

# Spelling Progress Bulletin

Dedicated to finding the causes of difficulties in learning reading and spelling.

"A closed mind gathers no knowledge; an open mind is the key to progress."

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## The Quelling Fear of Word Learning by Dr. D. N. Everingham, M.P.

At least one Australian in ten is probably living under lifelong stress because of trouble coping with English words. This includes a wide scattering of people at all levels of intelligence.

This was discussed by Dr. McDonald Critchley, President of the World Federation of Neurology, in Sydney recently. Dr. Critchley wrote *The Dyslexic Child*, the leading medical book on this subject, published in 1970.

Because of urgent concern in Parents and Teachers, a new Australian group, called SPELD, has been set up mainly to cope with this problem.

Neurologists are doctors who specialize in nonsurgical treatment of physical rather than nervous disorders of the brain and nerves. They have become interested in a large group of those people whose learning is slow only where reading is concerned.

Dr. Critchley outlined the diagnosis to a near-capacity audience called by SPELD at Sydney Town Hall.

The handicapped person often has one or more near relatives with a similar problem. It is about 3

times commoner in males than in females. These facts point to an inborn cause playing a major part. Hence the terms "inborn word blindness" or "congenital dyslexia" have been invented. The family's experience may lead to a suspicion of the problem at the age of 5, but mostly it appears only when reading progress is obviously slowed - at the age of 7. The child is usually unable to tell clock time at age 6 when most of us can manage it.

Illogical spellings, based on 15th century pronunciation, are a particularly common fault of English, French, and Danish. The disorder shows up more frequently in those languages, and some affected English schoolboys have less trouble with Latin than with English as a result of this and perhaps depending on different teaching methods in the two subjects. Similarly, in Japanese the disorder can make learning harder for the syllabic or sound based script than for the ideographs or word-signs taken from Chinese.

Phonic or letter-sounding methods are easier than the whole-word teaching for these children as for most of us, but analytic or synthetic methods Dr. Critchley is sure are a hindrance with English. Clues to the condition are that the child is not strongly right- or left-handed or has crossed 'laterality'- that is, handedness, footedness and eyeness (using different tools kicking, peering thru small openings) may not be on the same side. They tend to be muddled about their right and left sides longer than normal people, write and read mirror letters like *b for d*, and *p for q* or even mix up all four of these, and mirror words like *saw and was*, or mix letter order and shapes (*b, r or m for n*, etc.)

Mild early results include: *excelling at Sports to mask painful schoolroom failures, clowning in class, aggressive behaviour, and 'bad' company*. If the father is ambitious and finds the problem painful there may be *undue clinging to the mother*.

The aims of treatment include:

1. *earlier recognition* - which reassures the child that he is not lazy, stupid or just naughty. This can lift an enormous load of feeling guilty, rejected or misunderstood.
2. *sympathy at home and school*.
3. *special teaching methods*.

Special ½-year teacher courses are now available in Britain. More are urgently needed. One teacher is required for each 1 to 4 pupils. The enormous increase in life efficiency justify the extra expense of this effort during the few years of learning to read and write. Special methods rely on using other senses than sight: solid letters, textured letters, "words in color," and other special equipment are used.

Dr. Douglas N. Everingham, M.P. Member for Capricornia met Dr. Critchley at the lecture and would be pleased to hear from parents and teachers willing to take part in a SPELD branch in Queensland. Dr. Everingham is a former vice-president of the Queensland Marriage Guidance Council and also of an organization for handicapped children. He is at present campaigning for official recognition of the advanced teaching methods of Mrs. E. D. Smelt and Prof. Paul Hanna of Stanford, Calif. for children and adults including those whose native tongue is not English.

Dr. Everingham has also persuaded His Excellency Emeritus Professor Sir Mark Oliphant, F.R.S., Governor, Designate of South Australia, and Sir Macfarlane Burnet, F.R.S., to sponsor the newly launched Spelling Action Society, which is promoting a graduated rational reform of English spelling.

[Spelling Reform Anthology §4.6 pp69-72]  
[Spelling Progress Bulletin Spring 1972 pp2-5]

## **The Story of Spelling Reform in Turkey, by Gertrude Hildreth\***

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The dramatic story of Turkish spelling reform, announced in the fall of 1928, made headlines around the world. Almost overnight the old Arabic system was abolished and the Turkish people were required to use a new westernized alphabet and rational spelling system. The abrupt spelling change-over was only one of the series of sweeping social, economic, and political reforms initiated by Mustapha Kemal Pasha, founder of the new Republic and its first president. Education was nationalized and made compulsory for children from seven to twelve, a Western-style legal system was adopted, Islamic influence was eliminated from the Constitution, women's rights were recognized, the international 24-hour day was introduced, the Gregorian calendar, the Western number series, and the Metric system were adopted. European-style dress, although not required, became the rule. Wearing the fez was prohibited. The new government launched a systematic campaign to advance knowledge and skills among all social classes. In the long run, the new alphabet made all other reforms possible thru improved communication.

The story of the Turkish alphabet reform in brief is as follows:

The President appointed a commission of language scholars who were directed to devise a new Roman-style alphabet by the end of the Summer, 1928, to replace the age-old Arabic calligraphy then in use for printing and writing. Fitting the Turkish sounds to Roman letters did not prove to be too complicated for the Commission, working under the vigorous leadership of the President. By September, it was ready to be presented to the legislature. Announcement of the change became the most important news of the day. Even before legal adoption on Nov. 1st, the new alphabet had come into use. All Arabic lettering was ordered removed, to be replaced by New Turkish street and shop signs, advertisements and bulletins, names on trams and trains. Even the railroad stations that yesterday were labeled in Arabic, were now lettered with the new alphabet. Names on Turkish steamships in the harbor were painted over with bold Roman letters.

Teaching the alphabet to everyone, young and old, began at once even tho there was at first a scarcity of materials in the new spelling. The Minister of Education took charge and ordered blackboards and chalk set up everywhere in public places for demonstrations: in coffee houses, on the sidewalks, in front of shops, wherever a crowd gathered. The President himself took a hand in teaching the new letters to his ministers and other high officials at his palace during the Summer. A local cinema theater flashed on the screen each week a short humorous story to educate audiences in the new alphabet.

The arrival, on short order, of high-powered printing presses from the United States, which were retooled for the new alphabet, speeded up the transition through volume production of printed matter. The opening of school in the Fall was delayed a few weeks to give teachers time to learn the new spelling system and to obtain textbooks printed in the new alphabet. The Grand National Assembly meeting in Ankara Nov. 1, 1928 set deadlines for the adoption of the new spelling system. Laws were passed forbidding the use of the old Turkish according to a calendar schedule. The use of the old writing was forbidden in newspapers and other periodicals after Dec. 1, 1928; in state documents after Jan. 1, 1929; in civil documents after June 1, 1929; other documents and business records after June 1, 1930. For adults a system of national school courses was set up beginning in January, 1929, one course of two months duration for those who were already literate

in old Turkish or other languages, another course lasting four months for the illiterates. Jan. 1, 1931 was the date set for the end of the transition period.

The alphabet change which came so swiftly was by no means an entirely new idea. In fact it had been proposed for about 75 years. The foreign element in the population may have exerted some influence in Latinizing Turkish spelling. Occasionally the advantages of the Roman Alphabet had been mentioned. Foreign writers: French, German, English, transliterated Turkish words and phrases in their own unique spelling systems. For instance, Pierre Loti (Louis Viaud) French novelist, writing in Constantinople fifty years before, sprinkled his exotic tales with Turkish words and expressions transliterated in his own French spelling.

Until 1928, Arabic print and writing were universal thruout the Moslem world. Religion gave sanctity to both the script and the vocabulary. Arabic script symbols had been fitted to the Turkish language after the tribes adopted Islam many centuries before. Thru the years an extensive vocabulary of Arabic words and phrases had been absorbed. All the literature available to literate Turks who lacked knowledge of Western languages was printed in Arabic, but many of the words in this literature were no longer heard in colloquial speech. The main source of literature for those who could read was the Koran. There were no children's story books containing fairy tales, fables, folklore, all modern stories - not even transliterations from the great reservoir of this material in European languages. Most certainly the times called for a change. As the President expressed it, "The Turkish language has been a prisoner for centuries and is now casting off its chains."

### **Reasons for Alphabet Reform**

The reasons for alphabet reform in Turkey seem self-evident, tho some are not so obvious. One argument was that the Arabic characters did not fit the sounds of Turkish adequately. Language experts declared that Turkish phonemes could be represented better with a series of modified Roman-style letters. However, there were no systematic experiments to test out this theory. It would be true if colloquial Turkish contained sounds not represented by Arabic characters. If Arabic was not a good fit, the alphabet could have been modified, but this idea would have been an acceptable to Moslems.

A more telling argument for reform was that Arabic calligraphy interfered with easy access to education because the system was too complex to be mastered easily. The President (sobriquet: Atatürk) was convinced that the continued use of Arabic characters for the Turkish people was an impediment to the spread of literacy. Twelve years were needed to learn to read and write to the level of functional literacy, according to some authorities. One schoolman who had supervised primary classes in his early years said that an entire year was spent on the mastery of the symbol-letters and syllables alone, before the children were introduced to a whole word, not even "kedi (cat). A teacher of Arabic-speaking children in the middle East observed that 7- and 8-year-olds needed long hours of outside coaching to catch on to the system. In the days before reform, the Arabic characters and orthography had not been simplified as they were later on.

Up to this time, literacy in Turkey had been the accomplishment of an élite, learned class. As a matter of fact, only 9% of the population at the time of the change-over was literate. The uneducated had to depend on professional scribes located in every quarter to write letters and interpret documents for them. Literate Turks were often bilingual or even polyglot, obtaining their information about government and international affairs from foreign language newspapers to be found at local newsstands or obtained by subscription. Among the leading young Turks were many who had been educated at Robert College on the Bosphorus, an institution chartered under the state of New York 50 years before, which gave instruction in English: and the American Girls' College, almost as old, that provided an English Language education for the Turkish young women.

With a Roman-style alphabet, a larger proportion of Turkish people could become familiar with Western publications printed in similar letters, and foreigners could more easily learn to interpret Turkish signs and notices.

The idea of Latinizing the Turkish alphabet may have come from Atatürk himself. He was born in Salonika, Greece, of Albanian descent. With his Greek background and as a well-educated person, familiar with French, he was in a good position to recognize the advantages of Roman-style print as a means of liquidating Turkish illiteracy. Within the Turkish borders there was not only a Greek minority who were familiar with their language in print, but a substantial Armenian population with a practical 38-letter Graeco-Roman-based alphabet that was said to be responsible for their universal literacy and prosperity.

### **Some Features of Arabic in Print**

Before dismissing printed Arabic as hopelessly archaic (after all, this language is read by millions of Muslims around the world), several facts about Arabic in script and print should be noted. The letter forms are derived from the flowing, cursive handwriting used in manuscripts of Holy Writ, the Koran. The lines move across the page from right to left, and books are read from "back to front" in contrast to the Western mode. The spelling system is phonetic as far as the consonants are concerned, with matching of a sound to each letter almost exclusively. There are no silent letters and no double letters except to make a break in pronunciation. This phonetic advantage is offset by several disadvantages from the standpoint of an ideal system. In print, the separate characters are often run together instead of being separated by small spaces as they are in English print. 28 symbols are listed as the basic alphabet in a modern Arabic dictionary, but there are different forms for the majority of the characters depending upon their position at the beginning, in the middle, or at the ends of words. The intermediate forms are a sort of shorthand of the basic forms. Only 9 of the letters have the same form in other than initial position.

In Arabic print the long vowel sounds and consonants are indicated, but the short vowels are omitted except where confusion might result. A system of 15 or more vowel points (diacritical marks) is used to indicate vowel sounds. One character is a vowel lengthener. The missing vowels create reading problems unless the reader is familiar with the structure and grammar of Arabic. Printing and typing Arabic is tedious and subject to error due to the numerous diacritic marks that must be added. When these are omitted, confusion and misunderstanding may result.

In printed Arabic there are many instances of joined letters that form ligatures standing for syllables. At least 130 of these are widely used in printing the language. Formerly children had to learn nearly 500 of these joined letter symbols to be able to read. Arabic spelling, unlike English and the new Turkish, is not completely standardized. Slightly different forms are used for the same word. Even people's names have different versions in print or writing.

### **Turkish Alphabet Reform as a Political Expedient**

There can be no question that in the last analysis, changing the alphabet was primarily a political move. Atatürk was determined to separate his government from Moslem rule and influence. He wanted to establish a strong Turkish nationalism oriented towards modern Western developments in science, philosophy, political thought, education and social advance, industry and business practices. To achieve this goal, it was necessary to rid the government of Moslem domination in thought, dress, living and education, and to overthrow the old Ottoman traditions that were holding back progress. Along with the alphabet reform, Turkish scholars were directed to eliminate all strictly Arabic words from the Turkish vocabulary whenever feasible. The rejection of other modern alphabets: Greek, Armenian, Russian or a simplified version of Arabic, support the theory of political motivation for reform.

