies in *re#print* (n.) /ˈriː.prɪnt/ (compare *reaper* /ˈriːp.ə/) and *pre # suppose* /ˌpriː.səˈpəʊz/ (compare *priest*). There is pre-fortis clipping of the /aɪ/ in *hyphen* /ˈhaɪf.ən/, but not of that in *high-faluting* /ˌhaɪ.fə.ˈluː.tɪŋ/. We need the following as a condition on the main principle:

> 3 In polymorphemic words, consonants belong to the syllable appropriate to the morpheme of which they form a part. This applies only to synchronic, psychologically real morphemes.

It is this condition which explains the potential rhythmic differences between *Roman* /ˈrəʊm.ən/ and *bow # man* /ˈbəʊ.mən/,*bonus* /ˈbəʊn.əs/ and *slow # ness* /ˈsləʊ.nəs/, or *highness* (regal term of address) /ˈhaɪn.əs/ and *high-ness* (quality of being high) /ˈhaɪ. nəs/ (Sharp 1960). A recent example from the world of popular music is *prima donna* /ˌpriːm.ə.ˈdɒn.ə/ vs.*pre-Madonna* /ˌpriː.mə.ˈdɒn.ə/.

For the many English suffixes which begin with a vowel, (3) is irrelevant. By (1), words such as *bigger, oldest, putting, horses, zealous, scenic* already receive syllable boundaries coinciding with the morpheme boundaries: /ˈbɪg.ə, ˈəʊld.ɪst, ˈpʊt.ɪŋ, ˈhɔːs. ɪz, ˈzel.əs, ˈsiː.nɪk/.

Certain suffixes do not count as 'psychologically' real under (3). An example is the *-ful* of *awful, careful*, words which are pronounced with pre-fortis clipping of the stressed vowel, which vowel must therefore have captured the /f/ from the suffix. (Compare *awe-ful* 'full of awe,' where the /ɔː/ is unclipped.) In proper names, *-ton* and *-son* are usually treated as if not separate morphemes, as is evidenced by the pre-fortis clipping usual in *Barton* /ˈbɑːt.n/ and *Dawson* /ˈdɔːs.n/ and by the possible epenthesis in

Benson /ˈben(t)s.n/. Yet *-ford*, I think, does behave phonetically as a separate morpheme:*Crayford* /ˈkreɪ.fəd/. The morpheme boundary before *-ism* does not inhibit capture of the /t/ in *magnetism*, as we saw above; but in less familiar words the syllabification tends to follow the morphology:*Bonapartism* /ˈbəʊn.ə.pɑːt.ˌɪz.əm/,*puppetism* /ˈpʌp.ɪt.ˌɪz.əm/. It is again American tapping that shows clearly that the morpheme boundary before the suffix *-ise* does not inhibit /t/-capture in *magnetise* /ˈmæg.nə.taɪz/,*sensitise, sonnetise*. Introspecting, I find that I treat *-dom* inconsistently, saying *freedom* /ˈfriːd.əm/ but *boredom* /ˈbɔː.dəm/.

Some speakers, aware of etymology and meaning, may have an unclipped /aɪ/ in *tri* ǂ*pod*; but not, presumably, in *tripos* /ˈtraɪp.ɒs/. In general, this whole area of presence/absence of phonetic correlates of morpheme boundaries is still far from fully explored.

The phonotactic condition

The main syllabification principle does not operate in such a way as to lead to consonant clusters which are phonotactically ill-formed. Thus (1) is subject to the condition:

> 4 Phonotactic constraints on syllable structure (as established with reference to monosyllables) are not violated.

This means, for example, that *timber* is syllabified as /ˈtɪm.bə/, since /mb/ is not a possible final cluster: /b/ cannot be captured into the stressed syllable. Similarly,*anger* is /ˈæŋ.gə/, at least in RP. But *tender* is /ˈtend.ə/, /nd/ being a permitted cluster (*stand*). Notice how neatly this fits with permitted initial /Cl/ clusters:*tumbler* /ˈtʌm.blə/,*English* /ˈɪŋ.glɪʃ/, but *chandler* /ˈtʃɑːnd.lə/ (just as we have /bl-/, /gl-/, but no /dl-/).

Questions arise over /r/ and /ʒ/. Although final /r/ does not occur in RP in words pronounced in isolation, it does occur in connected speech, and in such a way as to make clear that /r/ can be syllable-final (see the discussion of /r/ allophony above). Linking /r/, both internal and external, is indeed syllabified with the preceding vowel. Accordingly we need not hesitate to analyse *bleary, sharing* as /ˈblɪər.ɪ, ˈʃeər.ɪŋ/ and hence the phonetically comparable *weary, Mary* as /ˈwɪər.ɪ, ˈmeər.ɪ/. Equally,*sorry* is /ˈsɒr.ɪ/ and *spirit* /ˈspɪr.ɪt/. Final /ʒ/ is admittedly restricted to loanwords (*rouge, beige*), but this is sufficient justification for us to accept the analysis *measure* /ˈmeʒ.ə/.

Notice that (1) is already sufficient to reflect the phonotactic constraint that disallows the occurrence of short vowels finally in a stressed syllable.*Better* is /ˈbet.ə/ rather than */ˈbe.tə/ not only because the /t/ triggers pre-fortis clipping and is tappable, but also because a syllable /ˈbe/ would not be phonotactically well-formed.

A difficulty arises in the case of words like *nostalgic, posterior, fastidious*. Is the correct analysis /nɒ.ˈstældʒ.ɪk/, as follows straightforwardly from (1)? Or must we protect a full (unreduced) short vowel from exposure in syllable-final position, and syllabify as /nɒs.ˈtældʒ.ɪk/? Perhaps the truth is that speakers differ, and are also inconsistent; but Davidsen-Nielsen's investigation (1974) tends to show that the first type of syllabification, /nɒ.ˈstældʒ.ɪk/, predominates where there is no morpheme boundary after the /s/.

The example *cacophony* /kæ.ˈkɒf.ən.ɪ/ confirms that syllable-final short vowels are not absolutely precluded in unstressed syllables;*tattoo* /ˌtæ.ˈtuː/, not recorded in EPD with double stress but readily observed with this pronunciation, shows that this licence even extends to syllables having secondary stress.

The affricate condition

The last condition which we have to impose on (1) is one relating to the post-alveolar and palato-alveolar affricates:

> 5 Affricates (i.e. /tr, dr, ʧ, ʤ/) are not split between syllables, but are treated as indivisible.

This can hardly be contested in the case of the palato-alveolars. For *catching, teacher, allergic, courageous* the predicted syllabification again parallels the morphological: /ˈkæʧ.ɪŋ, ˈtiːʧ.ə, əˈlɜːʤ.ɪk, kəˈreɪʤ.əs/.*Ratchet, feature, merger, magic* are equally straightforward. Adjusting for place of articulation,*petrol, mattress, squadron,Audrey* are allophonically parallel; yet the putative /ˈpetr.əl, ˈmætr.əs, ˈskwɒdr.ən, ˈɔːdr.ɪ/ might seem to violate the phonotactic condition. It seems, though that we must accept these syllabifications. If *petrol* is not /ˈpetr.əl/, what can it be? If it were /ˈpet. rəl/ we should expect possible glottalling (glottal replacement), as in *rat-race, out ǂright*. If it were /ˈpe.trəl/ we should have a unique violation in the phonotactic constraint against stressed short vowels in syllable-final position. Given that we demand explicit syllabic boundaries, as we must if the allophonic rules based on them are to be coherent, only /ˈpetr.əl/ remains. This analysis, actually, is supported by the occur-rence at the surface level of word-final /tr/ after elision in items such as *matter-of-fact* /ˌmætr.əˈfækt/.

