

1

Language and Speech

This book is an attempt to answer a question: How is English pronounced? The question is deceptively simple, and it cannot have a simple answer. English today is the native language of nearly 400 million people and the second language of many others scattered all over the world. A language so widespread is bound to be different in different places. We are all aware that the Scots and the Australians, Londoners and New Yorkers, Irish, New Zealanders, South Africans, Jamaicans, Welsh, and Canadians do not sound the same when they speak. How can anyone describe the pronunciation of so many different people?

The diversity is real and must be treated in an account of how English is pronounced, but the commonality is greater. There is much more to be said about what is common to all speakers of English than there is regarding what is different. Furthermore, although to describe pronunciation obviously requires us to tell what people do with their voices, we will be, in a sense, more concerned with the language they possess in common.

1.1 Language variation

In every language there is variety. A language varies from one place to another, from one era to another, from one occasion to another. The differences may be in choice of words to express a meaning, as with *petrol* versus *gas(oline)* or *dual carriageway* versus *divided highway*. Differences exist in word formation: for the past tense of the verb *dive* does one say *dived* or *dove*? There are possible differences in the ways that words are put together to form phrases and sentences: would you say, for instance, *They gave it me*, or *They gave me it*, or *They gave it to me*? In this book we are concerned with differences in pronunciation. Some words are spoken differently by different speakers of English, for instance *either*, *garage*, and *tomato*. We are more concerned, however, with

systematic differences; for example, some speakers of English pronounce an R in such words as *car* and *horn* and other speakers do not; for the former *spa* and *spar* sound different, for the latter group the two words are homophones. There are interesting differences in the vowel systems of different dialects: how different are *stock* and *stalk* (and *stork*), for instance?

We can discuss language variation under two headings: differences among people, the users of language, and differences in the uses of language, the ways in which people employ language on different occasions.

First, we are all aware of the differences of the sort mentioned in the first paragraph, above. People who live in different areas speak different **regional**, or **geographic**, **dialects**. The geographic differences in English reflect the different times in which speakers of English settled in an area, how diverse they were in their origins, how much contact they have had with other speakers of the language and what influence there has been from speakers of other languages.

Geographic dialects are not the only kind of difference among speakers of a language. In any locality different people grow up with different advantages and opportunities for education; the forms of language used by the more educated are generally considered more prestigious than the forms used by the less educated (but that doesn't mean that the less educated want to talk differently). Such differences are social dialects. We may also speak of age dialects – nobody expects teenagers to talk like their grandparents, or vice versa – and sex dialects – men and women use language differently. The differences of these sorts are mostly in vocabulary, however, and are not of great concern in a book on pronunciation. The geographic differences are important for this book. The next section briefly traces the expansion of the English language to account for the major varieties of the language in our times. Chapter 4 contains a more technical account of what these differences are.

1.2 A very brief history of the English language

When Angles, Saxons, and Jutes migrated from the continent of Europe to the island of Britain in the fifth century AD, they spoke a language which was to become English. Within two centuries they had subjugated, intermarried with, or pushed back the people who were there before them, until varieties of English were being spoken in most of what is now England and in the lowlands of Scotland (though some have maintained that Scots is a language related to English rather than a dialect of it). The Celtic languages of the original inhabitants were confined to Cornwall, Wales, and the highlands and islands of Scotland. In the centuries that followed regional varieties of English developed in a feudal society that had no ruling class nor dominant center.

With the Norman Conquest in 1066 French became the language of the ruling class, the language of government, just as Latin was the language of

religion. Varieties of English developed a grammar quite different from pre-Norman English and a double-barreled vocabulary with numerous synonyms of the type *deep/profound, ring/circle, last/endure*. When London grew in importance as the political capital and later as the commercial capital, English displaced French in official functions and the variety spoken in London began to be a standard form, helped by printers like William Caxton in the late fifteenth century who made the London dialect the norm for written English. With the establishment of a strong, centralized kingdom under the Tudors in the sixteenth century the importance of London continued to grow, but until the Industrial Revolution, at the beginning of the nineteenth century, most Englishmen spoke some regional variety of English.

