Spelling Progress Bulletin Spring 1970

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."

Publisht-Quarterly
Spring, Summer, Fall, Winter.
Subscription $ 3.00 a year.
Volume X, No. 1,
Spring, 1970.

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1. Book Review

High School 1980, Edited by Dr. Alvin C. Eurich,
Pres. Academy for Educational Development. $8.50. pp. 520.
Pub. 1970 by Pitman Pub. Co., New York, 10017.

24 of the nation's most innovative thinkers about education present their diagnoses and prescriptions for secondary education in the next ten years in *High School, 1980, the shape of the future in American Secondary Education.*

The score of essays in this book look at all aspects of secondary education – the students, teachers, administrators, buildings and other facilities, school-community relations, integration, technology, and specific subject areas. The essays have several common threads running thru them. For example, there is wide agreement that the nation's urban high schools must be restructured, not only to replace buildings half a century old but also to achieve an integrated comprehensiveness they now lack and to make them truly a worthy part of the community. Frank Jennings director of college relations at Teachers College Columbia University, suggests that the 1980 "high school students will have the whole of the city for a classroom."

Going a step further, Dr. Kenneth B. Clark, president of the Metropolitan Applied Research Center, believes that we should think of alternatives to the high school. He looks at state and federal regional schools, industrial demonstration schools, and army schools as possible competitive alternates.

Several of the essays call for a drastic reduction of the present teaching load so that many teachers can truly give individual attention to students. Many call for more independent study on the part of students. As Charles R. Keller, former chairman of the history department at Williams College, puts it," One characteristic of a good teacher is his willingness on some occasions to give a student an hour to find out some thing for himself that he, the teacher, could have told him in five minute---"

Those writing on specific subject areas suggest complete rethinking about those subjects. Robert B. Davis, prof. of mathematics and, education at Syracuse Univ., sees high school mathematics as "one link in a structure that strikingly resembles a chain fence." And Neil Postman, prof. of English education, New York Univ., would eliminate his subject entirely.

Like many of the other essayists, Harold Howell, former U.S. Commissioner of Education, believes that in the next ten years "American secondary education must completely re-examine and reorient itself to meet challenges quite different from those it has struggled with during the past decade." Ole Sand, director of the National Education's Center for Study of Instruction, admitting that there are no easy answers, pleas "to avoid at all costs the creeping curriculum where never have so many learned so little about so much."

Dr. Eurich says, "We cannot wait ten years for 1980, we must begin now. Every American educator and parent concerned about the future of education will want to do something about it and must realize he must begin today."

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[Spelling Progress Bulletin Spring 1970 pp2,3 in the printed version]

2. Listening and Speaking Machines, by Ivor Darreg.

"At the tone, the time will be: twelve, fifty-one, and ten seconds." "Thank you," says the telephone subscriber, and hangs up. This little scene must get played out hundreds of times a day, as people, without thinking, assume intelligent robots are here already. Those extra commas up there are meant to suggest the unnatural pauses in the time-announcement, pauses which make many people think some intelligent machine out of the science-fiction magazines is conversing with them.

Actually, of course, all we have is an imitation robot, the time-announcement machine using brief soundtracks recorded by some experienced telephone operator, but these recordings are played back piecemeal in such a way that the natural cadence of the human breathing cycle is violated. Still, the idea of an artificial speaking machine being firmly implanted in the public consciousness by the time announcement and some newer services, such as are now being tried out in stockbroker's offices.

As long ago as the World's Fairs in 1939-40, one could bear a demonstration of the Voder (acronym for Voice Operation Demonstrator), a machine with a keyboard not too different from a Stenotype machine in appearance, and taking two electronically-generated sounds, a buzz like the familiar T-V buzzing and a hiss like escaping steam, and shaping these into understandable speech-sounds by means of band-pass filters (formant circuits). These formant circuits imitated the resonances inside the mouth and nose as a person speaks, and by the way, most commercial electronic organs today use very similar circuits to get the tone-qualities of different instruments. Thus the gap between speech and music is not too wide after all.

Later research and development on this principle produced the Vocoder which could analyze speech coming over a telephone line, convert it to code-signals that then could be sent long distances to a Voder-like apparatus at the other end, which could convert them back into speech. It was hoped in this way to effect substantial economics on very-long-distance telephone calls, as well as to reduce noise and interference; but so far as we know, this has not been introduced in regular telephone systems. Principal inventor on these projects was Homer Dudley of Bell Telephone Laboratories.

Nevertheless, the laboratory trials of this device proved that it was feasible to analyze incoming speech and to re-synthesize it well enough so that the words remained recognizable. With modern devices evolved during the 30 years since then, it should be possible to construct both practical voice-recognizing and voice-synthesizing machines. Corroboration for this is provided by a recent article in the computer industry's monthly *Datamation* for Dec., 1969. In his article "Voice Recognition and Response Systems," Cay Weitzman of Systems Development Corp. (Santa Monica, Calif.) points out that a wide variety of audio response systems are already on the market, and that these are very useful where telephoned inquiries need up-to-the-minute, brief and pointed replies.

More than one writer has called public attention to the "sea of paperwork" that is inundating us these days, and since we already have a worldwide telephone network to carry audible signals, there is an actual need as well as a possibility of using voice-oriented equipment to get rid of this excessive paper flood.

There are many situations in business and industry where writing and reading are impossible or extremely difficult, and where there are no facilities for storing written data, or the filling up of wastebaskets becomes a problem.

Aside from these considerations, there is an urgent humanitarian motive to develop practical listening and speaking devices – to aid the blind. This should be justification enough, apart from any other motives. Perhaps it is not generally realized how frustratingly slow Braille is; a practical reading-out-loud machine would be a tremendous timesaver.

From Mr. Weitzman's article and some of the technical literature available, it appears that the state of the art for speech uttering machines, whether by prerecorded human spoken words played back on demand or by a Vocoder-style synthesis of speech, is far more advanced than the development of speech-recognizing (listening) machines.

