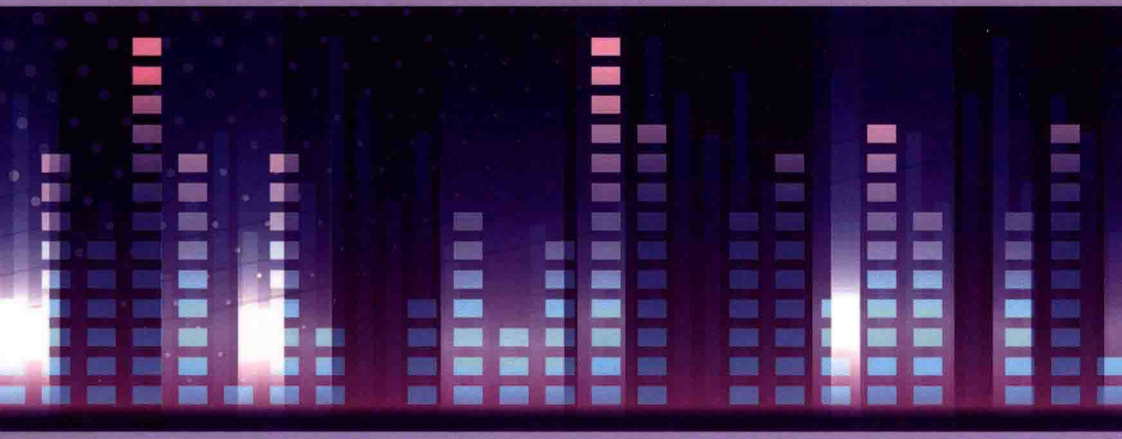
英语专业系列教材

SELECTED READINGS OF EARLY CLASSICS IN PHONETICS AND PHONOLOGY

语音学与音系学早期经典著作选读

曲长亮 编著



清华大学出版社

英语专业系列教材

SELECTED READINGS OF EARLY CLASSICS IN PHONETICS AND PHONOLOGY

语音学与音系学早期经典著作选读

曲长亮 编著

清华大学出版社
北京

内 容 简 介

语音学和音系学属理论语言学的核心领域。本书选编19世纪中期至20世纪30年代12位具有代表性的语言学家在这两个领域的论著17篇，向读者直观展示语音学和音系学的早期发展轨迹，为当代的语言学研究者和学习者了解语音学和音系学发展史中的这一关键阶段提供了第一手资料。本书可作为语言学专业研究生及英语类专业高年级本科生“语音学”“音系学”“语言学流派”“语言学史”等课程的文本阅读教材，对于其他对西方语言学思想史感兴趣的读者，亦是有价值的参考资料。

图书在版编目（CIP）数据

语音学与音系学早期经典著作选读 / 曲长亮编著 . —北京 : 清华大学出版社，2019
（英语专业系列教材）
ISBN 978-7-302-52984-2

Ⅰ. ①语… Ⅱ. ①曲… Ⅲ. ①语—语音学—高等学校—教材 Ⅳ. ① H311

中国版本图书馆 CIP 数据核字（2019）第 093939 号

责任编辑：黄智佳　刘　艳
封面设计：子　一
责任校对：王凤芝
责任印制：丛怀宇

出版发行：清华大学出版社
网　　址：http://www.tup.com.cn, http://www.wqbook.com
地　　址：北京清华大学学研大厦 A 座　　邮　　编：100084
社 总 机：010-62770175　　邮　　购：010-62786544
投稿与读者服务：010-62776969, c-service@tup.tsinghua.edu.cn
质量反馈：010-62772015, zhiliang@tup.tsinghua.edu.cn
印 装 者：三河市国英印务有限公司
经　　销：全国新华书店
开　　本：170mm × 230mm　　**印　张：**18.25　　**字　　数：**320 千字
版　　次：2019 年 4 月第 1 版　　**印　　次：**2019 年 4 月第 1 次印刷
定　　价：69.00 元

产品编号：083645-01

国家哲学社会科学基金项目（16BYY007）
阶段成果

2018年度大连外国语大学学科建设
专项经费资助项目成果

PREFACE

John E. Joseph

University of Edinburgh

Two things set science apart from other ways of arriving at the truth about a thing or concept or activity or process. One is epistemological: the humility needed to admit that there is something worth knowing that we do not in fact know. Science must be written from a position of ignorance; when we write what we know, or think we know, that is pedagogy, or religion, rather than scholarship in the true sense.

