

A Linguistic View on the Teaching of English Spelling System

Shuso HORIE

言語学的見地から考える英語のスペリング体系の教育

堀 江 周 三

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grapheme-phoneme parallel approach 字素と音素を並列的に結びつける手法,
morphological alternation 形態音素の条件変化

The Relationships between Written and Spoken Language in English

The structural linguists in the 1920's and 1930's claimed that spoken language comes prior to written language, and other renowned linguists also took similar positions on this issue. For example, Ferdinand de Saussure, one of the most influential linguists in the early 1900's, said:

Language and writing are two distinct systems of signs; the second exists for the sole purpose of representing the first. The linguistic object is not both the written and the spoken forms of words; the spoken forms alone constitute the object.¹⁾

Those linguists, including the structural linguists, often used some version of the “symbols of symbols” view to discuss the relationships of the two forms of language. That is to say that spoken words are symbols of things or thought, and that written words are symbols of spoken words. A typical example of this sort of view was mentioned by Roman Jakobson as “written or printed symbols are symbols of symbols.”²⁾ However, this is not really true, because there are several cases in which the spoken language makes distinctions that written language does not, and conversely, the written language makes distinctions that the spoken language does not.

The former case, in which spoken language shows distinctions that written language does not, can be found in English words that have two or more distinctive pronunciations for each of them, so-called homographs, as in following examples:

“read” can be pronounced as either /ri:d/ or /rɛd/

“lead” can be pronounced as either /li:d/ or /lɛd/

In the latter case, in which written language shows distinctions that spoken language does not, are the relationships between the words which have the same pronunciation, so-called homophones, as in following examples:

“right, rite, wright, write” are pronounced as /raɪt/

“read, reed, Reid” are pronounced as /ri:d/

In the former case, the pronunciations disambiguate the spelling, and in the latter case, the spellings disambiguate

the pronunciations. It is also another good example of the latter case that English spelling distinguishes proper names by an initial capital letter. Thus, it is already clear at this point that the spoken and written language in English are partly independent without discussing further details of inconsistent relationships between spelling and pronunciation of words, although they clearly share a large core.

In all true writing systems, the units of written language are largely able to relate to the units of spoken language. In ideal writing systems, the units represented are phonemes in alphabetic writing systems, syllables in syllabic writing systems, or morphemes or words in morphemic or logographic writing systems. However, in real situations, all writing systems which have evolved naturally are mixed systems, although some systems come rather close to one of those types. Thus, even the Chinese writing system, which is well-known as a logographic writing system, has some symbols, though of course not many, that do not correspond to extralingual ideas but to some specific phone values.³⁾ On the other hand, the English writing system is basically alphabetic, but not entirely. That is, in English, spellings are not only related to phonemes, but also the sound units, and grammar. This makes learners of English feel that English spelling systems are very complicated and hard to learn, though they are highly organized. To solve this problem, it should be necessary for learners of English to know the functions of those abstract units, phonemes and morphemes, in the English spelling system.

The Relationships between Phonemes and Letters

A phoneme can be defined as a minimal distinctive sound unit in English. Its distinctiveness is defined by its ability to distinguish word meanings. Normally those phonemes are distinguished by slashes, for example, /p/ or /t/. We can know that they are phonemes of English by substituting them in the same context and then getting two distinctive meanings, for example;

/pɛn/ in the word "pen", and /tɛn/ in the word "ten"

The relationships between the phonemes, distinctive sound units, and letters, also called graphemes, are very complex, because they are not simply one-to-one or one-to-many relationships. In many cases, various single letters (graphemes) can be mapped into single phonemes. However, there are also letter clusters that operate as single units which correspond to individual phonemes in English. Thus, for example, a letter "c" corresponds to a phoneme /k/, as in "cup" or "bacon", or a phoneme /s/, as in "cellar" or "receive"; but the letter "c" in a letter cluster, like "tch" in "match", where the three letters together are pronounced as a single phoneme /tʃ/, can not be related to a phoneme independently. So if we try to relate letters to individual phonemes, technically it is called a grapheme-phoneme parallel approach. It is then necessary to conclude that there exist units which are higher than grapheme on graphic level, like "tch" and "ch" which correspond to individual phonemes. Thus, Robert A. Hall differentiates between single graphemes and those higher level units:

