

WRITTEN LANGUAGE AND LITERACY

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The relation of writing to spoken language. Edited by Martin Neef,
Anneke Neijt, & Richard Sproat. Max Niemeyer Verlag: 2002, 210 pp.

Reviewed by Leonard Katz (Haskins Laboratories, New Haven, and
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The alphabet is one of mankind's more remarkable inventions, remarkable not only in that writing is of such immense importance culturally but also because the basic alphabetic principle itself — a letter for each phoneme — is not in the least intuitively obvious. Although we can easily count the number of words or syllables in an utterance, counting the number of phonemes *within* a syllable, i.e., consciously recognizing that a syllable contains segments, can be difficult even for literate people and often impossible for illiterate people. So unintuitive is it that the historical evidence suggests that the alphabet may have been invented only once, and even then, only because the languages it was applied to (early Semitic languages) had an unusual morphological structure that encouraged explicit segmental analysis.

What makes any given spoken language suited to an alphabetic writing system are factors like the amount of homophony in the language and the amount of phonological change for related morphological forms. If the typical

spoken word has many distinct meanings, not much is gained by conveying only sound in print; what is also needed is something to signal the distinctive meaning. Thus Mandarin, which has great homophony, does not employ an alphabet. Instead, the typical printed word has a component that signals the approximate pronunciation (there are a couple hundred of these) and another that signals the semantics. With regard to phonological change, in some languages root morphemes stay the same in different syntactic contexts (e.g., Finnish, Turkish). These languages, if they also have little homophony, are well suited to alphabetic writing; once the reader decodes the sound of the word, that is all that is needed to determine the writer's intended meaning.

English is a different story; it uses an alphabetic orthography but is not as particularly well-suited for it as Finnish. The related English words *magic* and *magician* demonstrate an instance in which the same letter, *c*, represents the two different phonemes. However, a Mandarin-style orthography would be even more unworkable for English because it has such a varied and complicated phonology. The demand on memory to learn a different printed sign for each of the thousands of English syllables would be prohibitive. In adjusting to these problems, English performs a balancing act. It often maintains letter-to-sound correspondences, on the one hand (i.e., spelling a word like it sounds) but, also often, abandons this practice to maintain the same spelling for morphologically related components (like *magic* — *magician*), in defiance of the alphabetic principle.

If one ranks alphabetic writing systems in terms of their strict adherence to the alphabetic principle, then English is clearly impure while Finnish and Turkish can be seen as paradigms of consistency. Other languages lie in between on the continuum; examples are: French (not-so-consistent), Danish, Dutch, German, Russian, Spanish and Serbo-Croatian (more-consistent). But if the alphabetic principle alone can not characterize spelling for a given language completely, the question is, what other principles are needed? Does a given orthography have a coherent rationalization in addition to the alphabetic principle? If it does, what are the remaining factors?

In the end, a language tends, as my colleague Ignatius Mattingly has said, to get the orthography it deserves, that is, an orthography that is efficient. But the definition of efficiency depends on where you are standing. Efficiency for the writer (who is converting sound into print) may not be efficiency for the reader (who is doing the opposite). Furthermore, skilled writers (or readers) face different problems than do beginners. The challenge, therefore, is to discover the

underlying structure that has evolved for a given writing system given the various, even competing, forces that have acted upon it.

It is this challenge that is taken up by the contributors to *Writing Language*, a volume that is the result of a workshop held at the Max Planck Institute for Psycholinguistics, Nijmegen, in the Netherlands, in 2002. The issues covered revolve around complications that are a function of the consistency of applying the alphabetic principle. Most researchers will find something of interest in the volume and the set of papers as a whole reflects a good deal of the range of studies in the field. Four languages are considered and, sometimes, contrasted: Dutch, English, German, and Hebrew.

Dutch and German, overall, are much more consistent than English both from spelling to pronunciation and from pronunciation to spelling but each has idiosyncratic issues of inconsistency. Hebrew is more complicated because the orthography used by the skilled reader omits much phonological information; some consonant phonemes are ambiguous (e.g., /b/ vs. /v/) and most vowels are not represented at all. It is somewhat analogous to writing-English as follows: *Cn y rd ths?*

In the first section of the volume, Richard Sproat argues that orthographies may fail to adhere completely to the alphabetic principle for any of three reasons: spelling is simply idiosyncratic (e.g., English), spelling is incomplete (e.g., Hebrew) or spelling represents a level of the language's phonology other than the phonological surface (e.g., Russian). It is for this third class of writing systems that Sproat proposes the idea that such orthographies have a single Orthographically Relevant Level (ORL) which determines spelling. For example, in the case of Russian, spelling is said to represent vowels before they are reduced (before their underlying distinctiveness is neutralized). The bulk of the paper is devoted to proving that Dutch also has an ORL, defined as a set of processes including Latinate nasal assimilation, lexical stress marking, and perseverative devoicing. Anneke Neijt challenges Sproat and offers evidence that Dutch spelling makes use of information from several different levels, even information that is developed from one level to another. She argues that morphology and phonemic information are both needed to account for Dutch spelling and, therefore, there is no single ORL. While some problems with Sproat's approach clearly exist, in the end, the reviewer has the feeling that this is an issue that will continue to be debated.

