

# ENGLISH PHONETICS

BY OTTO JESPERSEN

REVISED  
AND TRANSLATED BY  
BENGT JÜRGENSEN

SIXTH EDITION

GYLDENDAL

# ENGLISH PHONETICS

A HANDBOOK FOR SCANDINAVIAN  
STUDENTS

*by*  
OTTO JESPERSEN

REVISED AND TRANSLATED  
*by*  
BENGT JÜRGENSEN  
(COPENHAGEN UNIVERSITY)

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## PREFACE TO FIFTH EDITION

The present book is an enlarged edition of *Engelsk fonetik* (English Phonetics) by Professor Otto Jespersen. The book appears in English for the first time. It is primarily intended for the use of Scandinavian students of phonetics.

As compared with the four previous editions some alterations have been made.—Among these may be mentioned the chapter on the syllable (Chap. XII), and the sections on the occurrence of the glottal stop in present-day English (pp. 40, 41). The chapter on intonation (Chap. XIV) has been entirely re-written.

The directions specially addressed to Swedish and Norwegian students constitute another new feature of the present edition.

Copenhagen University, 1950.

B. J.

## PREFACE TO SIXTH EDITION

Some misprints and errors have been corrected, and some passages have, it is hoped, been clarified. Further, the paragraphs dealing with the difficult problem of the incidence of stress have been somewhat altered, more weight having been attached to the rôle of meaning than that of rhythm. But these are minor alterations and it should be possible to use the fifth edition alongside with this present edition.

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# CHAPTER I

## INTRODUCTORY

1.1. Speech sounds may naturally be considered from different points of view. The *acoustician* regards them from a physical point of view; he thinks in terms of frequencies, sound waves and transmission of sound waves through the air; to him there is no fundamental difference between sounds produced for the purpose of speech and sounds produced by a musical instrument. The *physiologist* regards speech sounds as certain actions of the muscles and the tendons; to him there is no essential difference between the movements performed by the tongue when speech sounds are made, and those performed by the tongue while food is being chewed. To the *linguist*, however, speech sounds and the actions performed by the appropriate organs for their production, are a thing apart. He will take into account the observations made by the acoustician and the physiologist, utilize them for his own purpose and combine them with the study of philology into his own particular branch of knowledge, viz. "phonetics".

1.2. In recent years it has become customary to distinguish between *phonetics* and *phonology*. By phonetics is meant the study of the production and the acoustic effect of speech sounds, regarded as a purely material phenomenon—as a special division of philology—whereas phonology as part of the linguistic branch of learning looks upon speech sounds

according to the rôle they play in language, i. e. it stresses the *function* of speech sounds. Phoneticians have in mind a system that is common to all languages, whereas the phonologist stresses the individual character of each particular language; to him every language has its own particular phonological system.

Most modern linguists agree in regarding a language as consisting of a certain number of "phonemes" as distinct from "speech sounds". A speech sound is "a sound of definite organic formation, and definite acoustic quality which is incapable of variation".<sup>1</sup> In other words, a "speech sound" is simply a sound brought about by any chance position the organs of speech may take up. The word "phoneme" has been variously defined by different writers. In the definition of Daniel Jones<sup>2</sup> a phoneme is "a family of sounds in a given language which are related in character and are used in such a way that no one member ever occurs in the same phonetic context as any other member". If the student does not immediately understand this definition he will do well to look at the following examples:

If we examine the two English words *key* [ki·] and *car* [ka·], we see that the two [k] sounds are different, i. e. the tongue touches the roof of the mouth in different places (in *key* [ki·] the point of articulation is more advanced than in *car* [ka·]) according to the nature of the following sound. If we insert the [k] sound of [ka·] in the word [ki·], it sounds unusual, but—and this is important—the word would still have the same meaning. We say that those two [k] sounds belong to the same phoneme. Similarly, if we examine the two [t] sounds in *tea* [ti·] and *eighth* [e'ɪp] we observe that the latter [t] sound is more dental than the

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<sup>1</sup> Daniel Jones and M. Trofimov, *The Pronunciation of Russian*, 1924 (Cambridge University Press).

<sup>2</sup> Daniel Jones, *The Phoneme, Its Nature and Use* (Heffer, Cambridge) 1950, p. 10.



former, i. e. the tip of the tongue actually touches the top teeth because of the subsequent [p] sound; if the latter [t] sound was inserted in the first word it would sound unusual, but the meaning of the word would remain unchanged. The two [t] sounds, then, are said to belong to the same phoneme. —Conversely, the sounds [b] and [g] are said to belong to separate phonemes in English, because if we look at the words *bet* [bet] and *get* [get] we observe that if we use the one instead of the other, the word acquires a different meaning. Similarly, the sounds [e] and [ä] are said to belong to separate phonemes because two words like *letter* [ˈletə] and *latter* [ˈlätə] are distinguished solely by having [e] and [ä] respectively.