The other phonotactic constraints still apply:*district* must be /ˈdɪs.trɪkt/, with condition (4) ruling out a possible */ˈdɪst.rɪkt/ (which would be wrong both allophonically and etymologically). The rules lead us to choose /ˈeks.trə/ as the correct syllabification of the much-discussed *extra*. The morpheme boundary condition ensures that *light-ship* is /ˈlaɪt.ʃɪp/, and indeed its longish [ʃ] is clearly a token of the fricative /ʃ/, not of part of the

affricate /ʧ/. Similarly,*board-rubber* is /ˈbɔːd.ˌrʌb.ə/, although *bedroom* tends to be pronounced as if morphologically solid, /ˈbedr.ʊm/.

If it is accepted that *petrol* is /ˈpetr.əl/ and *squadron* /ˈskwɒdr.ən/, we must also allow that *entry* is /ˈentr.ɪ/ and *sundry* /ˈsʌndr.ɪ/. Although this may seem unlikely at first sight, notice the pre-fortis clipping exerted by the post-alveolar affricate of *entry* on the initial vowel and nasal. And notice the parallelism with the morphology in *wintry* /ˈwɪntr.ɪ/. Compare *in-tray* /ˈɪn.treɪ/, with a morpheme boundary separating the nasal from the affricate and no pre-fortis clipping. I would claim that the schwa-elided variant of *entering* is /ˈentr.ɪŋ/, again with correspondence between syllabification and morphology. Affricates preceded by /l/ must follow the same pattern:*paltry* /ˈpɔːltr.ɪ/,*cauldron* /ˈkɔːldr.ən/, but *mail-drop* /ˈmeɪl.drɒp/.

Conclusion

I claim that by principle (1), together with codicil (2) and conditions (3), (4), and (5), we achieve a correct syllabification virtually throughout the English vocabulary – correct, that is, for purposes of predicting appropriate allophones where allophonic variation is sensitive to a syllable boundary. In support of this claim I can report that in the course of working on a new pronouncing dictionary I have transcribed over 50,000 entries with explicit syllable boundaries throughout: indeed, that was the task which led me to formulate the principle. Once I had discovered the principle, it constituted a convenient decision procedure for uncertain cases without, so far as I am aware, any serious untoward results.

Self-criticism

Occasional difficulties do remain. I am worried about words such as *accelerate* and *memorise*, where introspection leads me to posit /ək.ˈsel.ər.eɪt, ˈmem.ər.aɪz/ rather than the predicted /-ə.reɪt, -ə.raɪz/ (compare *annotate, advertise*, for evidence that these endings normally attract a preceding consonant). Perhaps instrumental evidence will throw light on the accuracy of my intuitions regarding this apparently wayward behaviour of /r/.

The distinction between unstressed full and weak vowel is not always clear, since RP /ɪ/ is ambiguous as between these two categories, and so sometimes are /əʊ/ and /aɪ/. Are the final vowels in *armistice* and *cannabis* weak (/ˈɑːm.ɪst.ɪs, ˈkæn.əb.ɪs/) or full and therefore consonant-capturing (/ˈɑːm.ɪ.stɪs, ˈkæn.ə.bɪs/)? RP really offers no grounds for a decision either way. For what it is worth, Australian English does, since Australians would keep a full /ɪ/ as /ɪ/ but turn a weak one into /ə/. It turns out that Australians use /ə/ in the final syllables of both *armistice* and *cannabis*, thus indirectly

demonstrating RP /ˈɑːm.ɪst.ɪs, ˈkæn.əb.ɪs/. In *politics*, as we have seen, Americans treat the final syllable as full-vowelled; so do the Australians (/-tɪks/). RP offers no direct evidence, but may be presumed to agree with them.

Ambisyllabicity?

So strong is the presumption among linguists for CV.CV structure as universally preferred that many writers assume it to be true for English even in the face of strong counter-evidence such as is discussed here. Fudge (1984: 21) asserts, on no substantial evidence that I can detect, that *competitive*, for example, has a stressed syllable /pe/; but American writers, alert to the implications for /t/ allophones, correctly insist on /.ˈpet./ (see, for example, *Webster's Ninth New Collegiate Dictionary*). Grunwell (1982) assumes, equally without justification, that a word such as *better* is /ˈbe.tə/.

A more sophisticated idea is that a 'left-captured' consonant such as the /t/ in *better* is ambisyllabic, belonging to both syllables simultaneously (Kahn 1976: 33; Gussenhoven 1986). This notion has a respectable origin in the phonetic approach to the syllable in terms of sonority: the intervocalic consonant represents a trough of sonority and 'belongs' to neither peak. In modern terms, ambisyllabicity may be felt to allow us to satisfy at the same time both the putative universal preference for CV.CV and the overwhelming allophonic arguments in favour of CVC.V. The principle of Occam's razor, though, shows that ambisyllabicity is not a useful concept. Those who believe in an absolute universal preference for unchecked (open) syllables must, I believe, accept that in English this can at best be true only of deeply abstract representations, and that by the level at which allophonic conditioning becomes relevant a resyllabification rule must have come into operation, namely the principle I propose. And this is uneconomical, since a word such as *additive*, morphologically /æd+ɪt+ɪv/, would have to have been switched to phonological /ˈæ.dɪ.tɪv/ before surfacing again as [ˈæd.ɪt.ɪv].

There may be occasions when the Duke of York gambit is necessary (Pullum 1976), but I do not believe this is one of them.

Acknowledgements

My debt not only to Jones and Gimson but also Fudge and Kahn must be self-evident, even though I frequently do not agree with them. Gussenhoven (1986) was published only after I had already delivered the UCL staff seminar paper of which this article is a version; I am delighted to see that our thoughts are along the same lines.

Notes

Phonotactic constraints: restrictions on the possible combinations of phonemes in a language (see pp. 12, 117–18 for examples). In English the most noticeable differences are found in rhotic vs. non-rhotic accents. For instance, in GA /rm rl rd/ etc. occur in *arm, girl, third*, whereas these are not permitted in GB.

Occam's razor: a principle stating that simpler solutions are more likely to be correct than complex ones.

Duke of York gambit: derivations in which an underlying representation is mapped on to an intermediate form distinct from it, and then on to a surface representation which is identical with the earlier stage.

Questions, suggestions and issues to consider

Reread the section on allophonic variation (Unit A2, pp. 12–13) and study the constraints on syllable structure in English GB (Unit B1, p. 112).

1. Why would the following syllable divisions be inappropriate for English: *upper, better, hacker* as /ˈʌ.pə ˈbe.tə ˈhæ.kə/?
2. The phrases *grey tabby* and *great abbey*, consist of the same sequences of phonemes, i.e. /greɪtæbi/, but are not homophones. Explain why in terms of syllable divisions and allophones.
3. For General American it makes good sense to divide the syllables in *meeting* as follows: /ˈmiːt.ɪŋ/. Explain why.
4. Look at the sequence of phonemes in /stɒpstreɪnɪŋ/. Which two phrases can this represent? Consider the realisations of /t/ and /r/ in both cases. How do they differ? And how can this be shown in Wells's system of syllabification?
5. Why does Wells insert a syllable break between the schwa vowel and /tr/ in *petroleum* but between /tr/ and /ə/ in *petrol* /pə.ˈtrəʊliəm ˈpetr.əl/?
6. Wells shows the syllable division in *logic* as follows: /lɒʤ.ɪk/. One reason for this is that checked vowels cannot occur word-finally in a stressed syllable (cf. question 1 above). But what does this syllabification suggest about the length of the LOT vowel in this context? Does it have the same length as in *lodge*?

Glossary

There is a certain amount of flexibility in phonetic terminology. The meanings given here are naturally those we have used in this book, but in a few cases we have added terms commonly employed by other writers. No attempt has been made to provide precise, elegant, formal definitions, but rather to use language which is reasonably easy to understand. Words in bold are defined elsewhere in the glossary.

