

## Preface

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The ingredients of language are words and rules. Words in the sense of memorized links between sound and meaning; rules in the sense of operations that assemble the words into combinations whose meanings can be computed from the meanings of the words and the way they are arranged. (Steven Pinker, *Words and Rules*, 1999, p. 269)

Pinker's distinction between words and rules is a distinction between arbitrary lists, which must be memorized, and ruly patterns, which can lead to predictable results, thus reducing brute memorization. Pinker uses the distinction to discuss the differences between regular verbs, which are governed by the simple rule "Add the suffix *-ed* to show past tense," and irregular verbs, such as *sing* vs. *sang*, *bring* vs. *brought*, which must be memorized. But the distinction is powerful enough to help us better understand things other than regular and irregular verbs. It can, for instance, help us understand English spelling.

Of course, Pinker is mainly concerned with the spoken language, not the written. And there most surely are differences between how the human mind learns, on one hand, to speak and listen and, on the other, to write and read (and thus spell). Humans seem to be genetically predisposed to learn their native spoken language with much the same natural ease and relentless inevitability with which they learn to walk. But such is not true of learning their native written language. If learning to speak and listen is like learning to walk, learning to read and write (and spell) is like learning to dance. For learning to read and write is seldom easy and surely not inevitable. And yet, Pinker's distinction between words and rules can still help us discuss English spelling.

Pinker points out that although irregular verbs can not be made obedient to any large and all-encompassing rules, they are not utterly random and without pattern. They are shot through with strands of family resemblance that create small groups and patterns. And these smaller, more local patterns can relieve some of the burden on brute memory. For rules and patterns of any size represent unifying simplicities that can make learning easier. *Spelling for Learning* emphasizes those simplifying rules and patterns.

Words consist essentially of an arbitrarily agreed-upon connection between sound and meaning, and arbitrariness always makes heavy demands on memory. But this arbitrariness is not complete and total. As language grows and evolves, patterns emerge and develop, and the description of those patterns leads to recognized rules. For instance, though it is an essentially arbitrary relationship between the sound [kat] and the meaning "feline," the fact that we spell that sound and meaning <c>, <a>, <t> is considerably less arbitrary.<sup>1</sup> Rules and patterns are being followed, agreed-upon

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<sup>1</sup>For an explanation of the various brackets used here, see immediately below: "A Note on the Symbols Used."

expectations are being fulfilled to a degree that they would not be in spellings such as <kat> or <qat> or <caght> or <ckatt>. Those rules and patterns and expectations provide a motivation for the spelling <cat> that eases the arbitrariness and thus the demands made on one's memory. This motivation increases when we think of ruly inflected forms like *cats* and *catted*, or derived forms like *catty*, and compounds like *catfish*, all of which submit to a network of rules and subrules and expectations. *Spelling for Learning* presents many of those rules and subrules and patterns so as to increase the reader's sense of efficient motivation.

Those rules and patterns include the major and minor sound-to-spelling correspondences, generally called *phonics*. But I believe that we cannot get very far describing these correspondences without looking at the way words are constructed, at the procedures that help us maintain these correspondences when we form words, and at historical processes that have complicated the correspondences between sounds and their spellings. I believe that the debate over phonics, word-attack, and other approaches to teaching spelling can be resolved, or at least tempered, if we recognize a developmental sequence at work: There is clearly a phonetic (or phonic) stage that nearly all people go through as they first begin to learn to read and write, a stage they **must** go through. But just as most readers and writers must go through this stage, they must go **through** it. They can't spend the rest of their lives worrying about sound-and-spelling correspondences. So after they have been "phoneticized," as it were, they must then be "de-phoneticized," which means that they must begin to think of words as having a ruly structure of meaning-bearing parts.

Chapter one discusses the basic units of spelling: the letters and sounds of English. It also presents a careful distinction between vowels and consonants, both sounds and letters. Chapter two discusses the meaning-bearing parts of written words, here called *elements*—prefixes, bases, and suffixes. Chapter three discusses four of the procedures that are involved when these elements combine to form written words. The first, and most common, of these procedures is *simple addition*, in which elements simply add together with no changes, as in *unearthly*: un+earth+ly. The other three procedures all involve changes, either the insertion of a letter, as in *twinning* = twin+n+ing; or the deletion of a letter, as in *deletion* = delet~~e~~+ion; or the replacing of one letter with another, as in *dried* = dry+i+ed. Chapter four discusses three historical processes, which, though patterned and more or less predictable, do complicate the sound-to-spelling correspondences: (i) the assimilation of final consonants in many prefixes (as when the negative prefix *in-* changes to *il-* before <l>, as in *illegal* and *illegible*); (ii) the palatalization of certain sounds so that consonant letters that normally spell sounds regularly associated with them spell sounds pronounced further back in the mouth, against the palate, as, for instance, when the <t>, regularly associated with the sound [t], as in *native*, spells the sound [sh], as in the related word *nation*; and (iii) the shortening of certain vowels that we would expect to be long, as with the stressed vowel sounds spelled <e> in *competitor* (compare the long <e> in *compete*), *serenity* (compare *serene*), and *lemon* (compare *demon*).

The material presented in chapters one through four makes it possible for chapter five to treat in some detail the patterns and rules governing English sound-to-spelling correspondences. In this discussion the more ruly major correspondences are like Pinker's regular verbs, controlled by fairly large and reliable rules and patterns; the less ruly, sometimes quite idiosyncratic minor correspondences are like those items that must be memorized.

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**A Note on the Symbols Used.** In the main text words and elements are printed in italics with prefixes and suffixes marked with following or leading hyphens: *paint*, *re-*, *-ed*. The analyses of words into their elements are printed in serif typeface with boundaries between elements marked with plus signs: *re+paint+ed*. Letters and spellings are printed inside corner brackets: <b>, <bat>. Individual sounds and the pronunciations of words and elements are printed inside square brackets: [rē], [pānt], [id]. Inside square brackets syllable boundaries are marked with small hyphens. Vowels with primary stress are printed in boldface: [ə**·**buv], *above*; vowels with secondary stress are printed in grey bold: [diph**·**thong], *diphthong*. Definitions are printed inside double quotes. Sets of closely related elements are printed in italics inside curly braces: {*ceed*, *cess*} as in *succeed*, *success*. Deleted letters are marked with an overstruck slash mark: *æ*. A preceding asterisk indicates a spelling or analysis that is incorrect or anomalous: \*<deadder>. An asterisk following a word means that the word has a relevant variant pronunciation or spelling or both.

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The workbook contains exercises that offer the reader a chance to work interactively with the concepts and analyses presented in the chapters, which contain bold-faced cross-references that identify the relevant workbook exercises.