The second distinctive feature of science is methodological: developing the means of breaking down what we want to understand into its component elements. A further effort is then required to reconstitute the object of analysis into a whole, lest we fall into the trap of forgetting that the atomistic elements are the artefact of their analysis, and imagine instead that the elements alone are real, with the totality relegated to being the secondary, even marginal result of a process of composition.

Nevertheless, analysis, together with the curiosity born of a desire not to stay ignorant, and scepticism toward what is taught to us, have always been the starting point of science, as science is understood across all the fields of enquiry to which it is applied, everywhere in the world. Other epistemological and methodological practices exist, of course, and have their place and value; but to call them scientific would be metaphorical at best.

The technology of writing appears to have begun in various parts of the world, in different forms, in the last two centuries of the fourth millennium BC. Some of these forms of writing were pictographic, simplified pictures of the thing meant. In Western Asia, another kind of writing developed, based

on sound: syllables initially, in Persian cuneiform; then consonants only, in Phoenician; then consonants and vowels, in Greek. These systems represent the earliest surviving scientific analysis of language-as-sound, with words broken down into their spoken elements. A scientific analysis of language-as-meaning is behind the Chinese oracle bone inscriptions and Egyptian hieroglyphs, each of which would develop a phonetic aspect for the writing of proper names; but the analysis of language-as-sound is the foundational principle of the writing that developed into the alphabet (the word *alphabet* conjoins the names of the first vowel, *alpha*, and the first consonant, *beta*, in the Greek system).

The weakness of alphabetic writing is that it must pretend that all the variation in pronunciation of the most open vowel, for example, does not exist. The letter *a* in *father*, for example, stands for three quite different vowels in Scotland alone: in many dialects of the highlands *father* rhymes with *bather* (the same vowel /e/ as in *day*), in the central belt with *gather* (the low front vowel /æ/ of *hat*), while in the lowlands *father* has a low back vowel, as it does in England and most other varieties of English around the world. For many practical purposes this is a strength: books and newspapers do not have to be printed in three different versions with separate spellings of *father* (such as *faythe*r for readers in the highlands and *faether* for the central belt). Nor do books have to be reprinted in new spelling as pronunciation changes: early modern English texts are still readable, despite the language sounding very different today from how it did in the late 16th and early 17th centuries.

For the purposes of scientific analysis, however, it is necessary to record these differences, so that they can be explained in terms both of how they originated and spread, and how the sound system of the dialect as a whole is structured. That was the impetus behind the development of phonetics, as we can see it taking place in Part One of this anthology. It was widely felt that the lack of a direct correspondence between English spelling and pronunciation was an obstacle to education, and the feeling grew with the

instituting of universal education in the second half of the 19th century. Education was meant to be a social leveller, and in Protestant countries, the Bible was meant to be read by all. But most children going to school spoke dialects very different from the standard language, and the gap was widened by the fact that even the standard language was not written phonetically in most countries, above all in the English-speaking world.

Another impetus came from the development of stenography, or shorthand, in particular with the experimental work of Sir Isaac Pitman (1813–1897), who published his system in 1837 (see Abercrombie 1937). Pitman's associate Alexander J. Ellis (born Alexander J. Sharpe, 1814–1890; see MacMahon 2004) was, like Pitman, motivated principally by educational concerns. Ellis also became a student of the physiology of sound, translating into English the work of the renowned German physicist Hermann von Helmholtz (1821–1894). Ellis's refined knowledge led him to develop a series of phonetic alphabets, with as many as 250 different symbols for variations in sounds. Along with Henry Sweet (1845–1912), Daniel Jones (1881–1967) and the French linguist Paul Passy (1859–1940), Ellis was one of the developers of the International Phonetic Alphabet over the last two decades of the 19th century. The IPA, the creation of which had been proposed by Otto Jespersen (1860–1943), has continued to be refined and modified, and it remains the standard system for phonetic transcription in linguistics and beyond.

