



English Phonology and Pronunciation Teaching

Pamela Rogerson-Revell

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Continuum International Publishing Group

The Tower Building	80 Maiden Lane
11 York Road	Suite 704
London, SE1 7NX	New York, NY 10038

www.continuumbooks.com

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British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

ISBN: 978-0-8264-4356-4 (hardcover)
978-0-8264-2403-7 (paperback)

Library of Congress Cataloging-in-Publication Data

A catalog record for this book is available from the Library of Congress.

Typeset by Newgen Imaging Systems Pvt Ltd, Chennai, India
Printed and bound in India

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About this Book

This book is an accessible introduction to the phonology of English and its practical application to pronunciation teaching. The book assumes no prior knowledge of the subject and is seen as a resource for both newcomers and experienced practitioners in the field of English Language Teaching (ELT) as well as students of Applied Linguistics. It would, for example, be relevant to post-DELTA students or postgraduate TESOL students and experienced English language teachers who want a broad knowledge of phonology and its application to pronunciation teaching. It could also be seen as an introductory text or source of reference for EFL teacher trainers and postgraduate course tutors.

The book aims to provide a clear description of key aspects of English phonology in order to help teachers diagnose and prioritize problem areas in pronunciation. It also aims to develop an awareness of current issues and relevant research in the field to inform teachers' decisions not only about *what* to teach but also *how* to teach pronunciation, particularly in English as an International Language (EIL) contexts.

Specifically, it aims to enable readers to:

- Understand key terms and concepts in phonology and phonetics.
- Become aware of current issues and debates in research and apply these to pronunciation teaching, particularly in EIL contexts.
- Conduct phonological analysis of learner language, including phonemic transcription.
- Diagnose and assess learners' pronunciation difficulties and needs.
- Plan a structured pronunciation syllabus.

The contents are structured and presented in an accessible format that can be used either as a course book or a resource to dip into. It provides clear, straightforward explanations of phonological terms and concepts, emphasizing throughout how an understanding of phonology and phonetics can have a practical application to pronunciation teaching.

The book therefore starts with a general introduction to the nature of phonology and phonetics, and then to the pronunciation of English compared to other major languages. The first section of the book deals systematically with the core features of English phonology: e.g. production of speech, classification of vowels and consonants, phonemes, syllable structure, features of connected speech, stress and intonation, and relates these to 'teaching implications'. The second section of the book applies this knowledge of phonology and speech to specific aspects of pronunciation teaching, such as diagnosing and prioritizing pronunciation difficulties, developing effective teaching techniques, designing an appropriate pronunciation syllabus and assessing pronunciation skills.

Xii About this Book

An accompanying website hosts the audio files which provide examples of a wide range of native and non-native speaker pronunciation features. The book also provides a range of pronunciation activities and quizzes (with keys) as well as references to further reading, a glossary of technical terms and links to additional online phonology and pronunciation teaching resources.

Phonology and Pronunciation Learning and Teaching

1

Introduction

Does it matter if the majority of second language (L2) speakers of English do not distinguish between ‘ship’ and ‘sheep’? Is it worth insisting on clear production of consonants at the end of words such as ‘what?’ if the majority of first language (L1) speakers rarely produce an audible release of such final consonants? Is RP (Received Pronunciation) a relevant model if only 4 per cent of the British population speak it? How is it possible to define the norms and models that are essential to achieve mutual intelligibility among a wide range of non-native¹, and indeed native, speakers of English?

Such questions typify current concerns about how best to approach the teaching and learning of pronunciation. This debate has gathered momentum in recent years, not only because of the natural evolution of the English language but also heightened by the rapid and continuing spread in the use of English as an International Language (EIL). Such concerns may well add to many teachers’ uncertainty about how to tackle pronunciation teaching systematically, despite the fact that many students see it as an important area. Lack of time in a busy curriculum or lack of confidence in their own pronunciation or subject knowledge are also long-standing concerns for many English language teachers.

This book aims to provide a clear description of key aspects of English phonology in order to help diagnose and prioritize problem areas in pronunciation teaching and learning. It also aims to develop an awareness of current issues and relevant research in the field to inform teachers’ decisions not only about what to teach but also how to teach pronunciation, particularly in EIL contexts.

The nature of phonology and phonetics

If we hear a unknown language for the first time, we perceive a stream of unidentifiable sounds, that is, an auditory impression, which often form the basis of prejudged reactions about the language. For instance, L1 English speakers often find French ‘romantic’ or ‘sophisticated’ while German can be seen as rather ‘hard’, ‘guttural’ or ‘masculine’.

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Activity 1

Can you think of any languages you have heard or know that you (a) like the sound of and (b) don't like the sound of? Try and analyse what exactly you like or dislike about them.

Speech sounds are different from other sorts of vocal sounds (**vocalizations**) because they make regular, meaningful patterns. Speech is a series of meaningful sounds and silences and **phonology** is the study of these sound patterns within a particular language, such as Chinese or English, or in a variety of language, such as Cantonese Chinese or Indian English. **Phonetics**, on the other hand, is the scientific description of speech sounds across languages, unrelated to a specific language.

For language teaching, both phonetics and phonology are important. Phonetics enables us to describe the characteristics of individual speech sounds precisely, while phonology helps us explain how such sounds work in patterns within a particular language. To give an example, there is generally a slight difference in the way the sound 'a' is typically pronounced by British and American speakers. The American 'sad' often sounds a bit 'nasalized' to British ears. This is because there is a small difference in tongue position and the distribution of air flowing out through the nose or mouth between the 'a' in the British and American 'sad'.

Nevertheless, both are heard as the same word, so this slight phonetic difference is not phonologically significant. However, there is also a phonetic difference between the first sound in 'thin' and 'tin' (i.e. a small difference in tongue position) but they have a lexically different meaning, that is, they are different words. When a difference in one sound causes different lexical meanings, we say the sound is a **phoneme** of the language and the difference in sound is **phonemic** not just phonetic. Words which can change their lexical meaning by replacing a single phoneme, like 'thin/tin' are called **minimal pairs**.

Phonology in language learning and teaching

Speech, in all languages is a combination of sounds and each language has its own phonological system. Phonology tries to answer questions such as:

1. How are the sound patterns of one language different from those of another language?
2. Why do L2 learners have particular pronunciation problems?
3. How do the sound patterns of a language change over time or over geographical area?

Phonology forms the basis of all other aspects of language, in the sense that all higher linguistic units (e.g. words, phrases, sentences) can fundamentally be analysed as sounds. Also, phonological differences can signal differences at other levels of language. Here are some examples:

Lexical meaning

For instance, a difference in one vowel sound can signal different word meanings.

bɪn bən bʊn

Grammatical meaning

Similarly, a small difference in sound can distinguish grammatical categories.