There are also certain combinations of consonant letters which function as single units and hence must be considered as compound graphemes; e.g. ch, gh, ph, rh, sh, th, ng, and again, all the double consonant letters such as bb, dd, etc.⁴⁾

However, even with this version, the grapheme-phoneme parallel approach can not be completed, because there are certain graphemes which function solely as markers, that is, that do not themselves enter into correspondences, but rather mark one of several possible correspondences for other graphemes or grapheme clusters. The final "e", for example, performs at least six different marking functions.⁵⁾ It indicates vowel correspondences, as in "mate" and "cute" (cf. "mat" and "cut"). It also marks consonant correspondences as in "trace", "change", and "bathe" (cf. "bath"), and reserves graphotactical patterns as in "have", "toe", and "glue".⁶⁾ Thus, the grapheme-phoneme

parallel approach, which is at the phonemic level, cannot define those functions.

Another problems of the grapheme-phoneme parallel approach comes from the fact that phonemes are language dependent, functionally defined units, while graphemes are not necessarily language dependent nor functionally defined units. That is to say, many communities use the Roman alphabet as their writing system, but their sound systems are variant. For example, the Anglo-Norman scribes reintroduced “q” into English orthography.⁷⁾ Yet this grapheme performed the same function as “k” which remained in the English writing system.⁸⁾

Thus, the grapheme-phoneme parallel approach, direct letter-sound standpoint, can never cover the whole English writing system.

The Relationships between Words and Morphemes, and Morphological Alternation

Since English spelling relates not only to phonemes but also to other linguistic levels, as above, it is necessary to know the function of another important linguistic unit, the morpheme, in the English writing system.

In written English, words are separated by the spaces and are called orthographic units. However, words are not the minimal meaning units of English. For example, the word “mean-ing-ful” can be further divided, as indicated by this hyphenation. “Mean” can occur on its own as a free morpheme; “-ing” also occurs as a morpheme, as in “eating”; and “-ful” occurs as a morpheme, as in “careful”.⁹⁾ But, unlike words, these units “morphemes” cannot be further divided into meaningful units, therefore, a morpheme is the minimal meaningful unit of English.

In spoken English, many morphemes occur in different forms, depending on their sound context. That is, there is morphological or morphophonemic alternation. Technically, those alternations of morphemes are called allomorphs. A good example of such alternation occurs in different alternations of the plural morpheme, which is most often represented in written English by “-s”. For example, “house + -s” is pronounced as /-ɪz/, “cat+ -s” is pronounced as /-s/, and “dog+ -s” is pronounced as /-z/. Thus, in spoken English, the plural morpheme has three main alternations or allomorphs, /ɪz/, /-s/, /-z/, as above. Those alternations do not occur at random, rather they are totally predictable.¹⁰⁾ The same rule of alternation also accounts for the allomorphs of genitive “-’s” (e.g. John’s), for the third person singular of regular verbs (e.g. says), and contractions (e.g. Tom’s for Tom is). So the rule takes into account both phonological and morphological context, and therefore it is a morphophonemic rule.¹¹⁾

From such facts, we can say that morphemes are abstract units, and can be regarded as a class or family of allomorphs or positional variants. On the contrary, allomorphs are recognized phonemes, that is to say, they are recognized as sound units of actual speech. Thus, an understanding of English spelling largely depends on an understanding of the concepts of phoneme, morpheme, and allomorph. In addition, an understanding of those linguistic concepts is very important to understand all other writing systems of languages.

The Linguistic Aspects of Writing Systems in Languages

In a true writing system, the symbols represent linguistic units, such as phonemes, syllables, morphemes, or words. A true writing system can be contrasted with a pictographic system where the symbols represent ideas and can be interpreted in various ways.

In an ideal alphabetic system, symbols (or alphabetic letters) represent phonemes. Although some writing systems approach a one-to-one grapheme-phoneme relationships quite closely, like Serbo-Croatian and Finnish, no natural languages maintain this relationship constantly.¹²⁾ That is to say, all alphabetic systems which have evolved naturally are mixed systems which involve compromises between grapheme-phoneme correspondence and the correspondence of graphemes to higher morphological and syntactic levels. The most commonly used alphabetic systems are based on the Roman alphabet. Other alphabetic systems are the Cyrillic alphabet, which is used for