The Industrial Revolution brought rural populations into the cities. During the nineteenth century a larger middle class came into existence, and the idea of belonging to the middle class became associated with speaking a particular form of English. This particular way of speaking came to be called Received Pronunciation (RP). In the twentieth century the British Broadcasting Corporation selected and trained announcers to speak with an RP 'accent,' and RP has been the variety that most foreigners have chosen to learn. But to this day only a small portion of the English population speak RP. Regional and urban dialects remain.

In the sixteenth and seventeenth centuries English monarchs began to annex their Celtic-speaking neighbors to the English crown. In Wales English was established by law as the official language of trade, law, and education in the middle of the sixteenth century, but it did not spread widely as the language of daily life until the nineteenth century.

When James VI of Scotland became James I of England he united the crowns and sought to promote throughout Scotland the reading of the English Bible and the establishment of English schools to make this possible.

Though there were settlements of English-speakers in Ireland from the Norman era on, the Anglicization of Ireland is something that began in the sixteenth and seventeenth centuries, with usurpation of Irish estates and settlement of English and Scottish loyalists there.

The Englishes of Wales, Scotland, and Ireland are essentially the forms of English adopted centuries ago by peoples speaking Welsh, Scots Gaelic, and Irish Gaelic, with the inevitable changes that have occurred in the succeeding period of time, and with the constant influence of RP as a prestige model.

If Welsh, Scottish, and Irish English had their origins in the sixteenth and seventeenth centuries, the establishment of English in North America came very shortly after. Newfoundland, Britain's first overseas colony, was claimed for the English Crown in 1588; Jamestown was founded in Virginia in 1607 and Plymouth in Massachusetts in 1620. In the early eighteenth century England gained control of the Maritime provinces of Canada and near the end of that century laid claim to the whole country. Unlike Ireland, Wales, and Scotland, where English was imposed largely on people of Celtic language background, in North America English was the language of people who came

from the British Isles or the language learned by people who came later from other parts of Europe. The same is largely true of South Africa, Australia, and New Zealand.

Settlement of the major English-speaking countries of the southern hemisphere dates from the late eighteenth and early nineteenth centuries. The first colony was planted in Australia in 1788, the first settlement of New Zealand in 1792, though in both countries large-scale immigration did not occur until the middle of the nineteenth century. Britain took possession of the Cape Colony in South Africa in 1806, and migration from England and Scotland grew rapidly after 1820.

It is well to remember that most people who went out to settle Britain's overseas colonies originated from the northern and western parts of England or from the lower class of London and did not speak the variety which was to become Standard British English. RP has been, however, a prestige norm in most parts of the Commonwealth – less perhaps in Canada than in the southern hemisphere. Contrariwise, those who take pride in being Australian or South African are likely to hold fast to the pronunciations which are endemic. In those two countries one finds a range of dialect differences from Broad Australian or Broad South African to RP or near-RP.

1.3 **Speech and language**

In discussing the pronunciation of English we can focus on one or both of two aspects. On one hand, we may want to describe what people do when they are speaking English. This is the aspect of speech, an activity carried on by people who use English for communicating. On the other hand, we may address the question 'What are the characteristics of English words and sentences that are realized in speech?' This is the aspect of language, a code which exists, handed down from the past with slight changes made by each generation, something that is known by those who speak and understand English.

Speech is not the same as language. For one thing, the voice has characteristics which may carry extra messages: we can often identify someone we know by his or her voice (over the telephone, for instance), and we can sometimes determine something of the speaker's mood – anger, elation, nervousness, impatience, fatigue – from the way of speaking, as distinct from what is said. More important, speech is an activity which is carried on in numerous events; language is knowledge, a code which is known and shared by people who use their knowledge for transmitting and interpreting messages in these events. When someone is speaking, anyone who is close enough can hear – the sound waves set up in the air by the speaker reach the eardrums of the hearer. But only a person who knows the language can understand what is said.