Frankly, the problems of recognizing speech are greater. There are a few pessimists who claim the problem is insoluable, but this may be dismissed as overreaction to unprofitable blind alleys that some workers in the field have explored.

For one thing, the average person confronted with this problem is likely to be *visually* oriented; he thinks of words in terms of letters and blank spaces neatly separating each word from its predecessors and followers. He may have forgotten that spoken language came first. When he finds out that there are no such spaces between many of the words in a spoken sentence, and that the transitional sounds between the vowels of a diphthong, and the transitional (unwritten) sounds between many consonants and the following consonant or vowel, may actually be loader than the nominal speech sounds for which the written letters stand, he may give way to despair, and we shouldn't blame him too much.

It would not be irrelevant to drag in a musical analogy here: The music teacher or conductor of an orchestra, or educated listener following a recording with the aid of the printed score, will regard a note on the staff as a symbol for a *sound* he is hearing. But the violinist or pianist or trumpeter will more likely regard that note as a *coded instruction* to make some muscular movement and do certain things with his instrument which will result in the desired sound. His teacher has programmed habit-patterns into him, much as a computer is programmed.

The relation between writing (or typing) a letter and reading it is not the same as the relation between speaking a word and listening to it. The stream of speech-as-heard is not divided into words by spaces, and contains no capital letters – indeed, is not easily analyzable into single phonemes in the way a written word obviously decomposes into letters. Instead, it is analyzable into syllables and breath-groups and here and there one may detect infinitesimal pauses called junctures. Its resemblance to and correspondence with the series of articulatory movements of the speech-organs of the talker is not obvious. In fact, the ventriloquist produces fairly normal sounds in a most abnormal way, and most vowels and consonants can be articulated in highly unorthodox manners, but still be understandable.

This means that if one tried to analyze speech on a basis of the letters required to write it – even phonetic symbols – this method would furnish too few clues as to the nature of the acoustic signal. Furthermore, language- as-heard contains much information not usually set down in print – rise and fall of voice-pitch, stresses and slurrings, information that tells us who is speaking, and how old he

or she is, together with further information on the emotional state of the speaker, whether the mother tongue is or is not English, what part of the country the speaker is from, and so on. In the communication engineer's sense, the stream of spoken utterance contains an amazing amount of information, even when someone speaks nonsense syllables or formless interjections only.

This is amply confirmed by the method of a Hollywood dramatic school that used to coach actors for the sound movies: the student was required to recite, over and over, "One, two, three, four, five, six, seven," – but each time make it mean something quite different, as: "I love you," "I hate you bitterly," "When are you going to do it?," "Why are you here ?," "Leave the room at once!," "I suspect trouble is afoot," and so on without limit.

Thus, from the viewpoint (excuse me, listening post) of a speech-recognition machine most of the information content of a human utterance has to be carefully ignored! It has to be reduced – not entirely, perhaps, but almost – to the humdrum impersonal monotone of the printed word. This is certainly the case if the machine is to operate a typewriter or input information to a computer. However, the inflections of the voice, the emotional factors, and the peculiarities of sound that identify a person as the speaker, *would* be relevant in the case of a spoken-language translating machine, if such ever can be built. In that case, the output translation would have to be human-sounding, not robotic.

Otherwise stated, the problem of designing a voice-recognizing machine is to build into it the ability to abstract from the stream of sound those elements and only those elements which will be relevant to the computer or information-storage system and at the same time ignore all irrelevant factors, no matter how loud or distracting they may be.

One method that has been used to cut the problem down to size is this: Build a machine to respond to a limited vocabulary only. For instance, a listening machine for an insurance company would have only the ten numerals (it couldn't even deal with irregularities of English such as "twelve" or "fifteen") and a dozen or so technical terms such as "premium ... .. payment," etc. To prevent use by unauthorized persons there would have to be a secret password. Likewise, its replies would be stereotyped and similarly restricted in vocabulary – it would never have to tell you the weather or quote Elizabethan poetry.

The time-telling machine we mentioned at the beginning did not even have to be asked "What time is it?" because this is implied in the very act of calling its number. Its success shows that the first step has already been taken.

The difficulty of the problems involved does not cancel out their urgency. There are many needs for listening and speaking machines, and the existence of such a large telephone network as we have, along with the Citizens' Band and Business Band radios, as well as marine and aircraft radiotelephone equipment, should make the application potential of devices to converse with machines obvious enough. But this is not the end of the story: of more interest, perhaps, to readers of this journal, is the relevance of these devices to reading, writing, spelling, and pronunciation. Soon the relations between the written and the spoken word will have to be expressed in hardware, such as reading-out-loud machines and phonetic typewriters. Surely many of our readers have a stake in this, and perhaps many useful ideas co contribute. Have you thought about it?

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[Spelling Reform Anthology §10.3 p153 in the printed version]
[Spelling Progress Bulletin Spring 1970 pp2,3 in the printed version]

3. Teaching Rover to Read, by Brenna Lorenz

Reading Newsreport reprinted (Feb. 1970) in its entirety the following humorous essay and accompanying letter showing one teenager s reaction to reading's most abused term – dyslexia.

> *"I am enclosing a copy of an article written by my daughter, Brenna (a high school student) which was inspired by two factors: we lived in a town where local educators, parents, and the like were labeling any child who was doing poorly in school as "dyslexic," and where even her high school Latin teacher felt inspired to devote an entire period to a lecture on the subject; and secondly, by my dissertation (just completed) on basal reader content."*

If your dog is ambitious and you want him to be a success in life, then surely you can see the importance of teaching him to read.

Don't be alarmed. It is not nearly so difficult as it may appear. There are even special books designed for the purpose.

But before you can start the actual instructional process, you must first determine if your dog is disadvantaged, for you may have to modify your program.