Many works on phonetics have a glossary similar to this. Three which provide much more coverage and detail are Trask's (1996)*Dictionary of Phonetics and Phonology*, Carr's (2008)*A Glossary of Phonology*, and the glossary to be found on the website accompanying Roach (2009).

accent A pronunciation **variety** characteristic of the speech of a group of people. Cf. **dialect**.

acoustics The scientific study of sound.

acrolectal Associated with speakers of the most privileged socioeconomic classes. Derived from the noun *acrolect*, meaning a **dialect** of this type.

active articulator The **articulator** which moves in an **articulation**, e.g. the tip of the tongue for /t/.

advanced Articulated more to the front. **Diacritic** [+], e.g. /k/ in *keen* [k+iːn]. Opposed to **retracted**.

affricate A **manner of articulation** involving a complete closure that is released slowly, thus producing **homorganic friction**, e.g. /ʧ ʤ/.

airstream A flow of air typically outward from the lungs. An air-stream of some sort (usually **pulmonic egressive**) is necessary to produce any speech sound.

allophone A **realisation** of a **phoneme**.

alveolar A **place of articulation** involving the tip/blade of the tongue (**active articulator**) and the alveolar ridge (**passive articulator**), e.g. English /t n s/.

antepenultimate One before the last but one. Often used with reference to **stress**.

approach stage The initial stage in the **articulation** of a **stop** when the **articulators** move towards each other.

approximant A **manner of articulation** produced with the **articulators** sufficiently apart for there to be no audible **friction**, e.g. English /r j/. Approximants can be of two types, either central approximants (e.g. English /w r j/) or **lateral** (e.g. English /l/).

articulation A movement made by the **organs of speech** in order to produce a speech sound. Adjective:*articulatory*.

articulator Any organ or part of an organ in the **vocal tract** which is involved in the production of a speech sound.

articulatory system Relating to the **articulators** found in the **supra-glottal vocal tract** (i.e. in the throat, mouth and nose).

aspiration A delay in **voicing** after the **release** of a **voiceless stop**, often described as a brief 'puff of air' or [h]-like sound, e.g.*pie* [p^h aɪ].

assimilation The replacement of one **phoneme** by another under the influence of a third as a result of phonetic conditioning, e.g. if *green bag* is said as /ˈgriːm bæg/, then /n/ is said to assimilate to /m/ under the influence of the following /b/. Assimilation may be of different types: place, manner and energy.

auditory Referring to any aspect of hearing.

back vowel A **vowel** for which the back of the tongue is the highest part, e.g. /uː/.

backing diphthong A **diphthong** involving tongue raising and backing to [ʊ] or [u].

basilectal Associated with speakers of the least privileged socioeconomic classes. Derived from the noun *basilect*, meaning a **dialect** of this type.

BATH words A set of words spelt with **a**, the pronunciations of which vary between PALM/ɑː/ (e.g. in GB and south-east England) and TRAP/æ/ (e.g.

in General American and most North American English, Scotland and northern England).

bilabial A **place of articulation** involving both lips, e.g. /p b m/.

breathy voice A **glottal setting** where the **vocal folds** vibrate as for **voice** but the arytenoids are apart so that air can escape through the gap at the rear of the **glottis**, e.g. Hindi [bʱ].

cardinal vowels A set of reference **vowels**, independent of any language, widely used in linguistic description. The basic set are termed primary cardinal vowels. The secondary cardinal vowels have reverse lip shapes.

central Referring to **vowels** pronounced with the centre of the tongue as the highest part, e.g. [ə]. Opposed to **peripheral**.

centring diphthong A **diphthong** involving tongue movement to [ə].

checked vowels A **phonological** class of **vowels** found in English, German and other related languages which in the same phonetic contexts are shorter than **free vowels**. Unlike free vowels, checked vowels cannot occur ever in **stressed open syllables**. (Also termed *short vowels.*)

citation form The form of a word when pronounced in isolation.

clear [l] A slightly **palatalised** [l], e.g. /l/ in *leaf*, /l/ in German *Wahl* 'choice.'

close (adj.) A sound, often a **vowel**, articulated with the tongue raised close to the roof of the mouth.

closed syllable A **syllable** ending in a **consonant**, e.g.*hot.*

closing diphthong A **diphthong** involving the tongue rising closer to the roof of the mouth.

cluster A sequence, within the same **syllable**, of a number of **consonants**, e.g. /gr/ and /spt/ in *grasped.*

coalescent assimilation (or coalescence) A type of assimilation where two adjacent phonemes influence each other and merge into a third, e.g.*did you* /ˈdɪd ju/ pronounced as /ˈdɪʤu/.

coda The final consonantal element of the **syllable**. See also **rhyme**.

complementary distribution Where the **allophones** of a **phoneme** are predictable from phonetic context. Cf. **free variation**.

consonant Sounds occurring at the margins of **syllables**.

content words Words such as nouns, main verbs, adjectives, adverbs, which have a high information content. (Also called *lexical words.*) Cf. **function words**.

contracted form A form derived from the combination of two **function words**, e.g.*will not* → *won't*. (Also termed *contraction.*)

contrastive analysis The linguistic study of two languages side by side to establish points of difference and similarity.

creak A **glottal setting** involving low-**frequency** vibration of the front **vocal folds**. In language, generally found as part of **creaky voice** (see below).

creaky voice A **glottal setting** where the front **vocal folds** vibrate slowly (as for **creak**) whilst the back vocal folds vibrate rapidly (as for **voice**).

dark*l* A **velarised** [l], e.g. English *fill*. Symbolised as [ɬ].

dental A **place of articulation** involving the tip of the tongue and the front teeth, e.g. /θ ð/ in *thanks, those*.

devoicing When in a particular context a sound which is normally **voiced** is realised as partially or completely **voiceless**, e.g. /b/ and /d/ in *bad cough*.

diacritics Marks added to phonetic symbols to supply extra information, e.g. [̃] added to a **vowel** [ɛ] shows it to be **nasalised** [ɛ̃].

dialect A language **variety** of a group of people defined geographically and/or socially. Note that dialect applies to grammar and vocabulary only. Cf. **accent**.

diphthong A **vowel** where there is an obvious change in tongue and/or lip shape. (Also termed *vowel glide.*)

diphthong shift An effect found in certain accents (e.g. Cockney) whereby the realisations of the diphthongs FACE, PRICE and CHOICE appear to shift anti-clockwise on the vowel diagram. As a result, FACE sounds like PRICE in other accents, PRICE resembles CHOICE, and CHOICE has a closer starting point. In such accents, GOAT is usually more open, sounding similar to MOUTH in other varieties.

discourse Referring to the analysis of language in units larger than a single sentence, e.g. paragraphs, conversations.

distributional variation Differences in language usage between **accents** dependent on the occurrence or non-occurrence of a **phoneme** in certain contexts. Such differences operate without exception, e.g. /r/ in **rhotic** vs. **non-rhotic** accents.

double articulation A speech sound involving two **places of articulation**, e.g. English /w/.

duration The amount of time taken up by a speech sound.

egressive Outgoing. Opposed to **ingressive**.

elision A process by which a **phoneme** is deleted, e.g. /t/ in English *last week* /ˈlɑːs ˈwiːk/.

elocution Speech training, usually for acting or public speaking, based on aesthetic value judgements rather than the objective descriptive approach advocated by phoneticians and phonologists. A teacher of elocution is an *elocutionist*.

energy of articulation Another term to cover the **fortis/lenis** contrast.

epenthesis Insertion of a **segment** into a word, e.g. /t/ in *lance* /lɑːn t s/, [ə] in Irish English *film* [ˈfɪləm]. Adj.*epenthetic*.

error analysis A technique for predicting a language learner's potential errors by systematic analysis of errors already made.

Estuary English A loose term for a modern **variety** of educated English, which, while removed from **basilectal** London speech, nevertheless shows traces of London influence.

focus Another term for (intonation) **nucleus**.