Because we are interested in pronunciation from both these aspects, we will make use of information and concepts drawn from two disciplines, **phonetics** and **phonology**. Phonetics deals with speech in its purely physical aspects –

the way sounds are articulated by the speaker, the acoustic properties of sound waves, and the effects that these have on the ear of the hearer (and on the ear of the speaker, for that matter). Phonology is concerned with the way speech sounds are organized into a system, the sound system of a specific language. Phonology relates the physical facts of speech to other linguistic knowledge which speakers possess, knowledge of vocabulary and grammar.

Phonology is concerned with describing pronunciations but, more than that, with accounting for what is relevant in pronunciations, what makes it possible to communicate, what makes one utterance different from another.

Because we are interested in both speech and language, we need certain terms to use in describing both. We start with terms that have to do with speech:

We use the term **discourse** to refer to any act of speech which occurs in a given place and during a given period of time. The word *text* is used by some authors with this meaning, described as 'anything from a single proverb to a whole play, from a momentary cry for help to an all-day discussion of a committee' (Halliday and Hasan 1976: 3). In this book we are concerned mostly with spoken discourse. A written discourse may be the record of something that has been spoken, or it may originate for the purpose of being performed aloud, like a speech or play, or it may exist without ever having been spoken or intended to be spoken, like most articles and books.

A discourse consists of at least one **utterance**, which is defined as a stretch of speech produced by a single speaker, with silence before and after on the part of that speaker. Two utterances in a discourse may be (partly) simultaneous, but only when two people speak at the same time. By definition one person cannot produce two utterances at the same time, though of course speakers may make several false starts and may not complete what they intended to say.

An utterance consists of at least one **tone unit**, a stretch of speech which has a melody or intonation, one of a fairly small inventory of intonation contours that exist in the language. The melody results from the physical fact that the speaker's vocal cords vibrate at different frequencies in the articulation of the tone unit, producing parts of it at different pitches. The action of the vocal cords is described further in chapter 2, and the intonations are outlined in chapter 10.

A tone unit consists of at least one **syllable** and usually a number of syllables. The syllable is an element which is recognized in all descriptions of speech, and yet one that is hard to define. A syllable consists of a vowel sound, usually with consonants before and after it. When a tone unit consists of several syllables, which is usually the case, they differ in prominence. Relative prominence is due to some combination of factors: greater force with which air is expelled from the lungs, higher pitch or changing pitch, the duration, or timing, of the syllable. These matters are discussed in greater detail in chapter 5.

A syllable consists of at least one **segment** and usually more than one. In the production of speech the speaker's vocal organs are constantly moving from

one position to another; speech is a dynamic process. Nevertheless, we perceive a succession of different sounds, a chain of speech made up of different segments linked to one another. (In the word *meat*, to take a very short example, we think that we articulate three distinct sounds in sequence. This is not quite true. The vocal organs do not assume one position, then another, and then another; they are in motion as long as we are talking. Nevertheless, our perceptions have a reality of their own, and we adopt the convenient fiction that any syllable can be described as a sequence of segments.)

The elements listed so far occur more or less sequentially: the utterances of a discourse occur one after another, tone units follow one another, syllables occur in succession, and within syllables the segments come one after another (though there is more overlap than we might think). The last elements of speech to be mentioned occur simultaneously. In the production, or articulation, of a segment the vocal organs have some particular configuration – the lips are rounded or stretched, the tongue is low in the mouth or not, it has a flat surface or not, air is escaping through the mouth or through the nose or not escaping at all, the vocal cords are vibrating or not, etc. Each such position or movement is an **articulatory feature**. These features always occur in simultaneous bundles; no segment can consist of a single feature. The segment [m], which occurs at the beginning of the word *meat*, is produced with the vocal cords vibrating, the lips closed together, and air coming out through the nose. These are three articulatory features combined. Other segments may be voiced (made with vocal cords vibrating), labial (articulated with one or both lips), or nasal (produced with air flowing through the nasal cavity), but only [m] is all three – a voiced labial nasal.

We will also need to refer to units of language from time to time in this book. Some terms for units of language are familiar to you. In our use of language we express ourselves much of the time in **sentences**. Sentences consist of **phrases**, and phrases consist of **words**. Words belong to different classes; major classes are called nouns, verbs, adjectives, adverbs; minor classes are determiners, prepositions, conjunctions, and others. But we need to introduce a few terms which are not necessarily part of the layperson's usage.