For example, your dog might be dyslexic. One test for dyslexia is to have him run across the room. Is his gait even? If not, he might encounter reading problems. Another test is to have him follow a ham bone with his eyes. If he has trouble following it, with eyes or otherwise, he may be very dyslexic.

Does he wag his tail from right to left or from left to right? Dyslexic dogs usually wag from right to left, and if you notice this trait in your Rover, you may need to change the pattern; reading is done from left to right. Perhaps he has mixed dominance. This is a form of dyslexia in which the dog is neither completely left-pawed not right-pawed, but uses both interchangeably. This trait often leads to reading problems.

One way to test for mixed dominance is to have your dog sit, then respond to the command "Shake." Is he consistent with his use of the right paw or left paw? Or does he offer first one then the other?

Watch Rover when he awakens from a nap. Which paw does he extend first? Is he consistent? If still in doubt, there are other tests (for male dogs) which the author will be happy to send on request. Please include zip code.

Let us assume however, that your dog is non-dyslexic.

You want to begin reading instruction and you wonder which series of books would be best for him. This problem is quickly solved by the publishers of Series X, which has published a special primer

for dogs. It features a dainty female dog named Tip, with whom your dog can romp through reading, and at the same time will learn about middle-class values, good citizenship, and the methods with which to cope with life's daily problems. Your dog will be entertained and amused by the antics of Tip's three human playmates, and will identify readily with Tip in the realistic settings and situations portrayed by the author and artist. While Tip's speech pattern is admittedly stilted due to vocabulary limitations at the early instructional level, the illustrations clearly convey the plot. To be realistic, you can understand the story without really having to learn to read. So why bother?

Because male dogs often have more difficulty in learning to read than the female, another series has come out which is geared more to the interests of the male. It plays down the female role and features a very masculine dog named Pepper, with whom the male dog may more easily identify. This series uses the "see-and-bark" approach to learning to read, which many dogs find easier than the phonetic approach used in Series X.

You need not worry about the quality of these books. They are so effective that in some schools they are even used to teach human children.

But, of course, we still have not settled the question of what is dyslexia – and to separate it from some of the basic causes of difficulties in learning to read, such as our inconsistent, often contradictory spelling.

Nuf sed

The Ambitious Penalized

After reading the article (June 16) on the merits of the "pass-fail" system of scholastic grading, our daughter observed, "The student wouldn't know where he stood in relation to the rest of the class, and it would also encourage laziness" – this from a twelve-year-old!

It would seem that "learned educators" might also see the obvious pitfalls of such a system. But it appears that the psychologists are still in command of education – the ones that want to avoid giving an inferiority complex to the already admitted failures in school.

Alas – it is another graphic illustration of the skyrocketing cry in America today.
Penalize the ambitious... reward the mediocre!

Mrs. Vern C. Pfanku, Orange, Calif. *L.A. Times,* Jul. 68.

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[Spelling Progress Bulletin Spring 1970 pp4,5 in the printed version]

4. Phonics – What Should We Teach?, by J. M. Smith*

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Reprinted from *Reading* (UKRA), vol. 3, No. 2, June, 1969.

Most remedial teachers will be aware of the fact that a large proportion of their remedial cases consist of children who seem to have reached a plateau at a reading level of some 6½-7½ years. Many of these children have made successful, if slow, progress through a basic look-and-say type of reading scheme.

Very often, by the time this basic reading scheme, with its restricted vocabulary and high rate of repetition, is completed, these children are in the first or second class of the junior school, where the reading material available generally consists of the class and school libraries, containing a selection of books in which no vocabulary control operates, and in which word repetition is no more frequent than the requirements of the story dictate.

At this stage, most of the brighter children will experience no difficulty, as even if they have not been taught a phonic (analytic-synthetic) method of tackling new words, they will generally have abstracted sufficient information from their basic scheme to formulate the concept of a phonic approach, which will be employed accordingly.

A proportion of children, for a variety of reasons, may not have been able to do this; for these children, some form of teaching of phonics must take place to enable them to tackle words which are not included in their sight vocabulary. There is no shortage of phonic apparatus, schemes and aids on the market which can be used to help the child. Despite this, however, many teachers are hesitant about introducing phonics. This may be due partially to the fear that the teaching of phonics may be thought 'old-fashioned,' but very often they are uncertain which phonic elements should be taught, and more important, which letters or groups of letters should be used to represent them.

This is, to some extent, understandable, since our 26 symbol English alphabet is doubly inconsistent; not only can one letter represent more than one sound, but one sound may be represented by a number of different letters or letter groups. It has been calculated that there are over 500 different ways of representing the 40 or so basic phonemes of which the English language is composed. [1]

Some of these 500-odd letter groupings, however, occur far more frequently than others; for instance, in children's reading schemes at the 6 to 8-year-old level the 's' phoneme, as in thi**s**, is more frequently represented by the letter 's' than by the soft 'c' as in city. This is fairly obvious, but perhaps not so obvious is that the 'z' phoneme, as in **z**oo, is more frequently represented by the letter 's', as in ha**s**, than it is by the letter 'z'.

When considering those children who have failed to develop a phonic technique, a 'crash course' of phonic teaching is often indicated. When preparing such a course, it would appear sensible to plan the content according to the following principles:

(a) The phonemes first taught should be those which are represented consistently by the same letters or letter groups, so that the child is not confused.
(b) The phonemes first taught should be those which are of most use to the child in his reading; that is, those which occur most frequently.

(c) The phonemes first taught should be those which will be learned most readily through frequent reinforcement; that is, again, those occurring most frequently.

With these principles in mind, an analysis was carried out with the aim of producing a pilot list of key letters or letter groups representing phonemes, similar in principle to the 'Key Words' list of McNally and Murray (1962).

Method

The four reading schemes used in the analysis were:
(a) The *Ladybird Key Words series,*
(b) The *Griffin Readers,*
(c) The *Mike and Mandy* series,
(d) The *Racing to Read scheme.*

The reason for choosing these four schemes was simply that they were the schemes most frequently used in remedial education in the writer's own area.