It is important to notice that two sounds which belong to the same phoneme in one language may well belong to separate phonemes in another language. In English, [s] and [ʃ] belong to separate phonemes, cf. the two words *sin* [sin] and *thin* [θin], but in the Scandinavian languages [s] and [ʃ] belong to the same phoneme. In Danish, the word *sy* [syˀ] may be pronounced with a [ʃ], but this would not alter the meaning of the word (it is in fact the sound used by people who speak with a lisp).

Further examples: the sounds [m] and [f] are said to belong to separate phonemes because they are used to distinguish words like *mān* [mæn] and *fān* [fæn]. The sounds [d] and [t] belong to separate phonemes, cf. *do* [duː] and *two* [tuː].—The two [l] sounds in a word like *little* [ˈlɪtl] belong to the same phoneme, because if we substitute one for the other, the meaning of the word remains the same. The two [i] sounds in *city* [ˈsɪti] are different in formation, the tongue position of the latter being more lowered than the former; but if we transpose the two sounds, the meaning of the word remains unaltered; we say, therefore, that the two sounds belong to the same phoneme.

Most European languages contain about forty phonemes, whereas the number of speech sounds in a given language is almost unlimited.

**1.3.** It is obvious that in order to make himself understood in a given language, the foreign learner should at least master the phonemes which exist in that language. If he does not, he will simply not be understood by native speakers. A knowledge of the theory of phonemes, then, is of great practical value to people who want to learn a foreign language, and it is now generally agreed that a knowledge of phonetics is indispensable in learning and teaching foreign languages.

**1.4.** One of the first things a student of phonetics should realize is that in many languages, and certainly in English, there is a considerable difference between the pronunciation and the spelling of words. For one thing, a certain spelling may indicate quite different pronunciations. The spelling *tear* represents two different pronunciations, [tiə] and [tæə]; cf. also *bow* [boʊ] and [bau]; *lead* [li:d] and [led]; *wind* [wind] and [wajnd]<sup>1</sup>. On the other hand words spelt in quite different ways may have the same pronunciation, e. g. *wood*, *would* [wud]; *bear*, *bare* [bæə]; *fir*, *fur* [fə]; *key*, *quay* [ki]. These divergencies are in most cases due to the fact that instead of "writing as one speaks" as people do (though clumsily) before a written language is fixed, people nowadays follow the principle of "writing as others have written". The English spelling which was fixed (mostly by printers) a long time ago has remained practically unaltered since then, whereas the pronunciation has changed considerably. The result is that there is now a wide gap between the two.

**1.5.** It is the duty, therefore, of the student of phonetics to rid himself of erroneous conceptions of the language which may be due to the orthography. For this reason it is a very good plan to read phonetically transcribed texts in

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<sup>1</sup> A young newly married woman on her honeymoon wrote to her mother "Tom and I have a row every morning", and immediately her mother wrote back "How do you pronounce it?" ([roʊ] or [rau]).

which one symbol invariably represents one sound only (note that the minimum requirement of a transcription system is that each phoneme in the language is represented by one particular symbol). From such phonetic transcriptions the student may learn with great accuracy how a given sound is pronounced irrespective of the haphazard spelling system.<sup>1</sup>

He should not be discouraged by the fact that the systems adopted for this purpose by various writers differ to some extent. On the other hand it should not be forgotten that there are things in the pronunciation which even the most accurate ("narrow") transcription cannot possibly supply, because eventually spelling and pronunciation appeal to two different senses, viz. to the eye and to the ear respectively.

**1.6.** It should be borne in mind that no two people in any country speak exactly alike. This naturally applies to English too, which is spoken by so many people in so many parts of the world. On many points (especially as regards the vowels) there are variant pronunciations, and it may be hard to say which pronunciation of a given word is the "best" or the "most correct". And yet in English, as in many other languages, there is a tendency to use, or at least recognize, a certain approach to a standard form of speech (sometimes called *Standard English*). 'Standard', of course, is simply a useful term constituting a convenient basis of comparison; it obviously does not suggest intrinsic merit. *Standard English* is distinct, for one thing, from dialectal speech, i. e. the speech of the common people in any regional district. It is never to the credit of any given pronunciation if it can be described as belonging to one, and only one, part of the area in which the English language is spoken; all that is peculiar to, say, Yorkshire, or the West of England, or may be characterized as an "Americanism", "Australianism", etc.,