In the first two decades of the 20th century, linguistics took a new, modern turn. On both sides of the Atlantic methods were developed for pushing the analysis of language beyond a reliance on "meaning" in the traditional sense, so as to concentrate instead on form and function.

For the German-born American anthropologist Franz Boas (1858–1942) the immediate problem was how to get the students he was training in the analysis of American Indian languages not to repeat the errors of earlier work in which linguistic structure was "obscured by the innumerable attempts to represent the grammars of Indian languages in a form

analogous to that of the European grammars" (Boas 1911: v). How then does one find the structure of a language in its own terms, rather than those of the analyst's language?

For the Swiss linguist Ferdinand de Saussure (1857–1913), it was about bringing to its logical conclusion the approach to historical reconstruction he had been pioneering since the late 1870s (see Joseph 2012). His theory was that a language is a self-contained system of, not sounds and meanings, but values. These values are generated by the differences between elements, the exact phonic and semantic substance of which is irrelevant: difference alone is what matters. This is the case with both parts of the linguistic sign, the signifier, which gets realised as sound, and the signified concept. Both are purely mental. So how does one identify these values-as-difference in a language?

The approaches developed by Boas and Saussure involved looking inside the language under study, and trying, insofar as possible, to separate form from meaning, analysing each into atomistic elements before reconstituting them into what Boas calls the "firm unit" that is the word (Boas 1911: 31). Boas notes that in some languages it is harder to determine where words begin and end. While those languages will be subjected to the same analytical method developed on the basis of languages with clearer boundaries, it is not with an expectation of finding the same types of elements in all languages.

Such an expectation was however developing by the 1920s among people who were reading Saussure (1916), a posthumous compilation of his lectures based on his and his students' notes, the distribution of which had been limited by World War I. The founding of the Linguistic Society of America in 1924 both reflected and furthered the sense that a new, modern science of language was opening up. Two of the prime movers in founding the LSA, Edward Sapir (1884–1939) and Leonard Bloomfield (1887–1949), each produced a programmatic article for the new association's journal,

Language, setting out the new methodology in his particular way. Sapir (1925) explains the concept of the phoneme, which had first attracted widespread attention in Saussure's work before being developed further by the Polish linguist Jan Baudouin de Courtenay (1845–1929) and his students Mikołaj Kruszewski (1851–1887) and Lev Shcherba (1880–1944) (see Radwanska-Williams in press). The term phoneme had not appeared in Boas (1911) or in Sapir (1921), but figures three times in Sapir (1925), where he explains it as follows:

> It is true that no two individuals have precisely the same pronunciation of a language, but it is equally true that they aim to make the same sound discriminations, so that, if the qualitative differences of the sounds that make up A's pattern from those that make up B's are perceptible to a minute analysis, the relations that obtain between the elements in the two patterns are the same. In other words, the patterns are the same pattern. A's *s*, for instance, may differ quite markedly from B's *s*, but if each individual keeps his *s* equally distinct from such points in the pattern as *th* (of *think*) and *sh* and if there is a one-to-one correspondence between the distribution of A's *s* and that of B's, then the difference of pronunciation is of little or no interest for the phonetic psychology of the language.
>
> (Sapir 1925: 41; this book, p. 139)

This is exactly the role the phoneme had played for Saussure: as an alternative to the belief that the future of linguistic analysis lay with ever-greater empirical investigation of phonetic detail, combined with deeper delving into the psychology of linguistic meaning.