FORCE – NORTH A distinction found in some accents whereby words spelt with **o**, e.g. **oar our or**, and which elsewhere would be considered part of the THOUGHT set, are further divided into two subsets FORCE and NORTH.

fortis A phonological class of **voiceless obstruent consonants** with energetic **articulation**, e.g. English /k f s/. Opposed to **lenis**.

free variation When the occurrence of a particular **allophone** cannot be predicted from phonetic context. Cf. **complementary distribution**.

free vowels A **phonological** class of **vowels** found in English, German and related languages which includes all except the **checked vowels**. In similar phonetic contexts, the free vowels are longer than the checked. Unlike checked vowels, free vowels regularly occur in stressed **open syllables**. (Also termed *long vowels*.)

frequency The number of vibrations per second. Used in **phonetics** especially with reference to **vocal fold** vibration.

fricative A **manner of articulation** which involves a narrowing in the **vocal tract** so that audible **friction** is produced, e.g. English /s z/.

friction Hiss produced by air turbulence.

front vowel A **vowel** articulated with the front of the tongue highest, e.g. English /i:/ in FLEECE.

fronting diphthong A **diphthong** involving tongue raising and fronting to [ɪ] or [i].

function words Words such as prepositions, pronouns, conjunctions, articles, auxiliary verbs, which structure the sentence, rather than passing on much information. (Also termed *grammatical words* or *form words*.) Opposed to **content words**.

General American (GA) The **prestige accent** of the United States. (Also termed *Network American*.)

General British (GB) A type of educated British English **accent** which is not localisable through specific regional characteristics. Cf. traditional **Received Pronunciation**.

glide See **diphthong**.

glottal Referring to **articulations** involving the **glottis**, e.g. [h ʔ].

glottalisation A **secondary articulation** involving the addition of **glottal stop** (normally in the **approach stage**), e.g. **syllable**-final English /t p ʧ/ in *that stopwatch* [ðæˀt ˈstɒˀ pwɒˀ ʧ]. Adj.*glottalised*.

glottal replacement Substitution of a **consonant** (most commonly /t/) by **glottal stop**. (Also termed *glottalling*.)

glottal setting A number of ways in which the **larynx** can operate so as to produce different types of **voicing**, **creak**, etc.

glottal stop Complete closure of the **vocal folds** followed by sudden release.

glottis The space between the **vocal folds**.

grapho-phonemic A term used to cover the relationships between the letters of conventional spelling and **phonemes**.

grave (Used with reference to **fricatives**.) Having mostly low-**frequency** hiss. Cf. **sharp**.

grooved Fricatives involving the **airstream** being channelled through a groove formed along the midline of the tongue, e.g. [s z].

h-dropping Referring to **accents** of English (including the majority of England's **basilectal** varieties) which lack consistent /h/ in **content words**, e.g.*high-handed* /aɪ ˈændɪd/.

head The sequence of **stressed syllables** in an **intonation phrase** immediately preceding the (intonation) **nucleus**.

hierarchy of error A ranking of the gravity of learners' errors in terms of their effect on **native speakers**.

hold stage The second stage in the **articulation** of a **stop** when the **articulators** are held in contact so as to block the passage of the **airstream**.

homophones Words of different meaning which may or may not be spelt differently but are pronounced in the same way, e.g.*scene –seen, seal* 'aquatic mammal' –*seal* 'to close firmly.'

homorganic Having the same **place of articulation**, e.g. /n/ and /d/ in *trendy* /ˈtrendi/.

idiolect The speech characteristics of a single individual.

ingressive Ingoing. Opposed to **egressive**.

in-migrant A person coming in from another region of the same country.

intensity The amount of energy in a sound wave perceived as loudness.

interlinear Intonation marking which indicates **pitch** with dots and lines placed between a pair of horizontal lines.

intervocalic Occurring between **vowels**.

in-text Intonation marking which indicates **pitch** within the text itself by means of stylised marks (e.g. circles, angled marks).

intonation The **pitch** patterns of speech.

intonation phrase (IP) A group of words forming a complete **intonation** pattern. (Also termed *breath group, sense group, tone group, intonation group.*)

intrusive*r* A type of r **liaison**, similar to **linking*r***, but not traceable to any **r** in the spelling, e.g.*I saw it coming* /aɪ ˈsɔːr ɪt ˈkʌmɪŋ/.

L1, L2 Abbreviations for mother tongue (first language) and target language (second language).

l-vocalisation The effect by which **syllable**-final /l/ is realised as a **vowel** of an [ʊ] type, e.g. Cockney *bell* [bɛʊ].

labial Referring to the lips.

labialisation A **secondary articulation** involving the addition of lip-rounding, e.g. English [kʷ] in *quilt.*

labial-velar A **double articulation** involving (1) the lips and (2) the back of the tongue against the velum, e.g. /w/ in *wise.*

labio-dental A **place of articulation** involving the lower lip and the upper front teeth, e.g. /f v/ in *fine, vine.*

lagging assimilation An **assimilation** in which one **phoneme** changes under the influence of a preceding phoneme, e.g. when *in the corner* is pronounced as /ɪn nə ˈkɔːnə/. (Also termed *perseverative or progressive.*)

language invariable stress Refers to languages where all words, or the vast majority, have the same **stress** pattern, e.g. French: final stress; Welsh: **penultimate** stress; Czech: initial stress.

larynx A box-like structure at the base of the **pharynx**, composed of cartilage, within which are the two **vocal folds**.

lateral A **manner of articulation** in which the **airstream** escapes over the lowered sides of the tongue. The term includes lateral **approximants** (e.g. /l/ as in *little*), and also lateral **fricatives** (e.g. /ɬ/ as in Welsh *llyfr* 'book').

lateral release The **release** of a **plosive** by means of lowering the sides of the tongue following a **homorganic stop**, e.g. English *bottle.*

leading assimilation An **assimilation** in which one **phoneme** changes in advance of a following phoneme, e.g.*in Greece* pronounced as /ɪŋ ˈgriːs/. (Also termed *anticipatory* or *regressive.*)

lenis A phonological class of **voiced obstruent consonants** articulated with relatively little energy and with potential **voice**, e.g. English /g v z/. Opposed to **fortis**.

lexical variation Differences in language usage between **accents** dependent on the choice of one **phoneme** or another in a particular set of words, e.g. /æ/ or /ɑː/ in the BATH.

lexically designated stress Languages where **stress** can fall anywhere in the word but is fixed for each item, e.g. English, German and Portuguese.

liaison The insertion of a **consonant** in order to facilitate the **articulation** of a word sequence, e.g. French *ces* /se/,*animaux* /animo/ but *ces animaux* /se z animo/.

lingual Used in **phonetics** as an anatomical term referring to the tongue.

linking *r* A frequent form of **liaison** in **non-rhotic accents** of English whereby silent word-final **orthographic r** is sounded if the following word begins with a **vowel**, e.g.*more* /mɔː/ but *more ice* /mɔː r ˈaɪs/. Cf. **intrusive***r*.

manner of articulation How the **articulators** affect the **airstream** passing through the vocal tract so as to result in a **stricture** of either (1) complete closure, (2) close approximation or (3) open approximation.

marginal phoneme A foreign **phoneme** found only within a restricted set of words such as loans or names, e.g. /x/ in English in words like *lo ch, Ba ch.*

medial The position of a **segment** which is neither word-initial nor word-final.

minimal pair A pair of words distinguished by a single **phoneme**, e.g.*bit – sit.*

minimal set A set of words in a given language distinguished by a single **phoneme**, e.g.*bit –sit –pit –lit – nit.*

monosyllable A word of one **syllable**, e.g.*bat.* Cf. **polysyllable**.