For instance, the difference between [s] and [z] in:

use (noun) vs use (verb);
advice (noun) vs advise (verb)

or the difference in 'stress' placement in:

'present (noun) and pre'sent (verb)

Discourse meaning

Phonological differences can also alter the intended meaning of a piece of spoken discourse. For example:

I thought it was going to **rain** (i.e. it didn't rain)
I **thought** it was going to rain (i.e. and it did rain)

Here, the difference in the amount of emphasis put on different words (e.g. 'rain' and 'thought') in the sentence and differences in the direction of the voice at the end of the utterance can change its meaning.

As well as causing purely linguistic differences, phonology can also differentiate meaning or interpretation of a more social or psychological nature. We manipulate the image we convey to others in many different ways: the way we dress, the way we move, the way we communicate. In particular, the way we speak including our accent conveys a lot about where we come from, and the social groups we belong to or aspire to. In other words, an individual's pronunciation can give important clues about:

personal identity
group identity
emotional state/mood

Personal identity

It is relatively easy to identify an individual by their voice; everyone has his/her own unique voice quality. People from the same family often have similar voices, and similar physical characteristics, but they are never identical. Even on the telephone, it is possible to get a reasonable idea, for instance, of a person's age group, sex, physical size by his/her voice (Krauss et al. 2002).

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Group identity

Identification with a group can be either (i) geographical or (ii) social:

- (i) *geographical* – people from the same geographical region often share identifiable pronunciation patterns while people from different geographical regions may have distinctive regional accents (e.g. New York American, Liverpool English).
- (ii) *social* – various types of social groups mark their identification with that group by shared pronunciation patterns, as well as other linguistic patterns. For instance, the common substitution of /θ/ for /f/ (e.g. 'fin' for 'thin') by many English teenagers. Different phonological features may be used as such **group markers**. For instance, the pronunciation of individual sounds, such as 'moor' vs 'more', are the same vowel in southern English but different vowels in many other geographical regions in Britain. In fact, the English short vowel /æ/ has been shown to be an indicator of both geographic and social group identity in both the UK (e.g. 'bath', 'glass') and the US (e.g. 'and', 'can', 'daddy'). Similarly, there may be differences in intonation patterns, for instance in the greeting 'good day', the voice of a standard southern British speaker would probably fall at the end of the word while an Australian speaker's voice would probably rise.

Emotional state/mood

There is a considerable amount of research suggesting a connection between voice quality and perceptions of mood, attitude or emotions. Various studies have proposed for instance that a 'tense' voice is an indicator of anger and a 'lax' voice suggests boredom or sadness (Scherer 1986).

Activity 2

Do you have a 'telephone voice'. If so, how does it change and why? Can you tell when someone is smiling on the phone?

A knowledge of phonology, then, increases our understanding of how many elements of communication work, including grammatical speech, fluent speech and variations in language according to groups and situations. Even if teachers do not teach phonology explicitly, whenever students study the spoken language they are learning its phonology and pronunciation as well.

Pronunciation teaching and learning – why is it important?

As teachers and as learners of other languages, we all know the crucial impact pronunciation can have not only on assessments of an individual's linguistic ability but also their identity

and status. If someone has a 'strong foreign accent' it can be quite easy to guess what their L1 is. If they have little noticeable accent or a 'near native' pronunciation, the reaction is generally one of praise or admiration.

Typically, native speakers (NS) are more sensitive to pronunciation errors than lexical or syntactic ones. According to Mey (1998:47) 'NS are at their most authoritative on matters of phonology, less so on morphology, less still on syntax, and less on semantics. Moreover, this scale corresponds to a scale of the native speakers' tolerance of linguistic deviance: they instinctively abhor phonological deviance, hate the morphological sort, merely dislike the syntactic, and can live with the semantic.'

Similarly, in contexts where English is used as a Lingua Franca between non-native speakers (NNS) of English, research suggests that the majority of communication breakdowns are due to pronunciation errors (Jenkins 2000). Indeed, Jenkins found in her research that of the 40 instances of communication breakdown in her NNS-NNS interactions, the majority (i.e. 27) were due to pronunciation errors with the next largest group being eight lexical errors. Furthermore, all twenty seven pronunciation errors were the result of transfer of L1 sounds.

Jenkins (2000:83) further claims that 'it is in the area of pronunciation that L2 varieties diverge most from each other linguistically and therefore it is this area that most threatens intelligibility' (2000:1). She also concludes from her NNS corpus that 'given speakers' frequent inability to 'say what (they) mean' pronunciation-wise, which is compounded by listeners' seemingly ubiquitous use of bottom-up processing strategies, pronunciation is possibly the greatest single barrier to successful communication' (2000:83). She goes on to say that this is not only a problem for low level learners but 'is still much in evidence when learners are upper-intermediate and beyond' (2000:83).

It is clear then that pronunciation errors can be problematic but there are also some other reasons why pronunciation teaching and learning are important.

Perceptions of fluency

There are many components of fluency, including the organization of talk and range of vocabulary, but temporal and phonological factors are also important, particularly in language testing and assessment (Hieke 1985). From my own teaching experience, Scandinavian learners, such as Swedes and Danes, are often perceived as being more fluent in English than their French counterparts, even if the French learners are equally, or more, grammatically competent. This seems to relate to the fact that the pronunciation of these Scandinavian languages is relatively closer to English than French (i.e. the 'phonological distance' is smaller) and therefore their pronunciation tends to sound better or at least less heavily accented.

Acquisition vs learning

It is not obvious that learners, especially adults, will 'pick up' pronunciation naturally themselves. Many factors affect pronunciation learning, including L1, age, exposure, phonetic ability,

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sense of identity, motivation and attitude and some of these are possibly more important than others.

Predicting problems

For teachers, a knowledge of the phonology of the target language and the students' first language can help predict some of the problems learners may have as they transfer some of their native language pronunciation to the target language. Obviously, if the teacher shares the same L1 as their learners they could have an advantage here.

Goals and targets

It is important for learners to have clear models, realistic goals and achievable targets for pronunciation but what exactly should they be? For instance, should the goal be 'comfortable intelligibility' (Abercrombie 1949, Kenworthy 1987) or a near-native command; should the model be RP or a local standard accent?

The first three of these issues will be discussed further in Chapter 2 but we will now consider goals, models and targets more closely.

Targets, models and goals

Models

It is generally agreed that teaching and learning pronunciation requires some sort of model for the learner to refer to. The conundrum is choosing a pronunciation model which learners and teachers feel comfortable with and which facilitates successful communication in contexts in which the learner will interact. English has a wide variety of accents from which to choose such a model but traditionally the choice for British English has been the prestige accent 'Received Pronunciation' or 'RP', sometimes equated with 'BBC English' or the 'Queen's English'.

