

牛津
语言学入门丛书

丛书主编 H.G.Widdowson

Phonetics

Phonetics

语 音 学

Peter Roach

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上海外语教育出版社



Oxford Introductions to Language Study

Series Editor H.G. Widdowson

Phonetics

Peter Roach

OXFORD
UNIVERSITY PRESS

图书在版编目(CIP)数据

语音学=Phonetics / (英) 罗奇 (Roach, P.) 编著.

—上海: 上海外语教育出版社, 2003

(牛津语言学入门丛书)

ISBN 7-81080-660-2

I. 语… II. 罗… III. 语音学—英文 IV. H01

中国版本图书馆CIP数据核字(2003)第000552号

图字: 09-2002-382号

出版发行: 上海外语教育出版社

(上海外国语大学内) 邮编: 200083

电 话: 021-65425300 (总机), 35051812 (发行部)

电子邮箱: bookinfo@sflep.com.cn

网 址: <http://www.sflep.com.cn> <http://www.sflep.com>

责任编辑: 李健儿

印 刷: 常熟市华顺印刷有限公司

经 销: 新华书店上海发行所

开 本: 850×1092 1/32 印张 4.55 字数 26千字

版 次: 2003年2月第1版 2003年3月第1次印刷

印 数: 5 000 册

书 号: ISBN 7-81080-660-2 / H·261

定 价: 7.70 元

本版图书如有印装质量问题, 可向本社调换

OXFORD

UNIVERSITY PRESS

Great Clarendon Street, Oxford OX2 6DP

Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship, and education by publishing worldwide in

Oxford New York

Athens Auckland Bangkok Bogotá Buenos Aires
Calcutta Cape Town Chennai Dar es Salaam Delhi
Florence Hong Kong Istanbul Karachi Kolkata Kuala Lumpur
Madrid Melbourne Mexico City Mumbai Nairobi Paris
São Paulo Shanghai Singapore Taipei Tokyo Toronto Warsaw
with associated companies in Berlin Ibadan

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First published 2001

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ISBN 0 19 437239 1

Typeset by G.M. Brasnett, Cambridge
in Adobe Sabon & ITC Franklin Gothic

Printed in Hong Kong

This edition of *Phonetics*, originally published in 2001, is published by arrangement with Oxford University Press.

本书由牛津大学出版社授权上海外语教育出版社出版。

出版前言

在语言研究方面不乏详尽权威的导论。但这些学术专论都趋于冗长且学术性太强,对初学者来说大有泰山压顶之势。于是,“牛津语言学入门丛书”,这套让人们循序渐进、轻松地掌握复杂概念的过渡性简明教程,就应运而生了。

人们在对语言的特定细节进行剖析之前,应该对语言整体有个大致的了解。作为供语言学研究方向的学生进行深入研究之前的热身阅读,这套丛书的主旨是为人们理解那些学术性强的语言学专著奠定理论基础。因为这套丛书浅显易懂,对那些感兴趣却并非专门从事语言研究的人进一步了解语言也大有裨益。

本套丛书采用了统一的结构模式,在“前言”之后,由“概述”、“阅读材料”、“参考书目”和“术语表”四个部分构成。第一部分概述是全书的主体,也是有关该领域研究的导论。第二部分提供与书中各章节内容相应的深入阅读的材料,其后所附的问题极具启发性,有助于读者形成对有关领域研究的独立见解。第三部分提供相应章节的参考书目,并对它们的主要内容作了点评,以便有兴趣的学习者深入学习。第四部分列出术语表,帮助初学者了解有关术语的定义。

《语音学》为本丛书之一,出版于2001年,是一部介绍语音学基本知识的导论性著作。作者P·罗奇(Peter Roach)是英国雷丁大学(University of Reading)的语音学教授。

本书的主体(概述部分)分为十章。第一章介绍口语和语音学的研究范畴,论述了语音学与语言学的关系;第二章介绍了人体的各发音器官及其在发音时所起的作用,描述了

语流形成的过程;第三章着重介绍了元音和辅音两大语音类别及其发音部位和发音方式的不同特征;第四章论述声调和声调语言,分别从声调的词汇和语法意义、升降调特征、声调与语境以及声调及其轻、重、高、低音特征等方面介绍了声调在表达意义中的作用;第五章集中描述了重音和重读、语调、节奏以及其他一些超音段音位的特征;第六章从声学的角度对语音进行波形描写,并论述了这种方式在描写不同的音位时的作用;第七章系统地分析和归纳了语音的几个大类;第八章进一步阐述了连贯性言语与协同发音的概念,说明了语音同化、协同发音以及语音省略现象;第九章论述语音变体问题,从地域、社会文化、语体和年龄等因素分析了语音的变异,并就选择何种言语作为研究对象提出了看法。第十章对上述章节进行了扼要的总结。