From these schemes a total of 1020 words were analysed and the various letters or letter groups used to represent each phoneme were listed. The words were randomly selected in running passages of 60-100 words from two books of each scheme, the reading level of the books chosen being in the 6 to 8 year range, since it was felt that it was within this age range that a reading plateau often occurred and because the general consensus of opinion seems to be that phonics should not be introduced until a reading level of 6½-7 years is reached. **[1]**

The total number of phonemes in the 1020 words was 2,998, and these were represented by 132 different letter groupings (including single letters). The results were graphed to show the relative frequency of occurrence of each letter group, and on the basis of the three criteria listed above a suggested 'Key List' was drawn up. In the list below the word in parenthesis indicates the phoneme which each letter or letter group represents; for example 'th' (*th*is); in this case the letter group 'th' represents the voiced digraph as in *th*is, and not the unvoiced digraph as in *th*ree.

Key Phonics
Set 1. b,bb (*b*at); r,rr (*r*un); d,dd (*d*id); n,nn (*n*o); t,tt (*t*op); s, ss (*s*o).
Set 2. th (*th*is); a (m*a*n); i (*i*n); l,ll (*l*ip); m,mm (*m*y).
Set 3. c,k,ck (*c*at); f,ff (*f*all); g,gg (*g*un); h (*h*at); p,pp (*p*ot); w,wh (*w*ill). **[2]**
Set 4. u (*u*nder); ch,tch (*ch*op); ng (si*ng*); v (*v*an); sh (*sh*ip).
Set 5. e (h*e*, *e*nd); o (*o*n, n*o*); j (*j*ump); ou, ow (h*ou*se, c*ow*), ee, y (sunn*y*, b*ee*) ; i-e (r*i*p*e).*

It will be noted that some letters are introduced as having two phonic values, such as 'e', and in other cases two letter groups are introduced as having the same phonic value, such as 'ou' and 'ow'. Also, whenever a letter can be 'doubled,' such as 'b', 'bb', both these letter groups are shown as producing the same sound. It is suggested that these letters and letter groups should be taught in this way; that is, the child should be taught that when he encounters the letter 'e' in a word, he should try to 'build' the word using one phonic value, and if that fails, he should try the other. These two phonic values should be introduced simultaneously from the very begining.

The letters and letter groups listed above are arranged in five sets mainly for teaching purposes. Those composing the first set were chosen primarily under the consistency criteria, although frequency was also considered. For example, the 'b' (*b*at) phoneme is almost invariably represented by the letter 'b', occasionally by the letter group 'bb'. No other variation occurred in this analysis. This is the closest to a one-to-one symbol to sound relationship that was discovered in this study. The 'r' (*r*un) and 't' (*t*op) phonemes are similar to the 'b' phoneme in consistency, the only variation

being doubling of the letter. Consistency is slightly less in the case of the 'd' (*d*og) phoneme, as letter groupings such as 'ed' in jump*ed* and 'ld' in would occur. In each of these cases two letters, one of which is not sounded, represent the 'd' phoneme. This also happens with the 'n' (*n*ut) phoneme, in words such as engi*ne*, where the letter 'e' at the end of the word does not modify the vowel. The 's' (*s*un) phoneme is the least consistent in this group, being also represented by 'se' (hou*se*), 'c' (*c*ity) and 'ce' (fa*ce*), as well as by doubling. These variations are, however, much less frequent than the use of the letter 's.' The inclusion of the 's' phoneme is also justified by the fact that the children find this one of the easiest phoneme-letter links to memorise.

The remainder of the letters or letter groups shown in the list were chosen chiefly on frequency of occurrence, with consistency as a secondary consideration. No letter or letter group was chosen to represent a phoneme unless it occurred more than 40 times, with the exception of 'ch', 'tch' (whi*ch*, wa*tch*), 'ng' (si*ng*), 'sh' (*sh*ip), 'ou', 'ow' (h*ou*se, c*ow*), which were highly consistent, as only those letter groups shown appeared; 'v' (*v*an), fairly consistent except in such words as: have, where the final 'e' does not modify the vowel and so was considered a silent partner in the letter group 've' representing the 'v' phoneme, and 'j' (*j*ug), which occurred more than eight times as frequently as its variations 'g' (engine), 'ge' (lar*ge*), and 'dge' (bri*dge*). The remainder of the 132 letter groups or letters occurred either at a frequency of less than 40, or the inconsistencies were so great that no attempt was made to list them in a teaching order. However an analysis on a larger scale would probably give further guidance.

The letters and letter groups in the above list were found to represent 77% of the phonic structures used in the reading schemes listed above; the 11 letter groupings in Sets 1 and 2 alone represent 48% of the phonic structures used in these books, so that these alone would appear to be rather more important relatively than the first 12 words in the 'Key Words' list, which account for 25% of the words in children's books. It is felt that this comparison gives some indication of the value which phonic teaching based on a frequency/consistency criterion could have. It was found that the usual method of teaching phonics by introducing the sounds of the individual letters would result in the pupil gaining a knowledge of 62% of the phonic structures in the above schemes.

This list is, of course compiled from a fairly small sample, and because of the repetitive nature of the vocabulary content of the books, it does not represent, nor is it intended to represent, the universal frequency of these letter groups. It is possible that an analysis of other schemes might produce a somewhat different list.

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[1] Ed. note: This is a fallacy that the i.t.a. has exposed.

[2] Received Standard Southern British speech does not distinguish between wh and w, as in which-witch.

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5. How to Save Time, Space and Material in Writing, by Kingsley Read*

*Abbots Morton, Worcester, Eng.

Ideas on this aspect of writing deserve consideration. They come under three headings: First there is the familiar prospect of spelling with 15% *fewer letters,* given a 40-letter alphabet which spells all single sounds with single letters. Second, there is a case for *simplified lett*ers, inscribing more easily the 85% of spelling still to be done. Third, a few exceedingly recurrent words warrant *standard* simplification more than our almost profitless conventions, Mr., Mrs., Dr., etc.