Russian, and the Greek alphabet.¹³⁾

In a syllabic system, symbols represent syllables, ideally one symbol for each syllable. The Japanese syllabic writing system called “kana” maintains this relationship almost constantly. However, in Japanese, the syllabic system “kana” is usually used only as an auxiliary writing system, that is, only inflectional endings, particles, and derivational affixes are usually written out in “kana”. Syllables in Japanese have the structure “(C)+V+(N)”, that is, a vowel is preceded optionally by a consonant and followed by an optional nasal /n/. And no other syllable type exists, and this made it possible for Japanese to use the syllabic system almost constantly. On the contrary, English has so many possible syllable types, and as a result the syllabic system would require hundreds of symbols. In modern English, the spelling of “barbecue” as “Bar-B-Q” is about the only case in which the syllabic writing system is used.¹⁴⁾

In an ideal logographic system, symbols represent morphemes or words. The language which fits the concept of the logographic system most consistently is traditional Chinese. Also, there are various pure logograms in use in English like “\$, &, 123”. Thus, for example, when we read “123”, we have to go directly from the symbol to the word, one hundred twenty-three, that is, there is nothing in the written symbol which gives any information about the pronunciation. Also, various words in written English are distinguished only by differences in spelling, as in the case of homophones. In those cases, spellings give some indication of pronunciation, but the differences in spelling serve to keep semantically unrelated words visually distinct. Therefore, English spelling is partly lexical like logographic system.

Note

- 1) Ferdinand de Saussure. *Course in General Linguistics*. Ed. By Charles Bally and Albert Sechehaye. Trl. By Wade Baskin. McGraw-Hill, New York, 1966, p. 23-4.
- 2) Roman Jakobson. *Retrospect, Roman Jakobson: Selected Writing I*, Mouton, The Hague, 1962, p. 654.
- 3) Josef Vechev. *Written language*. Mouton, The Hague, 1973, p. 25-6.
- 4) Robert A. Hall, Jr. *Sound and Spelling in English*. Chilton, Philadelphia, 1961, p. 14.
- 5) Richard L. Venezky. *The Structure of English Orthography*. Mouton, The Hague, 1970, p. 48.
- 6) *Ibid.*, p. 48.
- 7) *Ibid.*, p. 49.
- 8) *Ibid.*, p. 49.
- 9) A free morpheme can occur independently, without a bound morpheme, but a bound morpheme must be attached to a free morpheme.
- 10) /-ɪz/ occurs after preceding affricate or sibilant
 /-s/ occurs after other preceding unvoiced sounds
 /-z/ occurs after other preceding voiced sounds
- 11) Morphophonemics deals with the phonemic aspect of the constitution of the morphemes of a language, and with the phonemic variations in morphemes appearing in different grammatical structure.
- 12) c.f. Vechev. *Op. cit.*, p. 21-2.
- 13) c.f. Bruce L. Pearson. *Introduction to Linguistic Concepts*. Alfred A. Knopf, New York, 1977, p. 278.
- 14) “B” is a sign for the syllable /bi/, and “Q” is used for /kju/.

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【要 約】

1920年代から30年代に活躍した構造言語学者たちは基本的に「書きことば」は単に「話しことば」を表現する記号にすぎないとの見方をしていた。しかしながら、同音異義語や同綴異音語の実例を考えるならば、この観点から書きことばについて考えることには問題があると言える。

理論的に言語の文字体系について考えるならば、それぞれの文字は音（音素）、音節、形態素または語に対応していなければいけないのであるが、現実には人間の言語の文字体系はそれらの言語学上の基本概念が絡み合って使われている。このことによって英語の学習者に英語の文字体系を教育する場合の問題点が存在するのである。

英語の文字体系を教育する場合の問題点について言語学的な面から具体的に考えてみると、英語の音素とアルファベット文字との関連付けは単に一对一または一对複数と捉えることはできない。また、単語を構成する特定の文字が他の文字の発音の仕方を示す記号的な役割しかしていないと考えざるを得ない場合もあるし、形態音素の概念でしか説明できない部分もある。そして、英語の文字体系は単にアルファベット文字に基づくだけであるとも言えない部分もある。

このようなことを考えていくと、英語の場合も例外ではなく、そのスペリング体系は複雑であり、英語学習者がその体系を客観的に理解するためには言語学の基本的な概念を理解した上で、その体系を言語学的な見地から総括的に学習する必要があると言える。