Every word consists of at least one **morpheme**, a minimal unit that contributes in some way to the meaning of the whole word. If we compare the words *honest*, *dishonest*, *honestly*, and *honesty*, we will surely decide that they all share some meaning and that the first word, *honest*, has only this meaning and cannot be divided into smaller meaningful units. On the other hand, *dishonest* is obviously *dis-* + *honest*; *honestly* is *honest* + *-ly*; and *honesty* is the same *honest* + *-y*, or perhaps *honest* + *-ty*, analogous to *certainty* and *loyalty*. Each of these meaningful units is a morpheme: *honest*, *dis-*, *-ly*, *-ty*. The first of these is a **base** morpheme, the last three are **affixes**, which only exist in combination with a base. The first of these, *dis-*, is a **prefix**, and *-ly* and *-ty* are **suffixes**.

Usually a morpheme is expressed in just one way, in some sequence of the **phonemes** of the language. The phoneme is the unit which makes the

connection between sound and meaning. A phoneme is a unit of sound in a particular language which is capable of differentiating morphemes, the units of meaning of that language. The morpheme *meat* is a sequence of three phonemes, which we represent as /m/ for the first, /ii/ for the second, and /t/ for the third, thus /miit/. The morpheme *beet* has a different initial phoneme, which we represent as /b/, thus /biit/, and the morphemes *moot* and *boot* have a different medial phoneme, written /uu/ – /muut/ and /buut/. The morpheme *team* has the same phonemes as *meat*, but in a different order, /tiim/, and *tomb* has the same phonemes as *moot*, in a different arrangement – /tuum/. *Eat*, *tea*, *too*, *bee*, *beam*, *boom* are six other morphemes which contain some selection of these five phonemes: /b/, /m/, /t/, /ii/, /uu/. In our transcription these six morphemes are written /iit, tii, tuu, bii, biim, buum/.

Different morphemes have different meanings, but they may sound the same. English *meat* and *meet* are **homonyms**; they are expressed by the same sequence of the same phonemes, /miit/. Similarly, *beet* and *beat* are homonyms, /biit/, and so are *tee* and *tea*, /tii/; *team* and *teem*, /tiim/; *be* and *bee*, /bii/; *too* and *two*, /tuu/.

As these examples show, we use a letter or a combination of two letters to represent each English phoneme and always between slant lines. A phoneme is not a letter. A language has phonemes whether it is written in an alphabetic system or not – indeed, whether it has ever been written or not. Besides, a phoneme may be represented by different letters or sequences of letters, like the *ee* and *ea* of the examples above; two letters may represent the same phoneme, as in *kit* and *cat*; or two different phonemes may be represented in spelling by the same letter or letters, like the *th* in *thy* and *thigh*.

One might also be inclined to equate the term ‘phoneme’ with ‘sound’ or ‘speech sound’ or ‘segment’. That is not accurate, as the next paragraphs will show.

If you get ready to pronounce – but don’t pronounce – *meet*, *moot*, *beet*, *boot*, you will find that all four words begin with lips closed. You should also find that with *meet* and *beet* the lips are stretched but with *moot* and *boot* they are slightly pursed or rounded. We think of *meet* and *moot* as beginning the same way, and likewise *beet* and *boot*. That is true, but not true. *Meet* and *moot* begin with the same phoneme, /m/, but they begin with different segments; the two segments have some articulatory features in common and they differ in another feature, the shape of the lips. Analogous statements can be made about *beet* and *boot*, of course; they begin with the same phoneme, /b/, but the phoneme is realized as different segments.