People who are accustomed to resisting any form of tyranny over their personal lives may wonder whether there was any strong opposition to a change that upset their habits, e.g., writing from right to left. There was some grumbling in the Assembly on occasion when the President's back was turned; the work of the Commission was attacked on the ground that it was impious and contrary to Faith and morals to abandon the script of the Koran. A few argued as people sometimes do today that primary education should not be made too easy for the children. On the whole, people throughout the country were eager to learn the new system, and there was little opposition to this fundamental change.

### Features of the New Alphabet

Turkish is an inflected language with word endings that do the work of English pronouns, articles, propositions and verb auxiliaries. The language has several sounds not heard in English; and vice versa, not all English sounds occur in Turkish. For a rational system of fitting printed symbols to a spoken language, the one-to-one matching of graphemes to phonemes is required, with each alphabet character assigned to a single distinguishable sound of the language. To meet this criterion for Turkish, there had to be some adjustment and reassignment of the English 26-letter alphabet to fit the sounds of Turkish. The characters "q", "w", and "x" were omitted, an undotted "i" (ı) was added to represent the guttural "u", or sometimes the neutral vowel. The word *Topkapı*, popularised by the moving picture of that title, illustrates the use of the undotted i (ı). Since "c" was not needed either for the hard sound which was represented by "k" or for the soft sound (as in "city"), it could be used for "j" as in "jail," hence the letter "c" became "j." The letter "j" in turn was assigned as in French to the "zh" sound as in "measure." The "sh" and "ch" sounds were assigned to "s" and "ç" respectively, with cedilla added: ş, ç. The letters "u" and "o" with added diaeresis formed ü and ö for vowel sounds as in French "jus" and "oef."

Here are the resulting 29 characters of the Turkish Alphabet:

a b c ç d e f g ğ h ı i j k l m n o ö p r s ş t u ü v y z

Both lower case letters as shown here and capitals are used. The diacritic marks with the lower case letters are also found on the capitals.

In Turkish orthography there are no double or treble consonant groups as in English and no double letters to mark syllable division. The print and script are oriented across the page from left to right as with other major European languages. In Turkish, with a few exceptions, every letter in a word is pronounced and always pronounced the same. One exception is ğ which has no sound at all between certain vowels or may have the sound of "y" between certain vowels, and after some vowels before a following consonant. The long vowels are sometimes marked with the circumflex sign or with ğ before a following consonant, or they may not be marked at all. The circumflexed vowels are not included in the list of 29 alphabet letters because their use, though standardized, is not invariable. Other minor defects according to the criterion of one-to-one letter-matching are detailed in Turkish language text books. The fact is that no set of two or three dozen arbitrary letter symbols can represent all the sounds of words in any spoken world language.

Clues to the sounds of the letters in the Turkish alphabet and the simplicity of the spelling system can be gained from observing and pronouncing loan words from foreign languages which have been added to modern Turkish, all spelled phonetically with the alphabet. On my arrival in Istanbul in 1959 for a year's stay, I was billeted in the *Teras Otel* (the terrace was a bower on the roof) in the Beyazit quarter near the *Üniversitesi*. The main *şose* (avenue) led to the great walls. Just across the *street* from my *adres* was a *Kuafür* (say it in French), convenient for a shampoo. At the beginning of the school year, the *Dikan* gave a *koktelye* for the *Fakültesi*. President Eisenhower, on a visit to Ankara, was pictured in the papers delivering a *mesaj*. Here are other illustrations of loan words from European languages that illustrate the spelling system and the sounds of letters in Turkish:

büfe-buffet	lise-lycée	kampana-large bell
oto-auto	manto-coat	şerbert-sherbert
şik-chic	kolej-college	çaket-jacket
polis-police	vagon-carriage	jelatin-gelatine
dans-dance	balkon-balcony	Amerikan-American
blok-block	istasyon-station	hamak-hammock
gaz-gas	pasaj-passage	fotograf-photograph
şef-chef	bagaj-baggage	telefon-telephone

By this time the new American word, *zeroks* must surely have been added to the Turkish business vocabulary. Russian words stay the same in Turkish *palto*-overcoat, *dede*-grandfather, *samovar*. But few words of Slavic origin are to be found in the lexicon.

The schwa sign that linguists would like to see added to reformed English spelling, to represent the indistinct vowel in unaccented syllables, is indicated in Turkish spelling of English words with the letter "a."

Dialect differences in Turkish pronunciation were not considered in the new spelling scheme, and word origins were disregarded. Homophones, words with different spellings that are pronounced the same -- *sew-sow*, *read-reed*, *pear-pair-pare*, are not differentiated in Turkish. The meanings of these words can only be inferred from the sentence context.

The convenience of a consistent orthography can be observed in the ease with which school beginners learn to read and spell, providing they can speak the language clearly when they enter school. They experience little difficulty in learning to recognize printed words that are already in their oral vocabulary. Separate phonics and spelling drills are unnecessary. The letter-sounds are learned in pronouncing printed words. The ABC's are learned in parallel writing lessons employing words of the reading lesson. The modern manuscript (print) style handwriting taught to beginners facilitates this learning activity. Children who attend school regularly from age seven catch on to the reading technique within a few months. By midyear the more mature children help themselves to bright little picture-story books the teacher places on the table and they read independently. After 3 or 4 years typical pupils, even those from laboring class families, are accomplished readers. Boys of 9 read the sports section of the newspaper to younger children. Girls become absorbed in stories related to their interests. Children's libraries are located in all quarters of the larger cities. Adults who have learned both the new and old spelling systems note the distinct advantages of the alphabe for promoting literacy.

### **Gains in Literacy with the Adoption of the New Alphabe**

Following the official adoption of the new Turkish Alphabe and orthography, children and illiterates learned only the new system. Annual statistics showed large gains in literacy. Whereas, up to 1928, only about 9% of the total population were literate, far more men than women, by 1935, the over-all literacy rate was 20%, males 30%, females 10%. By 1940, literacy thruout the country was 22%; by 1960, 59% (women 43%, men 75%). These figures may not seem high compared with Western literacy rates, but the large gains with modernization are directly attributable to Turkish spelling reform.

One might ask, if the new Alphabe was such a boon to literacy, why are the figures not much higher compared with those of better developed nations? It is because there is so much more to achieving universal literacy than the character of the alphabet. Turkish data prove that literacy rates are directly proportional to primary school attendance of children ages 7 to 12. Even today, not over 60% of Turkish children in this age range attend school for as long as 4 or 5 years. Schools are still

lacking in sparsely settled rural and mountainous regions. The long prevailing attitude that girls have less need for formal schooling than boys persist throughout the Moslem world. The greater proportion of illiterates among women than men reflects the disproportion of the sexes involved in primary schools. In the cities, schooling is free and available to all, but school attendance is not enforced. Poorer class, uneducated parents depend upon children's earnings to help support the family.

### **Persistence of Arabic in the Turkish language**

The drive to eliminate Arabic words from the Turkish language was only partly successful. An inspection of a Turkish dictionary published in 1959 indicates that a number of words in common use are the same in Turkish and Arabic, or very similar in pronunciation and meaning. Among these are:

han-inn	çanta-hand bag	kervan-caravan
haman-bath	çami-mosque	kandil-small lamp
kitab-book	sabun-soap	inşallah-a greeting
çay-tea	Nisan-April	imam-religious leader
kaftan-cloak	çorba-soup	muezzin-who chants to
çuma-Friday	şehir-city	Call to Prayer
kahve-coffee	şark-East	araba-carriage

Greek-derived words that are the same in both Turkish and Arabic include: law (cannon), horizon, music, lantern.

The graceful Arabic calligraphy persists today throughout Turkey in imperishable tiles and mosaics on the walls of mosques, tombs, shrines, fountains, in commemorative tablets; engraved on silver, glass, pottery; in priceless collections of the Koran, and in gloriously beautiful rugs and tapestries.

### **Implications of Turkish spelling reform for the English language in print**

What can be learned from the history of Turkish spelling reform that is applicable to modernizing English spelling? The English-speaking world already has a Roman alphabet with a number of discrete, clear-cut letters to represent the sounds of the language even though the matching of characters to sounds is far from perfect. And unlike the situation in the new Turkish Republic, there is no political crisis that demands a radical shift to an entirely new alphabet and spelling system, with new typewriters, printer's type, textbooks, change in the direction of writing from right-to-left to the opposite.

The most impressive implication of Turkish spelling reform is the convenience and efficiency of a highly regular system of matching sounds in words to the letters on a one-to-one basis. English as spelled today, is about half and half phonetic and morphemic. The matching of letters to sounds on a one-sound-one symbol basis is negligible. There is no question that much learning time could be saved with a rational spelling of English. Hours of time now spent by schoolchildren on phonics, spelling rules, and tedious repetitive learning could be released for more enriching learning experiences.

Another lesson to be learned from the Turkish experience is that strong leadership in the central government seems essential for national spelling reform. Insuring the "Right to Learn" for every educable citizen, improvement of literacy rates, are important goals, but they require strong support from the government.

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[Spelling Reform Anthology §10.6 pp154-157]  
[Spelling Progress Bulletin Spring 1972 pp5-8]

### How to Learn to Spell by E. D. Smelt\*

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Herein is presented a new approach to the learning of spelling which has been developed out of research and experiment over some years. But before discussing this work, I would like to make some observations on the present attitudes towards the teaching and learning of this subject.

For far too long too much emphasis has been placed on learning the spelling of English words, and not enough attention has been given, as in foreign-language countries, to teaching children to know and understand their language so that they will *know how* to speak, write (spell) and read. This type of instruction is essential if children are to be adequately equipped to become confident and competent in using their language in all communication situations throughout life. Generally speaking, children of foreign-language countries do not have to learn the spelling of a limited number of selected words: instead, they are taught so that they *know how* to spell all the words of their language, and at the same time they are learning *how* to speak and *how* to read.

The present attitudes towards the teaching of spelling have come about largely because of our habit of regarding English as an irregular language.

However, the comprehensive program of research into the language which was completed during the 1960's by Prof. Paul Hanna, of Stanford Univ., California, and his fellow workers [1] has shown that, contrary to the popular opinion that English spelling is irregular, there is a considerable

amount of orderliness and regularity in the language. **Hanna's findings have shown that a radical change in the attitude towards the teaching and learning of the English language, including spelling, is now possible and should be made:** English, like other languages, can now be taught and learnt by a continuing study of the orderly relationship between sounds and letters in English words, as the first step towards mastery of the language.

Hanna has also stated that the teaching should proceed from the spoken to the written word. This is how foreign children begin to learn their own particular languages, with much more ease than English-speaking children. That this is the natural approach for the teaching and learning of all languages, including English, is obvious when one stops to think of the language ability which a child has when he arrives at school: he demonstrates that he can speak a complex language. The teaching, therefore, should lead him from this demonstrated ability towards the acquisition of new abilities, such as writing (spelling), and reading - he should be led to link the spoken to the written word, and not the reverse as is so commonly taught.

While a child may be expected to move naturally from speaking to writing, many beginner children find it impossibly difficult to learn spelling through traditional methods which require them to look at words and then to reproduce them (spell them) either by copying or remembering, without making use of their ability to speak. So they begin to fail, and probably will continue to fail.

In passing it should be remembered that a child's ability to speak will only be as good as the language environment from which he comes: he needs to be taught *how to speak*, and he should receive this teaching at the same time as he is being taught *how to write* (spell) and *how to read*. In fact, he needs to establish a foundation of *knowledge and understanding of his language*, and this can only come about through a complete instruction which links hearing, speaking, writing and reading.

Because the under-achievement of children in language work is most commonly related to their spelling and reading, a very important consideration is often overlooked, namely: while it is very easy to observe that under-achievers are poor spellers and readers, it is not always recognized that spelling and reading are only the outward and visible manifestations of a child's ability, or inability, to cope with the language; and many under-achievers cannot even think or comprehend efficiently. They are slow doers and thinkers in all fields of endeavour where words are used. They simply haven't got a grip on their language; and so they sit at the bottom of the class in most subjects, often unable to comprehend the language in which they are being instructed. Probably one-third to one-half of students (and adults) are disabled and inefficient to a large or small extent because of this problem.

When we look at the top of the class, we can generally observe good spellers and readers, and their results in other subjects demonstrate that, in contrast with the poor language achievers, they have the ability to cope with the thinking and comprehending that is required to achieve in all studies: they have a grip on their language.

### **Outline of a new approach to learning "How to Spell."**

I have been enquiring for some years into this most serious handicap of under-achievement in language work under which so many children and adults labour. Out of extensive research, reading and experimental work with under-achievers, I have developed a new approach to the learning of the language, an approach which is interesting and simple, and through which all students are able to achieve success. Instead of learning spelling and reading as separate studies, children are led from the beginning of school days through a study which links hearing, speaking, writing (spelling) and reading; and thus they come to *know how* to hear, speak, write and read all words. The missing link in most instruction is "speaking," despite the fact that speech is the original form of language

from which the other forms developed, and is the natural link in learning between hearing and writing (spelling).