Multicultural London English (MLE) A fast-developing **variety** of London English, incorporating many features of Caribbean pronunciation, used mainly by younger members of inner-city ethnic groups.

nasal (1) Referring to the space inside the nose. (2) A **manner of articulation** involving the soft palate being lowered so that the **airstream** escapes via the **nasal cavity**, e.g. /m n ŋ/. Cf. **oral**.

nasal cavity The space inside the nose.

nasal release The release of a **plosive** by the lowering of the soft palate allowing the **airstream** to pass out through the nose.

nasalised vowel Vowel articulated with the soft palate lowered, thus adding the resonance of the **nasal** cavity, e.g. French /ɛ̃/ in *faim* 'hunger,' Portuguese /ĩ/ in *vim* /vĩ/ 'I came.'

nasalisation A **secondary articulation** involving the addition of **nasal** resonance to an **oral** sound, e.g. the **vowel** in English *man* [mæ̃n].

native speaker A person who speaks a language as his or her mother tongue.

neutralisation See **phoneme neutralisation**.

non-nasal Another term for **oral**.

non-native speaker A person who has acquired a language in any way other than by speaking it from early childhood as a mother tongue. Cf. **native speaker**.

non-rhotic Those varieties of English where **orthographic r** is pronounced only before a **vowel**, e.g. most forms of English spoken in England and Wales (including GB), Australian and South African. Cf. **rhotic**.

nuclear tone The **pitch** pattern of the **nucleus** of an **intonation phrase**.

nucleus The last strongly stressed **syllable** of an **intonation phrase**, notable for its striking prominence. (Also termed **tonic** or **focus**.) Do not confuse with **syllable nucleus**.

nucleus location The placing of the **nucleus** within an **intonation phrase**.

obstruent A term covering **stops** and **fricatives**. Cf. **sonorant**.

onset The first **accent** of the **head**. It is a prominent **syllable** in the **intonation phrase**. Do not confuse with **syllable onset**.

open A sound (usually a **vowel**) which is articulated with considerable space between the upper surface of the tongue and the palate, e.g. /ɑː/ in *bar*, German /aː/ as in *Bahn* 'path.' Opposed to **close**.

open syllable A **syllable** which does not end in a **consonant phoneme**, e.g.*see, boy*. Opposed to **closed syllable**.

oral (1) Concerning the mouth. (2) Referring to **articulations** made with the soft palate raised so that air escapes via the mouth and not the nose; cf. **nasal**.

oral cavity The space inside the mouth.

organs of speech All organs involved in the speech process.

orthography Another term for spelling. Adj.*orthographic*.

overlapping stops A sequence of **stops** which involves one or more of their stages being inaudible.

palatal A **place of articulation** involving the front of the tongue and the hard palate, e.g. /j/ in yes.

palatalisation A **secondary articulation** involving the addition of front tongue raising towards the palate, e.g. [nʲ] in *news* [nʲ juːz].

palato-alveolar A **place of articulation** involving the blade/front of the tongue and the rear of the alveolar ridge/front of the hard palate, e.g. /ʃ/ as in *shiver* and /ʤ/ in *jeans*.

paralinguistic Referring to paralanguage, i.e. features of communication which are not part of language as such, e.g. gestures, facial expressions, tones of voice.

passive articulator The **articulator** which does not move in the production of a speech sound, e.g. the alveolar ridge in /t/.

penultimate One before the last. Often used with reference to the location of **stress**.

peripheral Referring to **vowels** produced at the edge of the **vowel diagram**. Opposed to **central**.

pharyngeal cavity The space inside the **pharynx**. Also spelt 'pharyngal.'

pharynx The part of the throat between the **larynx** and the **oral cavity**.

phonation The process by which the **vocal folds** are positioned so as to produce various **glottal settings**, e.g. **voiced**, **voiceless**, **creak**, etc.

phoneme One of a set of abstract units which together form the sound system of a given language, and through which contrasts of meaning are produced.

phoneme neutralisation In certain phonetic contexts, it may not be possible to allocate an **allophone** to one **phoneme** category rather than another; see p. 114.

phonemic inventory The complete set of **phonemes** in a language.

phonemic transcription An alphabetic system for showing the sounds of a language, allotting one symbol to each **phoneme**. Phonemic transcription uses relatively simple letter shapes and is placed between slant brackets / /.

phonetic conditioning A term used to cover any way in which speech sounds are influenced by adjacent (or near-adjacent) **segments**.

phonetic transcription Transcription which shows articulatory detail by means of representing the **allophones** of **phonemes**. Phonetic transcription is placed between square brackets [].

phonetics The scientific study of speech sounds.

phonology The branch of linguistics that deals with the system and patterning of sounds in a language. Adj.*phonological*.

pitch The property of a sound (related to **frequency**) which enables a listener to perceive it as high or low. In rough terms, the higher the frequency, the higher the pitch.

place of articulation The point in the **vocal tract** at which a sound is made.

plosion The noisy release of air in the final stage of a **stop**.

plosive A **manner of articulation** which involves a complete closure in the **vocal tract** followed by a rapid release of the **airstream**, e.g. /p b/ in *pie, buy*.

polysyllable A word of more than one **syllable**, e.g.*bicycle*. Cf. **monosyllable**.

post-vocalic In a context following a **vowel**.

pre-fortis clipping The effect by which **vowels** are shortened preceding a **fortis** consonant.

pre-glottalisation A **stop consonant** incorporating a **glottal stop** occurring in the **approach stage**. (Also termed *glottal reinforcement*.)

prescriptivism An approach to linguistics where rules are laid down for what is considered ‘correct’ or ‘incorrect’ use of language (e.g. in

pronunciation or grammar). Adjective: **prescriptive**.

prestige accent A social **accent** associated with high status.

pre-vocalic In a context before a **vowel**.

prominence A combination of properties such as **stress**, **pitch**, **duration** and loudness which together make a sound stand out from others.

pulmonic Involving the lungs.

r-colouring The addition of a **retroflex** quality to **vowels**, e.g. American *bird*,*car*, etc.

realisation The process by which the abstract phonemic unit becomes physical reality in the form of sound. Loosely, the way in which a particular **phoneme** is said on a given occasion.

realisational variation Differences in language usage between **accents** dependent on the **realisation** of a particular **phoneme**.

Received Pronunciation (RP) The term which has been used since the 1920s for the traditional **prestige accent** of British English. Usually abbreviated to RP. Sometimes called *BBC English.* Cf. **General British** (GB).

regional variation Variation in speech which differs from one geographical area to another. (Also termed *areal variation.*) Cf. **social variation**.

release stage The final stage in the **articulation** of a **stop** in which the **articulators** part and the **airstream** is allowed to escape with **plosion**.

retracted Articulated further **back**. **Diacritic** [-], e.g. English /k/ in *cork* [k-ɔːk]. Opposed to **advanced**.

retroflex A **place of articulation** which involves the tongue-tip being curled back to articulate with the front of the palate, e.g. [ʈ ɖ ɳ] in Indian languages (e.g. Hindi). A retroflex variety of /r/ can be heard in some accents of English, e.g. West Country, North American.

rhotic Those varieties of English where **orthographic r** is pronounced wherever it occurs, e.g. most forms of American English, Scottish and Irish English. Cf. **non-rhotic**.

rhyme A term to cover the **nucleus** and **coda** elements in the **syllable**.

rhythm Patterns of the timing of **syllables** in speech, in some way similar to rhythmic patterns in music.

salient A conspicuous feature of a language **variety**, especially something which is popularly regarded as being characteristic of the **accent** concerned, e.g. **uvular** [ʁ] in Geordie.

schwa The **central vowel** /ə/ as in *a̲bout, bett̲er*, French *at̲elier* 'studio,' German *B̲ekannt̲e* 'acquaintance.' Derived from the Hebrew word for the sound in that language.

secondary articulation A modification applied to the main **articulation** of a speech sound. Secondary articulations comprise **palatalisation**, **velarisation**, **labialisation**, **glottalisation**, **nasalisation**.

segment Individual speech sounds, i.e. **consonants** and **vowels**, that can be represented by means of the symbols of a phonetic alphabet. Adj.*segmental*.

segmentation The process of dividing up the flow of speech into individual speech sounds (or **segments**).

sentence stress Used loosely to refer to the **stress** patterns of connected speech.

setting, articulatory A term used to cover the way in which the **organs of speech** are held throughout the speech process. Setting varies from one language to another and, within languages, from one **accent** to another.

sharp (Used with reference to **fricatives**.) Having mostly high-**frequency** hiss. Cf. **grave**.

smoothing An effect whereby in a vowel sequence one element is partly or totally lost, e.g.*tyre* /taɪə/ realised as [taə] or even [taː].

social variation Differences in language usage which are dependent on factors such as social class, age, religion, etc. Cf. **regional variation**.

sonorant A term covering **nasals**, **approximants** (**central** and **lateral**) and **vowels**. Cf. **obstruent**.

sonority The relative loudness or carrying power of a sound compared to that of other sounds which have similar **pitch**, **stress** and **duration**, etc. Adj.*sonorous*.