Sapir was an anthropologist, trained by Boas. Bloomfield was originally a philologist specialising in Germanic languages, but extended the scope of his research to languages beyond the Indo-European family, including doing fieldwork on American Indian languages, where Boas (1911) was the principal guide. Like Sapir, he read Saussure (1916) and in later years

indicated that it had a significant impact on him (see Joseph 2002: 135–136). Through his psychologist colleague A. P. Weiss (1879–1939), Bloomfield, in the period between his 1914 and 1933 books, discovered and became a proponent of behaviourism, for which the great methodological obstacle to be overcome was the inability to observe directly the workings of another person's mind. This, behaviourists lamented, had led psychology toward a mode of speculation with strong popular appeal, particularly in its Freudian form, but beyond the pale of "scientific" method. For Bloomfield, a self-described "mechanist" and anti-"mentalist", a scientific treatment of meaning could only consist of identifying recurrent patterns of forms and how speakers of the language respond to them as stimuli.

The Boasian, Saussurean and behaviourist strands came together in an article in which Bloomfield laid out what he called the "postulational method", which "limits our statements to a defined terminology; in particular, it cuts us off from psychological dispute" (Bloomfield 1926: 153; this book, p. 175). What proved to be the article's most significant effect was its endorsement of the crucial importance of the phoneme. It goes beyond Sapir's article of the previous year to state baldly that "Such a thing as a 'small difference of sound' does not exist in a language" (ibid., p. 157; this book, p. 176). That is true to Saussure's concept of *langue* (the language system) where values depend on difference in signifying, regardless of phonetic detail, which belongs to *parole* (speech).

To determine what the phonemes of a given language are means therefore showing that if a particular unit is substituted for another, the words in which it occurs signify something different. Sapir's example *think* is phonetically [θĩŋk] in my pronunciation and in Standard English generally; if for the [θ] I substitute [s] or [z], the signified (to use Saussure's term) is no longer *think* but *sink* (or *sync*) and *zinc*. This is evidence that [θ], [s] and [z] are the realisations of three distinct phonemes—which, again, are not sounds, but values generated by difference. Conventionally these phonemes are symbolised as /θ/, /s/ and /z/, but their phonetic realisations

vary; in some varieties of Southern Irish English, for example, no distinction is made between /θ/ and /t/, so that *thinker* and *tinker* are both pronounced with initial [t^h]. Their different distributions mean that the status of these two phonemes differs between Standard English and Irish English.

In a similar way, the distribution of nasalised vowels such as [ĩ] in English is such that one cannot find "minimal pairs" where a change of signified is brought about simply by substituting [i] for [ĩ] or vice versa. Rather, [ĩ] is always found before a nasal consonant, and [i] is always found before a non-nasal consonant, which suggests that the vowel takes on the feature of nasality automatically, when the velum lowers in preparation for the following nasal consonant, without any impact on what is signified. Hence, although some languages have two distinct phonemes /i/ and /ĩ/ (Brazilian Portuguese, for example), English is reckoned to have a single phoneme /i/, with phonetic variants [i] and [ĩ].

The case of the [ŋ] in *think* is different. That English has two distinct phonemes /n/ and /ŋ/ is shown by minimal pairs such as *thin* [θĩn] and *thing* [θĩŋ], distinguished only by alveolar [n] and velar [ŋ]. However, the distinction cannot be made before a following velar consonant such as the [k] of *think*, since by the same sort of anticipatory phonetic process that nasalises /i/ to [ĩ] before a nasal consonant, an /n/ would be velarised to /ŋ/ before a following velar consonant. The distributional facts mean that, in this particular phonetic environment, only one of the two nasals can occur; and although how exactly the nasal phoneme is symbolised here should not matter, the word *think* is usually given the phonemic representation /θiŋk/.