Let’s try another experiment. Get ready to pronounce the words *geese* and *goose* but don’t say anything. Instead, note the position and shape of your tongue and lips. You have the back of your tongue raised, touching the roof of the mouth toward the back – you may be able to recognize that the tongue’s contact is in different places on the roof of the mouth. At the same time the lips are stretched for *geese* and rounded for *goose* – at the very beginning. Next, get ready to say *glee* and *glue* and compare. Some features, in the sounds that

you are ready to make, are the same and some are different. The tongue-back, or **dorsum**, is in contact with the roof of the mouth for all of these. At the same time there is lip-stretching for *geese* and *glee*, lip-rounding for *goose* and *glue*. In addition, you note that the sides of the tongue are curled inward for *glee* and *glue*. Now get ready to say *greet* and *grew* and observe. The back of your tongue is again touching the roof of the mouth, and the lips are stretched for *greet*, rounded for *grew*, and the tip of the tongue is drawn back and bunched up.

The point we want to make is an important one: any speaker of English feels that the six words, *geese*, *goose*, *glee*, *glue*, *greet*, *grew*, all begin with the same sound. They don't; they begin with the same phoneme, which we represent this way, /g/. A phoneme is an abstract unit which is realized in speech as different segments in different positions. These different segments are the **allophones** of the phoneme. All six allophones are alike in being dorsal stops – the breath stream is built up behind the closure made with the tongue-back, or dorsum, against the soft palate, ready to be released when pronunciation occurs. There is another common feature, not so easy to observe: the vocal cords are in a position to begin vibrating. In addition to these shared features, there are other features which are only partly shared, present in some of the six but not all: lip-rounding or stretching, lateral tongue curl, retracted tongue tip. The features which are present in all the allophones are **distinctive features**; those which are present in one or several but not all the allophones are **redundant features**. It is fairly easy to see that the redundant features, in these cases, are 'borrowed' from other phonemes: lip-rounding is a feature of /uu/ in *goose*, *glue*, *grew* while lip-stretching is characteristic of the vowel /ii/ in the other words; lateral tongue curl, occurring with the /g/ of *glee* and *glue* is properly the feature of /l/; in *greet* and *grew* there is the tongue-retraction which is associated with /r/. But redundant features are not necessarily borrowed from neighboring phonemes. Notice carefully the difference between the beginning sound of *team* and the second sound of *steam*. Both words contain an instance of the phoneme /t/. The initial /t/ is aspirated; it is followed by a puff of air that comes from the throat. When /t/ follows /s/, it has no such aspiration. The aspiration is a redundant feature, but it has nothing to do with neighboring phonemes.

Phonemes, then, vary in pronunciation. They combine with other phonemes in sequence to express morphemes, and because they enter into such sequences they contrast with other phonemes, thus serving to differentiate morphemes. *Glue* is different from *clue* and *grew* from *crew*; *glue* contrasts with *blue*, and *blue* with *brew*; *boot* is distinct from *beet*, and *beet* from *meet*. **Minimal pairs** like these establish what every speaker of English knows: that /g/, /k/, /b/, /m/, /l/, /r/, /ii/ and /uu/ are separate phonemes: they are capable of signaling differences of meaning. To describe the sound system of English means to establish the phonemes of the language, to tell in what possible sequences they can occur, and what varying pronunciations each phoneme has in its various positions of occurrence.

1.4 Phonological analysis

A language is a number of things together. It is a collection of meaningful elements called morphemes; the technical name for this collection is the **lexicon**. And a language is a collection of rules for putting morphemes together to form words and for putting words together to form sentences. The rules for forming words are the **morphology** of the language, and the rules for forming sentences make up the **syntax**. Lexicon, morphology, and syntax are not abstractions; they are knowledge which speakers of the language possess, a knowledge which is largely unconscious for native speakers who acquired the language in the earliest years of life.

Phonology may also be thought of a collection of phonemes and a collection of rules for putting these units together to express the meanings of morphemes, words, and sentences. Phonology is no more an abstraction than lexicon, morphology, and syntax; it is knowledge, largely unconscious, which speakers have and which enables them to communicate, to express meanings which other speakers of the language will understand.

The native speaker of the language is aware of phonemes; the trained phonetician recognizes the variation of these – that each phoneme is pronounced differently in different contexts – as allophones. Phonological analysis is the grouping of segments into phonemes. The linguist observes that in English an aspirated [t^h] occurs in certain positions, word-initially for one, and an unaspirated [t] occurs in other positions, as for example after /s/. The two are not in contrast; they are similar, sharing most of their articulatory features. The linguist decides that they are allophones of a single phoneme. On the other hand, the linguist establishes that /k/ and /g/, /b/ and /m/, /ii/ and /uu/ are separate phonemes in English.