RP

'Received Pronunciation' is a term coined in the Victorian era to refer to the 'received' or 'socially acceptable' accent of the upper classes. RP is generally recognized as a social rather than regional accent with 'its origins in the public school system and a social elite from London and the Home Counties' (Jenkins 2000:14). According to Crystal (1995) 'pure RP' is spoken by less than 3 per cent of the British population and has been largely replaced by what he calls 'modified RP' which includes some regional features.

Debates have been ongoing about the appropriacy of RP as a model for many decades (e.g. Honey 1989, Widdowson 1994). However, with the growing use of English as an International Language (EIL) or English as a Lingua Franca (ELF) this debate has intensified in recent years/decades.

Many arguments have been forward both ‘for’ and ‘against’ the use of RP as a pronunciation model. Some of these are as follows:

‘For’

- RP is one of the most extensively documented accents in the world. It has been described in great detail both by sociolinguists and phoneticians over a long period of time.
- The majority of teaching resources for British English, both textbooks and learner dictionaries, are based on RP.
- It is still recognized as a prestige accent and therefore adopting such a model gives learners access to the social status and power related with it.
- Learning a language is about acquiring linguistic proficiency. Having a goal of mastering a native-speaker accent such as RP reflects a concern to achieve a high level of academic and language-learning ability.

‘Against’

- RP is a minority accent which perpetuates the norms of an elite minority which few L2 speakers are likely to encounter. Daniels (1995) refers to them as ‘phantom speakers of English’ to illustrate their scarcity.
- It has been claimed that RP is far from the easiest accent to learn because of features like the non-rhotic /r/, i.e., not pronounced after a vowel, as in ‘car’ the large number of diphthongs and weak forms. It has been suggested that some other varieties such as Scottish or General American would be easier teaching models (Abercrombie 1988, Modiano 1996).
- RP has changed considerably over time as can be witnessed by comparing older and younger generation RP speakers. Many feel it is ‘old fashioned’ and ‘on the way out’ (Abercrombie 1988).
- Adopting an ‘alien’ accent involves loss or threat to identity – it is ‘morally wrong’ to change one’s pronunciation (Porter and Garvin 1989).
- Assuming a NS accent is an intrusion into a speech community that the NNS is not qualified to join.

Activity 3

Does speaking another language automatically threaten your sense of L1 identity? Is it ‘morally wrong’ to aim to reduce a learner’s L1 accent?

Many scholars now conclude that the term ‘RP’ is outmoded and embodies negative connotations regarding social class and elitism. Various alternative terms have been suggested, including for example, ‘BBC pronunciation/English’, ‘Estuary English’,² ‘Non-Regional Pronunciation’ (Collins and Mees 2003) and ‘Standard Southern English’. All such terms strive to reflect the phonetic changes which traditional RP has undergone over recent decades and the general social and geographical spread of the accent, although arguably this is still a prestige accent of educated southern English speakers.

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The term adopted here, as an alternative to 'RP', is '**BBC pronunciation**', in line with Roach (2000), Trudgill (1999), Ladefoged (2001) and as used in the Daniel Jones Pronunciation Dictionary (15th edition 1997). As Roach (2000) points out, this is not because all BBC presenters use this accent or because the organization enforces its use but because it is still relatively easy for teachers and learners to find examples of this accent from the BBC media.

'BBC pronunciation' is also the accent used as the main model throughout this book, although a range of both native and non-native varieties will be presented. Again, the argument here is that at some point teachers and learners need a clear, unambiguous reference point from which to practice sounds and other pronunciation features. It is little help to learners to suggest they can choose to pronounce 'go' as /gəʊ/, gou/ or [gœ] even if all three would be readily intelligible to many NS. Obviously, it can be useful, at a later stage perhaps, for learners to be aware of this flexibility but this degree of choice does not help in the early or intermediate stages of pronunciation production.

Again, choosing this as the main model for production, does not assume that it is the 'best' accent. As many others have pointed out, there are several alternative accents, such as some Scottish or Irish accents which could be easier to learn because of the closer link between sound and spelling and the fewer number of vowel sounds. In fact, there are a wide variety of NS and NNS accents which would provide a suitable model and preferably learners would be exposed to a large selection of both.

This leads to a further point regarding models. Normally, the main pronunciation model for learners, is the class teacher together with any available audio materials. If the teacher is an L1 English speaker who does not speak with a BBC accent (for instance, they may have a Scottish, or American or Australian accent), they will have to be aware of points where their own accent deviates from this model and decide which of the two to choose as the main teaching model. If the teacher is an L2 English speaker, they will need to decide similarly if BBC pronunciation or some standard L2 model (such as Singaporian or Indian English) is more appropriate for their learners' needs. Regardless of whether the teacher is an L1 or L2 English speaker, they will have to provide consistent examples of the main model as well as examples of other appropriate models for later stages of learning.

A final point about models is that there is often confusion between the terms 'model' and 'goal'. A 'model' is a set of standard pronunciation forms for a particular accent which can be used a point of reference or guideline with which to measure pronunciation appropriacy or accuracy. Inevitably, a model provides examples of normal pronunciation for a particular accent, for example, the use of /ɑ:/ is the normal phoneme in 'grass' using an RP model.

Goals

There is a difference between the reference points or model we use for guidance in pronunciation teaching and learning and the target we set as an achievable goal or aim. The 'goal' is the level which a learner's pronunciation aims to reach in order to facilitate effective communication. The goal may vary depending on the particular contexts in which the learner needs to communicate, for instance, someone intending to work in an international CALL

centre may require a target of near native proficiency while a person who will interact primarily with other L2 speakers may be comfortably intelligible with a limited degree of pronunciation competence, as outlined for instance in Jenkins' 'Lingua Franca Core' (which is described later in this chapter).

Intelligibility

Increasingly, the goal of '**intelligibility**' is seen as more achievable and appropriate for many learners. The term has been interpreted in different ways with a distinction sometimes made between intelligibility as recognition of words and utterances (Smith and Nelson 1982) and a broader concept which includes the understanding and interpretation of words and messages, sometimes referred to as '**comprehensibility**' (James 1998).

There have also been differences in the way the goal of intelligibility is conceived.

For instance, the concept of '**comfortable intelligibility**' (Abercrombie 1949, Kenworthy 1987) takes into account the role of the listener as well as the speaker in intelligibility. Understanding someone who makes frequent pronunciation errors requires a lot of effort on the part of the listener and can be uncomfortable in the sense that it can cause irritation and confusion. Kenworthy therefore sees 'comfortable intelligibility' as a pronunciation goal where speaker and listener can communicate effectively without undue stress or effort.