In the field of psycholinguistics, one major research area is concerned with discovering the mental processes that are involved in the recognition of a printed word — processes that take place, without awareness, within a brief third of

a second of time. Much of this research compares the reading process across different languages and, in order to make the comparison meaningful, some index is needed of the consistency with which a language's orthography holds to the alphabetic principle. A paper by Susanne Borgwaldt and Annette de Groot in the second section presents a new computer-aided method for indexing consistency. The method presented promises to be an improvement over previous cross-language techniques because of its greater generality. It is based on the body and rime information of a word, e.g., *pi-* and *-it* from the word *pit*. The novelty in Borgwaldt and De Groot's method is that it uses a precisely defined series of sliding windows (windows with overlapping letters) whose pronunciations are compared to pronunciations of similar windows for words in the total lexicon. The result is a single quantitative index of the whole word's spelling-to-sound regularity (e.g., consistency) compared to all words in the lexicon.

The task for the speller is the opposite of that for the reader. Dutch and Hebrew are very different languages, but to be a good speller in either language, one needs to know (implicitly or explicitly) how to use phonological and morphological cues. For example, when a final consonant is devoiced, the speller can try to use morphological information (the plural form, the root form, etc.) to get the spelling right. Dorit Ravid and Steven Gillis studied children's spelling errors and their teacher's command of the kinds of linguistic knowledge needed to rationalize spelling. They compared Dutch and Israeli populations. Dutch children did well when the correct spelling depended on knowing the phonological cues; Israeli children did well when morphological cues were helpful. However, their spelling success was not related to their teachers' knowledge of the appropriate linguistic rationales. The authors question the wisdom of teaching explicit spelling rules.

A third section is concerned with diacritics and punctuation. Papers by Vincent van Heuven, Jochen Geilfuss-Wolfgang, and Ursula Bredel treat, respectively, the usefulness of diaeresis in Dutch word recognition (it's not very), an analysis of hyphenation in German, and the use of the "dash" (*Gedankenstrich*) in German.

The final section treats a hoary and complex issue: sharpening in German. Vowel length/tenseness is usually signaled in the spelling by the presence or absence of consonant doubling (e.g., *Wall* vs. *Wal*) or a digraph (e.g., *Tier*) but problems abound, including underspecification, redundant specification and just-plain exceptions. Christina Noack presents a computer program that provides a rigorous test of her spelling rules, applied uniformly to the words in a large corpus. Martin Neef's paper gives a very detailed phonetic analysis

of sharpening along with an extensive discussion of the consistencies and inconsistencies of German spelling. The third paper in this section, by Thomas Lindauer, treats two phenomena: spelling for the final s-sound as well as for sharpening. His target language is Swiss German and his paper contrasts it with spelling in standard German.



Henry Rogers, *Writing systems: A linguistic approach*. (Blackwell textbooks in linguistics, 18.) Oxford: Blackwell, 2005. Pp. xvii, 322.

Reviewed by William Bright

In this volume, Rogers, of the University of Toronto, undertakes (quoting from the blurb) “to provide detailed coverage of all major writing systems of historical or structural significance with thorough discussion of structure, history, and social context as well as important theoretical issues.” Thus he enters into competition with reference works like Coulmas 1996, Daniels & Bright 1996, and the recent textbook of Coulmas 2003.

Chap. 1, “Introduction” (1–8) makes it clear that this book, like the other works mentioned above, deals primarily with GRAMMATOLOGY (although Rogers does not use the word) — the origin, typology, and structure of writing systems — rather than with sociolinguistic or psycholinguistic studies of LITERACY. There are no surprises here, but Rogers’ writing is exceptionally clear and graceful. This chapter, like the others, concludes with titles for further reading, a list of technical terms (defined in an appendix), and a set of exercises for the student; all these factors make this book the most pedagogically attractive of its type.

In Chap. 2, “Theoretical preliminaries” (9–19), the author mostly presents established wisdom. I have only two comments. First, he regards capital letters in English as an “allographic category” (11); but compare *Baker* ‘a surname’ with *baker* ‘one who bakes’. Second, in discussing MORaic writing systems such as Japanese kana, he defines the mora as “a phonological unit intermediate between a phoneme and a syllable”, and further as consisting “either of an onset-nucleus-sequence or the coda” (14; cf. also 276–77). This is satisfactory for Japanese, but certainly does not correspond very well to the way phonologists use the term, e.g. in Southern Paiute. Later in his book, Rogers applies the word “moraic” to writing systems as diverse as Devanagari, Cherokee, and Cree, where most people would use the term “syllabic”. His reference for mo-