The development of phonological analysis – and the creation of such terms as **phoneme**, **allophone**, **minimal pair** – was the work of linguists who belong to the discipline of structural linguistics. Structural phonology – sometimes called autonomous phonology or classical phonology – followed procedures which regarded language as an object for empirical investigation, with scrupulous avoidance of mentalistic terms and careful separation of phonological investigation from considerations of a grammatical or lexical nature.

Since the late 1950s many linguists have become adherents to the theory of generative grammar, which regards language as an inseparable whole. A generative grammar of a language is, supposedly, a description of the competence of a speaker of that language, the knowledge which makes him or her capable of producing and interpreting sentences in the language. Phonology, in a generative framework, cannot be separated from syntax and morphology since they are integrated parts of the speaker-hearer's competence.

Generative phonology seeks to establish an underlying representation of a whole sentence and map it on to a pronunciation through a sequence of rules. The underlying representation consists of knowledge of which the speaker is

aware, and the rules are the speaker's unconscious knowledge. For example, an English-speaker has an awareness of a word *team* consisting of phonemes in sequence /tiim/, and *steam* consisting of /stiim/. The speaker unconsciously applies a rule which makes the /t/ of *team* aspirated but not the /t/ of *steam*.

Some rules are optional. Consider the following pieces of utterances:

I hope this won't disappoint you.
 We don't want to leave without you.
 But you must remember . . .

In all of these (and many more possible utterances) the word *you* follows a word which ends with *t*. A speaker may pronounce the sequence as *t* plus *y* or as *ch* – what we will represent hereafter as /č/. We can think of this as applying or not applying a rule which converts *t + y* into /č/. If a rule is optional for any speaker it naturally is different in its applications for different speakers.

Some rules are variable. There is a rule similar to the one above which changes *t* to *ch* when it is followed by *i* and another vowel; compare *suggest* and *suggestion*, *quest* and *question*. If the vowel following *i* is a stressed vowel, as in *Christianity*, *bestiality*, the rule may vary according to dialects. Some speakers have /t/ after /s/ in these words and others have a phoneme /č/.

One assumption of generative phonology is that all speakers of the language store essentially the same underlying representations for the morphemes that they know, and if they pronounce these morphemes differently the differences result from the application of different rules or the same rules in different orders. The implication of this assumption is troubling because in describing a language as widespread as English certain facts emerge which have to be described and yet which cannot be considered facts known, in any sense, by all speakers of the language. As we will see (chapter 4), different varieties of English have different vowel systems. Rules for placement of stress in English words are based, in part, on recognition of two kinds of vowels, but these two kinds of vowels are not truly distinct in any physical way for many speakers of the language.

Part of the speaker's knowledge is specific and part of it is general – rule-governed – but the boundary between the two is not at all clear. Our average speaker, let's say, knows the specific words *cat*, *dog*, *horse*, and *ox*. Knowledge includes, certainly, knowing what reference each has. Knowing each word and what it refers to is specific knowledge. The speaker can generalize, no doubt, that these are all related to a word *animal*. Whether the speaker has ever learned the word *noun* or not, he is aware that the words are used in similar ways in sentences. The speaker knows the fact that these words have a plural (not all languages make a distinction between singular and plural) and knows what the plural forms are for these four nouns. Knowledge of the plural form *oxen* is specific knowledge; no other English noun forms the plural in just this way. Knowledge of the plural forms *cats*, *dogs*, *horses* is general knowledge; it is the application of a rule. In speech *cat* and other nouns form their plural

by adding a phoneme /s/, *dogs* is one of the nouns which have a final /z/ phoneme, and *horse* belongs to the group which add a whole syllable for the plural. We describe the complete rule in chapter 8. It is something which all speakers of English know but without knowing that they know it. When we learn a new noun, we form the plural automatically. Studies have shown that small children are able to apply this rule. No doubt about it, the rule is part of the competence of a speaker of English.