The research and findings on which the new approach is based are along lines similar to, but not the same as, those followed by Hanna and his fellow-workers. The approach begins, therefore, from an acceptance of the considerable amount of orderliness in the relationship between sounds and symbols in English words, and goes on to establish a small number of generalisations, based on this orderly relationship, to cover most words in the language, in a general way.

I set out hereunder a bare outline of the approach, which is a whole, complete study, embracing all words, and is entitled:

***How to hear, speak, write (spell) and read words:***

An introduction to the English language.

First of all, words are divided into three groups:

1. Early English words which are regular and orderly in their spelling.
2. "Invasion" words which are irregular.
3. Latin-and Greek-derived words which are regular and orderly.

"Invasion" words are words which have invaded the English language from time to time during history; for, example, Old Norman words.

Each group is studied in turn, according to four basic principles. These have been set down as the basis on which can be built *a new attitude and habit* towards the study of the language (spelling and reading, if you wish).

*Basic Principles of the whole study.*

1. Words are made of sounds, and sounds are written (spelt) with letters.
2. Hear, say, write, read, each word.
3. Write one letter for each sound, unless a reason is known for writing an extra letter. (The reasons are studied).
4. Big words grow from little words. The whole of a little word must be in the big word when the big word has the same meaning as the little word.

Because these principles are basic to the whole study, I append a few notes on each.

*Principle 1. Words are made of sounds, and sounds are written (spelt) with letters.*

"Spelling" is simply writing letters for sounds, and "reading" is simply reading sounds for letters; and children need to be told these simple facts! Too many of them are far too busy "learning spelling" and "reading" to be aware of the simple truth underlying the whole of language study. They need to be taught to know which letters to write for the different sounds they hear and say, and which sounds to say for the letters they see. Then they will begin to *know how* to write (spell) and read.

Through working with and observing some hundreds of under-achievers, I have defined the basic cause of under-achievement as:

A lack of knowledge and *understanding* of the elements - the sounds and symbols of words - and of the orderly relationship that usually exists between sounds and symbols.

Therefore, it is essential that children be examined to discover whether they are failing primarily

because they do not know and understand these elements. Unfamiliar words, such as: **pun, apt, hob, beg, pip, grist, flan, slit, strut, fret**, etc., will show up weaknesses. The commonest weakness is an inability to discriminate between short vowel sounds; but other surprising weaknesses will also show up as the child hears, says, writes and reads simple but unfamiliar words. He may even be unable to put his pen to paper to write some of these simple words.

Weaknesses disclosed through this type of examination must be attended to before proceeding, because throughout the whole study the child will be guided to write letters for sounds and to read sounds for letters-because words are made of sounds, and sounds are written with letters'.

*Principle 2: Hear-say-write-read each word.*

We do not know which is the strongest, or the weakest, of the senses that an individual will use in learning a language. And even if some senses are more efficient than others, the use of all the senses reinforces the image received by each. Therefore a multisensory approach, such as that being outlined herein, might be expected to give everyone, whatever his sensory strengths or weaknesses, an opportunity of achieving. Jean Piaget's work on this aspect of learning is well-known, and important in the context of this study.

In the early stages, therefore, there needs to be an insistence on *hear-say-write-read* each word that is under study. A child can gradually begin to understand that he can write what he hears and says, and that he can read what he writes or sees written: - *he knows how* to do so.

*Principle 3. Write one letter for each sound, unless a reason is known for writing an extra letter.*

After leading a child, with regularly-spelt 3- or 4-letter words, to develop the habit of writing one letter for each sound, the reasons why some extra letters appear in some words are examined.

These extra letters fit into two patterns of letters for sounds which are established; and a knowledge *and understanding* of the patterns guides children - *to know how* to speak, write, and read the Early English words. The patterns also influence the writing of the Latin- and Greek-derived words, and to a certain extent the "invasion" words, all of which will be studied later. The letter patterns are:

*Long Vowel Pattern: Vowel-Consonant-Vowel (VCV) Hope Hoping Hopeful.* Silent e is put into a word only when there is no vowel sound to complete the Long Vowel Pattern, as in *Hope Hopeful*; it is not needed in *Hoping* where the pattern is completed by "writing one letter for each sound." (We don't "drop silent e," or "change y to i"; we write letters for sounds at all times.)

*Short Vowel Pattern: Vowel-Consonant-Consonant-Vowel (VCCV) Hopping Hunting.* It stands to reason, if one consonant indicates the Long Vowel Sound, more than one consonant is needed to indicate the different sound, the Short Vowel Sound. Therefore, when there is only one consonant *sound* after a short vowel sound, that consonant must be written doubled before a following vowel. (And that is the only circumstance in which a consonant is doubled - i.e., an extra letter is put in.)

The inclusion of Silent *e* and the doubling of a consonant are the only "extra letters" that are included in thousands of regular words; and the reasons for their inclusion (stated above) should be known *and understood* by all students.

The work beyond the establishment of the two patterns is mainly concerned with "sorting out jumbles of sounds" into letters which form words, in accordance with the patterns.

Students of all ages have reported, and adults have recollected, that much of what they have heard in class often "sounds like jumbles of sounds," instead of words imparting meaning and knowledge; and what they have seen in print often "looks like jumbles of letters."

This part of the work has been developed out of an awareness of what students need to know *and understand* about sounds and symbols.

*Principle 4. Big words grow from little words. The whole of a little word is in a big word, when the big word has the same meaning as the little word.*

This principle can be applied to the spelling and reading of all words, provided the two patterns (referred to above) are taken into account.

However, it is especially useful in studying the irregular words, which represent only a small percentage of the words in an average dictionary - at the most, about 10%.

Take the word grow, for example.

<i>Groing</i> does not spell <i>growing</i> )	The whole of the little
<i>Groth</i> does not spell <i>growth</i> )	word grow must be in these
<i>Groes</i> does not spell <i>grows</i> )	big words which have the meaning of <i>grow</i> .

The scope for work under this principle is almost infinite. Children are provided with "little words" and with a number of simple endings, and they are asked to make big words. They explore and discover, and widen their language experience considerably, because they will also *say* and *read* the words after they have written them. The teacher may discover that this rather simple task is not an easy one for some children. Why this is so needs to be examined in relation to each child.

#### **A typical lesson.**

The bare outline of a typical lesson is set out below. It assumes a knowledge *and understanding* of the basic principles, and of relationships between sounds and symbols which have been studied in earlier lessons.

The teacher begins by saying:

*The commonest way of writing the K-sound is with the letter C, as in cat, cot, cut, clap. (73% frequency - Hanna's figure.)*

The child is exercised (Principle 2) with a variety of words in which the K-sound is written with letter C. He is then invited to discover words (in books or newspapers) to support the teacher's statement. (Thus he explores and discovers the words of the language.)

In the course of this activity, he will probably find words such as *key kind smoky*; and gradually, by his own exploration and discovery, helped when necessary by the teacher, he will establish his own strategy for coping with the writing of the K-sound. Lessons which preceded this one will have provided him with useful information; if he does not make the observation himself, the teacher will lead him to understand that the K-sound should not be written with the letter C in front of *e, i* and *y* because, as he will have learnt, the letter C has the S-sound in front of *e, i* and *y* (as in *city cent icy*).

So the K-sound is written *k* when it will be followed by *e, i* or *y*; and *ck* is the doubled form of *K* which is written after a short vowel sound to conform to the Short Vowel Pattern: so *thinking, thicken; baking*.

(As stated, this is only a bare outline of one segment of the study. Most of the questions that might spring to the mind of the reader of this outline are answered, I believe, in the full text of the

segment.)

### *Latin- and Greek-derived words.*

Up to two-thirds of an average vocabulary may be Latin- and Greek-derived words, and the spelling of all of them is regular and orderly, being simply:

Prefix	+	root	+	suffix
re		port		
re		port		er
ex		port		
sup		port		
de		port		ed

However, there is a problem in writing (spelling) these words, and it is related to the manner in which the words are said. One syllable only (commonly, but not always, the root syllable) is stressed in these words, and each sound in the stressed syllable is (or should be) said and heard distinctly; and, again generally, we write one letter for each sound. The sounds in the unstressed syllable, especially the vowel sound, are not heard clearly and distinctly, and often there is doubt as to which letters to write for the indistinctly heard sounds in unstressed syllables, which are usually prefixes and suffixes.

A knowledge and understanding of the spelling and pronunciation of prefixes and suffixes is therefore essential; and a knowledge of the meanings of these affixes is desirable. Generalizations are established to guide students to *know how* to write and read affixes correctly.

### **Conclusion**

The foregoing sets out, in barest outline, *how* to lead English-speaking children to explore and discover the regularity that exists in words of their language so that they will *know how* to hear, speak, write (spell), read, think and comprehend, confidently and competently, throughout school and in the adult world in general. Foreign students of English find this an easy road to follow, because it is so like the one they followed to learn their own particular languages. All can achieve success when they study by this approach because, as many students have said, "It makes sense of the English language;" "often for the first time" is sometimes added to the previous statement by adult and foreign students. The approach has shown them how to establish a foundation of knowledge and understanding of the relationship between sounds and symbols, on which students themselves can build up confidence and competence in using English in all communication situations throughout life.

Finally, I strongly recommend that readers who have found something of interest in this article should read also an article by Dr. George Steiner, entitled, "The Language Animal," which appeared in the publication "Encounter," for August, 1969. [2]

Dr. Steiner's article is not about spelling or reading - probably neither of these words appears in the article. It is an interesting and important thesis about language and man, which leads one to realize that our children must be taught to know and understand their language (instead of "learning spelling" and "reading") so that they will *know how* to use it efficiently always.

### **Summary:**

In the light of recent research work on the words of the language, it is apparent that English, like other languages, can be taught and learnt from the simple understanding that foreign children have when they begin to learn their languages, namely:

words are made of sounds,

and sounds are written (spelt) with letters,  
in an orderly fashion.

By following a step-by-step study of the orderly relationship between sounds and letters, children will **KNOW HOW** to hear, speak, write (spell) and read all words.

The way in which we say words guides us to **KNOW HOW** to *write* (spell) most words; we *write letters /or sounds*, in an orderly manner.

Words are *written* in such a way that we **KNOW HOW** to *read* them; we *read sounds for letters*.

The whole study is primarily one of exploration and discovery of the orderly arrangement between sounds and letters - finding out which letters to write for sounds that are heard and said.

Much more could be said on the subject - and will be - if our readers show their interest.

[1] Hanna, Paul R. et al: *Phoneme-Grapheme Correspondence as Cues to Spelling Improvement*. OE-32008. Washington, D.C.: U.S. Dept. of Health, Education, and Welfare. 1966.

[2] "*Encounter*" is published monthly London, England. U.S. enquiries: British Publications Inc. New York.

#### **Editorial comment:**

We think the principles of your article could be more effective if used on Pitman's i.t.a. than on T.O. For example, how are you going to teach students to be able to recognize the sound differences between - mine, determine, marine? And how to know which letter combination to use in spelling: nation, occasion, occidental? The latter two have two different pronunciations of the cc and the following vowel, but how is the student to know? Then again, how to pronounce: have, behave, give, jive, energise, enunciate? Which en is a syllable and which not? Examples like these could be repeated by the dozens. Out of the 1000 commonest words, about 75% are non-phonetic and more than half are irregular. Yet these commonest words must be among those the student must learn to read early in his career.

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[Spelling Progress Bulletin Spring 1972 pp8,9]

### **Is: Improvement in Reading a Major Goal of Schools?, by Harvie Barnard\***

\* Tacoma, Wash.

We read such headlines and we hear this aim widely proclaimed thruout the educational profession. Television programs, radio and reading "specialists" have all joined in the march toward improvement in reading and the methods of teaching reading. The schools have installed various mechanical as well as electronic devices for helping slow readers and for aiding teachers of reading. Truly, some progress is being made. Yet, something seems to be lacking, and the deficiency is not a matter of teacher effort or competency. The "roadblock" to reading lies in something even more fundamental than the methods and quality of instruction.

Reading teachers, primary teachers, instructors of retarded and "slow" students will tell you that there is invariably a percentage who do not and can not learn to read The percentage varies from class to class and from teacher to teacher. As a matter of record some teachers usually have a

remarkably low percentage of non-readers (at the end of the second year), altho in some cases this rate may go up to 15% or occasionally more. But regardless of the individual differences as well as dissimilarities in methods, the profession is still plagued with non-readers, functional non-readers, slow readers, failures and eventual drop-outs.

The tragic consequences of these "failures" are certainly well known, but the sad side of the picture is that the basic causes, while well known to a few, have not been made known to the great majority. Some "authorities" and perhaps a scattering of teachers are still fumbling for and arguing the question of "What is reading?"

