



高等学校教材

# An Introduction to English Phonetics

## 英语语音学引论 (修订本)

周考成 编著  
申葆青 主审

AN INTRODUCTION  
TO  
ENGLISH PHONETICS

英语语音学引论

周考成 编著  
申葆青 主审

四川大学出版社  
1996·成都

责任编辑:罗 恂  
封面设计:石 征  
责任印制:曹 琳

### 图书在版编目(CIP)数据

英语语音学引论/周考成编著. —成都:四川大学出版社, 2002.9

ISBN 7-5614-2476-0

I. 英... II. 周... III. 英语-语音学-教材  
IV. H311

中国版本图书馆 CIP 数据核字(2002)第 073995 号

### 书名 英语语音学引论

---

编 著 周考成  
出 版 四川大学出版社  
地 址 成都市一环路南一段 24 号 (610065)  
印 刷 郫县犀浦印刷厂  
发 行 四川大学出版社  
开 本 889mm×1194mm 1/32  
印 张 11  
字 数 295 千字  
版 次 2002 年 9 月第 2 版  
印 次 2003 年 9 月第 7 次印刷  
印 数 29 001~33 000 册  
定 价 15.00 元

---

版权所有◆侵权必究

- ◆ 读者邮购本书,请与本社发行科联系。电话:85408408/85401670/85408023 邮政编码:610065
- ◆ 本社图书如有印装质量问题,请寄回出版社调换。
- ◆ 网址:www.scupress.com.cn

## Foreword

The original book of which this is an updating was based on my lecture papers on English phonetics, gradually added to or varied year after year before and after liberation. It has been used by several universities and colleges as a teaching text or a reference book since its appearance in August 1979 and in the 1960s. The present volume is the result of enlargement and alterations following the valuable suggestions from a number of friends and the delegates to the Conference held in October 1981 at Amoy University by the National Committee for Compiling and Checking English Textbooks for Higher Education under the Ministry of Education.

The book is intended for students of foreign language departments in universities and teachers colleges. Although it is primarily meant for students specializing in the English language, it may be of great help to teachers of English to master English pronunciation themselves and to learn how to teach it to others, and it may be of interest to all those concerned with English oral speech and pronunciation. So the subject-matter of the text deals with the structure or system of the English spoken language: the segmental phonemes (vowels and consonants) and the suprasegmental or prosodic components (pitch, stress, length, pause, etc.). This book includes the articulation, classification, combination (e.g. putting sounds together in syllables or words), and modification (e.g. assimilation, weakening, linking, etc.) of English speech sounds representing different phonemes, the stress patterns of the word, general rules for sentence stress and the speech melody (intonation) of an utterance (sentence), It is also concerned with the physiological basis, physical properties, social function

and the numerous variations in all types and styles of spoken English.

The subjects outlined above may seem to be too many for a textbook used for half or even a year's course in universities. In that case the users of this book may choose what they consider to be the most useful or necessary sections or portions, leaving out whatever they care to.

English phonetics is being unduly neglected or ignored in our schools. Its role and necessity or importance are generally not realized yet, an English phonetic course is usually left to chance or given no place in our teaching or learning of a foreign language. Phonetics is a branch of linguistics and the base of all other linguistic studies. For example, it is closely linked with the study of grammar, lexicology, the history of the language, and so on. "Without phonetics there can be no morphology of a spoken language, without intonation no syntax", as Professor Firth declared. Professor A. C. Gimson also notes that "to speak any language a person must know nearly 100% of its phonetics, while only 50 - 90% of its grammar and 1% of the vocabulary may be sufficient." So a teacher or student of English must spend much more time and energy in attending to the study of this branch of linguistics, and we must improve our present attitude towards it as soon as possible.