Similarly, Jenkins (2000) notion of 'international intelligibility' raises the question of intelligible to whom? She claims that whereas intelligibility has traditionally been viewed from the standpoint of the NS listener, in EIL contexts it can also be considered from the point of view of both NS and NNS listeners and in English spoken as a Lingua Franca (ELF) contexts it is important to consider mutual intelligibility between NNS speakers and listeners.

There is a common belief that foreign accent is the cause of unintelligibility and is necessarily a learner 'problem'. It obviously can be, depending on the degree of accent and the context but so can a native accent such as Glaswegian or Geordie (from Newcastle in the north of England) to those unfamiliar with such varieties. The issue is deciding if and when an accent can be problematic to intelligibility.

Learner and teacher pronunciation competence

While there is little disagreement over the importance of intelligibility as a key goal in pronunciation teaching and learning, debates continue over what level of competence learners and teachers should aim for.

Teacher competence

Most teachers would agree that they need a higher level of competence than the average student. However, there is some discussion regarding what exactly constitutes this competence, as reflected in the following quotes from some key experts in the field:

'Is it really necessary for most language learners to acquire a perfect pronunciation? Intending secret agents and intending teachers have to, of course, but most other language learners need no more than a comfortably intelligible pronunciation (and by "comfortably intelligible" I mean a pronunciation

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which can be understood with little or no conscious effort on the part of the listener).’ (Abercrombie 1965, in Brown 1991:93)

‘For the teacher, however, easy intelligibility is not enough. He has the added responsibility of serving as a model for his pupils, who, if they are young, will imitate equally well a correct or a faulty pronunciation. His aim therefore must be perfection in respect of all aspects of pronunciation.’ (Gimson 1977:56)

‘Learners who plan to become teachers of English will want to approximate a native accent and, depending on their future teaching situations, may want to be familiar with several major accents of English in the world.’ (Kenworthy 1987:3)

‘However, for the immediate future, ELT students will also need to acquire the non-core areas receptively in order to be able to understand “NSs” face-to-face (for example, in British American, or Australian universities) or, more likely, in the media. In effect, this means that pronunciation teacher education should cover the full range of phonological features of at least one of the main “NS” varieties of English – even though teachers will not thence be expected to pass this on to their students for productive use.’ (Jenkins 2000:202)

There seems to be some agreement therefore that pronunciation teachers need to provide a clear, consistent pronunciation model and they should also have at least receptive competence in one or more standard NS varieties. Which variety will depend on the teacher’s own linguistic background and on the needs of the learners.

Learner competence

While many learners may be happy to aim for comfortable intelligibility, some prefer to go beyond this to a higher level of competence. As Jenkins says, ‘it is important not to patronize those learners who wish to work towards the goal of a NS accent by telling them they have no need to do so’ (2000:101).

Nevertheless, increasing acceptance of the goal of intelligibility has led to a renewed focus on the level of competence required by learners and what pronunciation features need to be mastered to achieve this.

The continuing growth of English as a global language means that the number of people who use it as a second language or lingua franca far outweighs the number of first language speakers. Many of these users have little realistic possibility or need to acquire a native-like level of competence as the majority of their communication will not be with L1 speakers. The acceptance of this fact has led to various suggested alternative goals for such L2 learners.

‘Amalgum English’ and ‘International English’

These terms were introduced in the seventh edition of ‘Gimson’s Pronunciation of English’ (2008 revised by Alan Cruttenden), in recognition of the changes that English has undergone since the first edition appeared in 1962. In it, the terms ‘**Amalgum English**’ and ‘**International English**’ are introduced. The former refers to the goal which would be relevant to learners who use English ‘as an L2 and/or lingua franca within their own country (and maybe including neighbouring countries) and who may only have limited meetings with L1 speakers.’

The latter refers to speakers who use English 'as a lingua franca on a more international basis and need a minimum standard for occasional communication (e.g. non-English speaking businessmen who use English as the common language between them)' (Cruttenden 2008:317).

A summary³ is provided here (Figures 1.1 and 1.2) of the core pronunciation features of both 'Amalgum English' and 'International English' (Cruttenden 2008:329 and 333).

'Amalgum English'

- (1) General aim: easy intelligibility by native speakers
- (2) Consonants:
 - I. Insist on aspirated plosives but allow dental or retroflex /t,d/ and palatal /k,g/
 - II. Insist on /f,v, s,z/ but allow conflation of /ʃ ʒ/ and /θ ð/. /h/ required but allow velar/uvular replacements
 - III. Insist on /tʃ, dʒ/ distinct from /tr, dr/
 - IV. Allow any variety of /l/. Allow prepausal and pre-consonantal /r/ and /r/ = [ɾ]. Allow insertion of /g/ following /ŋ/. Discourage /w/ = [ʊ]
 - V. Insist on consonantal clusters (apart from usual reductions allowable in RP).
- (3) Vowels: a possible reduced inventory:
 - I. Short vowels /ɪ, e, æ, ʊ, ə/
 - II. Long vowels /i:, e:, a:, ɔ:, ɜ:, o:, u:/
 - III. Diphthongs /aɪ, aʊ (ɔɪ)/
- (4) Connected speech:
 - I. Insist on nucleus movement and basic tunes

Figure 1.1 'Amalgum English' (from Cruttenden 2008:329)

'International English'

- (1) General aim: minimal intelligibility in the use of English in international lingua franca situations.
- (2) Consonants:
 - I. Allow voicing distinctions to be made using different features than those used by native speakers.
 - II. All forms of /r/ and /l/ are allowed but distinction between the two to be given high priority (even for those speakers from Asia who find it difficult, eg Japanese and some Chinese). As for Amalgum English /r/ should follow the spelling and any sort of /r/ allowed.
 - III. Distinction between /v/ and /w/ should be insisted on; use of /ʊ/ for either or both discouraged.
- (3) Vowels:
 - I. A reduction in the vowel inventory to five short and five long vowels is allowable (it will be used naturally by many learners, for example, Bantu speakers).
- (4) Connected speech:
 - I. Some attempt should be made to place the accent on the usual syllable of polysyllabic words, that is, no reduction to /ə/ need be made.
 - II. No effort need be made to learn native intonation patterns of English.

Figure 1.2 'International English' (from Cruttenden 2008:333)

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The Lingua Franca Core (LFC)

Jenkins' (2000) research on ELF, that is, between NNS of English led her to conclude that it is neither feasible nor necessary to try to teach a full set of phonological contrasts to learners who use English in ELF contexts. She suggests instead a restricted set of contrasts which she refers to as the Lingua Franca Core.