The total saving of space and pen time could be from 33% to 50% *without* becoming a shorthand system as that term is understood.

Modern stenography, of course, adopts the same three approaches to easy writing. Its 40 characters avoid digraphic spelling; they are far simpler to write than orthodox letters; abbreviations are innumerable. But for children and writers generally, shorthand characters are too slightly distinguished; for fast and certain reading, they need some help from recollection which only the writer can ever have. And while a very few time-saving abbreviations would be welcome, only the experts can tolerate them by their hundreds. On one more point of importance shorthand scripts are off the target. Should a new economical writing ever be typewritten or type-set in print, its words cannot straggle shorthand-wise away from the lines in which type must lie in orderly sequence.

When George Bernard Shaw left his bequest to evolve a better alphabet – and to print one of his plays in it by way of trial and example – simplicity, economy and printability were demanded of me as chosen designer. Subsequently, it fell to my lot to conduct intercontinental correspondence in the approved Shaw alphabet, and what was necessarily theoretical in origin could be treasured against actual writing done by a cross-section of widely scattered English-speakers.

The time had come to explore a little beyond Shaw's Will and its alphabet which theory had provided, and to go forward in the light of four years success with it. Under the Will it was not permissible to modify the alphabet once it was published. It is still in use. But it cannot, in good conscience, be offered for school use when it is now known to be improvable in minor matters of convenience. A more helpful alphabet known as Quickscript has already had four years' satisfactory testing in circulated correspondence and is available to investigators.

No-one supposes or suggest that a better alphabet should wholly, at one stroke, replace the Orthodox alphabet to which we are all accustomed. But if we are convinced that the old alphabet made for Latin (then the international language of writers) is too *faulty* and *wasteful* for English (now becoming an international language), we have no alternative but to insist that *some* limited use must be made of a better one *in schools.* Without some measure of application for it among a fresh generation, learning without any biased preconceptions, we can only make tentative and experimental progress.

Introduction of a modern alphabet into schools will doubtless be long delayed and hard fought. But the full and exhaustive enquiry which must precede and persuade it cannot too soon be undertaken. It is to this overdue enquiry that we shall address ourselves in this article. The conclusions from the extended trial of Shavian should be much to the point.

Alphabetic reform is beset with false assumptions. The most persistent one is that the sole advantage of a phonetic alphabet is thrown away unless the spelling of every word is a full and exact representation of speech – not only at the stage of learning, but always, without exceptions, reservations, compromises or conveniences.

The alphabet designer; when confronted with the immediate question.' *Whose* speech is to be represented, will have the natural instinct to say. My own; if only because it is the only English I can represent with ease, assurance and honesty. Or with more modesty and research, the writer follows "the" dictionary pronunciation, or the usage of the Professor, the President, the BBC; but with most conviction, the usage of that 'sensible' circle or locality with which he has to live.

For printing *Androcles and the Lion* in Shavian, the general speech-habit specified by Shaw was to "resemble that recorded of His Majesty, our late King George V" – king's English when the play was written. But an appendix to *Androcles* (pp 143-5) shows some of the problems left, whatever the model, for decision by non-phonetic or arbitrary rules. Like the rest of us, King George varied his pronunciation more or less subtly, according to context, emphasis, formality, colloquialism. For convenience and consistency of spelling, our rule may *assume* that every word is emphatically produced, but *then* we are no longer spelling as we speak. We must in the end spell somewhat arbitrarily, to avoid much variable spelling.

Of course, there are other problems. There is the immense complication of dialects, local, foreign or personal. Emphasize, if the rule requires; but the English word 'been' is still the American pronunciation 'bin.' It is no longer any guide if we seek to throw responsibility on a dictionary. Whether it be the Oxford or Merriam-Webster, a fine modern dictionary will give several alternative pronunciations for a very great number of words; and in different states or counties, even our adopted rules of spelling must produce results at variance with pronunciation. The plain truth is that any consistent spelling has in the end to be spelling by agreement; and reading at good speed requires, let us say, 95% consistency in spellings.

Shavian experience to date is that, while most beginners protest that not all English is spoken and spelt to their own pattern, within six months or so they appreciate whatever measures of consistency are proposed, with but few words excepted. The nearer they come to simple word-recognition at sight (as opposed to analyses of sounds represented), the less are they irritated by a pronunciation which once struck them as pedantic, class-conscious, foreign or what-not. Among other Shavian practices most willingly adopted is that of reducing to single letters those commoner words of the language: *the, of, and, to, for* – which incidentally evades the choice between their variable pronunciations. This conventional representation of 5 words saves on the average no less than 6½% of the letters needed for a full *phonetic* representation; and it raises the question whether

convenience and economy should not carry conventional reduction of spellings further to embrace other frequently used words – which is often done unmistakably by omitting their vowel letter. In view of the established fact that some 70 different words occur so frequently as to amount to *one-half of written English,* conventional spellings of some of them would be a far-reaching economy – despite the lessening frequency (and economy) on words lower down in the table of frequencies. This is no proper practice for children, or foreign learners, who must begin with phonetic spelling if they wish to relate spelling to pronunciation; but it becomes a very notable economy in writing before progress is far advanced.

Our opponents, like our beginners, ask: Why use a phonetic alphabet at all if experience and convenience leads back to arbitrary spellings? Why not make do with the 26 letter Orthodox alphabet with which we are all familiar – which our children must learn to use in any case? After all, many Orthodox spellings are nearly phonetic enough, and you do not propose making every spelling completely phonetic when you do have a phonetic alphabet. Why bother with it?
Let us put first the economic reply. We cannot in reason afford the time and material to go on forever writing several letters for single sounds. We must learn to use single letters for such single sounds as those now ambiguously spelt with *th*, *sh, ch, oy, ai, ie, awe, ough, ow, ew,* etc. The primary purpose we have in view is to write with a minimum number of letters and penwork – with no more than a single letter for any single sound. Economically, it is of no consequence which sound is represented; but with- out a full complement of letters (a complete phonetic alphabet), sounds are uneconomically – as well as ambiguously – spelt.