One important purpose of phonetics is to teach pronunciation, including the length, stress, and pitch of speech sounds, etc. It provides the teachers and students with scientific information about the pronunciation system of a spoken language. If they desire a good English pronunciation, a detailed study of sounds is necessary. Language-learning begins with the ear. The student should first of all learn to hear the sounds accurately and listen to them closely and carefully. The more he hears the difference between the various sounds of the language, the better he will articulate them. To this end he should undergo systematic ear-training, for instance, the dictation of English phonemes (sounds) or nonsense words to be written

in the phonetic alphabet, and constant listening to English native speakers or some equally good model. Then he should imitate the sounds heard, using his background knowledge to make the proper adjustment of his speech organs to reproduce the sounds correctly. Then he should practise using them in their correct contexts. It is important to realize that imitation is the soundest training method in pronunciation when coupled with an adequate knowledge of phonetic theory. While reading the practice-words with their segmental sounds (phonemes) and typical phrases or example-sentences for specific drilling, he should conscientiously cultivate correct pronunciation habit in everyday speaking. Wrong practice does not only waste time and effort but also cultivate bad habits which will be extremely difficult to eliminate.

Correctly pronounced segmental speech sounds cannot ensure a good general pronunciation unless the speaker also uses the proper speech melody. Even faulty sounds may not at times hinder understanding, if the intonation is right. On the other hand, if the individual sounds are correct in an utterance but the intonation is wrong, the speech will sound very “foreign”. The meaning may be changed, or it may even cause offence to the person spoken to. Therefore, the learner should not rest content with correct segmental sounds (phonemes) but must also continue learning the correct prosodic structure or intonation, which includes the variations of pitch, the quantity of sounds (duration), the rules of sentence stress, the rhythmical and intonation groups, the rate of speech (tempo), the voice quality, short or long pauses, and so on. The explanation of these terms and their functions is given in Chapters II and VI respectively; they should be read carefully and understood thoroughly. At the end of Chapter VI there are selections for reading/speaking practice, The student should work frequently and hard at these in order to effect good English pronunciation. A good pronunciation is essential for social intercourse, for public speaking,

for teaching when acting as a model for correct speech and when correcting pronunciation mistakes, and finally, for artistic appreciation, to be able to enjoy the rhythmic, melodious and expressive sounds of the language apart from their meaning, as when reading good prose, reciting a poem or performing a play.

There are several varieties of English pronunciation, such as British, American, Australian, Canadian, South African, etc. Each may be subdivided into a few other types. The type of English pronunciation described and introduced in this text is the well-known Received Pronunciation (RP). Since it is spoken or heard among the educated people in southern England, so some people call it Southern English or the Southern English type of pronunciation instead of RP. RP is easily understood in all English-speaking countries: The United States, Australia, Canada, New Zealand and South Africa. This type of English pronunciation has been investigated, described and recorded more comprehensively and thoroughly than any other type. It has become an orthoepic norm or a "prestige accent." This is why RP or Southern English pronunciation has been adopted as a teaching standard in our schools, colleges, and universities. In many other countries where English is taught as a foreign language, the learners of English try their best to acquire this type of pronunciation. But RP, as with any other spoken language is continually changing and developing, and has gone through a period of great change. The prominent changes and examples of them have been given on pp. 4 – 12, with some other main changes added below:

1. The tense vowels /i:/ and /u:/ are becoming diphthongs in final positions, as in the words *see* /sij/ and *who* /hou/ or /huw/.
2. The central vowels /ə:/ and /ə/ are tending to be coalesced into one articulatory position, as is shown by Professor A. C. Gimson in the newly edited *English Pronunciation Dictionary*.

3. The so-called triphthongs /aiə/ and /auə/ are becoming diphthongs or even monophthongs as in *fire* /faiə→faə→fa:/ and *shower* /ʃauə→ʃaə→ʃa:/.

4. The narrow (distance) diphthong /ou/ has become /əu/, as in *go* /gou→gəu/ and *home* /houm→həum/. In unstressed syllables, the /ou/ in the 1930s had three pronunciations, as in *obey* /ou'bei→o'bei→ə'bei/ and *November* /nou'vembə→no'vembə→nə'vembə/.

5. The unstressed neutral /ə/ now also has a front /i/ pronunciation, both being current, as in *believe* /bi'li:vorbə'li:v/, *interested* /intristid or 'intrəstid/, *kindness* /kaindnis or 'kainbnəs/, *heartless* /hɑ:tlis or 'hɑ:teəs/, etc. But in final open syllables, the /ə/ and /i/ are still distinct, as in *dollar-dolly* /dɒlə'dɒli/ and *seeder-seedy* /si:də'si:di/.