speech mechanism Another term for the **organs of speech**.

steady-state vowel A **vowel** articulated with tongue and the lips held in one position. (Also termed *monophthong* and *pure vowel*.) Cf.

diphthong.

stigmatised Used with reference to **accent** features which invoke social disapproval of various kinds, e.g. ridicule, correction.

stop A term covering **plosives** and **affricates**, involving a complete closure in the **vocal tract** with the soft palate raised.

stress The combination of features (loudness, **pitch**, **vowel duration** and **vowel quality**) which makes certain **syllables** seem more prominent than others. Primary stress refers to the most prominent **syllable** in a word; secondary stress to the second-most prominent.

stress-timed A type of speech **rhythm** which gives the impression of regular intervals between stressed **syllables**, e.g. English, Dutch and German. Cf. **syllable-timed**.

stricture A narrowing of a part of the **vocal tract** made by the actions of the **articulators**.

strong form The form which certain **function words** have when pronounced **stressed** or in isolation. Opposed to **weak form**.

supra-glottal Referring to parts of the **speech mechanism** situated above the **larynx**, i.e. the **pharynx**, mouth and nose.

supra-segmental Phonetic phenomena which cover an extent greater than the individual **segment**, e.g. **pitch**, **stress**. Cf. **segment**.

syllabic consonant A **consonant** which functions as a **syllable nucleus**, e.g. English /n̩/ in *hidden* /ˈhɪdn̩/.

syllable A linguistic unit larger than the **phoneme** and smaller than the word, usually containing a **vowel** as its **nucleus**.

syllable nucleus The most prominent, **sonorous** element of a **syllable**. Do not confuse with (intonation) **nucleus**.

syllable onset The initial **consonantal** element of a **syllable**. Do not confuse with intonation **onset**.

syllable-timed A type of speech **rhythm** which gives the impression of **syllables** occupying roughly equal amounts of time, e.g. French, Yoruba. Cf. **stress-timed**.

systemic variation Differences in language usage between **accents** dependent on variations in the number of **phonemes** in the phoneme

system.

t-voicing A **voiced realisation** of /t/, symbolised as 't̬,' e.g. American English *si **tt**ing, ma **tt**er.*

tag-question A structure, consisting of an auxiliary verb and pronoun, attached to the end of a statement for confirmation, e.g.*Andrew lives in Birmingham, doesn't he?*

tag-type response Brief questions similar in structure to a **tag-question**. Tag-type responses are used as a rejoinder in **discourse**, e.g.*He's selling his bike. –Is he?*

tap A **manner of articulation** where the **active articulator** strikes the **passive articulator** with a single rapid, percussive movement, e.g. Spanish *para* 'for' [ˈpaɾa].

th-fronting An effect whereby in certain accents (for example, Cock-ney) **dental fricatives** (/θ ð/) are replaced by **labio-dental fricatives** (/f v/), e.g.*three brothers* /ˈfriː ˈbrʌvəz/.

th-stopping An effect whereby in certain **accents** the **dental fricatives** /θ ð/ are articulated as **stops**, e.g. New York English.

(lexical) tone Pitch movements that in a **tone language** (e.g. Chinese, Ewe, Korean) are capable of distinguishing word meaning.

tone language A language which utilises **tones** as **phonemes**.

tongue arch The hump formed by the tongue for a **vowel articulation**.

tongue height The degree to which the tongue approaches the roof of the mouth.

tonic Another term for (intonation) **nucleus**.

trill A **manner of articulation** where the **active articulator** strikes the **passive articulator** with a number of rapid, percussive movements, e.g. Spanish *parra* 'grapevine' [ˈpara]. (Also termed *roll.*)

upspeak The tendency for speech of younger persons to include a preponderance of terminal rising tones for statements (as opposed to the falling patterns to be found in traditional RP), especially in narrative.

utterance A term used to refer to any stretch of speech.

uvular A **place of articulation** involving the uvula and the back of the tongue, e.g. French *rire* [ʁiːʁ] 'to laugh.'

variety A term covering both **accent** and **dialect**, referring to variation in language usage between various groups of people.

velar A **place of articulation** involving the velum and the back of the tongue, e.g. /k/ in *kick*.

velarisation A **secondary articulation** involving the addition of tongue back raising towards the velum, e.g. **dark** [ɫ] in *build*.

velic closure A closure made between the soft palate and the **pharynx** wall during the **articulation** of **non-nasal** sounds.

vocal folds The two folds of ligament contained in the **larynx** that by vibration produce **voice**. (Also termed *vocal cords*.)

vocal tract The passageways above the **larynx** used in speech, i.e. the **nasal**, **oral** and **pharyngeal** cavities.

voice/voicing A **glottal setting** involving rapid vibration of the **vocal folds**, producing a 'buzz' which accompanies almost all **vowel** sounds and **voiced consonants**.

voiced Referring to a sound articulated with **voice**, e.g. all **vowels** and **consonants** such as [m z g ð]. Opposed to **voiceless**.

voiceless A sound articulated without **voice**, e.g. [s k θ]. Opposed to **voiced**.

vowel A sound formed with a **stricture** of open approximation which acts as a **syllable nucleus**.

vowel diagram A stylised figure used to represent **vowel qualities** based on apparent **tongue height**.

vowel glide See **diphthong**.

vowel quality The **acoustic** nature of a **vowel** sound as perceived by the human ear.

vowel reduction An effect found in most forms of native speaker English, whereby **peripheral vowel phonemes** are replaced in unstressed **syllables** by /ə ɪ ʊ/ or a **syllabic consonant**.

weak form The reduced form of unstressed **function words**, e.g.*are* /ə/. Opposed to **strong form**.

whisper A **glottal setting** in which a **pulmonic airstream** is forced through a gap between the arytenoid cartilages.

word stress Used to refer to the **stress** characteristics of individual words. Cf. **sentence stress**.

yod Another term for the sound [j]. Derived from the Hebrew word for the sound in that language.

yod-dropping Elision of /j/ in initial consonant clusters, as in GA *tune* /tuːn/.

Further Reading

Ashby, M. and Maidment, J. (2005) *Introducing Phonetic Science*, Cambridge: Cambridge University Press. [An introductory textbook which combines modern instrumental approaches to speech analysis with traditional articulatory phonetics. Excellent diagrams and illustrative material throughout.]

Ashby, P. (2005) *Speech Sounds*, 2nd edn, London: Routledge. [A clearly written introduction to the basics of general phonetics with many examples and numerous practical exercises.]

Ashby, P. (2011) *Understanding Phonetics*, London: Hodder Education. [A textbook which skilfully combines articulatory and acoustic approaches to the subject. Good diagrams and photographs.]

Avery, P. and Ehrlich, S. (1992) *Teaching American English Pronunciation*, Oxford: Oxford University Press. [Perhaps the best simple description of General American. Aimed at non-natives.]

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Bauer, L. (2002) *An Introduction to International Varieties of English*, Edinburgh: Edinburgh University Press. [An excellent introduction to native-speaker varieties of English, covering pronunciation, grammar, vocabulary and spelling. Interesting material on colonial Englishes.]

Brown, G. (1990) *Listening to Spoken English*, 2nd edn, London: Longman. [The most accessible discussion of features of connected speech.]

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Carney, E. (1994) *A Survey of English Spelling*, London: Routledge. [The most comprehensive account of British English spelling.]

Carney, E. (1997) *English Spelling*, London: Routledge. [A short survey with exercises. The author's varied material in a workbook format lends interest to a topic perhaps not best known for its appeal.]

Carr, P. (2008) *A Glossary of Phonology*, Edinburgh: Edinburgh University Press. [A clear, concise and up-to-date explanation of terms and concepts. Includes much information on phonetics.]

Carr, P. (2012) *English Phonetics and Phonology*, 2nd edn, Oxford: Blackwell. [A good, brief introduction to phonetics with a more detailed examination of phono-logical theory. Examples include many from Scottish English.]

Cauldwell, R. (2013) *Phonology for Listening*, Birmingham: Speech in Action. [A novel phonological approach to teaching listening in the EFL classroom.]