It is also true that the new alphabet should, for further economy, be less complex in its letter-symbols so that the writer has fewer penstrokes *per letter,* as well as spelling with fewer letters. The added alphabetic letters must be easily penned ones. Multi-stroke letters like *w* and *m* need replacements. Economy does not stem solely from an alphabet's phonetic adequacy; it needs *graphic* simplicity as well. But let us regard *economy as the main objective.*

The advantage of relating spelling to spoken sounds should be sufficiently obvious. The native English-speaking child would then have confidence in spelling. The foreigner then could reliably deduce pronunciations from the spelling. We would all be assured when first confronted with new names of things, persons or places. But apart from these and other purely phonetic advantages, the writer's saving of time, tedium and monetary costs should surely be argument enough.

Suppose that the writer of a Quickscript evolved from Shavian script were to save *half* the time, tedium and paper of Orthodox penwork; for that is the expectation from the current trials. How then is the reader affected? To this important question, Shavian reading, so far intermittent, supplies no valid answer. We have insufficient experience to know. The whole field of enquiry into a reader's ideal alphabet requires exhaustive study; for all serious work to date seems to be based on the Orthodox alphabet. It certainly seems that characters can be over-simplified to a point where reading becomes hesitant or worse. For the sake of very fast writing, shorthand symbols are over-simplified from a reader's point of view. They are too dependent on fine distinctions of angle, length, weight of stroke, even if employed for a full phonetic spelling. Instant recognition of words is often difficult; they are too easily malformed beyond recognition. There are researchers who

think a considerable redundancy of penstrokes in an alphabet essential for fast reading. There are, on the other hand, simpler alphabetic characters than those of Orthodox English, such as Arabic and Hebrew, which are read with no less ease and speed. This whole field of enquiry appears to be less cultivated than scuffled over with dogmatic preconceptions and assumptions. Whether a script based on Shavian experience is in fact the happy mean for reading, between shorthand and Orthodox characters, between artificial and phonetic spelling – is more than we pretend to know. It promises well, from 4 years of use by adult writer-readers in correspondence.

Two conclusions seem at present unquestionable. The learner' child or adult, should use an alphabet capable of sound-matching. He should at first spell as phonetically as his teacher or his untrained ear and speech suggest. He can study economies later, before the stage of reading by simple word-recognition. Secondly, when able to read fast without analysis of spelling, the reader has no quarrel with any conventional spellings which are universally used. It no longer matters to him for recognition whether they are phonetic, and admittedly he cares little whether the standard spelling of a word is with four letters or two. It would seem not unlikely that with twice the number of words brought within his accustomed eye-span, he may grasp their meaning a little faster; and if it should prove to be but a trifle of 5% faster, that trifle affects a million readers of one writing, and one imprint of it.

For the accomplished reader-by-recognition, spelling as a phonetic aid is of rare interest when he meets unfamiliar words, new names of places, persons, branded goods. Otherwise he is to all intents reading each word as an ideograph, grasping its meaning first, its sound afterwards if necessary. As ideographs, "& Co. Ltd" mean as much as "and Company Limited," NATO is handier, even to the reader, than its full title. Though ridiculously, we have not attempted to condense our language's *most frequent* words -a factor determining where most economy lies.

It is sufficient – and nothing less is sufficient – to know that accomplished readers are *not delayed* by any script proposed for school use and for life use. But when we speak of handwriting, let us honestly face the fact that it will not amount to calligraphy: we shall still have to read a lot of scribble, for such is writing in general, and fast writing in particular. Here again are difficulties in making true comparisons. Investigators will have headaches!

Now comes the crucial question. What authority, Trust, university, has the courage and farsightedness to *investigate?* English is increasingly becoming an international language in spite of its spelling. Who will patiently explore; who will pay for the exploration; who will make a written English that is efficient, simple, and economical, not only for coming generations but for all foreigners who want and need to use English. Who?

Meanwhile, the help of testers and users is welcomed.

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[Spelling Progress Bulletin Spring 1970 pp7,8 in the printed version]

6. Laterality Characteristics and Reading, by Margaret M. Clark*

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Reprinted from Vol 1, No. 3, Dec, 1967, *Reading, U.K.R.A.*

To be left-handed in a right-handed world has numerous disadvantages, yet through the ages and in spite of contrary training in many cases, there has continued to be a varying minority of left-handers. Claims have been made in the past that left-handed children are inferior in all types of ability. It must be admitted that many difficulties confront the left-handed child in learning to write; but handicaps have been suggested not only in that but also in speech and reading. Interest in dominance has not been confined to handedness. In more recent years attention has been directed also to 'eye-dominance' – by which is meant the tendency for one eye rather than the other to be the sighting eye in binocular vision, or to be preferred in monocular tasks. A third centre of interest in this field arises from the fact that there is not consistency between the two types of dominance-hand and eye. Thought has been given to the possibility that there might be educational significance in 'crossed laterality,' by which is meant that the preferred hand and eye are on the opposite sides of the body. Finally, attention has been directed to the fact that children vary in their rate of developing laterality preferences, and in the strength of their dominance when it has developed.

At various times it has been suggested that left-handedness is a bad thing from the point of view of educational progress; that left-eyedness is also to be avoided; that to have the dominant hand and eye on opposite sides is unfortunate, and that lateness in acquiring dominance and failure to acquire strongly established dominance of one side may also be causally related to educational difficulties.

There have been marked changes in the incidence of laterality characteristics, and it is the intention in this to draw attention to these changes and to discuss the evidence for the suggestion that laterality characteristics are causally connected with difficulty in learning to read.