本书对于语音学的描述和探讨简明清晰,内容全面,说理深入浅出,是语言学初学者的必读教程,对有意进一步进行独立研究的人员也具有积极的指导作用。

本套丛书的读者对象是英语专业高年级学生、语言学、应用语言学与相关专业研究生以及对相应领域感兴趣的人员。欢迎读者对我们的工作提出宝贵意见。

本社编辑部
2002年12月

Preface

Purpose

What justification might there be for a series of introductions to language study? After all, linguistics is already well served with introductory texts: expositions and explanations which are comprehensive, authoritative, and excellent in their way. Generally speaking, however, their way is the essentially academic one of providing a detailed initiation into the discipline of linguistics, and they tend to be lengthy and technical: appropriately so, given their purpose. But they can be quite daunting to the novice. There is also a need for a more general and gradual introduction to language: transitional texts which will ease people into an understanding of complex ideas. This series of introductions is designed to serve this need.

Their purpose, therefore, is not to supplant but to support the more academically oriented introductions to linguistics: to prepare the conceptual ground. They are based on the belief that it is an advantage to have a broad map of the terrain sketched out before one considers its more specific features on a smaller scale, a general context in reference to which the detail makes sense. It is sometimes the case that students are introduced to detail without it being made clear what it is a detail *of*. Clearly, a general understanding of ideas is not sufficient: there needs to be closer scrutiny. But equally, close scrutiny can be myopic and meaningless unless it is related to the larger view. Indeed, it can be said that the precondition of more particular enquiry is an awareness of what, in general, the particulars are about. This series is designed to provide this large-scale view of different areas of language

study. As such it can serve as a preliminary to (and precondition for) the more specific and specialized enquiry which students of linguistics are required to undertake.

But the series is not only intended to be helpful to such students. There are many people who take an interest in language without being academically engaged in linguistics *per se*. Such people may recognize the importance of understanding language for their own lines of enquiry, or for their own practical purposes, or quite simply for making them aware of something which figures so centrally in their everyday lives. If linguistics has revealing and relevant things to say about language, this should presumably not be a privileged revelation, but one accessible to people other than linguists. These books have been so designed as to accommodate these broader interests too: they are meant to be introductions to language more generally as well as to linguistics as a discipline.

Design

The books in the series are all cut to the same basic pattern. There are four parts: Survey, Readings, References, and Glossary.

Survey

This is a summary overview of the main features of the area of language study concerned: its scope and principles of enquiry, its basic concerns and key concepts. These are expressed and explained in ways which are intended to make them as accessible as possible to people who have no prior knowledge or expertise in the subject. The Survey is written to be readable and is uncluttered by the customary scholarly references. In this sense, it is simple. But it is not simplistic. Lack of specialist expertise does not imply an inability to understand or evaluate ideas. Ignorance means lack of knowledge, not lack of intelligence. The Survey, therefore, is meant to be challenging. It draws a map of the subject area in such a way as to stimulate thought and to invite a critical participation in the exploration of ideas. This kind of conceptual cartography has its dangers of course: the selection of what is significant, and the manner of its representation, will not be to the liking of everybody, particularly not, perhaps, to some of those inside the discipline. But

these surveys are written in the belief that there must be an alternative to a technical account on the one hand and an idiot's guide on the other if linguistics is to be made relevant to people in the wider world.

Readings

Some people will be content to read, and perhaps re-read, the summary Survey. Others will want to pursue the subject and so will use the Survey as the preliminary for more detailed study. The Readings provide the necessary transition. For here the reader is presented with texts extracted from the specialist literature. The purpose of these Readings is quite different from the Survey. It is to get readers to focus on the specifics of what is said, and how it is said, in these source texts. Questions are provided to further this purpose: they are designed to direct attention to points in each text, how they compare across texts, and how they deal with the issues discussed in the Survey. The idea is to give readers an initial familiarity with the more specialist idiom of the linguistics literature, where the issues might not be so readily accessible, and to encourage them into close critical reading.

References

One way of moving into more detailed study is through the Readings. Another is through the annotated References in the third section of each book. Here there is a selection of works (books and articles) for further reading. Accompanying comments indicate how these deal in more detail with the issues discussed in the different chapters of the Survey.

Glossary

Certain terms in the Survey appear in bold. These are terms used in a special or technical sense in the discipline. Their meanings are made clear in the discussion, but they are also explained in the Glossary at the end of each book. The Glossary is cross-referenced to the Survey, and therefore serves at the same time as an index. This enables readers to locate the term and what it signifies in the more general discussion, thereby, in effect, using the Survey as a summary work of reference.

Use

The series has been designed so as to be flexible in use. Each title is separate and self-contained, with only the basic format in common. The four sections of the format, as described here, can be drawn upon and combined in different ways, as required by the needs, or interests, of different readers. Some may be content with the Survey and the Glossary and may not want to follow up the suggested References. Some may not wish to venture into the Readings. Again, the Survey might be considered as appropriate preliminary reading for a course in applied linguistics or teacher education, and the Readings more appropriate for seminar discussion during the course. In short, the notion of an introduction will mean different things to different people, but in all cases the concern is to provide access to specialist knowledge and stimulate an awareness of its significance. This series as a whole has been designed to provide this access and promote this awareness in respect to different areas of language study.

