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ABSTRACT

Recent research has shown that spelling-to-sound correspondences in English are less irregular than has been thought in the past and that a large percentage of irregularities consists of irregularly spelled words which recur in various derived and compound words. In order to determine the degree to which irregularities occur in multiple-derived forms of single irregular base words, a study was made of the irregularly spelled words in the Southwest Regional Laboratory (SWRL) lexicon. It was found that 12 percent of the words in the edition and 21 percent of the words in a forthcoming edition can be classified as base words plus derived forms. In addition, 13 percent of the unsequenced words in the forthcoming lexicon can be so classified. (Three tables showing results are included.) (JM)

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IRREGULARLY-SPELLED BASE WORDS AND THEIR DERIVED FORMS

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ABSTRACT

While there are many irregular spelling-to-sound correspondences in English, a considerable number of them can be grouped in terms of base (e.g., to) plus derived forms (e.g., into, onto, unto), thus lessening the learning load. This is true of 12% of the irregularly-spelled words in Berdiansky et al. (1969) and of 21% of those in Berdiansky et al. (forthcoming). In addition, 13% of the unsequenced words in Berdiansky et al. (forthcoming) can be so classified. Tables list base words and their frequencies for these cases.

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IRREGULARLY-SPELLED BASE WORDS AND THEIR DERIVED FORMS

Critics and reformers of English orthography often point out the irregularities in English spelling-to-sound correspondences. Recent research, however, has indicated that English spelling is actually quite consistent (Venezky, 1970) and may even be "a near optimal system for the lexical representation of English words" (Chomsky & Halle, 1968, p. 49). In this paper, additional evidence will be presented that English spelling-to-sound correspondences are less irregular than sometimes thought.

In the project reported in Berdiansky, Cronnell, and Koehler (1969), it was found that 11% of the 6092 one- and two-syllable words studied were irregular, i.e., had at least one grapheme unit for which there was no applicable (listed) spelling-to-sound correspondence.¹ When all of the nearly 9000 Berdiansky et al. (1969) words were sequenced for instruction, it was found that 13% of the words were irregular (to be reported in Berdiansky, Stanton, & Cronnell, forthcoming; these words are listed in Volume II, Section III).

However, as pointed out by Berdiansky and Stanton (1970), many instances of irregular grapheme units have the same pronunciation as for regular correspondences. Thus, if readers have a set for diversity and can attempt more than one pronunciation of a word, they have a reasonable chance of producing and recognizing most words, even if irregularly spelled. In addition, Berdiansky and Stanton have grouped irregularities by common pronunciations, as an aid to learning. (Such groupings are employed, with modifications discussed therein, in Berdiansky et al., forthcoming, Volume II, Section III.)

There is another source of "regularity within irregularity": irregularly-spelled words which recur in various derived and compound words. This was noted by Burmeister (1969), who found that in the Hanna, Hanna, Hodges, and Rudorf (1966) lexicon, the correspondence $e \rightarrow [i] / _Ce\#$ held 67.4% of the time, but that 26% of the time $e \rightarrow [e] / _Ce\#$, where the consonant was r. However, this latter correspondence was found in only three base forms: ere, there, and where, which with their compounds (e.g., therefore, nowhere) made up this 26%. If these were to be counted as only three words, instead of 33, the "eCe#" rule would apply 87% of the time.

To determine the degree to which irregularities are found in multiple derived forms of single irregular base words, a study was made of the

¹Such irregular grapheme units were coded with a "40" and thus irregular words may be called "40 words," as well as "exceptions" or "irregularly-spelled words."

irregularly-spelled words in the SWRL (Berdiansky et al., 1969) lexicon. Only base forms found in at least two derived words were counted. The results are reported in Tables 1-3.

In Table 1 the coded one- and two-syllable words are listed from Berdiansky et al. (1969), arranged according to the irregular grapheme unit. It was found that 22 base words each with two or more derived forms account for nearly 13% of the irregularly-spelled words in that report. For example, among the exceptions for o (040) is to, plus into, onto, and unto; only the o in to is irregular, and learning that one word should provide for the easy learning of the three additional irregularly-spelled derived forms.

Table 2 lists words according to irregular grapheme unit from Berdiansky et al. (forthcoming, Volume II, Section III). It was found that 55 base words each with two or more derived forms account for 21% of the irregularly-spelled words sequenced for the FY-FoY Communication Skills program. If this relatively small set of irregular base forms can be learned--and many of them are frequent or common words--then their derived forms should easily be taught. For example, if shoe with the irregular oe is introduced, the following seven words can be added with no further irregularities: horseshoe, overshoe, shoehorn, shoelace, shoemaker, shoestring, and snowshoe.

In Volume II, Section V of Berdiansky et al. (forthcoming), there are 245 unsequenced words from the SWRL lexicon. Table 3 lists those words which occur each with two or more derived forms. There are eight such words, which with their derived forms account for 13% of the unsequenced words.