Celce-Murcia, M., Brinton, D. M. and Goodwin, J. M. (2010) *Teaching Pronunciation: A Course Book and Reference Guide*, 2nd edn, Cambridge: Cambridge University Press. [A comprehensive treatment of American English pronunciation aimed at classroom teachers.]

Cruttenden, A. (1997) *Intonation*, 2nd edn, Cambridge: Cambridge University Press. [A comprehensive introduction to the topic of intonation. Obtain the revised second edition.]

Cruttenden, A. (2014) *Gimson's Pronunciation of English*, 8th edn, London: Hodder Education. [The standard work in the subject of present-day English pronunciation. Recently revamped and brought up to date. An excellent reference work.

Crystal, D. (ed.) (2003) *The Cambridge Encyclopedia of the English Language*, 2nd edn, Cambridge: Cambridge University Press. [Similar to Crystal (2010) but concentrating on the English language. Has interesting

sections on previous states of the language and present-day language varieties. The book is packed with photographs and illustrative diagrams, and in all ways a good lead-in to the subject.]

Crystal, D. (ed.) (2010) *The Cambridge Encyclopedia of Language*, 3rd edn, Cambridge: Cambridge University Press. [Fascinating collection of over 60 sections covering a huge range of linguistic topics of wide interest. Much of the book is devoted to speech. Has many excellent diagrams and photographs. One of the best sources of background to many aspects of linguistics (including phonetics).]

Dalton, C. and Seidlhofer, B. (1994) *Pronunciation*, Oxford: Oxford University Press. [A very useful practical work, which aims at making teachers of English as a foreign language aware of aspects of phonetics relating to pronunciation training and how to apply these in the classroom.]

Denes, P. B. and Pinson, E. N. (1993) *The Speech Chain: The Physics and Biology of Spoken Language*, 2nd edn, New York: Freeman. [A classic work on the physics and biology of speech which is the best introduction for the non-specialist.]

Deterding, D. H. and Poedjosoedarmo, G. R. (1998) *The Sounds of English: Phonetics and Phonology for English Teachers in Southeast Asia*, Singapore: Prentice Hall. [A good general introduction to the phonetics of English but especially useful because of the information it contains on the phonetic/phonological systems of the languages of the Far East.]

Ewen, C. J. and van der Hulst, H. (2001) *The Phonological Structure of Words: An Introduction*, Cambridge: Cambridge University Press. [A more advanced treatment of theoretical phonology, discussing several modern approaches, with particular reference to the level of the word.]

Foulkes, P. and Docherty, G. (1999) *Urban Voices: Accent Studies in the British Isles*, London: Arnold. [A collection of research papers covering a wide range of topics in Irish and British urban accents.]

Fry, D. B. (1979) *The Physics of Speech*, Cambridge: Cambridge University Press. [A lucid introduction to what is admittedly a difficult area.]

García Lecumberri, M. L. and Maidment, J. A. (2000) *English Transcription Course*, London: Arnold. [The best book available for people wanting to get thorough practice in transcription of British English.]

Handke, J. (2001) *The Mouton Interactive Introduction to Phonetics and Phonology*, Berlin & New York: Mouton de Gruyter. [An innovative introductory survey of general phonetics and phonology presented in the form of a CD-ROM. It is particularly valuable for its many examples of different types of speech sound and numerous animations illustrating features of articulation, etc.]

Hughes, A., Trudgill, P. and Watt, D. (2012) *English Accents and Dialects: An Introduction to Social and Regional Varieties of English in the British Isles*, 5th edn, London: Arnold. [A very popular introduction to the subject which includes information on pronunciation, grammar and vocabulary. Recently revised and expanded. Quite easy to read and has useful back-up audio material.]

International Phonetic Association (1999) *Handbook of the International Phonetic Association*, Cambridge: Cambridge University Press. [Gives brief descriptions of the phonetic/phonological systems of 29 languages from all over the world (including languages such as Arabic, Cantonese Chinese, German, French, Dutch, Hausa, Hindi, Japanese, Korean, Portuguese and Swedish to name only a selection). It also includes a useful introductory section on basic phonetic concepts and an appendix on the history of the IPA.]

Jenkins, J. (2000) *The Phonology of English as an International Language*, Oxford: Oxford University Press. [A polemic aimed at simplifying traditional treatment of pronunciation teaching and calling for tolerance of non-native varieties. Has stirred up debate.]

Jenkins, J. (2009) *World Englishes*, 2nd edn, London: Routledge. [A book in the same series as the present volume, and in a sense complementary to it inasmuch as it discusses world varieties of English in greater detail.]

Jones, D. (2011) *Cambridge English Pronouncing Dictionary*, 18th edn, Cambridge: Cambridge University Press; rev. P. Roach, J. Setter and J. Esling. [A classic work first published in 1917 and now thoroughly

revised with a good CD-ROM giving the pronunciation for all headwords. Covers both British and American English.]

Knight, R.-A. (2012) *Phonetics: A Coursebook*, Cambridge: Cambridge University Press. [A well-presented up-to-date guide concentrating on English articulatory phonetics. Features a multitude of problem-solving exercises.]

Kreidler, C. W. (1997) *Describing Spoken English*, London: Routledge. [Concentrates on phonology, examining the main varieties of English worldwide.]

Labov, W., Ash, S. and Boberg, C. (2006) *The Atlas of North American English*, Berlin: Mouton de Gruyter. [The most extensive survey of North American pronunciation to date.]

Ladefoged, P. and Disner, S. F. (2012) *Vowels and Consonants: An Introduction to the Sounds of Language*, 3rd edn, Oxford: Blackwell. [An interesting book on segments. It turns cutting-edge research on areas like synthetic speech and speech recognition into attractive reading for the non-specialist.]

Ladefoged, P. and Johnson, K. (2014) *A Course in Phonetics*, 7th edn (with CDROM). Boston: Thomson Wadsworth. [An introductory course which has long been an established classic. It has now been updated with more emphasis on acoustic phonetics.]

Lass, R. (1987) *The Shape of English: Structure and History*, London: Dent. [An introduction to English language which contains much interesting material on the history of English pronunciation and also on present-day language varieties.]

Lindsey, G. (2019) *English After RP: Standard British Pronunciation Today*, London: Palgrave Macmillan. [A very interesting account of changes in modern British English pronunciation.]

MacCarthy, P. (1975a) *The Pronunciation of French*, London: Oxford University Press. [See below.]

MacCarthy, P. (1975b) *The Pronunciation of German*, London: Oxford University Press. [Although in some areas outdated, these two books are among the few available which explain the phonetics of these foreign

languages in relatively simple terms to speakers with a British English background.]

McArthur, T. (ed.) (1992) *The Oxford Companion to the English Language*, Oxford: Oxford University Press. [Contains a large number of articles on all aspects of English, including many dealing with pronunciation and language varieties.]

McMahon, A. (2002) *An Introduction to English Phonology*, Edinburgh: Edinburgh University Press. [A very well-organised and lucidly presented introduction to phonetics and phonology aimed at the complete beginner.]

Melchers, G. and Shaw, P. (2015) *World Englishes*, 2nd edn, London: Arnold. [Surveys a wide range of both native and non-native English varieties with much information on pronunciation. Audio CD is sold separately.]

O'Connor, J. D. and Arnold, G. F. (1973) *Intonation of Colloquial English*, 2nd edn, London: Longman. [A classic work in the British tradition with extensive practice material.]

Ogden, R. (2017) *An Introduction to English Phonetics*, 2nd edn, Edinburgh: Edinburgh University Press. [A concise introduction to the subject aimed at a native speaker audience.]

Olausson, L. and Sangster, C. (2006) *Oxford BBC Guide to Pronunciation: The Essential Handbook of the Spoken Word*, Oxford: Oxford University Press. [Useful compendium of information which is not easily obtainable elsewhere. Based on BBC advice to its newsreaders and presenters.]

Pinker, S. (1994) *The Language Instinct*, Harmondsworth: Penguin. [A well-written introduction to several aspects of modern linguistics in which many areas of phonetics and phonology are explained in an easily understood way. The emphasis is on psycholinguistics.]