Incidence of laterality characteristics

Hand preference

The incidence varies, depending on the criteria used and the number of tests employed. If the writing hand is the measure used, then the percentage has increased markedly in a number of countries during the present century, with the more permissive attitude to the child's choice of writing hand. Even in the last ten years there has been evidence of an increase in Scotland when a comparable group has been considered. When carrying out their Scholastic Survey in 1953, the Scottish Council for Research in Education collected information on the incidence of left-hand writers in Scotland in ten- to eleven-year-olds. The incidence at that time was 5.5% left-handed- 6.7% boys and 4.4% girls (quoted in Clark, 1957, p. 202). In a survey of the same age-group by the Research Council in 1963, the figures were 8.2% boys left-hand writers and 6.7% girls.

In a study of wider age-range in 1952 (age-range 5 to 12), the present writer found a higher incidence of left-handedness, 7% compared with 5.5%. It appeared in fact that the higher incidence was contributed by the younger age-groups. Two patterns were evident in the early studies: firstly, this tendency for a varying incidence depending on the age-group; and secondly, a sex difference showing significantly higher incidence of left-handedness among boys (a consistent finding in all studies). It had seemed possible that the excess of left-hand writers among the boys might be the

result of the greater effectiveness of environmental pressures on the girls. This now seems unlikely, since there is no evidence that the sex difference is diminishing. On the contrary, in two recent studies there is evidence of the reverse. As part of a research in reading (not yet published) the writer collected information on the writing hand of 1,500 seven-year-olds. The incidence is higher than that previously found in this country and the sex difference is greater – 8.7% left-hand writers, 10.8% boys and 6.4% girls. A recent large-scale survey in the United States by Enstrom (1962) has shown similar findings. In a sample of 92,656, Enstrom found the incidence of left-hand writers to be 11.1%, 12.5% boys and 9.7% girls. In his area a permissive attitude to left-hand writing has been evident for a considerable time, and he failed to find an age trend towards a greater percentage among the younger children. It is interesting to note that with the increased use of the left hand in writing, there is evidence of right-hand preference by some left-hand writers in certain tasks (and of the reverse in right-hand writers). Thus where investigators use as their criterion consistent use of the left hand over a number of tasks, the quoted percentage of left-handedness is lower than that based on writing alone. This may be seen in the figures quoted in the Plowden Report, Vol II (and also in Kellmer-Pringle, 1966, pp. 69-71). The incidence of left-handedness given there is 8.7% boys and 7.4% girls, but there are 12% boys and 13.5% girls given as mixed laterals; that is, not consistent on all trials of the two tests used.

It would look as if there is likely to be an incidence of left-hand writers of at least 10% in the future, with a greater incidence of left-hand boys, and as if the figure is not likely to vary markedly from one age-group to another when a consistent policy has been established for a sufficient length of time.

Eye dominance

Here again, the incidence found varies with the criterion and the number of tests. The % of left-eyedness found is somewhere between 25% and 35% depending on the number of tests used, and well over 1/3 of the population show some left preference (see Clark, 1957; Kellmer-Pringle, 1966). In the study in progress referred to above, where an increased incidence of left-handedness has been found, there is no evidence of this with regard to the incidence of left-eyedness, nor is there any evidence of a marked sex difference in eyedness.

Crossed laterality

From the above figures for left-handedness and left-eyedness respectively, it can easily be seen that a considerable proportion of children must have their preferred hand and eye on opposite sides. Even if one were to assume that every left-handed child were left-eyed (which is not the case), at least one quarter of the children would be crossed laterals. It is important when considering the significance, if any, of crossed laterality that it be appreciated just how common a phenomenon it is.

Laterality and reading

Since 1930 there have been studies of reading backwardness in which attention has been paid to the possibility that laterality preferences may have something to do with backwardness in reading (see Clark, 1957, pp. 100-5). A number of these early studies were carried out on clinic populations, or on very small numbers, but there has not been evidence that such preferences are significant in the normal population. When one considers the recent large-scale surveys of unselected populations, however, there does not seem to be support for the view that any one of the aspects of laterality discussed above is an important contributory factor in failure to learn to read, nor is there evidence that unchanged laterality of such types results in backward readers being less likely than others to profit from remedial reading. Pertinent in this connection is the finding by Cashdan (1967) that

there was no evidence of a differential rate of improvement in reading with remedial work associated with laterality preferences, in a study of children referred for remedial work in the Manchester area.

Fernald (1943), famous for her remedial work, observed that 'the right-handed cases and the cases of matched-eye-hand dominance resembles the cases in which the dominance is not matched, and are as serious in their deficiency, learn by the same methods, and are as successful in the final outcome.'

Hillman (1956), in a study of children aged between 7 and 8 years in Durham County, found no evidence of a connection between reading failure and handedness, eyed-ness or crossed laterality. Belmont and Birch (1965), in their study in Aberdeen of two groups of boys (aged 9 years 4 months to 10 years 4 months), found, to quote, 'that the boys who were retarded in reading did not differ significantly in any type of mixed dominance from the normal readers of the same age'. Further, within each group no consistent relationship between lateral preferences and level of reading performance was found, (p. 64).

The evidence suggests that the emphasis placed on laterality in courses for teachers on the causes of backwardness in reading may have been excessive, and that the laterality preferences of the child may not *in themselves* be an important consideration. However, the sort of information which can be gained from large-scale surveys is not particularly helpful to those dealing with cases of severe and resistant reading disability. One should here bear in mind the warning of Zangwill (1962) that the problem is not simply one of correlation. He feels that it would 'be more fruitful to ask whether forms of reading backwardness exist in which anomalies of laterality preferences are especially prominent. If any such be found, it can then be asked whether there are any associated disabilities which might suggest delayed or incomplete maturation of cerebral function.' (p. 109)

This is a field in which further study is required. It is important to bear in mind the present state of knowledge in this area in any study of the differential effects of laterality, and particularly to take into account the sex difference in handedness, of special importance in reading research, where the incidence of boys in any backward group will also be higher than that of girls.