In the 1930s the phoneme became the main theoretical playing field for linguists world-wide, and variants of the distributional method as pioneered by Saussure and Boas, and reformulated by Sapir and Bloomfield, became a core part of structural linguistics, not restricted to phonology but extended to every level of structure. The term "distribution" occurs

frequently in Bloomfield (1933), while "distributional" starts making significant appearances in linguistics in a 1934 article by Sapir's student Morris Swadesh (1909–1967), where the term "complementary distribution" is introduced for cases such as English [i] and [ĩ]. In the 1940s some of Bloomfield's students, notably George L. Trager (1906–1992) and Bernard Bloch (1907–1965), and in a less extreme form Zellig Harris (1909–1992), tried to push his behaviourist-inspired eschewal of meaning to its logical endpoint and develop an analysis that would eliminate it entirely, relying exclusively on the distribution of form. It was this more extreme version to which the term "distributional method" came to be applied, particularly as it was laid out in Harris (1951). Harris, who supervised the PhD dissertation of Noam Chomsky, had been Sapir's student before he was Bloomfield's, which may help to account for his moderate position vis-à-vis meaning.

In the 1950s Chomsky was also in close touch with the man most directly responsible for taking Saussure's linguistics forward and developing a general structuralist approach, Roman Jakobson (1896–1982; for a selection of his work, see Jakobson 1990). From 1926 to 1938 he and his principal collaborator, Prince Nikolai Trubetzkoy (1890–1938), took part in the work of the Prague Linguistic Circle, founded in 1926 by Vilém Mathesius (1882–1945). Trubetzkoy (whose most influential work is the posthumously published Trubetzkoy 1939) undertook to analyse in this way the sound systems of all the world's languages on which he could get adequate information, while Jakobson tried to reconceive the historical development of phonological systems in the light of Saussure's views, as well as drawing out their implications for the study of poetics. However, by 1930 it became clear that they could not stay with Saussurean orthodoxy in the analysis of sound systems. Their work suggested, contrary to what Saussure (1916) maintains, that the relationships holding among all elements of the linguistic system are not of precisely the same nature. Rather, the details of their production and reception as sounds demanded to be taken into account.

In many languages, Jakobson and Trubetzkoy noted, the distinction between pairs of consonants such as /t/ and /d/ is "neutralised" at the end of a syllable or word. This connects /t/ with /d/ in a different, closer relationship than either has to /f/ or /v/, for example; and to deny that this closer relationship is linked to their shared articulatory features seemed like blinding oneself to the obvious. Yet the Saussurean view is that the phonetic substance of /t/ and /d/ is inconsequential, and all that matters is the fact that they differ in some perceptible way. As the work of Trubetzkoy and Jakobson progressed, a new perspective developed. The correlation /t/–/d/ consists of a core of features common to the two sounds, plus a distinguishing element. They created the term "archiphoneme" for the core of features common to /t/ and /d/ (symbolised /T/). They could then specify that neutralisation is not simply a change of phonemes, but a realisation of the same archiphoneme, with the distinguishing element deleted in word-final position. Trubetzkoy suggested calling this extra distinguishing feature a "mark". When the distinction is neutralised it is always the simple, unmarked member of the opposition that appears. Because simplicity as here understood includes the physical processes of articulation and production, and the actual sounds produced and heard, this idea of "markedness" (as it would be termed by Chomsky & Halle 1968) undoes the key Saussurean tenet that language is form, not substance. Markedness would go on to be the principle underlying the development of Optimality Theory in phonology, and of most of the approaches which have followed in its wake, alongside so-called "substance-free" models which take a more purely Saussurean approach.

Modern linguistics has always seen disputes concerning how to deal with complex distributions, and over the psychological and phenomenological status of the phoneme and its equivalent at other levels. Although attacks by Chomsky in the 1960s sent into retreat the behaviourism that had lent force to the distributional method, especially as practiced by Bloomfieldians, the basic distributional approach—searching

for patterns among forms, then deducing what their functions are—continues to be fundamental to linguistic analysis in the 21st century. Indeed, the creation of massive on-line corpora and powerful search engines has increased its importance, after several decades in which theory was dominant and empirical investigation relegated to an illustrative role.