Price, G. (2005) *An Introduction to French Pronunciation*, Oxford: Blackwell. [A revised edition of a well-established practical description of the French sound system, aimed largely at British readers. Unfortunately, it has no accompanying audio material.]

Roach, P. (2001) *Phonetics*, Oxford: Oxford University Press. [A brief introduction to general phonetics aimed at the complete beginner.]

Roach, P. (2009) *English Phonetics and Phonology: A Practical Course*, 4th edn, Cambridge: Cambridge University Press. [A deservedly popular course covering fully the basics of these subjects with some consideration of more theoretical areas. Has CDs and an excellent website including a glossary.]

Shockey, L. (2003) *Sound Patterns of Spoken English*, Oxford: Blackwell. [Difficult in parts, but one of the few guides available to the surprises of connected speech.]

Tench, P. (1996) *Intonation Systems of English*, London: Cassell. [A book which covers a wide area of a complex field. It aims to explain difficult ideas in as simple a manner as possible. Has excellent examples throughout.]

Tench, P. (2011) *Transcribing the Sound of English*, Cambridge: Cambridge University Press. [Apart from being an intensive course in various types of transcription, this book also includes much information on English articulatory phonetics.]

Tranel, B. (1987) *The Sounds of French*, Cambridge: Cambridge University Press. [Useful textbook which combines a theoretical introduction with many practical hints to the learner.]

Trask, R. L. (1996) *A Dictionary of Phonetics and Phonology*, London & New York: Routledge. [By far the best book available for the authoritative explanation of phonetic/phonological terminology in straightforward language. Many examples from a wide range of languages and varieties.]

Trudgill, P. (2002) *Sociolinguistic Variation and Change*, Edinburgh: Edinburgh University Press. [A collection of the author's articles, previously published but now revised, many of which refer to accents of English.]

Trudgill, P. and Hannah, J. (2017) *International English: A Guide to Varieties of Standard English*, 6th edn, London: Arnold. [A popular introduction to varieties of English worldwide covering pronunciation, grammar and vocabulary.]

Wells, J. C. (1982) *Accents of English*, 3 vols, Cambridge: Cambridge University Press. [The standard work on accent varieties. One of the

three volumes is devoted exclusively to the British Isles.]

Wells, J. C. (2006) *English Intonation: An Introduction*, Cambridge: Cambridge University Press. [Comprehensive survey of a complex topic explained clearly and systematically, and backed up by a free CD full of illustrative examples. The standard work on the intonation of British English.]

Wells, J. C. (2008) *Longman Pronunciation Dictionary*, 3rd edn, Harlow: Pearson Education. [The best reference work of this kind available. Apart from indicating over 225,000 pronunciations, it provides much information on matters such as sound/spelling relationships, pronunciation change in progress, and explanation of technical terms. Comes with an excellent audio-CD with British and American pronunciations for all items.]

Wells, J. C. (2014) *Sounds Interesting*, Cambridge: Cambridge University Press. [An entertaining selection of phonetic observations and discussions.]

Wells, J. C. (2016) *Sounds Fascinating*, Cambridge: Cambridge University Press. [A sequel to the author's *Sounds Interesting*.]

Yavas, M. (2016) *Applied English Phonology*, 3rd edn, Oxford: Blackwell. [A wide-ranging survey aimed at the American reader. Covers not only phonology but has much phonetic back-up information. Discusses a range of languages and varieties of English. Sometimes a little complex for a book aimed at the beginner.]

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Note that, for ease of reference, we repeat here details of certain books also mentioned in the *Further Reading* section.

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Note: Page numbers in italics refer to figures; page numbers in bold reference tables.

THE INTERNATIONAL PHONETIC ALPHABET (revised to 2015)

CONSONANTS (PULMONIC)

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k g	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill	ʙ			r					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Symbols to the right in a cell are voiced, to the left are voiceless. Shaded areas denote articulations judged impossible.

CONSONANTS (NON-PULMONIC)

Clicks	Voiced implosives	Ejectives
ʘ Bilabial	ɓ Bilabial	’ Examples:
ǀ Dental	ɗ Dental/alveolar	pʼ Bilabial
ǃ (Post)alveolar	ʄ Palatal	tʼ Dental/alveolar
ǂ Palatoalveolar	ɠ Velar	kʼ Velar
ǁ Alveolar lateral	ʛ Uvular	sʼ Alveolar fricative

OTHER SYMBOLS

ʍ Voiceless labial-velar fricative

ɕ ʑ Alveolo-palatal fricatives

w Voiced labial-velar approximant

ɺ Voiced alveolar lateral flap

ɥ Voiced labial-palatal approximant

ʜ Voiceless epiglottal fricative

ʢ Voiced epiglottal fricative

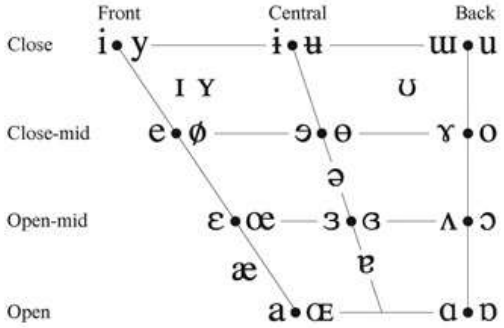
ʡ Epiglottal plosive

ʃ͡ʒ Simultaneous ʃ and x

Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary.

t͡s k͡p

VOWELS



Where symbols appear in pairs, the one to the right represents a rounded vowel.

SUPRASEGMENTALS

ˈ Primary stress ˌfoʊnəˈtɪʃən

ˌ Secondary stress

ː Long eː

ˑ Half-long eˑ

˘ Extra-short ĕ

| Minor (foot) group

‖ Major (intonation) group

. Syllable break ɹi.ækt

‿ Linking (absence of a break)

TONES AND WORD ACCENTS

LEVEL		CONTOUR	
e̋ or ˥	Extra high	ě or ˧˥	Rising
é ˦	High	ê ˥˩	Falling
ē ˧	Mid	e᷄ ˦˥	High rising
è ˨	Low	e᷅ ˩˧	Low rising
ȅ ˩	Extra low	e᷈ ˩˥˩	Rising-falling
↓	Downstep	↗	Global rise
↑	Upstep	↘	Global fall

DIACRITICS

Some diacritics may be placed above a symbol with a descender, e.g. n̊ŋ̊

◌̥	Voiceless	n̥ d̥	◌̤	Breathy voiced	b̤ a̤	◌̪	Dental	t̪ d̪
◌̬	Voiced	s̬ t̬	◌̰	Creaky voiced	b̰ a̰	◌̺	Apical	t̺ d̺
◌ʰ	Aspirated	tʰ dʰ	◌̼	Linguolabial	t̼ d̼	◌̻	Laminal	t̻ d̻
◌̹	More rounded	ɔ̹	◌ʷ	Labialized	tʷ dʷ	◌̃	Nasalized	ẽ
◌̜	Less rounded	ɔ̜	◌ʲ	Palatalized	tʲ dʲ	◌ⁿ	Nasal release	dⁿ
◌̟	Advanced	u̟	◌ˠ	Velarized	tˠ dˠ	◌ˡ	Lateral release	dˡ
◌̠	Retracted	e̠	◌ˤ	Pharyngealized	tˤ dˤ	◌̚	No audible release	d̚
◌̈	Centralized	ë	◌̴	Velarized or pharyngealized	ɫ			
◌̽	Mid-centralized	e̽	◌̝	Raised	e̝ (ɪ̝ = voiced alveolar fricative)			
◌̩	Syllabic	n̩	◌̞	Lowered	e̞ (β̞ = voiced bilabial approximant)			
◌̯	Non-syllabic	e̯	◌̘	Advanced Tongue Root	e̘			
◌˞	Rhoticity	ə˞ a˞	◌̙	Retracted Tongue Root	e̙			

Typefaces: Doulos SIL (metatext); Doulos SIL, IPA Kiel, IPA LS Uni (symbols)