Some presumed authorities will stroke their beards and very solemnly state that "Reading is an extremely complex neurological psycho-mechanical function which no one, not even they (Ph D's and all), really understand."

While it may be very true that some PhD's do not have the answers, it is also true that the basic processes of reading are very well understood as a *practical* matter, and that thousands of primary teachers have done an amazingly successful job of teaching reading skills in spite of the road blocks which have served only to make their job more difficult.

What are these "road blocks" to reading, and what more can we do about them? The question is assiduously avoided- mainly because nearly everyone begins with the second question first, and administrators and teachers alike say, "Well, we'd like to do something about it, but we'd find too many obstructions to any progress, so we aren't going to stir up that which has settled down so nicely." So, it's simply an "easy out" to let a sleeping problem lie quietly, which is of course avoiding the question *and* the problem. And with that attitude, nothing will be done or attempted, and there can be no progress.

Fundamentally, there are only two roadblocks. They are: (1) an imperfect alphabet, and (2) a confusing and frequently undependable system of putting the alphabetical symbols together into what we casually call "words." If there is a third roadblock, (and there may well be), it is purely a mental one - that there can be no change, because that might upset the status quo, and of course no one who has already learned to read our Chinese symbol words would want that!

The unaccepted truth is that for the small children the sounds of their ABCs, as presently taught and "learned" do not agree, - or in many cases do not even relate, to these symbols as they are used in words. There is *so little consistency* between sounds and spelling, and this confusing and frustrating disagreement is probably the basic reason why so many pupils have serious reading problems.

What, if anything, are our educational "leaders" doing to correct or eliminate these basic obstacles to the teaching and learning of reading?

Is it possible that our administrators, superintendents, directors, professors of education, and others in authority are actually unaware of the basic causes of reading failures? Are our Ed. Doctors, Ph.D.'s, Heads of Institutes, and carriers of the "torch" completely uninformed as to the fundamental barriers to communication in the English language? Or are they afraid to buck the Status Quo?

Isn't it time to cease "deploring the situation" and to take action? The first step is to make the *decision to move*, to take positive action toward eliminating the confusing and frustrating inconsistencies of English spelling.

It is encouraging to note that a relatively few simple modifications could eliminate many of the "roadblocks" to making English an easily learned and understood language. No language is static, and all languages are subject to continual change and augmentation. We are adding and adapting

new words from foreign languages every year, and the children are often the first to accept and to use these changes. Only the "die-hards" and the "super-annuated" and those afflicted with "static status" find it difficult to adjust. Change is inevitable. Even the British are learning to accept "modern" improvements, such as the Metric System of weights and measures, the new (to them) Decimal Currency System, and in many schools the i.t.a. orthography.

As in the case of any major step of progress, "break- thru", or "flight to the moon," or change, occasional course corrections may be needed. A little "jet thrust" or even a rocket thrust may be required. Our ultimate objective or target should be obvious to all educators, - that of moving toward total literacy, better understanding, good communications, and for these **we need consistency and simplicity** in our language - both are fundamental to attaining these objectives.

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[Spelling Reform Anthology §13.1 pp181,182]

[Spelling Reform ed Newell Tune]

## Section 13

### Spelling and Literacy Problems

This section deals with problems caused by spelling in attempting to achieve literacy.

[Spelling Progress Bulletin Spring 1972 pp9,10]

#### **The Consequences of Serious Reading Problems, by Harvie Barnard**

For the Child, the School, and Society.

Inability to read at grade level becomes apparent to pupil and teacher sometime during the second grade, if not sooner. The child, tho not acutely aware of the deficiency, becomes uncomfortable, a little self-conscious, and in some cases may develop defensive or evasive mechanisms. For such pupils special aid is needed, additional teaching may help, and, if available, supplemental mechanical and electronic teaching aids might be truly beneficial. If a variety of teaching aids are not available to supplement normal teaching then the school principal and/or the school district may find it both desirable and necessary to invest in such audio-visual devices as the primary teacher or the reading specialist considers helpful. This added cost may not at this point be apparent, since a modest shifting of instructional funds may suffice.

A year or so later the effects of sub-grade reading become more acute for the poor reader. Loss of class status, loss of self-confidence, and fear of failure become apparent. Holding back the non-reader may be tried. Special classes may help. After school instruction could help. In general more work for all concerned seems indicated. A reading "specialist" may be employed and parents may be asked to give aid. In event of too many retentions, or special classes, or special teachers, the school district is going to be asked for more funds, altho inmost instances the impact is not apparent at this time because reading difficulties are frequently not recognized as such until the pupil has been floundering unhappily for two or more years, - often not until the 6th or 7th grade.

By the 4th or 5th grade, confusion and/or frustration symptoms are definitely apparent. Various failure syndromes are highly obvious and "behavior problems" have become established. Withdrawing tendencies are present and the child usually "hates" school. By now the non- readers must be held back, or skilled remedial reading instruction is a must. Psychologists may even be required to sort out the "unteachables" from those deemed able to respond to special teaching

efforts. The school district must at this point "do something" and do it effectively, including the hiring of additional specialized personnel and equipment. Costs of instruction per pupil are now mounting noticeably. The eyebrows of the Board of Education will probably elevate a trifle. But what will they do about it?

During the 6th or 7th grades the non-readers, or those reading two or three years below grade level, do not adequately comprehend the textbooks provided for those grades and have become functional failures, even tho district policy may require that such pupils be "passed" on to the next higher grade. The learning process has virtually stopped for most of these people. Most of them have "quit," and some have become "hard core" trouble makers. At this point a few may become aware of the situation and of these a few may be helped by "special ed" classes or some form of intensive re-teaching. But for the majority of non-readers, it could be too late to change the trend. By now the administration is well aware that a certain percentage of those going into Junior High are functional non-readers and cannot maintain acceptable standards. Special ed. classrooms must be provided or normal classes may be burdened or demoralized by the presence of "bad actors" or classroom "bums." Initial evidences of minor delinquency are apparent and weekend classroom damage may be costing the district some minor repairs and repainting.

During the Junior Highschool period the non-reader has a strong urge to "skip" school or drop out. The principals, and of course, all the teachers are well aware of this and in most cases the parents are equally cognizant, altho usually unable to correct the situation. School attendance laws are the only curb to dropping out at this point.

At the Junior High level, counselors for the deficient readers will be recommending vocational programs and/or further special teaching in order to keep these people in the schools. The administration, now fully aware of the expense of re-teaching, additional staffing and initiating vocational programs, are concerned with the problem of additional financing. The drop-out problem is very acute and its relation to juvenile delinquency is obvious. These young dropouts cannot secure jobs. They become a menace to the community.

The non-reader cannot survive in high school. He flounders hopelessly for a year or two and finally leaves. He is defeated and discouraged. Academically he feels a total failure. He leaves a poor to bad record in the high school files and will have trouble reentering any academic program, especially if he has been suspended or expelled. If not too seriously delinquent, he may enlist in some branch of the armed forces. Here again he is handicapped by reading problems. The applicant finds that he must read and execute forms, fill out applications, follow written instructions. Now, perhaps for the first time, he realizes the importance of reading - reading with comprehension and understanding.

If the unemployed dropout is unacceptable to the armed services or to a vocational school, he is now in a desperate situation - that of having delinquency virtually forced upon him. The need for companionship and some measure of support may result in a hasty marriage with all its responsibilities. Being unskilled and without a job, yet with parenthood staring him in the face, the need for income may now take a savage turn - toward criminality. He is pushed into a crucial choice - that of going "on relief," becoming a ward of the community, or, if pride prevents this, becoming a criminal "operator." In either case, he has now become a costly factor in our society, instead of a contributor to the economy. If imprisoned, the cost of maintaining him in a state or federally supported institution may run at least several thousands of dollars a year, continuing perhaps for many years. The cost of maintaining this same individual as a student (presumably living at home), would be on the order of \$900 a year.

There may be still a faint chance for a "recovery." If well counselled, and if the criminal attitude is

not too firmly established, the non-reader will have available another chance. If in the armed services, he will be encouraged, if not required, to enter the "G.E.D." program, General Educational Development. Here, under usually favorable circumstances, he will be exposed to review and "retreading" courses in everything from elementary reading to high school science. Sometimes miracles do happen in these Service schools. Young men who have felt defeated ever since entering school may now realize, perhaps for the first time, that they are "getting a break," getting a new chance. For they now know, thru bitter personal experience, that they *must* get at least a basic education if they are to earn an honest living. And the fundamental of all basics is learning to read, and this means reading with understanding, with true visualization of what they are "reading."

The core of rehabilitation in confinement situations is, or should be, education. For the competent reader this means learning a skill or a "trade." For the non-reader or functional non-reader, this means beginning school all over again. But there is no other solution. The person must, in substance, start a new life, not only as to a new viewpoint but also as to the fundamental learning processes. Here again, whether in the army guardhouse, or in penal confinement, or in total freedom, the first step in the rehabilitation process will be the basic foundation for all subsequent training and progress, learning to **read**, learning to **decode**, learning to **visualize** from symbols, **understand the meaning** of the printed or written word.

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[Spelling Progress Bulletin Spring 1972 pp10-16]

### **The History of Writing and Disputes about Reading, by Roger Brown\***

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Edited by N. W. Tune from Chp. II of *Words and Things*, The Free Press, 866 Third Ave, New York, N.Y. 10022.

The beginnings of speech are lost in pre-history but the alphabet is a historical invention. For this reason it is customary to say that speech is a more ancient form of language than is writing. This conclusion is not so certain if writing is understood to include the systems that preceded the alphabet. These systems were composed of characters that made direct reference to objects, persons, and events. The individual symbol had a semantic value rather than a phonetic value. There is no way of knowing whether speech is older than these reference-making characters, for while ancient inscriptions are sometimes preserved, speech is not. Curiously enough all this history and pre-history is quite intimately connected with a present-day dispute about the proper way to teach American children to read. It has been said that contemporary methods of teaching reading deprive children of the great advantages that first accrued to mankind with the invention of the alphabet.

It is generally agreed that the alphabet is a group of symbols representing sounds. A symbol cannot represent its meaning to someone who has no experience with the thing signified. The writer and his reader must see the same world in the same way. When man was creating writing he was probably living in a group resembling the simpler preliterate societies of today. Characteristically, these small primitive groups are very limited in geographic range, which means that these people, existing in mutual dependence, see the same flora and fauna and the same caves, storms, and stars. Furthermore, it is characteristic of such a society to be relatively lacking in social differentiation. Therefore their needs were satisfied by simpler pictographic means of conveying ideas. Quite naturally, there are many ancient pictograms that we cannot decipher today on sight. When we don't have the referent category, a symbol cannot represent it to us. As the early societies expanded and differentiated there must have been increasing numbers of people who were in this same position with respect to many of the symbols of their society. Included in the Egyptian hieroglyphics are

pictures of religious ceremonies that probably could not be understood by any but the priestly class familiar with the rites pictured. The word *hieroglyphic* means, of course, sacred writings. Some of the ancient pictograms of animals may have had meaning only for hunters, while pictograms of special tools may not have been decipherable to any but the professional users of the tools. As the ancient societies became increasingly complex it must have been increasingly difficult to employ symbols that represented their meanings to everyone.

The ideogram is not a very satisfactory device for symbolizing abstract ideas that cannot be pictured. One cannot draw haste or peace or life or death or soul. For soul the Egyptian drew a bird with the head of a man. Presumably the bird is suggestive of flight and the human head makes this flight non-avian. Now that we know its translation, this drawing seems apt but it is unlikely that we should have hit upon the translation without help. Homogeneity of experience should make for common mental associations, and so it may be true that the ideograms were more easily understood in the past than they are to-day. Probably, however, there was less certainty about these representations of abstract ideas than about the concrete pictograms.

The expanding size and complexity of ancient societies and the expanding repertory of abstract ideas must have limited the usefulness of representational writings. We may guess that the communication economy involved in a clearly recognizable picture was not very great in the ancient Oriental writings-Sumerian, Egyptian, Hittite, and Chinese. There was a clear tendency for some symbols to become increasingly schematic and unlike their referents. It is believed that the letters of the Roman alphabet are such "fallen away" representations. Details tended to disappear or, if they survived, to be "sharpened" The drawing of a bird might lose all detail until there was only a single curve, retained and simplified from the original curve of the wing. This end product would appear to be a perfectly arbitrary designation for a bird. The fact that this schematization process was tolerated implies that the ancient societies did not rely on the representation being immediately recognized. Probably the characters had to be learned as conventional designators. The business of learning to write must have been onerous. There could be as many characters as there were ideas and all these had to be learned by rote. A new economy was needed to replace the waning economy of representation. The new economy that developed involved relating writing to speech.