6. The intrusive /r/ is now more common than 20 – 30 years ago, as in *drama* and *music* /'drɑ:mər ən 'mju:zɪk/.

As we see in the above and on pp. 4 – 12, a large number of English words have several current pronunciations existing at the same time, many being equally correct. Therefore, Professor A. C. Gimson distinguishes three types of varieties of RP today:

(1) The conservative RP used mainly by the older people, (2) the general RP heard on radio and TV, and (3) the advanced RP mainly used by the younger generation. It is the second type, the general RP that the English-language learners should adopt and imitate as a pronunciation model.

The type of transcription adopted in this text is the broad or phonemic form of the International Phonetic Transcription. It was first used by Professor D. Jones in his *English Pronunciation Dictionary*, published in 1917. Since then it has been widely used in textbooks and dictionaries in most countries where English is taught as a second language. including China. Another type of transcription is the narrow or phonetic form adopted by



Professor A. C. Gimson in the 14th edition of the same dictionary in which he substitutes some new symbols for the broad ones, such as some pure vowel phonemes ɪ for i, ɒ for ə, u for u, ɜ: for ə:, and diphthong phonemes eɪ for ei, aɪ for ai, ɔɪ for ɔi, əʊ for əʊ, aʊ for au, ɪə for iə, eə for eə, uə for uə, etc. For our teaching purpose and in order to avoid unnecessary confusion, inconvenience and other troubles at present, these new notations have not been used in the present volume.

In conclusion, I express my gratitude to the following friends and co-workers for their various assistance in this work. For example, I owe a great deal to previous publications on English phonetics (listed in the *Reference Books*) for their helpful information; to my former teachers, the late Professor D. Jones, the late Miss Armstrong, the late Miss Quick, Miss Evans, Ms. Davies, Professor Firth, Professor Fry, all of University College, London, for their past beneficial instructions, and to Miss Cullingford of Sichuan University in Chengdu, to Miss Penny Larson of Alemany Community College in California and to Associate Professor Charles H. Blatchford of the University of Hawaii, for reading the manuscript and correcting the wordings in the text, to which the latter has contributed the AFTERWORD. My grateful thanks go to all those who suggested additions, modifications or improvement and gave encouragement.

My thanks are also due to Associate Professor Harvey M. Taylor of the University of California at Los Angeles and Professor Shen Baoqing of the Institute of International Relations, Beijing who read and offered corrections and suggestions to the final version of the manuscript.

Owing to the limit of my knowledge and ability, any defects or mistakes in the text are mine.

March 4, 1982

The Compiler

## Preface to the Second Edition

The present revision of *An Introduction To English Phonetics* is substantially a reprint of the first edition published by Shanghai Foreign Language Education Press in 1984, 1985, 1986, 1987 and 1988 except in the following respects:

1. The original size of  $787 \times 1092 \frac{1}{16}$  has now become that of  $850 \times 1168 \frac{1}{32}$ .

2. The typical words for practising English individual phonemes are newly recorded in the present edition by Prof. Zhou Kaocheng.

3. “Lancashire, Yorkshire and Scotch Dialects” is quoted as “Supplement 1” in the new edition.

4. An account of “American English Pronunciation” is added as “Supplement 2” in the revised edition and this is spoken by the GA speaker, Prof. Michael McGrath, Adrian College, USA.

5. The original “Supplement 1” has been turned into “6. 2. 11 Poetic Foot and Metre” and has been moved to the end of “6.2.10 Rules for Sentence-stress”; thus the subsequent figures with their subtitles 6.2.11 ..., 6.3.1 ..., 6.3.2 ..., etc. are successively changed into 6.3.1 ..., 6.3.2 ..., 6.3.3 ..., etc.

6. A number of misprints or mistakes that appeared in the previous (1984 – 1988) editions corrected in this edition.

7. The pages originally printed in “Supplement 3” in “The English-Chinese Phonetic Vocabulary” are restored and now listed as “Supplement 4”.