Jenkins suggests we need 'some sort of international core for phonological intelligibility; a set of unifying features which, at the very least, has the potential to guarantee that pronunciation will not impede successful communication in EIL settings' (2000:95). This core then would prioritize those pronunciation features which are key to mutual intelligibility in international communication contexts. Jenkins claims that such a core would 'scale down the phonological task for the majority of learners' (2000:95) and would provide more realistic and achievable classroom teaching priorities.

The main features of the Lingua Franca Core are:

- All the consonants are important except for /ð/ sounds as in 'thin' and 'this'.
- Consonant clusters are important at the beginning and in the middle of words. For example, the cluster in the word 'string' cannot be simplified to 'sting' or 'tring' and remain intelligible.
- The contrast between long and short vowels is important. For example, the difference between the vowel sounds in 'sit' and 'seat'.
- Nuclear (or tonic) stress is also essential. This is the stress on the most important word (or syllable) in a group of words. For example, there is a difference in meaning between 'My son uses a computer' which is a neutral statement of fact and 'My SON uses a computer', where there is an added meaning (such as that another person known to the speaker and listener does not use a computer).

According to Jenkins, other phonological features, which appear outside this core, and which are regularly taught on English pronunciation courses appear not to be essential for intelligibility in EIL interactions. These are:

- The /ð/ sounds (see above).
- Vowel quality, that is, the difference between vowel sounds where length is not involved, for example, a German speaker may pronounce the 'e' in the word 'chess' more like an 'a' as in the word 'cat'.
- Weak forms such as the words 'to', 'of' and 'from' whose vowels are often pronounced as schwa instead of with their full quality.
- Other features of connected speech such as assimilation, where the final sound of a word alters to make it more like the first sound of the next word, so that, for example, 'red paint' becomes 'reb paint'.
- Word stress.
- Pitch movement.
- Stress timing.

Jenkins emphasizes that the Lingua Franca Core relates to EIL contexts and not to situations where communication occurs between native and NNS of English.

There have been other attempts to establish a common core of pronunciation features to ensure international intelligibility. For instance, Ogden's BASIC (British American Scientific

Intercultural Commercial) in the 1930s was an attempt to facilitate international communication and reduce cultural influences. Similarly, Crystal described the emergence of an international variety of English, World Standard Spoken English (WSSE), influenced more by American than British English. He also predicted that 'as the balance of speakers changes, there is no reason for L2 features not to become part of WSSE' (1997:138).

Some criticisms of the LFC

Jenkins' LFC has led to considerable lively debate, partly on the appropriateness of the pedagogic content. For example, can word stress be dismissed as unteachable (Dauer 2005) and, at a more political level, whether the LFC implies some sort of inverted discrimination whereby NNS are not given access to the complete phonological repertoire in order to maintain their status and phonological identity as NNS.

Others have argued that Jenkins and others concern for the socio-political nature of pronunciation models and goals is overplayed. For instance, Gikes⁴ recently suggested on the IATEFL pronunciation SIG forum that 'Jenkins' concerns about 'native speakerism' apply more to other areas of language teaching, such as the sociolinguistic examples I gave above. In other words, if we make a prescriptive statement that a particular pronunciation of a segment should be the global 'norm', we are just delineating an area of phonological space. To English learners, it is just a statement about articulatory behaviour: it is irrelevant that the norm comes from a particular 'native' variety.

Interestingly, much of the ELF debate suggests strong support for non-standard/non-native models by NS teachers and researchers and less from NNS counterparts (e.g. Kuo I-Chun 2006). Also, as some teachers and researchers have pointed out (Hartle 2008, Kuo I-Chun 2006), many learners still value NS norms and models.

Nevertheless, many argue that Jenkin's Lingua Franca Core or Gimson's 'Amalgum English' and 'International English' are sensible initial goals for the majority of pronunciation learners. Even if learners then want to go on to a higher level of pronunciation mastery, none of these features need to be unlearned or are unnecessary. However, even if such targets are seen as a useful starting point, there is still the question of which model is appropriate. The features of such core targets do not, understandably, relate to any one specific accent. They are broad enough to describe standard American, Scottish or many competent NNS accents. The main point is that there are numerous NS or NNS varieties which would provide a suitable model and preferably learners would be exposed to a wide range of both.

Activity 4

How do you feel about Jenkins 'Lingua Franca Core' or Gimson's 'Amalgum' and 'International English' targets? What impact, if any, would they have on your pronunciation teaching?

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The issue of models and goals has been considered in some depth here because of its importance to pronunciation teachers and learners, particularly with the increasing use of English as an International Language and the growing role of NNS of English in ELT.

Key points

- The application of a knowledge of phonetics and phonology is important for language learning and teaching because a knowledge of the 'building blocks' (i.e. phonetics) and the 'system' (i.e. phonology) underlying pronunciation can help the teacher:
 - (1) predict the needs and likely difficulties of learners.
 - (2) diagnose errors and find the most efficient solutions to correct them.
 - (3) evaluate teaching materials and select or adapt as appropriate for your learners.
- This knowledge includes (a) an awareness of differences between L1 and L2 phonological systems and (b) the ability to identify, in phonetic and phonological terms, the nature of a pronunciation problem.
- An understanding of some of the current issues and debates regarding pronunciation teaching, such as choice of pronunciation model and goals, should also help teachers make informed decisions about what aspects of pronunciation to teach and how to prioritize these.

Activity 5

Consider your own views about pronunciation teaching and learning by answering the following questions.

1. How important is pronunciation in overall English language learning?
2. Is pronunciation difficult to teach and learn and, if so, why?
3. What is your goal in pronunciation teaching?
4. What model of pronunciation would you use and why?
5. How important is the learner's L1 in L2 pronunciation acquisition?
6. Are you aware of any research into L2 pronunciation acquisition?
7. 'Pronunciation is a more sensitive area of language than the other linguistic levels' (Setter and Jenkins 2005:6). Do you agree with this?
8. 'Losing your L1 accent implies losing your L1 identity' – do you agree with this statement?

Notes

- 1 There has been increasing debate over the use of the terms 'native speaker' (NS) and 'non-native speaker' (NNS) in recent years, relating partly to the growing complexity of the users and uses of English and partly to growing sensitivity to the possible ethnic and political connotations behind the terms. The general debate has been described in detail by Davies (2003) and with particular reference to pronunciation by Jenkins (2000). Unfortunately however, no simple or satisfactory alternative forms have been widely accepted to date but the slightly more neutral terms 'L1 speaker' and 'L2 speaker' will be used wherever possible.
- 2 The variety of English spoken in London and, more generally, in the southeast of England – around the river Thames and its estuary.
- 3 As this summary necessarily includes phonemic symbols, you may want to return to it after reading later chapters covering the phonemes of English, i.e. chapters 4–6).
- 4 from IATEFL Pronunciation SIG member Stephanie Gikes retrieved online on 04.06.09.