*The Phonetic Principle.* Nothing direct or certain is known about the origins of speech. Since writing began as representation there are many who believe that our other methods of communication must have started in the same way. Gesture may have begun as the imitation of non-muscular movement, position, and contour. The sign languages we know, those of the Plains Indians, the Trappist monks, and Australian aborigines, include many recognizable imitations. Our first utterances may have mimicked non-vocal sounds. If these referents were familiar within a community, the onomatopoeic vocalization, could have been easily understood. As we shall see in a later chapter, there are some representational words in present day languages, but there is no evidence that they were the beginning of all speech. However, if we must have some myth about the origins of communication, I will imagine that primitive man began by representing the world with all his muscles - gesturing, speaking, and drawing. Only the drawings survive.

If an individual has a certain number of ideas to communicate by speech, there are several methods he might use. Each idea could be linked with a distinctive sound. The linkages could be arbitrary or representational. Alternatively the number of sounds could be combined so that each idea would be designated by a unique combination. It would even be possible to use a single sound and repeat the sound a unique number of times for each idea. With a large number of ideas, this last system would soon become unwieldy. At the other extreme it would not be possible to find representational sounds for most ideas. Even the requirement of an arbitrary sound for each idea would soon involve us with sounds difficult to discriminate from one another. The earliest speech we know, and indeed all known speech, avoids the two extreme procedures. There is always a number of elementary

speech sounds fewer than the number of ideas to be expressed. The elementary sounds are combined in sequences of varying length to designate ideas.

Writing first became dependent on speech for the sequential arrangement of its characters. With the earliest pictograms and ideograms the symbol sequence often reproduces the chronology of the referent events. If a hunter fasted, and then gathered his weapons, and then killed a bison, these events would be pictured in that order. At a later time the characters followed the sequence in which the ideas conceived would be expressed in speech. When this is true, Gelb [7] calls the characters logograms to indicate that they stand for words more directly than for things or ideas. The logogram, however, is still a semantic character, and the great advantage of alphabetic writing is the fact that the elementary characters are phonetic rather than semantic.

The kind of change that introduced the phonetic principle into orthography may be illustrated with a story from Gelb's discussion of Sumerian. The Sumerians used the word *ti* for *life* but had no written sign for this idea. It is a difficult idea to represent. As it happened, the spoken form *ti* had two meanings in Sumerian. *Ti* was a homophone meaning *arrow* as well as *life*. The arrow is easily represented as in →. At some point it occurred to the Sumerians to use this same sign →. to designate *life*. This is a shift to the phonetic principle in writing. The written character is now invariant with respect to sound but variant in meaning. It is as if the character ✱ were used to stand for the English word *son* as well as for *sun*. The written form is generalized along a dimension of sound rather than meaning and so becomes derivative from speech. In this process of phonetic extension the character altogether loses its representational value.

The phonetic characters were only very gradually introduced into the ancient writings. The pictograms, ideograms, and logograms survived along with the newer phonetic forms. There was no abrupt revolution. However the direction of change was from the semantic to the phonetic character. Among phonetic writings, syllabaries sometimes came before alphabets. The syllable, coinciding as it does with the breath pulse, may have a kind of perceptual salience that makes it the "natural" phonetic unit of speech. The vowels and consonants, however, are a much smaller set of speech elements and this makes for a simpler writing. Eventually they were separated out and coordinated with written characters to make an alphabet.

The great economy of phonetic writing can be understood if we recall that everyone learns to speak before learning to write. Speech is always composed of a limited set of elementary sound classes (vowels and consonants). Meaningful units of speech are sequences of the elementary sounds. In learning to speak one learns the unique vocal combination for each referent. Quite certainly one does not consciously analyze these sequences but learns each one as a complete whole. This learning of semantic rules is not at all nonsense learning, even though there are many semantic features. With full allowance for these, however, the learning task remains immense. If now the written form of this language were to employ a distinct character for each idea, attaining literacy would require a second great learning period. There would be a complete new set of semantic rules to be grasped; a set independent of those involved in speech. If, however, a written character is assigned to *each of the elements of speech*, the individual who has learned to speak *can learn to spell by memorizing a simple alphabet* and learning to *analyze familiar phonetic combinations into their elements*. When he can substitute letters for sound elements, he will be able to spell. The combinational problems having been solved for speech, they will automatically be solved for phonetic writing. Everyone who has learned to speak - and that is very nearly everyone - can *now easily learn to read and write and spell*.

The result of our reasoning seems to be obviously untrue - at least for us. For English speaking children do not learn to read and write in *a few easy hours*. Spelling is so complex a skill that only the athletes of literacy who train to win spelling bees become really proficient. All of this is because

English orthography (like French but unlike Italian or Spanish) has fallen away from an early congruous state. George Bernard Shaw was always extremely angry about English spelling. In a preface to R.A. Wilson's *Miraculous Birth of Language* [18] he set forth his views:

Professor Wilson has shewn that it was as a reading and writing animal that Man achieved his human eminence above those who are called beasts. Well, it is I and my like who have to do the writing. I have done it professionally for the last 60 years as well as it can be done with a hopelessly inadequate alphabet devised centuries before the English language existed, to record another and very different language. Even this alphabet is reduced to absurdity by a foolish orthography based on the notion that the business of spelling is to represent the origin and history of a word instead of its sound and meaning. Thus an intelligent child who is bidden to spell debt, and very properly spells it d-e-t, is caned for not spelling it with a b because Julius Caesar spelt the Latin word for it with a b.

In the history of the English language, spelling has changed less rapidly than speech. Many of the spellings of Middle and Old English are preserved in the living language although the pronunciations of the words have changed drastically. In France the natural inertia of spelling has been reinforced by the efforts of the French Academy to maintain "the perfect language" in the state of perfection it attained some centuries ago. Some of the non-phonetic aspects of our own writing are the contributions from French. Others are from pedantic scribes who were interested in displaying their pretended knowledge of etymology. As a consequence of all these factors, we have in English a writing system with so many inconsistencies that we do not have the full advantage (indeed very little advantage) of a phonetic orthography.

*Methods of learning to read.* Imagine that you are teaching the primary grades in America and you will find even more cause than Shaw had to be angry about our writing system. Your pupils are first graders, varying somewhat in mental age but probably averaging six years. They have been speaking English for about four years. According to Smith [16], they are likely to have well over 10,000 words in their aural recognition vocabularies. You must teach them to read and then to spell. If our writing were consistently phonetic, you could simply teach them the letters of the alphabet corresponding to each sound, give them a little practice in analyzing words into sound elements, and they would soon have reading vocabularies as large as their speaking vocabularies. Their 10,000+ words could be read with comprehension, or at any rate with all the comprehension attached to the spoken words. The child would spell out each new word, recognize the result as one of his 10,000 familiar speech forms and understands the written version as he understands its spoken equivalent. The fact is now, however, things are not so easy, and this is clearly illustrated by the letter A. The name of that letter is *ay*. This is sometimes the sound of the letter in an actual word (as in *ape* or *ate*) but the letter is more often pronounced (as it is in *at* or *and*) as a short vowel. Which of these phonetic values should you teach? and when? Even if you teach both there are horrible errors to be anticipated when your pupil finds A in *boat*, *peak*, and *beauty*. As for B, the name of the letter (*bee*) begins with the most common phonetic value of the letter but also includes a vowel that is not ordinarily associated with that letter (as it is not in *bat*, *bet*, *bill*, *bottle*, or *but*). Then, when should you tell your children about *doubt* and *debt* in which B has no sound? Some letters have names which do not even contain the sound most commonly associated with the letter. The sound of H is usually that heard in *he*, but that sound is not contained in *aitch*, the name of the letter. Neither is the sound of W in *double-you*. The names of letters in the English alphabet are never the same as the sound most commonly associated with the letters and, furthermore, for most letters there is more than one common sound value. *The English alphabet is so inconsistent in its phonetic values that it might be a good idea to teach the system as if it were not phonetic at all.*

Phonetic training with the alphabet seems to work very well in European countries. In Germany and Italy children are said to become literate in their first two years of schooling. The spelling bee is not

a popular contest in these countries for the reason that nearly everyone can spell most words. After World War II, the American occupation forces in Germany tried to introduce the spelling bee as a part of the democratization program but they failed because of the uniformly high level of spelling prowess.

Lessons in the phonetic values of letters works very well in Europe, but probably that is because the languages involved have more consistently phonetic spellings than has English. A method well adapted to Italian is not necessarily well adapted to English. To be sure, reading has been taught by this method in America and England but the results in spelling accuracy and reading skills are not dazzling. It may be that there is a better method to use with English.

*Look-and-Say.* About 40 years ago the majority of American teachers decided there was a better method and they gave up or minimized the older alphabetic and phonetic methods. The new technique was called the look-and-say method. The fundamental idea is to treat each word as a unique visual pattern, rather as if our writing system were semantic with a different form for every meaning. The fact that these forms are constructed of a small set of recurrent letters is not stressed because the sound values of the letters are not constant (reliable). Writing is put in direct contact with meaning and its relation to speech is not taught because that relation has grown too ambiguous to be useful. Training begins with the short common words that the first grade child has long had in his speaking vocabulary. Characteristically each word is mounted on a card with a picture of the object named. The teacher flashes the card, pronounces the name repeatedly and calls attention to the picture. *Vocabulary necessarily builds up slowly* since each word-referent association must be independently memorized. However, it is customary to begin with the words most frequently seen in printed English. From such a list of common serviceable words, simple stories have been composed which a child can read while his vocabulary is small.

The look-and-say method has often been described as a scientific method founded on psychological research as the old-fashioned phonetic methods were not. Perhaps the most often cited experiments are those done by Cattell [2] in 1885. He showed by two lines of evidence that a familiar word is read as a whole rather than by spelling out its letters. In reaction time experiments, the response of naming a short word is very nearly as quick as that of naming a single letter. This suggests that word recognition is a unitary act very much like letter recognition. Cattell also showed, using the gravity chronometer for quick exposures, that the time required to read letters that do not make words is about twice the time required to read letters that do make words. This result also suggests that the word is recognized as a whole pattern rather than as a combination of letters. Javal [10] found in 1878 that an adult reader's eyes do not move steadily along a line, passing from letter to letter, but rather move saccadically, i.e., in a series of jumps. Erdmann and Dodge [5] demonstrated that the fixation pauses are the times of effective exposure in reading. Evidently the adult reader recognizes a number of word shapes in a single glance. If this is the method of the accomplished reader, why train the novice to analyze words into letters?

These researchers suggested to educators that adult reading techniques might be used from the start. The look-and-say method also found justification in theoretical psychology. After the First World War, Gestalt psychology began to influence American work. The Gestalt point of view, developed by Max Wertheimer and his students Kurt Koffka and Wolfgang Köhler, was more closely linked than associationistic behaviorism with highly developed forms of human perception and problem solving. Gestalt theorists stressed the importance of an overview of the whole as a prerequisite to the meaningful, intelligent solution of problems. They insist that rote memorization of meaningless parts was not an *important* kind of human learning. Since the new method for teaching reading dealt with words, the meaningful wholes of which many letters are meaningless parts, it seemed to be in accord with Gestalt theory.

Finally, the look-and-say method seemed better suited than phonetic drill to a new philosophy of education that held it more important for children to be happy and wise than for them to be well stocked with every kind of information. The ability to spell out words is not the most important aim of training in reading. What we need is more adults who read with interest and understanding and who seek out high quality reading matter. It seemed likely to many teachers that phonetic drill would cause children to develop an enduring distaste for reading. Stopping to spell out letters would slow them up, break the trend of thought, leave them bored and inexperienced. Dealing with meaningful materials and whole stories from the beginning, a child trained by the look-and-say method would be more likely to understand what he read and to develop into an avid adult reader.

For all the reasons I have given, most American teachers turned away from old-fashioned phonetic methods. But now, some 30 years after the mistake, they are being scolded for having made a frightful mistake. Their most censorious critic is probably Rudolf Flesch. His book, *Why Johnny Can't Read* [6] was an American best seller for many weeks. In spite of its being a best seller, academic folk, educators and psychologists, have been inclined to ignore it or to depreciate it as a cheap effort to scandalize the public. Certainly Dr. Flesch presents his evidence like a prosecuting attorney. There is plenty of rhetoric and an occasional tendency to stack the cards. Generally, however, the argument is sound. So we will take Dr. Flesch seriously, but also study the teachers' rebuttal.

*For and Against Phonetic Training.* If you test reading readiness prowess you find that it consists of many skills which are not necessarily in correlation. The particular skill in which America's Johnny is supposed to be deficient is the ability to sound out new words, to read aloud material he has not seen before. If each word is taught as a unique visual pattern, it follows that he will only be able to read the words on which specific training has been given. These will not be very numerous for Johnny since it is common nowadays to set 1,300 words as a reading goal for the first three years of instruction. Some parents have found that Johnny reads well within this list but can do nothing at all with new words. This is distressing since he cannot very well have classroom training on all the words he will eventually need. Seashore and Ekerson [14] state that adult recognition vocabularies run well over 100,000 words. At the rate of 400 new words a year, it will take Johnny 250 years to reach his parents level. There was something in the old system of training that gave you insight on how to read new words as well as the old ones used in your lessons.