For this reason, Changliang Qu's *Selected Readings of Early Classics in Phonetics and Phonology* is appearing at a crucial time. No one can have a profound understanding of a science in its current form, or take it forward, without assessing where it stands within its historical trajectory. Such an understanding can be gained in part from synthetic textbook accounts, but really requires a first-hand familiarity with the original sources. Mastering the texts contained in this book will give readers the sure foundation for a mastery of the scientific study of language.

References

Abercrombie, D. (1937). *Isaac Pitman, a pioneer in the scientific study of language*. London: Pitman.[1]

Bloomfield, L. (1914). *An introduction to the study of language*. New York: Holt.

Bloomfield, L. (1926). A set of postulates for the science of language. *Language*, *2*(3), 153-164.

Bloomfield, L. (1933). *Language*. New York: Holt.

Boas, F. (1911). *Handbook of American Indian languages*, Part I.[2] Washington, D. C.: Government Printing Office.

Chomsky, N, & Halle, M. (1968). *The sound pattern of English*. New York: Harper & Row.

Harris, Z. S. (1951). *Methods in structural linguistics*. Chicago: University of Chicago Press.

Jakobson, R. (1990). *On language*. L. R. Waugh & M. Monville-Burston (Eds.).

1 Repr. with revisions in Abercrombie, *Studies in Phonetics and Linguistics*, London: Oxford University Press, 1965, 92-107.

2 Smithsonian Institution, Bureau of American Ethnology, Bulletin 40.

Cambridge, Mass.: Harvard University Press.

Joseph, J. E. (2002). *From Whitney to Chomsky: Essays in the history of American linguistics*. Amsterdam & Philadelphia: John Benjamins.

Joseph, J. E. (2012). *Saussure*. Oxford: Oxford University Press.

MacMahon, M. K. (2004). Ellis (formerly Sharpe), Alexander John (1814–1890), phonetician and mathematician. In H. C. G. Matthew & B. H. Harrison (Eds.), *Oxford dictionary of national biography, in association with the British academy: From the earliest times to the year 2000* (pp. 208–211). Oxford: Oxford University Press.

Radwanska-Williams, J. (In press). The Kazan School. In E. Dresher & H. van der Hulst (Eds.), *Oxford handbook of the history of phonology*. New York: Oxford University Press.

Sapir, E. (1921). *Language: An introduction to the study of speech*. New York: Harcourt, Brace & Co.

Sapir, E. (1925). Sound patterns in language. *Language, 1*(2), 37-51.

Saussure, F. de. (1916). *Cours de linguistique générale*. Lausanne & Paris: Payot.[3]

Swadesh, M. (1934). The phonemic principle. *Language, 10*(2), 117-129.

Trubetzkoy, N. S. (1939). *Grundzüge der Phonologie. Prague: Travaux du cercle linguistique de Prague, 7*.[4]

3 C. Bally & A. Sechehaye, with the collaboration of A. Riedlinger. 2nd ed. 1922; further eds. essentially unchanged. English trans., *Course in General Linguistics*, by Wade Baskin, New York: Philosophical Library, 1959 (preferable to the later retranslation by Roy Harris).

4 English version, *Principles of Phonology*. Trans. Christiane Baltaxe. Berkeley: University of California Press, 1969.

序

约翰·E. 约瑟夫
英国爱丁堡大学

获取关于某一事物、某一概念、某一活动、某一过程的真理时，有两件事情使科学有别于其他途径。第一件事情是认识论上的：有些东西值得我们知晓，但我们其实却并不知晓，承认这样的东西之存在，需要一种谦卑；科学必须站在无知的立场上写就；如果写的是我们已知晓或自以为已知晓的东西，就成了教育，或是成了宗教，而不是真正意义上的学术。

科学的第二个区别特征是方法论上的：即寻求途径来把我们欲知晓的东西分解为构成成分。下一步，则要求把所分析的对象重新组合成整体，以免陷入陷阱，忘记了原子成分只是分析时的假想，以为成分是真正独立存在的，反而把整体性降格为次要的东西，甚至贬低成了构建过程中的边缘性结果。