<sup>1</sup> The following works are recommended: *Daniel Jones*, *Phonetic Readings in English*, Winter, Heidelberg; *Otto Jespersen*, *Engelske lydskriftetexter*, Gyldendal, Copenhagen; *J. D. O'Connor*, *New Phonetic Readings*, A. Francké, Berne.

should be avoided by the foreign learner (however interesting the study of those particular speech habits may be). Second, the vulgar pronunciation often used by the "lower orders" in the towns, is not a fit standard; this pronunciation is sometimes not local in the same sense as the regional dialects—it may be common to several large towns or cities. The form of speech that is normally thought most desirable is that used by educated speakers in Southern England, which, as it happens, was also the birthplace of a common English orthography. It is often identical with the pronunciation used at the old universities and at the great Public Schools. Whereas local or vulgar pronunciations are not easily understood by outsiders, Standard English (or *Educated Southern British English*, or *Received Pronunciation*, etc.) is thought to be the pronunciation most readily understood by the greatest number of people who have English as their mother tongue. This is the type of pronunciation this book aims at describing. It is the kind of speech the student may expect to hear from, say, the majority of B. B. C. announcers and people educated at one of the old universities or at one of the great Public Schools.

1.7. Within each of the *types* of speech described above there are several divergencies which cannot be ascribed to the regional or social background of the speaker. We are referring to the different *styles* of speech. The pronunciation used in speaking to one's closest friends, or in the family circle, is different from the one used in public speaking, or the one used by clergymen addressing their congregation. The foreign learner should observe this, and although he will naturally have to use the (slow) colloquial style most, he will do well to notice, and possibly use occasionally, the pronunciations occurring in a more formal style. Pronunciations like [iznt] [dɒnt] [ʃa-nt] are appropriate to ordinary conversation but are apt to sound out of place if he is reading aloud, say, historical, descriptive, and reflective prose, where [iz nɑt] [dʌ- nɑt] [ʃəl nɑt] are commendable;

in reading aloud he should use the short forms only where the author has indicated this in the spelling. There are shortened forms, however, which are seldom used in print but which are nearly always used by native speakers in ordinary conversation. The student should not rely on the information given by native speakers in such, and similar cases; he may well hear English people using exhortations like "don't say don't" or "never use a preposition to end a sentence with", etc. It is a much better plan to *observe* the speech habits of native speakers in ordinary conversation.

**1.8.** The book will give, first, a description of the organs of speech and the positions each of these may take up for the production of speech sounds (Part One, sections 2.1 to 7.3). Second, a description will be given of the speech sounds actually occurring in English (Part Two, sections 8.1 to 9.9). The third part of the book (Part Three, sections 10.1 to 14) treats the English sounds in connected speech. It will be understood that the book views the phonetics of English, first, from an articulatory point of view, and then proceeds to examine the part played by the phonemes of the English phonetic system.

# PART ONE

## THE ORGANS OF SPEECH

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### CHAPTER II

#### THE LIPS

**2.1.** First of all we shall mention the sounds for whose production a complete lip *closure* is made. The air is driven from the lungs into the mouth but here meets a certain obstruction so that for a brief moment no air is allowed to escape.

The reader is advised to place himself before a mirror and pronounce such sound sequences as for instance [ipi], [upu], [âpâ], [âpi], [upi], etc.; he will notice that in each case the lips form a complete closure (or *stop*) in the middle of the sound group. The sound [p] is characterized by this closure of the lips and is accordingly called a bi-labial sound. It should be noticed, however, that the closure of the lips is not the *only* important feature in the production of the sound [p]; this may be observed if the following groups are pronounced:

ibi, ubu, âbâ . ,  
imi, umu, âmâ etc.

The mirror will show exactly the same articulation of the lips as in the groups [ipi] etc. It will be understood that the

difference between [p] and [b] and [m] consists in something other than the action of the lips; the nature of this difference will be explained later (see 5.3 and 6.7).