Of course, if you are taught sound values for letters you can sound out new words a letter or two at a time and so do a reasonably good job of reading new material. But is this reading? The proponent of word recognition methods may see nothing useful in being able to *pronounce* new words that are not understood. The usefulness of being able to sound out a new word depends on the state of the reader's speaking vocabulary. If the word that is unfamiliar in the printed form is also unfamiliar in the spoken form, the reader who can sound it out will not understand the word any better than the reader who cannot sound it. Even so the ability to pronounce the new word (however ineptly) has some advantages. If the word is encountered in private reading, it can be carried by pronunciation to parent or teacher for definition. However, the real advantage of being able to sound out a word that is unfamiliar in print, only appears when the word is familiar in speech. The child's letter-by-letter pronunciation, put together by spelling recipe, will, with the aid of context, call to mind the spoken form. There will be a click of recognition, pronunciation will smooth out, and meaning will transfer to the printed form. The ability to sound out new words is not simply a pronunciation skill; it is a technique for expanding reading comprehension vocabulary to the size of speaking comprehension vocabulary. This is a considerable help since speaking vocabulary is likely to be ten times the size of reading vocabulary for the primary school child.

It is not quite fair to say that the child trained to whole word recognition has no techniques that can be used for recognizing new words. He will have learned something about the probabilities with

which words follow one another in English, something of the sequential probabilities of the language. Suppose a child who has learned to recognize words as unique patterns has never seen the word *lion* though he has often spoken it. If he comes upon that word in the sentence *The lion is in the zoo*, he can guess such probable insertions as *monkey* or *tiger* or, sometimes, *lion*. He cannot look to the word for help in choosing between these alternatives. Since the word is a totally new pattern there is nothing to be learned from it. The words he guesses (like *tiger* and *monkey*) may not look or sound at all like *lion*. They will resemble *lion* only in that they are sometimes found in the same sentence contexts. A child who has learned how to sound his letters will also have learned something about English sequential probabilities. In addition, however, he has a second set of cues - the rough sound of the word - to help him choose among possible alternatives. It is not that the child who recognizes whole words is without resources when faced with new words but rather that he has one less resource than the child who knows how to sound his letters. Much of our growth in reading vocabulary comes by working out unfamiliar words. Surely two methods of word attack are better than one. Admittedly there are inconsistencies in English spelling, but it remains a phonetic system with inconsistencies - not a semantic system.

What substance is there in the supposed experimental and theoretical support for the look-and-say method? Consider first the Carrell experiment showing that letters making words are read more rapidly than letters that do not make words. This result has been interpreted as a proof that adults read the "whole word picture" rather than individual letters. We can propose another interpretation. Printed English has a high level of redundancy. When every other letter of a running text has been deleted, a practiced reader of English will still be able to reconstruct most of the original (Shannon [15]). Perhaps Carrell's subjects were able to read letters in words more rapidly than letters not in words because in the former case unobserved letters could be guessed from those that were identified while in the second case this was not possible. Letters in words follow sequential probabilities familiar to readers of English while letters at random are all equally probable at every juncture. It is quite possible therefore, that Carrell's subjects *were* reading individual letters rather than "total word pictures" and were able to report more letters than they could possibly identify at very brief exposures because the additional letters could be inferred from those observed. Reading research of the last 50 years (Woodworth [19]) indicates that while the general shape of a word has some cue value, the *clear view of letters is a more important factor* in word identification. Phonetically trained pupils probably need to see all the letters at the beginning. As they store the sequential probabilities linking English letters, fewer visual cues are needed. The adult reader is able to identify many words at a glance but it may be that this ability is best developed out of letter-by-letter reading.

When materials to be learned constitute a system, it is possible to *predict* some of the materials *from knowledge of others* (logic: inference from similarity of other similar things). Systematic learning occurs when principles are discovered which make it unnecessary to memorize detailed materials. The relevant whole for these numbers is not the total series containing the individual numbers but is, rather, *the principle* governing the series. Systematic learning gives insight in that it provides principles (not always verbally formulated) from which specific materials can be derived. In learning to read there seems to be more insight provided by phonetic rules than by the look-and-say method. Learning to recognize the *total* appearance of a given word teaches nothing about recognizing other words. Each part is independent of all others. Learning is a process of memorization. When recurrent sound-letter matchings are learned, we acquire a set of principles telling us how to pronounce infinite numbers of new words; we learn the sound system of English writing. The fact that it is a very complicated and sometimes inconsistent system does not prevent its being taught as a system. Gestalt theory, then, would seem to favor the insightful phonetic method.

The use of whole words as teaching materials is as possible in phonetic training as in look-and-say recognition training. The best techniques for teaching phonetic generalizations (hereafter to be called the phonic methods) *do work* with whole words. Phonic training calls the attention of the students to words in which there are recurrent letters or groups of letters and correlated recurrent sounds.

One might begin with a set of words all having the same initial letter in printed form and the same initial sound in spoken form.- such a set as *man, mother, and milk*. From these words a general rule emerges. For the letter *m*, make the sound heard initially in *man*. A teacher using the phonic method will usually begin with the consonants since these usually have more consistent phonetic values than the vowels. With the vowels it is usual to teach the short forms first (as in *hat, hen, hit, hod, hat*) since these are more common in English than are the long vowels (*hate, heed, bide, hoed, huge*). Still later come such contingent rules as the following: The sound of /k/ is spelled *k* before *e* or *i* but it is spelled *c* before *a, o, or u* and *ck* after a short vowel. Finally there are some spellings for which no rule can be found and these are probably best taught last. All of the phonetic generalizations can be abstracted from words. They need not be taught by pronouncing individual letters. Certainly they will not be taught by reciting the alphabet. The names of the letters (as opposed to their common phonetic values) must eventually be memorized since it is the custom to spell by naming letters rather than by sounding them. But recitation of the alphabet is no part of good phonic preparation for reading.

If it is true that phonic generalizations can be taught with whole words, it is also true that pupils who are taught to recognize whole words *can incidentally form phonetic generalizations* and it is certain that most of them do. This means that pupils do not dichotomize into two groups reading by entirely different methods. However, there are differences between the teacher who works by a phonic method and the teacher working by a look-and-say method. The phonics teacher will draw general rules out of words and she will explicitly state these rules from the list, encouraging her students to use them. The look-and-say teacher will provide materials from which general phonetic rules can be abstracted but, in the beginning, she will leave it to the student to find these rules. For the first year or two, at least, he must learn his phonetic generalizations incidentally, without explicit formulation by the teacher. Later on, the look-and-say teacher may institute *some direct phonetic training*. Oddly enough she has always been inclined to do so with backward children who need remedial reading help. The need for a phonetic attack on new words is generally recognized by educators of the look-and-say persuasion but, for one reason or another, they believe the necessary generalizations should be incidentally learned or, if directly taught, postponed until the second or third grade. What are the reasons for this belief?

Dolch and Bloomster [4] have said: "It is true that the use of phonics means the use of generalizations, that *generalizations are best learned inductively*, and that sight words are the basis of inductive reasoning."(itallics by R.B.) The italicized portion of this sentence is hardly a common sense observation. Why does the scientist write out his laws, the chef his recipes, the professional golfer his instructions in detail for the novice if not to spare the rest of us the inductive labor we might be incapable of doing? We benefit from the experiences of our predecessors by reading the generalizations they formed. It may be that the Darwinian Theory of Evolution is best learned inductively - best in the sense of most unforgettably. But if it had to be learned that way most of us would live without a theory of evolution. On the face of it a generalization is more rapidly and certainly learned when it is explicitly stated. In addition there are experimental results show that incidental learning is *slow and uncertain* by comparison with directed learning. The educator who would claim that phonetic generalizations are better learned by incidental induction than by direct formulation with examples, assumes the burden of proof. His claim does not conform to popular belief nor has it been demonstrated in the laboratory. If you really want your pupil to *learn* a phonetic rule, it seems sensible to *tell him the rule*.

Some educators think it best to teach phonetics directly, but argue that such training ought not to be used before the second grade. Until that time, it has been claimed, children have insufficient mental maturity to make use of abstract phonetic principles. Dolch and Bloomster found that first grade children taught by a look-and-say method failed to form phonetic generalizations which they could use in attacking new words. The authors concluded that a mental age of 7 years, which usually means second grade standing, must be attained before a child can benefit from phonic training and that all such training ought to be postponed until he has reached that age. Quite obviously their results *do not* demonstrate that first grade children are *unable to benefit* from phonic training since the children were not given explicit phonic training. First grade children know the rules of games that are fully as complicated as the rules involved in spelling. Furthermore, they are rather accomplished speakers of English, which means that they have formed many concepts and learned complicated grammatical conventions. It seems unlikely that spelling rules are beyond them.

*Empirical Evidence.* We are not entirely dependent on theoretical argument and indirect evidence in deciding on the possibility of benefiting from direct phonic training in the first grade. In Scotland, children enter school at five years of age and begin the study of reading (by a phonic method) almost at once. In a study of the Committee on Reading of the Scottish Council for Research in Education [3] children beginning the second year of school were given two American tests, the Metropolitan Reading Readiness Tests and Primary I Battery, Form A, from the Metropolitan Achievement Tests. The mean chronological age of the children was 6.3 years, approximately the age at which American children begin the first grade. The mean readiness score of the Scottish children was 90 which is 16-33 points above the norm for American children of the same age and I.Q. On the reading test, their grade score was 7.5 which is at least a year above the norm for American children of the same age. It seems clear that children can *gain* from phonic training even before the first grade, and it would appear that a good way to build reading readiness is by instruction in reading phonetics.

There is also some experimental evidence on the relative merits of direct and incidental teaching for the development of phonetic knowledge. The basic design is always the same: One group is trained for a time using a phonic method and a more-or-less comparable group is trained for the same period by some non-phonetic method. Finally, both groups are given the same tests of reading achievement and their performances compared. The studies vary greatly in the adequacy of their controls and in sample size. In summarizing this evidence, Flesch ignored the significant levels of the differences found (as the authors often do) and he missed several studies. Still, I find his general summary about right. Phonetic knowledge is more reliably acquired from direct tuition than by incidental induction from reading whole words.

Perhaps the three best studies are those of Agnew [1], Russell [13], and McDowell [11]. Agnew compared all of the third graders in Raleigh, N.C., with a sample of 300 from Durham. In Raleigh a look-and-say method was used, and in Durham a consistent, intensive phonetic instruction. The Durham children were found to be reliably superior on oral reading, pronunciation, sounding letters, and pronouncing new words. Russell compared phonics-trained children with those trained by other methods at the end of the first year of reading instruction. His groups were equated for mental age. The classes that had received intensive phonetic training were significantly superior on 11 of 12 tests and particularly so in spelling, word recognition, and the sounding of letters. The subjects in the third research (McDowell) were fourth grade students from Catholic schools in Pittsburgh. Five of the schools had, for three years, used intensive phonetic training while the other five had used a more general reading program in which phonetic training was one of many kinds of instruction provided. The classes that had been given intensive phonetic training came out ahead on alphabetizing and spelling. *Direct phonetic* instruction produces superior skill in spelling, oral

reading, sounding letters, and whatever aspects of reading call for phonetic knowledge. *Incidental learning* does not work as well.

We might have hoped for really conclusive evidence on the relative merits of the teaching methods from a comparison of reading achievement in the days when phonetic drill predominated with achievement today. However, there are no perfectly comparable data. Summarizing the best ten studies, Gray and Iverson [8] decide that there has been no significant change in silent reading achievement in the past two or three decades. These authors add that average achievement in oral reading is not as high today as it was formerly because of radical change in emphasis in teaching from oral reading to silent reading.

There remains one possible reason for avoiding intensive phonetic instruction and this reason is stronger than the others. We are asked to remember that the ability to sound out new words is not the only goal of reading instruction. In going after that objective with specific intensive training, teachers may neglect reading speed, reading interest, and comprehension. There is some evidence in the experimental work that this can happen. Mosher and Newhall [12], and Tate [17] found look-and-say trained children slightly, but not significantly, superior to children trained by phonic methods on such tests as reading speed and silent comprehension. Agnew, in the study mentioned earlier, found the look-and-say trained children to be slightly more rapid readers. McDowell, in the study of Catholic schools, found the look-and-say classes superior on many tests but particularly so on paragraph comprehension, reading rate, and the use of the Index. The sum of these results is that intensive phonetic instruction may take so much classroom time that other skills are slighted (e.g., use of the Index). Apparently, in recent decades, American education has been less concerned with phonetic knowledge than with other aspects of reading. Perhaps the loss in spelling and oral reading is more than compensated for by gains in comprehension and speed. However, on the basis of the experimental literature, these gains appear to be slight, even doubtful. Gray and Iverson, in their comparison of past and present reading achievement, are more certain that phonetic skills have declined than that other skills have improved.