Further reading

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2

Research and L2 Phonological Acquisition

Introduction

Although many teachers are convinced of the importance of pronunciation for their learners, it remains a relatively marginalized area in applied linguistics. For instance, while there is a growing body of research in phonetics and phonology, there is currently no dedicated journal applying such research to pronunciation teaching. As a result, there is little connection between research findings and teaching materials; as Derwing and Munro (2005:383) state: 'this situation thus creates a twofold problem: relatively little published research on pronunciation teaching and very little reliance on the research that exists'.

One of the main aims of this book is to help teachers and students prioritize key areas of pronunciation learning. As well as developing a deeper knowledge of phonology and phonetics, one way of doing this is through an understanding of current issues and relevant research in the field.

One area of research which is particularly relevant to pronunciation teaching and learning is L2 phonological acquisition, that is, studies which investigate the factors which influence pronunciation achievement and the processes by which learners master various aspects of L2 pronunciation. Understanding some of these factors and processes should help teachers and learners make decisions about which aspects of pronunciation to concentrate on and how to go about teaching and learning them.

Key factors in pronunciation achievement

Many factors have been proposed as influential in L2 phonological acquisition, such as age, exposure to the target language, attitude and motivation, aptitude and the role of the L1. Some of these factors will be considered in further detail here.

Age

Recurrent claims have been made for a 'critical period' in language learning and indeed in pronunciation learning. The Critical Period Hypothesis, originally proposed by Lenneberg (1967), states that the ability to achieve native-like speech is impaired after puberty, largely due to neurological changes in the brain. Although there is a considerable body of scientific

research (e.g. Flege 1987, Long 1990) as well as anecdotal evidence to support this claim, there is also some evidence that adults can achieve native-like L2 pronunciation after the critical period (Ioup et al. 1994). It has been argued that adults have the same ability as children to discriminate speech sounds (Schneiderman et al. 1988), but they perceive new sounds in terms of the categories of their first language (Best 1994, Polka 1995). So, while there is some support for the Critical Period Hypothesis, it is unclear exactly why many adults find it harder to achieve native-like L2 accents. It could be that social and linguistic factors such as sense of identity and interference from L1 phonological systems are as important as neurological factors.

Activity 1

What age were you when you started to learn your first foreign language? How proficient have you become in terms of pronunciation? Do you think age was significant in your own case?

Personality

It is unclear how important personality is in L2 acquisition. Earlier research suggested a link between the personality characteristics of introversion and extroversion and language learning (Dewaele and Furnham 1999). It seems reasonable to assume that confident, outgoing types may be willing to take more risks and therefore have more opportunity for practice through interaction. However, Suter (1976) saw this as a relatively minor factor in L2 pronunciation achievement, suggesting that an individual's motivation and belief in the importance of pronunciation was far more important. For teachers, however, it is obviously important to bear in mind personality differences and to make the classroom environment as interesting and conducive to participation as possible.

Activity 2

Do you think personality is important in pronunciation learning? Do you think the 'introversion/extroversion' dimension is significant?

Sociocultural factors

This is an area that researchers increasingly suggest is important for L2 phonological acquisition. Pronunciation, much more so than grammar and vocabulary, is inextricably bound up with identity and attitude. Accent can convey a lot about who we are and where we are from and some researchers suggest that developing an L2 accent can be seen as a

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threat to L1 identity (Daniels 1995). The importance of accent to cultural identity can be seen not only in foreign accent retention but also with native English speakers who speak different varieties, such as Australian, Scottish or Jamaican. For some such speakers, retaining their 'accent' is a strong marker of social identity.

Traditionally, it has been suggested that the more a learner identifies with the target culture, the more likely they are to try to acquire a target language accent. Conversely, a strong desire to preserve their own cultural identity would reduce the motivation to lose their 'foreign accent'. However, the growth of IEL may query this argument somewhat, as the target culture of such an international language community is less clear cut. As Jenkins and Setter state: '... motivation is no longer a straightforward concept involving the learner's orientation to the accent of the language's native speaker community' (Jenkins and Setter 2005:6). Nevertheless, it is important for pronunciation teachers to be aware of the complexity of sociocultural factors underlying phonological acquisition and how these may influence their learners and their goals.

Activity 3

In your own language learning or teaching experience, do you know cases of people who have become fluent in a foreign language while maintaining a strong L1 accent? Why do you think this is?

Aptitude

Individual aptitude as well as the ability to mimic have been seen as possible predictors of second language pronunciation performance (Purcell and Suter 1980). However, it has also been claimed (Suter 1976) that the concept of individual ability or aptitude is much less important than other factors in L2 pronunciation learning.

Although teachers and learners often refer intuitively to the notion of 'a good ear' in terms of pronunciation learning, little research has been done to investigate this phenomenon or its possible role in phonological acquisition. Some research (Ellis 1994) suggests that a good phonological short term memory may help vocabulary learning and the repetition of new utterances. Also, Carroll's (1962) research on language aptitude suggests that learners with weak phonetic coding ability (i.e. the capacity to discriminate and code foreign sounds) would have more difficulty producing readily intelligible pronunciation than those with high aptitude in this area.

Activity 4

Do you think there is such a thing as having 'a good ear' for languages?

Exposure

According to language learning theories such as Krashen's (1982), learners acquire language mainly from the input they receive and they require large amounts of 'comprehensible input' before being expected to speak. On this basis, exposure to the target language would be a critical factor in pronunciation acquisition. Indeed, Suter (1976) claimed that conversation with native speakers was the third most important factor in pronunciation achievement. Nowadays, this claim is more likely to be modified to include 'proficient', rather than 'native', speakers of the L2, including the non-native class teacher. It could also include 'comprehensible input' via a variety of multimedia channels such as TV, radio, DVD or synchronous online chat rather than simply face-to-face conversation.

Role of the L1

Each language has its own sounds system: its own set of sounds and rules that govern how sounds can be combined into words and which stress and intonation patterns are meaningful. The errors that emerge in L2 pronunciation are rarely random attempts to produce unfamiliar sounds but reflect the underlying patterns and rules of the L1 phonological system. It is often easy for L1 speakers to detect foreign accents, so for instance an L1 English speaker would commonly recognize Spanish or Russian accented English.