8. Some more correct diagrams are used in the new edition.

I am glad to take the opportunity of recalling with gratitude the participation in the earnest discussions of the delegates attending the Xiam (Amoy) University Conference held in October 1981 by the National Committee for Compiling and Checking English Text-Books for Higher Education under former Ministry of Education (now the State Education Commission). The attendants from different universities to the Conference pointed out deficiencies, suggested additions, modifications and made favourable comments. There were still other delegates and friends who sent useful written suggestions and gave encouragement, though they could not take part in the discussions for various causes.

I continue to remember with gratitude all friends of Shanghai Foreign Language Education Press for the publication of the first edition and they are now generous in giving the copyright of the book to Sichuan University Press, the leading comrades and the editorial staff of which take the responsibility for bringing out to the revised or second edition.

There may still be a few errors or defects in this edition. I shall, therefore, be very grateful if the readers or specialists will suggest corrections and improvement to me.

June 1, 1989

Zhou Kaocheng  
Sichuan University  
Chengdu, Sichuan

# Contents

<b>Foreword</b> .....	( 1 )
<b>Preface to the Second Edition</b> .....	( 7 )
<b>Chapter I Introduction</b> .....	( 1 )
1.1 General Theory .....	( 1 )
1.2 Received Pronunciation and Variant Pronunciations .....	( 3 )
1.3 Styles of Pronunciation .....	( 7 )
1.4 Phonetic Transcription .....	( 8 )
<b>Chapter II Bases of Speech-Sounds</b> .....	( 14 )
2.1 The Physiological Basis .....	( 14 )
2.2 The Physical Basis .....	( 18 )
2.3 The Social Basis .....	( 21 )
<b>Chapter III English Phonemes</b> .....	( 24 )
3.1 General Classification of English Phonemes .....	( 24 )
3.2 Vowel Phonemes in Isolation .....	( 37 )
3.3 Consonant Phonemes in Isolation .....	( 81 )
<b>Chapter IV Phonemes in Combination</b> .....	( 141 )
4.1 The Syllable Theories .....	( 141 )
4.2 The Syllable Construction .....	( 142 )
4.3 The Syllable Division .....	( 150 )

<b>Chapter V Sound-Changes</b> .....	(154)
5.1 Similitude .....	(154)
5.2 Assimilation .....	(156)
5.3 Elision .....	(161)
5.4 Weakening .....	(167)
5.5 Linking (Liaison) .....	(174)
<b>Chapter VI Prosodic Features</b> .....	(179)
6.1 Length (or Quantity) .....	(179)
6.2 Stress (or Intensity) .....	(183)
6.3 Intonation (or Pitch) .....	(224)
6.4 Selections for Reading/Speaking Practice .....	(270)
6.5 Exercises and Review .....	(292)
<b>Afterword</b> .....	(297)
<b>Supplements</b> .....	(299)
1. Lancashire, Yorkshire and Scotch Dialects .....	(299)
2. American English Pronunciation .....	(307)
3. Reference Books .....	(326)
4. English Chinese Phonetic Vocabulary .....	(327)

# Chapter I Introduction

## 1.1 General Theory

### 1.1.1 Theory and practice

As we know, knowledge begins with practice, reaches the theoretical level through practice, and then returns to practice. Thus we see the close relationship between theory and practice and their dependence upon each other. The same is true of phonetics studies. An understanding of the phonetic theory (or simply phonetics) will be of considerable help to the study of language in general and pronunciation in particular. With some practical knowledge of phonetics, it is desirable to study its theory. Such a study will not only throw light on the development, the inner laws, and the mutual relations of various complex phonetic phenomena, but also deepen our knowledge of a higher level and give better phonetic practice.

### 1.1.2 English phonetics

English phonetics is the science of English speech-sounds. It deals with the sound system of the English language. It covers the description of the organic formation of English sounds, the investigation into the laws of their changes and the rules of their stresses, the explanation of the syllable construction, the study of the intonation patterns and the classification and systematization of all the studied phenomena and their internal relations.