*What to do now?* The temperate, reasoned conclusion to this discussion, as to so many others, is that we won't know the answers until we have more and better research. The evidence certainly is not complete. We need longitudinal studies of matched groups of pupils trained by phonic and non-phonic methods, studies comparing oral reading of new words, reading speed, interest, and comprehension. But the call for more research is a stale tune from the psychologist. There are always people living in the real world who have a reading class to teach today and another one tomorrow. What would you do, Mr. Psychologist, if you had to act today? The answer must lie in a combination of methods. I would begin phonic instruction in the first grade, not with recitation of the alphabet, but by extracting generalizations about the more consistent consonants from whole words in which the consonants appear. I would continue to stress meaning - combining the word with a picture when possible. I would do some flash card training with whole words, choosing for this purpose the common short words like *and*, *but*, *the*, etc. I would teach these words as total patterns because they are so common in English that it will greatly speed reading if they can be read at a glance. In addition these words, some of the oldest in the language, have many phonetic inconsistencies and so make poor material for first phonetic training, and yet they cannot very well be postponed if children are to read stories. Therefore, I would start to teach them by the look-and-say method. In my phonic instruction, I would use only those words that are familiar to the child in spoken form so that he might have the thrill of recognizing and understanding his first halting pronunciation. I would rely on the satisfactions involved in such recognition to make reading interesting. This procedure that I have espoused involves more phonics at an earlier age than is now customary in American education. In taking such a stand, I am sorry to be allied with unreasonable parents and enemies of progressive education.

The teacher has reason on his side when he refuses to be overwhelmed by a parent's memories of his own great interest and rapid progress in reading as taught by the phonic method. There is more than one variable here. Such parents may be of superior I.Q. and have had higher mental ages than their classmates, or the whole reminiscence may be rosy tinted by nostalgia. Neither should the teacher change his methods because some parent - often a college professor - tells him of his great success in teaching Johnny to read at home by using a phonic method. But this is a one-to-one teacher-pupil basis. I have heard wonderful stories of this kind with children learning to read at four years of age, chronological age that is. But a child of a college professor probably has a high I.Q. and so may have a mental age of 5 or 6 when he is 4 years old. Such a child might be particularly apt at learning phonics or anything else. The methods of the public schools cannot be geared to them. There are great individual differences in the abilities of pupils in the primary grades. Most of them will learn by present methods. Most of them will make phonetic generalizations for themselves whether or not the teacher points them out. I think, however, that more of them would learn to read better and sooner with more explicit phonic instruction.

### Summary

To learn a written name for each referent category is a big job and writing systems all provide some kind of short cut to this knowledge. The earliest systems took advantage of the psychological economy in representation. The symbol manifested some criterial attributes of the referent and so suggested the referent. For various reasons this economy had a quite restricted usefulness, probably more restricted as societies grew in size and complexity. The written form of a language provides names for the same referents as does the spoken form, and the spoken names are generally learned first. This fact makes another economy available to a writing system. The phonetic writing, whether syllabic or alphabetic, translates recurrent speech elements into written characters and combines the characters into names as the sounds are combined in speech. When one learns such an alphabet or syllabary, he ought to be able to read, write, and spell all the names that are familiar to him in spoken form. It is an irony of history that this economy, which made the invention of the alphabet so important to mankind, has been partially lost in such languages as English and French. *English orthography today is a very inconsistent phonetic system.* This fact has suggested to many American educators that literacy in English ought to be taught without explicit reference to the phonetic values of the letters. However, the evidence indicates that teachers do better to call attention to the phonetic system that exists, even though it is exasperatingly irregular.

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[Spelling Progress Bulletin Spring 1972 pp16,18,19,20]

### **Letters to the Editor**

Dear Mr. Tune: Feb. 22, 1972

In answer to your question about why I did not think of spelling reform as a way of escaping the hard job of teaching reading effectively, I am afraid the answer is, that unlike Ben Franklin and distinguished company, I did not think of it. I was mainly concerned with what could be done now to teach reading. More I do not have time to say but I'm sure you would excuse me if you knew the full set of obligations I have this term.

Sincerely yours, Roger Brown.

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### **World English for the European Common Market.**

Dear Mr. Tune:

H. S. Wilkinson

Some form of international language was under discussion on the B.B.C. "24 Hours" programme on the 19th of January. We learn today that in all European countries it is "English" which is selected for learning first in preference to other foreign languages. English too is used internationally far more than any other language. So why not be preparing to use English as the European Common language - particularly seeing that we now have a modernized version of simplified "New Spelling" called "Wurld English." The new alphabet has 44 characters or symbols based on the normal Roman alphabet augmented by the digraphs most commonly used now (for example, *ch, sh, th*, etc., and *ee, ie, ou, ne*, etc.), needed to be included to make the alphabet complete.

The characters chosen are usually the ones most commonly used in normal English, with due regard for simplicity, ease of learning, and freedom from confusion. Whereas at present we have over 20 different spellings for each of our long vowel sounds, with W.I. the one alphabetical character chosen will be employed consistently. For example, *ee* is used in *see*. The *eo* of *people*, the *ea* of

*each*, the *ei* of *weir*, the *ey* of *key*, the *ie* of *belief*, the *ei* of *seize*, the *e-e* of *these*, (and so on) will all be simply and consistently as *ee* (*see*, *peepl*, *eech*, *weer*, *kee*, *beleef*, *seez*, *theez*).

So we see that with Wurd English (WE) we have merely 44 consistently used spellings instead of the 520 different character arrangements we employ in English today! No new letters are introduced; mute or silent letters are logically omitted, (*nee nief* is used for *knee knife*), and the new scheme is based on reason and common sense so as *not to deviate too far from Traditional Orthography*. Anyone who has learned the phonetic simplified spelling of Wurd English can easily read printing in ordinary English.

The scheme should be readily acceptable to all teachers, educators and parents. Once they have accept - it as an alternate spelling, the news media will also.

The book on "*New Spelling-Wurd English*" will shortly be published. It embodies the scheme as proposed by the (British) Simplified Spelling Society and the (American) Simpler Spelling Association, so now we have achieved a unified world wide presentation of what is a moderately devised scheme of spelling reform.

Hasten the day, when, following our achievement of "decimal currency" reform, and adoption of the Metric System, we adopt what is more important still, and that is the modified reformed spelling of our language -- if the English language is to be perpetuated throughout the world. Here is a specimen of writing in W.I.:

"It's eezi to lurn; it's konsistent.  
Spel az it soundz uezi6g the propee . I .  
karakterz ov the Fuenetik Alfabet,  
and U kant goe rong."

With Chaucer, Milton, Lincoln, Shakespeare and the poets, our language is after all, perhaps the richest in the world. A widely used common language can help more than anything else to promote understanding, friendship between the peoples of the earth.

Yours sincerely, Herbert S Wilkinson, Yorks, England.

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### **The Politics of Spelling.**

Dear W. Tune:

Dr. Douglas N. Everingham, M.P. Australia.

Mr. Humphries has kindly sent me a copy of your letter to him. Perhaps you might print a few of my reactions to it in regard to spelling. Please retain my SR-1 spellings.

Meny will agree with our Editor that

1. to make spelling reform official, governments will have to appoint representatives to an international conference, and
2. before agreement is reached on the extent of the reform, such a conference is necessary.

The difficulties about restricting ourselves to such an official one-step-en-bloc reform is that nothing ever happens that way. On Feb. 14, 1966 ("C-day") my country "changed over" to decimal currency, but it took nearly 2 years before advertising in old currency could be banned and calculating machines altered at Government expense. Now we are tackling the bigger problem of

Metric measures and the project is expected to take 15 years, even though prescribing laws, many hospitals' thermometers, drug packs, etc. have been changed already for some years.

Spelling reform will take much longer. But, like the apothecaries' weights and measures, money, or body temperature records, there are certain areas where immediate changeover is not only tolerable but well preceded and unequivocally agreed to in nearly all published reform proposals. Such a changeover is the use of e for the clear short vowel sound of *bet* wherever it occurs. There are 2 words (*read*, past tense, and *bread*) where this may lead to a clash of new spellings with old (*red*, *bred*). This loss is offset by the gain in distinguishing *read* (past) from *read* (present) which we already distinguish in speech and *bread* from *breed* for the confused learner. Writing was invented to record speech, not to bewilder, bedevil and braidtease by making tender minds write differently words which they must speak the same way - ("They're, their, doughn't ewe Chri, lit'll won," ate setter a). Of the 300 to 500 words affected including compounds and negatives (with *un-*), about half are rare or obsolete, and only a quarter are really common non-compound words.

They hardly amount to a week's spelling list for the average scholar. But the rest of us by mastering them could guarantee every student of English just one sound (short *e*) he can always rely upon to spell the same way. The only words in the list not shortened are: *eny*, *bery*, *meny*, *pell-mell* and their derivatives.

Here are the 13 spellings replaced by one:

'Enybody ses'.	(cf Greenwich,
Grenwich frendly sed	threepence,
' . . . gesses lepard's et	Thames,
hemorrhaging yet	ate.)
hefers beried ded.'	

Irrespective of the law, spelling is usage. It changes when users' habits change. We must persuade writers and publishers to spell consistently just one sound of the 40 or so basic sounds of English. Then we will have only 39 or so steps to go. Meanwhile a fraction of the burden will have been lifted from the young pupils' minds.

I ask everyone who wants reform to spell as I do herein. Ring, preferably in red, those words you spell with this Spelling Reform, step 1, if writing for a typist or a typesetter.

At the end put the footnote: SR-1 spelling used. If using it for the first time, add an asterisk after the newly spelt words and before the SR-1. When writing for a publisher, add the request: 'I would prefer that you leave unchanged my SR-1 spellings, in (red) ringed words.' Write to editors advocating this reform. When the simple footnote "SR-1" is widely recognized, an international commission will be called to decide the next step (SR-2), etc.

The reasons for choosing 'clear short e' as SR-1 are best set out in Lindgren's *Spelling Reform: a New Approach* (Alpha Books, Melbourne, 1969).

### Comments on the Winter issue.

Dear Mr. Tune:		Leo G. Davis. Palm Springs,
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Prof. Lindley's comparison of English to Norwegian as a more erratic language indicates a foreigner's attitude toward English as a common tongue - its difficult orthography is impeding its adoption as such.

Inasmuch as nobody has succeeded in getting a reformed spelling, there are no authorities on the implementation of orthographic reform. Thus any advice on how and /or when to implement what is nothing more than personal opinion. So, inasmuch as opinions are generally debatable, we question some of your "Regimen Essentiale." More specifically, those comments seem based on 3 rather dubious notations:

1. that *reform* means perfection - rather than an indefinite degree of improvement;
2. that the orthography *must be self-pronouncing*,
3. that pronouncing what we read is more important than public support.

The pertinent facts are: the countless variations in voice-boxes and ear-drums precludes fonetic perfection - therefore we must expect something less than our ideals. The fact that no English instription has ever been fonetically reliable, proves that self-pronouncing orthography isn't imperative to basic reform (improvement). Likewise the fact that the deaf mute doesn't pronounce anything he reads proves that there is no arbitrary relationship between speech and literacy. Altho most people are in favor of basic reform, they are averse to radical change. Therefore, the new orthography must be a compromise between the erratic and the ideal - otherwise John Public won't accept it.

In as much as diacritics (in the dictionary only) and word-memory as prompted by context, has served us acceptably in the past, there is no reason we cannot continue relying on those factors - rather than jeopardise public support by distorting the pattern by injecting new symbols Your notion that the new orthography must *be* compatible with present keyboards is both dubious and unrealistic. Very few people who now have printing equipment are apt to even want to shift to the new orthography, and each up-coming generation generally has new models anyway, and there is no reason why the revised keyboards shouldn't be optional anyway.

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[Spelling Progress Bulletin Spring 1972 pp17-19]

### Book Review, by Newell W. Tune

Albert J. Harris: *How to Increase Reading Ability*, (5th Edition), 1970. David Mc Kay Co. 570 pp. \$8.50.

This book is not, as some educators may surmise, a rehash of the same items presented in former editions. It has largely been rewritten and brought up to date by introducing new experimental approaches and new ideas. This book really is, as its supplementary title indicates, "A Guide to Developmental and Remedial Methods." New material published as recently as one year before, is included in this new edition. The new teacher will do well to study its chapters thoroly, and the old teacher can profit also from its use.

The basic characteristics of the book, however, remain essentially the same ones that have outlined the chapters in previous editions.

A broad scope allows the book to be used successfully as an introductory textbook on reading instruction for students preparing to teach, as an advanced text for graduate students taking courses in reading diagnosis and remediation, and as a desk reference for reading teachers, remedial specialists, and supervisors. Despite the fact that most of the discussion is concerned with the elementary school level, there is enough content relevant to higher reading levels so that the book has had considerable use in planning secondary and college reading programs.