Now consider these pairs of words: *wise, wisdom; derive, derivative; Palestine, Palestinian*. We can recognize a rule here: when a suffix like *-dom, -ative, or -ian* is added to a word with a 'long I' in it, the 'long I' is converted to a 'short I.' This is a different kind of rule. It applies to words which have been formed in the past.

1.5 Summary

In any language there is variety, which can be discussed under two headings, variations among **users** and variations in **uses** of the language. Variations among users include geographic and social dialects, of which the former are of greater interest in this text. Variations in use include differences of **function**, differences of formality and politeness, and differences of tempo, all of which are intertwined. Language varieties based on such matters of use are called **registers**.

Geographic varieties of English result from a long history of regional differences in England itself; the slow development of a standard which, in its spoken form, is called **Received Pronunciation**; the political domination of Celtic-speaking countries by England from the beginnings of the Modern era; and the establishment of colonies overseas from the late sixteenth to the late nineteenth centuries.

It is useful to recognize the distinction between speech, an activity, and **language**, the code which makes communication possible through numerous speech acts. Language is the knowledge which speakers have and which makes communication possible; it is also an inheritance from the past. A language consists of a **lexicon**, a **phonology**, and a **grammar**. Phonology is the description of the sound system of a language, the link between speech and meaning. **Phonetics** is the science which studies speech sounds as sounds.

Although speaking is ordinarily a constant movement of the vocal organs, it is convenient to view speech as a **chain** composed of individual **segments** one after another. Each such segment is a composite of certain **articulatory features**. Some of these features serve to differentiate meanings in a language; such features are **distinctive** in that language. Features which are not distinctive are **redundant**. Segments which have the same distinctive features constitute a **phoneme** of the language. Phonemes combine in certain possible sequences to express **morphemes**, the units of meaning of the language. Phonemes contrast with one another to differentiate morphemes from one another.

Units of speech from smallest to largest are: **articulatory feature, segment, syllable, tone unit, utterance, and discourse.**

A **generative phonology** is part of a **generative grammar**, a view and theory of language which holds that a description of a language is a description of the language competence of a speaker of that language. Generative grammar considers phonology to be one component of a language and the description of phonology inseparable from the **grammar** and **lexicon**. Anything that is said in the language has an abstract **underlying form**. Various **rules** apply in a particular order to the underlying representation to produce the actual utterance. The rules supposedly encapsulate unconscious knowledge of the speaker, but there is a problem in distinguishing what parts of a person's knowledge are specific and what parts are general, rule-governed.

Notes

The distinction between users and uses of a language is from Halliday, McIntosh, and Stevens (1964).

Standard histories of the English language in Britain include Jespersen (1909–49) and Pyles (1971). At the present time there is no comprehensive study of what may be called World English; the closest approximations are anthologies such as Bailey and Görlach (1982) and Kachru (1982), which include sketches of English in countries where it has official, commercial, and/or educational uses but is not the native language of the general population, as well as descriptions of the English of the British Isles, Canada, the United States, the Caribbean, Australia, New Zealand, and South Africa. The pronunciation of English in native-speaker areas is the subject of Wells (1982).

The role of gestures, stance, and appearance in communication ('body language') has been the topic of various popular works and some serious studies; an example of the latter is Knapp (1972). The nature of non-verbal, vocal elements in communication (paralanguage) was explored in Trager 1949 and, more ambitiously, in Crystal and Quirk (1964).

For further description of dialect differences, regional and social, registers and ways of studying them see Fasold (1984) and Trudgill (1974).

The terms 'Standard British English' and 'Received Pronunciation' are not exactly identical. Dictionary-makers and grammarians of the eighteenth and later centuries, such as Johnson (1755) and Lowth (1762), are responsible for the establishment of a standard which, by and large, has been accepted as the 'correct' form of written English in Britain and, with various modifications, throughout the English-speaking world. 'Received Pronunciation' is the name for the way of speaking of the educated upper middle class in Britain. The term and the description of this speech came into existence in the early years of the twentieth century with the development of a science of phonetics.