然而，我们会分析，会因渴望摆脱蒙昧而好奇，会对灌输给我们的东西表示怀疑，这些加在一起，就是科学的起跑点；科学可发挥作用的一切研究领域皆如此，世界各地皆如此。当然，其他认识论实践和方法论实践亦存在，亦有其地位和价值；但是把这些实践称为科学，恐怕至多只是一种隐喻。

公元前第四个千年的最后两个世纪，书写技术在世界各地以不同形式诞生了。这些书写形式有的是象形字，是其所表示事物的简化图。在西亚，另一种以语音为基础的书写形式发展了起来，起初是以波斯楔形文字书写的音节文字；随后是腓尼基的只写辅音的文字；再后来是希腊那种既写辅音也写元音的文字。这些系统代表了现存最早的“把语言视为语音”的科学分析，把词按其口头成分加以拆解。而“把语言视为语义”的科学分析，是中国甲骨文和埃及圣书字背后的原则，二者后来都发展出了语音的一面，用以书写专有名词；不过，“把语言视为语音”的分析，是演变为字母的书写形式背后的最重要原则 [“字母表”（alphabet）这个词就是第一个元音字母的名称 A（阿尔法）和第一个辅音字母的名称 B（贝塔）的合体]。

字母书写的缺点，是必须假装发音差异一概不存在，以开口度最大的元音为例，如 father 一词中的 a，仅在苏格兰就代表了三个十分不同的元音：高地地区的许多方言里，father 和 bather 押韵（同 day 中的 /e/）；在中部带状地区，father 和 gather 押韵（就是 hat 中的前低元音 /æ/）；而在低地地区，father 中的元音是后低元音，跟英格兰以及全世界其他大多数英语方言相同。从诸多实践目的来看，这是个优点：书报不必用三种不同拼写版本来写 father（不必为高地读者写成 faythe r，为中部读者写成 faether）。书籍也不必随着发音的变化而重印成新拼法，虽然今天的英语发音已经和 16 世纪末、17 世纪初很不一样，但是早期现代英语文本却仍然可以读懂。

然而，从科学分析的目的来看，这些差异是有必要记录下来的，这样才能够从其起源和传播对其加以解释，同时也从该方言语音系统之整体是如何构成的这一角度对其加以解释。这就是语音学发展背后的推动力，在这本选集的第一部分里，我们将看到这一推动力的出现。许多人都感觉到，英语拼写和发音之间缺乏直接对应关系是教育的障碍；这一想法伴随着 19 世纪后半叶全民教育的施行而增强。教育旨在成为一种社会平衡杠杆，在新教国家，《圣经》是供全体国民阅读的。可是，大多数上学的孩子说的各种方言与标准语相去甚远；不仅如此，在大多数国家，就连标准语也没有做到按语音书写，英语世界尤其如此。

语音学的另一推动力是速记学的发展，尤其以 1837 年出版其速记体系的艾萨克·皮特曼爵士（1813—1897）的实验之作为代表（见 Abercrombie 1937）。皮特曼的合作者亚历山大·J. 埃利斯（本名亚历山大·J. 夏普，1814—1890；见 MacMahon 2004）与皮特曼类似，主要也是因为对教育的关注而受到推动，他也开始学习语音生理学，把德国著名物理学家赫尔曼·冯·亥姆霍兹（1821—1894）的著作译成了英语。埃利斯细致的知识引领他设计出了一系列语音字母表，记录语音差异的各种符号有 250 种之多。19 世纪最后 20 年，埃利斯和亨利·斯威特（1845—1912）、丹尼尔·琼斯（1881—1967）以及法国语言学家保罗·巴西（1859—1940）一道，成为国际音标的设计者之一。国际音标这一由奥托·叶斯柏森（1860—1943）提议的发明，不断得到细化和修改，至今仍是语言学家以及其他人士进行语音转写的标准体系。

20 世纪的前 20 年，语言学开始了一种全新而现代的转向。大西洋两岸都出现了新的方法，推动语言分析超越传统意义上的“语义”，转而聚焦于形式和功能。