The author is convinced that no one teaching method or materials provides a panacea for all pupils, but rather that excellence in teaching, and especially in remedial teaching, involves the selection of methods and materials that are best suited to the individual learner. On controversial issues, the opposing points of view are explained, indicating what are believed to be the strengths and weaknesses of each. Reference has been made to the most relevant and important research, and separated from the author's personal point of view. Specific methods and materials are succinctly presented, with enough of the underlying theory to provide a basis for making wise choices among alternatives. Emphasis has been given to procedures and materials that require only small expenditures, although expensive equipment is also described and discussed.

The plan of the book remains essentially the same. Roughly, the first third deals with the over-all classroom reading program, the second third with methods for evaluating and diagnosing group and individual needs, and the final third with the developmental and remedial teaching of specific reading skills. A wealth of new material on the causation of reading disabilities has required the expansion of that part of the book from 2 chapters to 3. The former chapter on case studies has been deleted, since no 4 or 5 brief case summaries can properly represent the variety one finds among disabled readers. In order to do justice to this subject, an entire book was published—the *Casebook on Reading Disability* (reviewed in Winter, 1971, SPB).

Although all chapters have been revised and brought up to date, some topics are completely new or have been thoroughly rewritten. These include: reading readiness, methods of teaching beginning reading, the objective measurement of reading disability, the causation of reading disabilities (with special attention to dyslexia), neurological aspects, and cultural disadvantage.

The ideas presented in this book come not only from over 30 years of personal experience but also from hundreds of people, including authors of books, writers of periodicals and research papers, lecturers at professional conferences and conventions, co-workers, and teachers in graduate courses. What is the nature of reading? As used in this book, reading is the meaningful interpretation of written or printed verbal symbols. Reading is an extension of oral communication and builds upon listening and speaking skills.

In its beginning stages, learning to read means that queer-looking marks stand for speech. The child "reads" when he is able to say the words which are represented by the printed marks. If the child says the right words, they fall into a familiar sequence whose meaning is apparent to him because of his previously acquired facility of comprehending speech. If he says the words but does not understand them, it is likely that some words are not in his understanding vocabulary. If he says the wrong words, if he has to leave out too many words because he does not recognize them, if his recognition is so slow and halting that the words are not heard as coming in meaningful sequences, or if he runs sentences together and pauses in the middle of phrases and sentences, the approximation to speech as it should be heard will not be good enough to convey the correct meaning. The discovery that printed words "talk" is the first step in learning to read.

The second step should broaden the definition of reading as the act of responding with understanding of the meaning of these groups of printed or written symbols. Actually, extracting the meaning of these symbols is the *chief objective of reading*. Anyone who has learned to read can

read many sentences whose meanings are partly or almost completely unknown to him. A reader can comprehend only what is in his listening and understanding vocabulary. Reading is not just one skill but a large number of interrelated skills which develop gradually over a period of many years,

Much has been said about when a child should be ready to learn to read. Readiness for reading is a complex concept involving many different contributing factors developing thru the intimate interplay of learning with biological growth. It depends also, in part, on the fit between the child's physical and mental abilities and the way he is taught, and also in the difficulty of the material he faces.

Reading readiness, then, may be defined as a state of general maturity which, when reached, allows a child to learn to read without excessive difficulty. Since it is a composite of many interconnected traits, a child may be more advanced in some aspects of reading readiness than others. Nine factors contribute different effects on the child's maturity. The major characteristics which are important in reading readiness are: age, sex, general intelligence, visual and auditory perception, physical health and maturity, freedom from directional confusion, background of experience, comprehension and use of oral English, emotional and social adjustment, and interest in reading, but not necessarily in that order of importance. All but the first two must be tested to determine the condition of the child. Each of these factors is of importance because any one of them can point to the reason why the child is not adequately prepared for the task.

How are children started on the road to reading? A brief look at the past will show that many fashions in methodology have been tried. These include: synthetic methods, analytic methods, the basal reader approach, which can be used with the Look-Say method as well as with some phonics, the alphabet method, and some new detour methods, in which a special kind of spelling, which is either regularized or made phonetic, is used to teach the child to read. Once he has gained proficiency in this regular spelling, he is introduced to the irregular spellings of English in a gradual manner so that these irregularities do not cancel out the advantage gained by learning to read in a reliable spelling.

Altho English is supposed to be an alphabetical language, it has one of the most imperfect and arbitrary spelling systems of any civilized nation, with so many irregularities in the relationship between alphabet letters and sounds that these offer major stumbling blocks in the learning process. (No matter how you present it, or disguise it, Roquefort cheese still smells). "Since the middle of the 19th century there have been many efforts to promote a phonetically regular alphabet for the English language, in which each letter symbol would always represent one sound, and each sound would be represented by only one symbol. If the proponents of this idea had been able to agree on one alphabet, they might have succeeded. As it is, however, the supporters of simplified and regularized spelling are still arguing among them- selves about details."

In the 1960's a new application of an old idea came forward: that of using a special alphabet with regular sound-symbol correspondence to develop initial reading skills, after which a transition is made to our convention- al spelling (sometimes called "traditional orthography"). This particular alphabet, unlike those which preceded it, was painstakingly designed to facilitate the transfer to conventional letters and spelling. The man who had this new concept of an easier tool to learn to read, Sir James Pitman, was knighted in 1964 for his efforts. He was responsible for the design and development of the initial teaching alphabet, and put across the idea to education authorities and marshalled support for a large scale experimental tryout of teaching beginners with it in England. The results of this experiment show that there is considerable evidence that learning to read is easier and can be accomplished more quickly when there is a reliable, consistent correspondence between symbol and sound. Eventual replacement of the present alphabet and inconsistent spelling with a more satisfactory system seems inevitable. It also appears that some, if not much, of the advantage

gained with the consistent spelling is lost in the process of transferring from the regular to the irregular spelling system. Time will tell if the detour gives a lasting advantage to the learner.

Continuing growth in reading, meeting individual needs in reading, group instruction in reading, evaluating performance in reading, and exploring the causes of reading disabilities, are other chapters in this book which are thoroly explored. Developing word recognition skills, overcoming difficulties in word recognition, developing understanding in reading, fostering reading interests and tastes, improving rate of reading, complete the program to give teachers a thoro understanding of How to Increase Reading Ability.

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**Review by Dr. Helen Bonnema. SR-1 used.\***

\*'Spelling Reform, 1st step, used thruout this article.

English Spelling, Roadblock to Reading, By Godfrey Dewey, Ed. D. Teachers College Press, Columbia University, New York, 1971. 181 pp. \$9.50.

This distillation of the wisdom of the past century's spelling reformers is a book which will be welcomed by today's orthographer.

Books are valuable tools for the professional. The mechanical scientist has his *Formulas of Physics*, the physician his *Merck Manual*, the biologist his *Nature Atlas of America*, the mathematician, *Tables of Squares, Cubes and Reciprocals*, the artist, *Handbook of Ornament*. Even the Bridge player has the *Official Blue Book*.

At last, the spelling reformer, too, has a handbook. It will be indispensable whether he be a college-degreed linguist or a Saturday afternoon hobbyist. Eny orthographer willing to spend time devising ways of improving English spelling needs more than commendation and encouragement, for no sooner does he begin his tedious task of removing the "roadblocks" but he finds that new rocks tumble onto the opening path. He deserves the assistance to be gained from the use of Dewey's excellent charts.

The price of this manual is not as high as that usually demanded for the technical handbooks of other professions.

In its compact 181 pages, there are 14 valuable tables, which if purchased singly would total more than the amount which Columbia University Press has set.

Dr. Dewey is not writing primarily for the linguist, however. He states in his preface: "I am here addressing myself to the educator, the textbook author or publisher, and/ or the classroom teacher, whose immediate concerns are... with the pressing problems of today and tomorrow. For them I have sought to provide authentic data and practical suggestions for their use in mitigating the present impact of our traditional orthography on the teaching of reading and writing, and eliminating its future impact thru the 'final solution,' spelling reform."

Perusal of the Table of Contents convinces the reader of the book's practicability. Items from the Table are italicized hereinafter followed by succinct comments of this reviewer.

*Chapter 1, Historical background.* A short recap of how spelling reached its present state, but detailed enuf to provide helpful background.

*Chapter 2, English spelling: Present structure. Table 1, Summary of spellings of sounds.*

Really, how bad is English? How malphonetic? There are 561 spellings used for 41 sounds. The table gives the total occurrences of each of these spellings in 100,000 running words of popular print, and another summarizes the relative frequency of their pronunciations. After making generous allowances, Dewey's criteria result in a figure of 40% regularity for words occurring in *Lincoln's Gettysburg Address*. Inasmuch as the child learning to write receives approval only if the entire word is spelled correctly, we can say that his likelihood of failure to spell correctly is 60%!

*Table 2, Summary of pronunciation of spellings.*

*Table 3, Percent of T.O. phoneme-grapheme correspondence which may be considered regular.*

*Chapter 3, Spelling reform: Historical background.*

During the past 100 years, struggling with the same problems as present-day phonemicists, men have developed principles which point out the relative merits of divergent improvements. The guidelines they have devised make possible those choices which will bring the greatest advance.

On page 22 appear the "Principles of '76" prepared by the American Philological Association Committee in 1876. These have been confirmed by spelling reformers during the 96 years since that time. Careful study of the eight principles can save today's would-be reformer hours of trial and error. However, even though he may concur with equally significant. In fact, endorsement of one rule may nullify another. For example, Principle # 6 states that "in changing and amending the mode of writing of a language already long written, regard must be had to what is practically possible quite as much as to what is inherently desirable," while # 8 asserts: "The Roman alphabet is so widely and firmly established in use among the leading civilized nations that it cannot be displaced; in adapting it to improved use for English, the efforts of scholars should be directed toward its use with uniformity and conformity with other nations."

It may be found that # 6's "practical possibility" in England and America is not reconcilable with # 8's "conformity with other nations." In the light of changes which have occurred since 1876, such as the worldwide use of English, many linguists will defend Dewey's practicality in choosing the short vowel /ɛ/ instead of the European Continental [e] sound in café and of /i/ rather than [i] of *machine*.

Dewey's suggested criteria for a phonemic notation in *Appendix C* (pages 157-170) include other minor compromises between the eight principles. This is not surprising. We should expect that some modifications in thinking had occurred since 1876.

*Chapter 4, Spelling reform: Analysis and appraisal.*

Many people who are interested in spelling reform have the desire to critically test new systems prepared by others. By applying Dewey's standards, they should be able to make wise judgments and have the satisfaction of finding others who concur in their analyses. Together they all can unite in demolishing the roadblock of tough spelling. Such collaboration was formerly difficult because reformers could not quickly isolate the fundamental points upon which they agreed.

Dewey's categories for proposals based upon the Roman alphabet are:

- (1) *Standardizing* (no-new-letters)
- (2) *Supplementing* (some-new-letters)
- (3) *Supplanting* (all-new-letters)

Chapter 4 directs the reader to *Appendix C, Suggested criteria for a phonemic notation*. This very important section gives fifty prescriptions concerning sounds, symbols, and influence of purpose, such as, that the notation should make those distinctions which are semantically significant and only

those which are recognized by the average untrained ear, and that the assignment of symbols to sounds should provide in general one symbol for each sound keeping in mind that the relative frequencies of *occurrence of phonemes in connected matter* is in general more important than relative frequency of *items*, i.e. number of *different words* in which they occur.

*Chapter 5, Roadblocks, and some attempted detours.*

"What children know as reading is a difficult, tedious, complicated, confusing, time-consuming, uninteresting, and unserviceable exercise in visual recall, association, surmise, invention, prediction, paraphrase, substitution, and interpolation or omission at will - all blighted by an incessant striving for speed ... .. something has been taught which is not reading." (Helen R. Lowe)[1] Dewey substantiates this lament and then introduces the possible solution.

*Chapters 6 and 7* explain practical detours - initial teaching orthographies - around the roadblocks. These have been developed thru years of effort and collaboration by many orthographers and educators to meet the criteria previously set forth.

*Chapter 8* predicts *future research* under the headings: *i.t.a.*, *World English Spelling*, and *in general*. The latter mentions the plans for an inter-disciplinary, post-doctoral Reading-Writing Research Institute to be established preferably at a leading university.

*Epilog*

Dewey's heartening conclusion is that within two or three decades the use of phonemic teaching media will produce an adult generation conditioned to demand a spelling reform. He counsels those who are concerned primarily with reaching the ultimate solution, a phonemic spelling reform for general use, that the watchword is patience, not forcing the issue prematurely. "Perhaps by the close of the present millenium (which is only 28 years hence!, H.B.) we who have been wandering in the wilderness may find ourselves in sight of the promised land."

[1] Helen R. Lowe, "Solomon or salami," *The Atlantic Monthly*, v. 204, no. 5, Nov. 1959, pp. 128-131.