H.G. WIDDOWSON

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SECTION I

Survey

1

The science of speech

Speaking to each other is one of the most interesting things that we human beings do. Each of us has a mind, a private world filled with thoughts, feelings, and memories. We have many ways of communicating these in such a way that they enter the minds of other people. Sometimes we find it convenient to communicate by means of writing, and good writing can let us see things clearly from the writer's own perspective. For people who are for some reason unable to speak, it is also possible to communicate by sign language, or by using a pointer and a computer screen. Many art-forms work by conveying the thoughts and feelings of the artist—music, for example, can tell us a great deal about the inner feelings of a composer, even one who has been dead for centuries.

A quite different form of communication is one that we share with many other animals: gestures and facial expressions. We make extensive use of these, and can describe in great detail how people do so: we can talk about someone 'waving his hand dismissively', or 'giving someone an appealing look', or 'turning away in mock anger'. But although there are many different ways of communicating, when it comes to telling other people what we want to tell them, what we use most is speech, and this is something which is only available to human beings.

The speech chain

To describe the process of speaking in the simplest way, we need to look at three main events. To begin with, we produce sounds, using parts of our chest, throat, and head. Then the sounds travel through the air in the form of vibrations. Finally, the sounds are

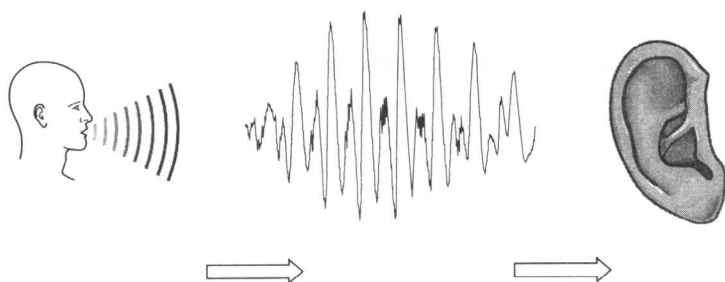


FIGURE 1.1 *The speech chain*

received by the ear of the listener. We show this speech chain in diagram form in Figure 1.1.

However, this is only part of the story. If we look at speech more carefully, we find we must also take into account the fact that the brain of the speaker is involved in controlling the production of speech, and the brain of the listener has to do the job of analysing the sounds that have been heard, and converting them into a meaningful message. You might say of someone, in a joking way, that they were speaking without first connecting their brain, or that what was said to them went 'in one ear and out of the other', but in reality the control by the brain is essential. Not only does the brain send out the commands necessary for producing speech, but it is also constantly receiving feedback in the form of the sound of the speech that is being produced; if we were not able to monitor our speaking in this way, we would find it extremely difficult to speak at all. Until recently, we knew little about what is going on in the brain when people are speaking, and this is why the science of phonetics has concentrated on the three central components of the speech chain, where observation of what is going on is relatively straightforward. However, our understanding of how the brain works in speech communication has grown enormously in recent years. One of the most significant advances in recent research has been the development of safe

and accurate brain-scanning techniques that can show us the activity of different parts of the brain when someone is speaking or listening to speech.

Phonetics

Speech is a complicated process, and to study it requires a whole scientific subject—the science of phonetics. In this book we will look at the main areas of phonetics and see why they are important. Much of the early part of the book is taken up with considering the way in which speech sounds (often called **segments**) are made, and how phoneticians can classify them in a scientific way. This is based on the fundamental distinction between **vowels** and **consonants**. Another fundamental aspect of the subject is the use of symbols. In phonetics, we must be able to use a particular symbol to represent a particular sound. This is quite similar to the principle of alphabetic writing: some writing systems give a very clear indication of the sounds (for example, the writing systems of Finnish and Italian represent almost perfectly the sequence of sounds required to say something in those languages). At the other extreme, it is possible to have what we call an *ideographic* writing system where symbols represent ideas, not sounds. The nearest equivalent for users of alphabetic writing is our number system: the numbers 1, 2, 3 mean the same thing to speakers of Russian, of French, or of English, yet they would pronounce them in completely different ways.

One of the most important achievements of phonetics in the past century has been to arrive at a system of phonetic symbols that anyone can learn to use and that can be used to represent the sounds of any language. This is the **International Phonetic Alphabet (IPA)**. Taking English as an example of a writing system that does not always give a reliable guide to pronunciation, we find that for various purposes (including teaching the pronunciation) it is helpful to use **phonetic transcription** instead of ordinary spelling. Many of the symbols we use are the same as the familiar alphabetic ones. Table 1.1 shows the symbols used to represent one accent of English, and the symbols are given with 'key words' which help you to see which sound is represented. For each of the many different **accents** of English, a slightly