### 1.1.3 Aims of phonetic study

The study of English phonetics has both practical and educational value. Its theory provides the general rules of English pronunciation training,

expressive reading and public speaking. It also helps in the learning of other foreign languages. It serves as a foundation for further study and research work in the field of linguistics. It marks the first step in mastering the theoretical knowledge of the English language, which consists of the three important elements, namely, speech sound, vocabulary and grammar. Speech sound is their material form, on which they both rely for existence. Word and grammar divorced from speech sound are non-existent. It also furnishes the basis determining the phonetic composition of unstudied dialects, for drawing up the alphabet of unwritten languages or revising existing alphabets, let alone the part it plays in general education. Through this course, students will be trained to speak and act on the principle of self-monitoring of speech production to sharpen their feeling and perception, to form such habits of character such as scientific exactness, thoroughness, persistence in study and work, to develop their ability for observation and analysis, "to reach the wholeness, the essence and the internal relations of things, to take a comprehensive and dialectical materialist view of things, to combine theory and practice." In addition, through the study of the phoneme, assimilation, stress, intonation, etc, students will learn to systematize and generalize phonetics materials or facts obtained in the course of their studies. For without systematization and generalization of isolated materials or facts, no sound knowledge and habitual skill can be acquired.

#### 1.1.4 Methods of phonetic study

The methods in the study of phonetics fall into three categories:

(1) *The experimental method*

Experiments are made with acoustic or kindred instruments to analyze the physical and biological phenomena so as to determine certain questions of speech sounds.

(2) *The direct method*

This method requires accurate personal observations based upon oral

exercises, aural training, muscular sensations, and conscious control of the speech organ activities.

### (3) *The analytical method*

This involves an examination of all phonetic phenomena and an explanation of their social significance. It is a method common to all the divisions of the science of the language, thus placing phonetics in the field of linguistics.

## 1.2 Received Pronunciation and Variant Pronunciations

### 1.2.1 Received English pronunciation

When we speak of received English pronunciation we mean generally the form of pronunciation that is very usually heard in everyday speech among the Southern English people, particularly the London middle class, or the speech spoken by BBC announcers, at universities and public schools. This form of speech now often referred to as Received Pronunciation (RP) is readily and widely understood throughout the English speaking countries and generally recommended where English is taught and learned as a foreign language. This type of pronunciation is free from local features and foreign students of English are advised to acquire it.

Here we are not concerned about General American Pronunciation. Those who have an interest in it may learn or study the works on that subject.

### 1.2.2 Variant pronunciations in RP<sup>①</sup>

A great number of English words have different ways of pronunciation. Some are different in that they substitute one sound for another, some are

---

① See A. G. Mitchell, *Spoken English*. p.186.



different in shifting the stress of the word. All such forms may be current and correct at the same time. Some are in the process of gradual change, becoming old-fashioned or less accepted in succeeding generations. For example.

(1) Variant in Sounds (or Phonemes)

a. One sound for another

amateur	/ 'æmətə:/	/ 'æmətə/	/æmətʃə/
electricity	/ɪlek'trɪsətɪ/	/əlek'trɪsətɪ/	/elek'trɪsətɪ/
geyser	/ 'gɪzə/	/ 'geɪzə/	/ 'gaɪzə/
garage	/gə'ra:ʒ/	/gə'ra:dʒ/	
	/ 'gæra:ʒ/	/ 'gæra:dʒ/	/ 'gæridʒ/
restau rant	/ 'restərə/	/ 'restərɒŋ/	
	/ 'restərən/	/ 'restərɒnt/	/ 'restərənt/

b. Two current pronunciations

direct	/di'rekt/	/dai'rekt/
epoch	/ 'i:pək/	/ 'epək/
either	/ 'aɪðə/	/ 'i:ðə/
leisure	/ 'leɪzə/	/ 'li:zə/
version	/ 'vɜ:ʃn/	/ 'vɜ:ʒn/

c. Traditional new

apparatus	/ɪæpə'reɪtəs/	/ɪæpə'ræɪtəs/
data	/ 'deɪtə/	/ 'dɑ:tə/
genus	/ 'dʒenəs/	/ 'dʒɪnəs/
via	/ 'vaɪə/	/vɪə/

d. older /ɑ:/ newer /æ/

advantage	/əd'vɑ:ntɪdʒ/	/əd'væntɪdʒ/
answer	/ 'ɑ:nsə/	/ 'ænsə/
chance	/tʃɑ:ns/	/tʃæns/