If for the time being we speak only of the articulation of the lips, one question naturally arises: *what feature is common to all [p] sounds?* Is it the fact that a closing movement is made, i. e. that the lips approach until eventually the passage of air is blocked completely? Or is it that, after having been closed for a second they separate again? Or are both required together? Or, perhaps, neither? In order to answer these questions it is natural to examine if all [p] sounds behave similarly in this respect. If e. g. [pi]—or of course any similar group in which [p] is in an initial position—is pronounced in the normal manner, the closing movement of the lips is of no significance for our purpose—it may have taken place some time previously; the separation of the lips is apparently more important. The opposite is the case if [p] is in a final position, as in [ip]; here, the important thing is that the lips close; it is true that they practically always separate after the release of the stop, but this can occasionally<sup>1</sup> be dispensed with, which the closing movement cannot. In a medial position, as in [ipi], [upu], etc. both the closing and opening movements naturally occur, but in the case of such groups as [ämpə] (cf. a word like *damp*er [dämpə]) or [imbə] (cf. a word like *tim*ber [timbə]), it will be seen that the lips close and then remain closed during the pronunciation of the subsequent [p] or [b], so that no fresh closing movement occurs; in other words, the articulation of [p] and [b] is, essentially, the same as in those cases where the two sounds were initial and where the speaker's lips were for some reason closed already. If we reverse the labial sounds so as to get groups like [äpmo<sup>u</sup>] (as in *top*most [täpmo<sup>u</sup>st]) or [äbmə] (as in *cab*man [käbmən]) it is, conversely, the separating

<sup>1</sup> cf. *n*ope = [no<sup>u</sup>], followed by [p] without any subsequent separation of the lips.

movement of the lips that is dispensed with in the pronunciation of [p] or [b], or rather, it is postponed until after the articulation of [m]. If we imagine a group like [ämpmæ] it will be clear that in pronouncing [p] or [b] it is not necessary to close the lips (that has happened already) nor to open them (because the subsequent sound requires closure of the lips). It appears, then, that there are several varieties of the sound [p], one for which only opening is required, a second for which only closure is required, a third for which both are necessary, and a fourth for which neither closure nor opening are necessary. But the one thing that is common to all these varieties is that at one time or other the passage of air from the lungs is completely blocked by a closure of the lips; that which is common to all [p] sounds, then, is not the opening or closing movement—because that is determined by the nature of the surrounding sounds—but the position of the lips, the *stop*. This also applies to [m] in groups like [mi], [im], [imi], [imbu], [ibmbi] etc.; here too the common feature is the closed position of the lips.

For the above reasons [p] and [b] are often called *stops*. They are also frequently termed *plosives* because another feature common to all varieties of [p] and [b], is that a certain plosion is easy to observe initially and finally, as in [pi] or [ip] etc. Even in groups like [impmi] a plosion takes place, viz. through the nose. For this so-called *nasal plosion*, see 8.3.

All the varieties of the [p] sound mentioned above are members of the same phoneme (see 1.2), and all the above varieties of the [b] sound are members of the same phoneme, etc.

**2.2.** Whereas the lips in forming the sounds of [p], [b] and [m] are completely closed they are in a more or less open position for all other sounds. We shall deal first with the sounds in which the lips form an opening through which the air passes in such a way that audible *friction* is produced. Such sounds are termed *fricatives* or less frequently *conti-*



*nuants* (because the passage of air is not suddenly cut off; the articulation of the fricatives is continuous).

The smallest degree of opening is to be found when the lips are closed on the sides while the air is allowed to pass through a small (more or less) round opening of the size, approximately, of a pea. It is very similar to the position taken up by the lips in whistling. It is the lip position of the initial sound in words like *wet* and *whet*, *witch* and *which*; see 6.6<sub>2</sub> for the difference between *w* and *wh* [hw].

**2.3.** The lip-position of [w], it should be remembered, is quite different from that of [v], with which it is often confused by foreigners (e. g. Danes, Swedes, Norwegians). In the first place, [w]—like [p], [b] and [m]—is a bilabial, while [v] is a labio-dental sound, i. e. it is made by pressing the lower lip against the top teeth. Secondly, the opening is different, because in pronouncing [v] the lips are *spread*, or *unrounded*, while in pronouncing [w] the lips are *rounded*. A similar difference of lip-position will be met with frequently in other sounds, and it forms an important part of the description of most sounds. Some writers prefer to distinguish between openings they term *slits* (unrounded) and *grooves* (rounded). For the lip position of [v] and [w], see the diagrams at the back of the book.

**2.41.** We have spoken so far of the form and size of the lip opening; but its place is also of some importance: When pronouncing [umu] and [imi] it will be observed that the lip positions of the two [m]'s are different; the lips form a closure in either case, but not in exactly the same place; compare also [upu] and [ipi], as well as [ubu] and [ibi]. When the [m] is surrounded (preceded or followed) by [u] the lips are made to protrude and do not touch the teeth; when the [m] is surrounded by [i] the lips are further back, nearer to the teeth. In the first case ([umu]) a line connecting the corners of the mouth would not intersect the teeth; in the other case ([imi]) the line would intersect the teeth, the corners of the mouth being at the second or even third of the back teeth.