Transfer from the first language, that is, the notion that a learner's L1 habits and knowledge influence the acquisition of an L2, is generally recognized as playing an important role in second language pronunciation, both at the segmental (i.e. individual sounds) and suprasegmental levels (i.e. stress and intonation) (Major 1987, Ellis 1994). Indeed, Suter (1976) suggested that this was the most important factor in determining L2 pronunciation achievement. It has also been noted (Ioup 1984) that phonetic transfer is more significant than transfer at other linguistic levels and that the pronunciations of second language learners who share the same native language exhibit common features.

The concept of L1 transfer underlay the Contrastive Analysis Hypothesis proposed by Robert Lado in the 1950s. According to Lado, 'the student who comes in contact with a foreign language [will find that] those elements that are similar to his native language will be simple for him and those elements that are different will be difficult' (Lado 1957:2). More recent studies have revealed that this is an oversimplification and that in terms of the production of sounds, the reverse may even be the case (Selinker 1992). For instance, some research suggests that sounds which are new are more likely to be acquired correctly than sounds that have a similar counterpart in the L1. In contrast, L2 sounds that are similar to L1 sounds will tend to be categorized as the same. This can also lead to intelligibility problems, for instance if a Japanese learner pronounces 'who' as [ɸu:] instead of /hu:/ (Flege and Hillenbrand 1984:177).

On the other hand, studies have shown that similarities between the L1 and L2 can lead to positive transfer regarding the perception of sounds or features. For example, Broselow et al. (1987) found positive transfer of the falling pitch tone, familiar to English speakers, when learning tones in Mandarin Chinese. Similarly, Jenkins (2000) also concluded that perception

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of contrastive stress in English relates to similarity or difference of this feature in the learner's L1. So, it appears that while L1-L2 similarity may facilitate pronunciation perception, it may also handicap the accurate production of L2 sounds and features. Indeed, the notion of 'transfer' came into disrepute in SLA theories for some years based on a rejection of the view that L1 interference simply involved the removal of bad L1 'habits'; often referred to in phonological terms as 'accent reduction'. More recently, the importance of L1 transfer has regained credibility although the processes involved appear more complex than initially assumed.

There are several ways in which the L1 sound system can influence L2 pronunciation acquisition. First, if a sound or feature does not exist in the L1, the learner will need to develop new muscular habits to produce new articulations. Given enough time and practice, this is possible for learners to do. Secondly, a sound may exist in both the L1 and the L2 (such as /tʃ/ in English and Cantonese) but the rules for how and where such sounds are used in words may differ. Therefore, although the learner is able to hear the sound, it is as if it is heard through a first language 'filter' which gets in the way of accurate L2 sound perception and production.

Thirdly, a sound may exist in the L1 which is similar but not identical to the sound in the L2 such as /u/ in French 'tu' and /u:/ in English 'two'. So the learner replaces the L2 sound with the similar L1 sound or feature. This can result in the perception simply of a 'foreign accent' but can also lead to intelligibility problems. A fourth issue is that differences between the L1 and L2 stress and intonation patterns can either result in the incorrect transfer of L1 patterns or the need for the learner to learn new, unfamiliar patterns.

The production of speech sounds involves the formation of automatic motor skills and this results in ingrained L1 speech habits which are hard to remove in the L2. This can give rise to positive transfer with L1 sounds corresponding to L2 sounds being automatically transferred to the L2 repertoire. However, lack of an L1 sound and lack of equivalent articulatory motor skills can make it very hard to acquire an L2 sound (e.g. German /X/ in 'buch' for some English speakers). Similarly, it can be very difficult to remove incorrectly transferred sounds.

A further consideration relating to the role of the L1 is the notion of *phonological distance*, that is, the degree of difference between two phonological systems. Typically, languages from the same family or root, such as French and Spanish or German and Dutch are seen as easier to acquire. The sound system of English is closer to Dutch than to Cantonese so it is predictable that it would be more difficult for a Cantonese speaker to acquire English pronunciation than for a Dutch speaker. While there may be some truth in this hypothesis (Broselow et al. 1987), phonological distance is not the only factor affecting L2 pronunciation acquisition. As we see in this chapter, there are many other factors involved and learners' needs must ultimately be diagnosed on an individual basis.

Activity 5

Can you think of any instances where similarities between the L1 and L2 sound system has (a) helped and (b) hindered L2 pronunciation acquisition?

Processes involved in L2 pronunciation acquisition

The acquisition of second language pronunciation involves complex and dynamic processes which are inevitably influenced by the context and conditions in which the language is learned. In this section, we will consider some of these processes and their relation to pronunciation learning and teaching.

Phonological universals

Much of the research into L2 pronunciation acquisition relates to the concept of 'phonological universals'. There are universal linguistic processes which are thought to play a part in L1 and L2 phonological acquisition. One such example in phonology is the universal tendency to simplify groups of consonants, that is, consonant clusters. This is illustrated in L1 English acquisition when children systematically reduce clusters such as 'crumbs' to 'come' and its continuation in to adult speech with regular consonant deletion in final clusters such as 'last thing'. This tendency to simplify clusters is traced to a universal phonological preference for open syllables (i.e. ending in a vowel such as 'me'), whereby the complex, and often closed syllable structure of English (i.e. ending in a final consonant such as 'meet') is quite distinctive or 'marked'. This preference may account for the strategy employed by some L2 English learners, for instance Japanese learners, to insert an additional schwa to some word final consonants so that 'log' would become 'logger' / lɒgə/. A further universal preference is for devoiced word final consonants, so that some L2 learners, for instance German learners, will pronounce 'dog' as 'dock' /dɒk/, following German pronunciation rules, with a final /k/. While L1 English speakers also devoice some final consonants (e.g. 'bed', 'cab') they maintain the preceding vowel length to avoid confusion with 'bet' and 'cap'.

Markedness

This concept relates to the degree of difference or distinctiveness of linguistic contrasts in a language in relation to universal preferences. So, for example, final voiced consonants, such as /d/ in 'read' or /z/ in 'rise', are common in English but marked universally, as most languages do not permit this phenomenon. The concept of markedness has been used to explain or predict the degree of difficulty that L2 learners may have with particular L2 linguistic features. For instance, Eckman's 'Markedness Differential Hypothesis' (1977) suggests that a difference between the L1 and L2 is only likely to cause difficulty if the feature in the L2 system is more marked than the L1. This could explain, for example why German learners of English find it harder to produce final voiced consonants as in 'dog' than English learners of German producing devoiced final consonants as in 'tag'.