As can be seen, it is possible to group a considerable number of irregularly-spelled words in terms of common base forms. Such grouping establishes more "regularity within irregularity" and can provide a basis for the organization of words for instruction. In addition, for future revisions of the rules of correspondence, the tables suggest new rules which may be appropriate (e.g., o → [o] / __st, as in most and post, which with their derived forms exemplify the rule 15 times).

TABLE 1

Irregularly-spelled Words with Two or More Derived Forms Coded
in Berdiansky et al. (1969, Printout 3, Books 2-4)

| <u>Irregular grapheme unit</u> | <u>Base word</u> | <u>Number: base + derived forms</u> | <u>% of irregular occurrences of grapheme unit</u> |
|--------------------------------|--|--|--|
| A | ache al- ² | 4 } 5 } | 7 |
| AU | aunt | 3 | 38 |
| B | doubt | 3 | 75 |
| E | bye (also Y) | 3 | 3 |
| EA | great | 3 | 17 |
| EY | eye | 6 | 67 |
| I | wind (N) | 4 | 5 |
| IE | friend | 3 | 50 |
| O | clothe (also TH) do most move one post to who (also WH) | 3 } 3 } 5 } 4 } 3 } 5 } 4 } 3 } | 30 |
| OA | broad | 3 | 60 |
| OO | blood door | 3 } 7 } | 83 |
| S | use (N) | 4 | 6 |
| TH | clothe (also O) | 3 | 25 |

²The form al- is actually a prefix derived from the regular word all.

| <u>Irregular grapheme unit</u> | <u>Base word</u> | <u>Number: base + derived forms</u> | <u>% of irregular occurrences of grapheme unit</u> |
|--------------------------------|--|-------------------------------------|---|
| WH | who (also O) whole | 3 } 4 } | 100 |
| Y | bye (also E) | 3 | 19 |
| Totals | 94 grapheme units 85 words 22 different base words | | 12% of irregular grapheme units 13% of irregularly-spelled words |

TABLE 2

Irregularly-spelled Words with Two or More Derived Forms in
Berdiansky et al. (forthcoming, Volume II, Section III)

| <u>Irregular grapheme unit</u> | <u>Base word</u> | <u>Number: base + derived forms</u> |
|------------------------------------|------------------|---|
| A | ache | 5 |
| | al- ³ | 7 |
| | any | 9 |
| | father | 4 |
| | manage | 4 |
| | satisfy | 3 |
| | what | 3 |
| AU | aunt | 3 |
| | laugh | 3 |
| B | doubt | 4 |
| E | elevate | 3 |
| | England | 3 |
| | generate | 3 |
| | present (N, Aj) | 3 |
| | separate | 3 |
| | where | 6 |
| E, Y | bye | 3 |
| EA | break | 5 |
| | great | 4 |
| | heart | 4 |
| EA, U | beauty | 4 |
| EY | eye | 10 |
| | key | 3 |
| I | fashion | 3 |
| | prison | 3 |
| | vision | 3 |
| | wind (N) | 5 |
| IE | friend | 4 |

³The form al- is actually a prefix derived from the regular word all.

| <u>Irregular grapheme unit</u> | <u>Base word</u> | <u>Number: base + derived forms</u> |
|--------------------------------|-------------------------|---|
| NG | length | 3 |
| 0 | body | 5 |
| | do | 4 |
| | honest | 3 |
| | honor | 4 |
| | most | 4 |
| | move | 6 |
| | one | 5 |
| | operate | 3 |
| | post | 11 |
| | proper | 3 |
| | prove | 5 |
| | to | 4 |
| | woman | 3 |
| 0,TH | clothe | 4 |
| | clothes | 5 |
| 0,WH | who | 4 |
| OA | broad | 5 |
| OE | shoe | 8 |
| OO | blood | 5 |
| | door | 10 |
| S | sure | 3 |
| | use (N) | 4 |
| TH (see 0) | | |
| U | busy | 3 |
| | truth | 4 |
| (see also EA) | | |
| WH | whole | 4 |
| (see also 0) | | |
| X | exam | 3 |
| Y (see E) | | |
| Totals | 55 different base words | 242 words 21% of irregularly-spelled words |

TABLE 3

Unsequenced Words with Two or More Derived Forms in Berdiansky
et al. (forthcoming, Volume II, Section V)

| <u>Base word</u> | <u>Number: base + derived forms</u> |
|------------------------|---|
| educate | 4 |
| fortune | 6 |
| natural | 3 |
| ocean | 3 |
| patient | 5 |
| special | 5 |
| treasure | 3 |
| usual | 3 |
| Totals | 32 words 13% of unsequenced words |
| 8 different base words | |

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⁴The general content of Volume II, Section III of this report is also found in:

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- The content of Volume II, Section III of this report is also found in:
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