Developmental processes

While the concept of phonological transfer and universals are very important processes in the consideration of pronunciation acquisition, other ‘developmental processes’ are also significant. These processes refer to the way L2 pronunciation systems develop regardless of the learner’s L1. According to de Bot (1986:113) the concept of L2 developmental errors is supported by ‘the numerous observations have shown that certain types of errors are made by nearly all learners of a given language, irrespective of their mother tongue’. An example of this is the difficulty that many learners have with the English ‘th’ sounds (for ‘thin’ and ‘this’) regardless of their L1, Schmidt suggests that this might be explained by the fact that these are ‘the sounds mastered last and substituted most frequently by English native speakers’ (1977:367). Jenkins gives another example of the difficulty of trying to teach pitch patterns to L2 learners. She argues that because pitch movement is one of the earliest phonological features to be acquired in all first languages (acquisition even starts in the womb according to Locke 1993), it is so deeply ingrained in the L1 to be unteachable to adult L2 learners (Jenkins 2000:108).

Research suggests that transfer errors occur before developmental errors. Wenk for instance found that beginner French learners impose French rhythm features on English but many advanced learners can correct this (1986). Major’s Ontogeny Model (1987) explains this by suggesting transfer errors predominate in early stages of L2 learning but are replaced by developmental errors at later stages, and that both decline over time.

Activity 6

In your own experience learning a foreign language, can you remember any particular pronunciation features or sounds that you had difficulties with or acquired later than others? Why do you think that was?

How can research help pronunciation teaching?

There seems to be growing recognition of the gap between phonological research and pronunciation teaching. This is highlighted in Derwing and Munro’s recent article (2005) where they call for much greater application of research to pedagogy. They claim that the study of pronunciation has been marginalized within the field of applied linguistics and that much less research has been carried out on L2 pronunciation than other skills such as grammar and vocabulary (Derwing and Munro 2005). As mentioned earlier, this is evidenced in the lack of dedicated teacher-oriented journals on pronunciation teaching. Although there is a considerable body of L2 speech research published in well-established journals such as the *Journal of the Acoustical Society of America* and *Language and Speech*, Derwing and Munro (2005) suggest that such publications are not aimed at a language teaching audience and therefore these findings do not feed down into pronunciation teaching or teaching textbooks. As Levis points out, ‘present international research is almost completely divorced from modern

language teaching and is rarely reflected in teaching materials' (1999:37). The result of this is that teachers have intuitively decided which features have the greatest effect on clarity and which are learnable in a classroom setting (Levis, 2005).

One of the key aims of this book is to help teachers prioritize key areas of pronunciation teaching not only by developing a deeper knowledge of phonology and phonetics but also by understanding current issues and relevant research in the field. Throughout the following chapters reference will be made to research into the various topics so that the necessary links can be made between such studies and actual teaching and learning contexts.

Revisiting some 'old-fashioned' notions in pronunciation teaching

One way that research findings can help is by enabling us to revisit long-established beliefs or approaches to pronunciation teaching. In some cases this may mean revising or rejecting such beliefs in light of new findings while in others it may result in reviving notions that were considered 'old-fashioned'. Here are some examples.

Drilling

Given that motor skills and automaticity are key to learning sounds, the importance of drilling new sounds needs to be recognized. This may seem an 'old-fashioned' notion particularly within a Communicative Language Teaching (CLT) paradigm, however the articulation of new L2 sounds requires the formation of new muscular habits. Given time and practice, such habits can be acquired but they can also slip if the learner's attention is deviated, for instance to a focus on content rather than form.

Dictation

Dictation has a long history in language teaching methodology but fell out of favour with many with the advent of CLT. However, the value of this traditional approach seems to be regaining strength in pronunciation teaching as witnessed in research (Pennington 1989, Brown 2001) as well as teaching materials (Rogerson and Gilbert 1990).

Noticing – focus on form

Again, research suggests that acquiring pronunciation is no different from acquiring syntax in the sense that students need help noticing what they are doing (Flege and Wang 1989). Just as students learning certain grammar points benefit from being explicitly instructed to notice the difference between their own productions and those of L1 speakers (Spada 1997), students learning L2 pronunciation benefit from being explicitly taught phonological form to help them notice the differences between their own productions and those of proficient speakers in the L2 community.

Phonetics/ear training

Again, spending classroom time on listening to phonetic details may seem outdated and unnecessary. However, specific phonetic training has generally been found to be positively associated with phonetic development in a second language (Neufeld and Schneiderman

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1980, Cenoz and Lecumberri 1999). Similarly, Jenkins (2000) calls for more phonetic training of specific sounds and particular allophonic features (such as aspiration) to facilitate possible transfer, rather than blanket coverage of all phonemes. McCarthy goes further, suggesting that without fundamental auditory and articulatory training, 'any teaching of pronunciation is so ineffective as to be largely a waste of time' (McCarthy in Brown 1991:299). The main point McCarthy and others are making is that learners need to learn how to listen accurately, that is, to notice what is relevant in the stream of speech before being able to proceed to other aspects of pronunciation learning.

Caudwell and Hewings (1996) makes a similar claim about the importance of listening to and analyzing fluent connected speech in detail. They suggest that not enough attention is given to helping learners decode the minutiae of fast everyday speech, what they refer to as the 'acoustic blur'. They suggest that learners need to spend more time in class listening to authentic recordings and observing and imitating features of fluent, connected speech. They believe that this sort of training can avoid the common dilemma of many learners who feel they 'know words' but in fact are unable to recognize them in fluent speech.

Stress-timing

We will see in Chapter 10 that the concept of 'stress-timing' (i.e., that speech rhythm reflects the regular occurrence of stressed syllables in speech) in a rigid sense is hard to support with research and yet it remains a popular notion in pronunciation teaching. Marks (1999:198) argues that the use of rhythmical materials in class is justifiable as it 'provides a convenient framework for the perception and production of a number of characteristic features of English pronunciation which are often found to be problematic for learners: stress/unstress (and therefore the basis of intonation), vowel length, vowel reduction, elision, compression, pause'. So, perhaps this is a case of teachers needing to recognize the theoretical limitations of a concept while continuing to refer to those aspects of it which are pedagogically useful.

Intonation patterns

We will also consider, in Chapter 11, the traditional view that specific intonation patterns can be associated with certain sentence types, for instance, 'yes/no' questions and rising pitch. Research into authentic discourse suggests that such clear links are unfounded (Caudwell and Hewings 1996, Brazil 1997). Setter and Jenkins (2005:12) suggest that 'teachers, teacher trainers and materials developers should be ready to take this on board and develop curricula which make use of this information'.

Key points

- Transfer of L1 phonological features is a major influence on L2 and phonological acquisition.
- L1 phonological transfer is much more influential than L1 syntactic or lexical transfer. Learners instinctively try to categorize L2 sounds using their L1 system (Jenkins 2000:104). It is important therefore for teachers to consider: (a) which L1 features affect intelligibility and (b) which are teachable.