Attention is being paid to a number of workers to an association between early speech difficulties and later reading difficulties. Both Ingram in Edinburgh and De Hirsch in New York are carrying out longitudinal studies of children referred because of speech difficulties and are investigating the subsequent educational progress of such children. De Hirsch (1966), in her recently published book *Predicting Reading Failure,* has described her attempt to discover a battery of tests which will be predictive, within such a group, of later reading difficulty. She has, in fact, found no evidence for the suggestion that laterality preferences, or lack of them, were predictors of later difficulty.

Although Belmont and Birch (1965) did not find an association between reading difficulty and laterality, they did find that, 'the group of retarded readers was deficient in right-left awareness and contained a significantly greater proportion of individuals who were unable to identify right and left both with reference to parts of their own bodies and in the general environment' (p. 68).

This finding of confused directionality may have significance for the teacher, in drawing attention to the importance of ensuring that a child acquires a left to right approach in reading, whether the child is left- or right-handed. Reversals are common in many children in the early stages of learning

to read and write, and what is surprising is not that this *is* so, but that people are surprised that it is so! Other phenomena which the child encounters outside the school do not become something else when viewed from a different direction, a boy is still a boy in whichever direction he faces. Too often it is assumed that adult awareness of the difference between 'd' and 'b' or 'was' and 'saw' is as obvious to the child in the early stages of learning to read. Anything which helps the child to approach each word in a rightwards direction is to be encouraged, and anything which delays this is to be avoided, whether it is confusion of left and right, changed handedness, or lack of guidance.

It seems appropriate to end with a quotation from Harris (1966), who is well known for his work both on reading and on laterality: 'recent studies tend to show that what is important for reading is not which hand or which eye is dominant, but rather whether or not the child has developed laterality and directionality. . . Difficulties in laterality and directionality tend to be regarded by neurologists as indicators of either defect or immaturity of the brain centres. With or without neurological basis, improvement is possible with special training.'

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[Spelling Progress Bulletin Spring 1970 p9 in the printed version]

Hueman Thhaut, bie Rebecca McConn
(Transliterated into Wurld Inglish by N. W. Tune)

Be kiend too dum animalz
    and giv smaul burdz a krum;
Be kiend too huemon beingz too;
    Sumtiemz thae'r priti dum.

Sonet for mieself, bie Mildred Plew Meigs

When I riflekt hou guud a wief I'v bin,
    Hou duetifuul, doemestik and adoering,
Hou unresponsiv too the kaul ov sin,
    Hou surkumspekt and hou kumpleetli boering;
When I konsider in mie humdrim wae,
    Hou liek too Cleopatra's past mien wuzn't,
Hou meni mink and saebl koets tudae
    Inklien too whiet gardeenyaz whaer mien duzn't;
When I purseev hou vies gets Packard aets,
    Whiel vurtue in the kitchen gets the diner,
Dispiet mie pruedens and mie prodikaets,
    I wunder – az I vue the saent, the siner -
If tiem rimaenz upon this mundaen level
    Too pak mie trunk and hie me too the devil.

Mie Pompus Frend, bie L. E. Nelson

Hiz sens ov digniti iz strong.
    Too see him stroel iz fun.
He wauks az if he wur
    A long proeshun ov wun.

(attention is called to the ease of reading without much training)

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[Spelling Reform Anthology §12.7 p176 in the printed version]
[Spelling Progress Bulletin Spring 1970 p9 in the printed version]

7. Nonsense Prose as a Test of the Efficiency of a Fonetic Spelling System, by N. W. Tune

Almost all his life, George Bernard Shaw was a crusader for fonetic spelling and a new alfabet to represent it properly. He strongly felt that our imperfect spelling was the cause of our language's deterioration. He castigates William Archer [1] for saying that the English language has not changed for centuries Shaw says [2] "for example, the 'whoreson knaves' of the 16th century become, in the paragraphs of modest police-court reporters, the – -s of the 19th. Our conventional spelling has not hindered any of these changes: they would have occurred at the same rate if the English language had been spelt all the time on the Weller principle, 'according to the taste and fancy of the speller.' All that the conventional spelling has done is to *conceal the one change that a phonetic spelling might have checked – namely, the changes in pronunciation*, including the waves of debasement that produced the half rural cockney of Sam Weller, and the modern metropolitan

cockney of Drinkwater in 'Captain Brassbound's Conversion.' At all events, here alone was the establishment and maintenance of a standard humanly possible; for the influence of the printed word over pronunciation can hardly be exaggerated."

There is a real need for English to be represented by a fonetic spelling system. Dr. Godfrey Dewey said (in a personal letter to me), "It is well accepted that even a linguistic scholar cannot tell with certainty how to pronounce a word he has only seen in T.O. print, or incidentally, how to spell a word which he has only heard." What he said is certainly true, but that is the fault of T.O. spelling, and to a certain extent, of the spoken English language. Being replete with homonyms and words with multiple meanings, it forces the reader and the listener to depend largely on contextual aid. When we eliminate the contextual aid, it forces the reader to depend largely on fonetic analysis. Isn't it a self-evident truism that a properly devised fonetic alfabet and system of fonetic spelling should be able to be read out loud by a reader even if he doesn't know the entire meaning of what he is saying? For the test, it makes no difference whether the reader (and speaker) understand all he says. Merely, it intends that he should be able to get the proper pronunciation to all the words printed thereon, without confusion due to ambiguities or inadequacies in the system. This then, is the value of the Nonsense Prose Test.

Are all fonetic spelling systems equally good? If so, then this whole idea is wasted and it doesn't matter which one is adopted. But some alfabet systems recognize only 35 or so sounds in English. Others show that they feel there is a need for 41 or so sounds in English needing representation. We need some means of comparing all these systems, showing up their deficiencies and attempting to measure their efficiencies.

Many times in the past, spelling reformers or alfabeteers with new fonetic alfabets to present to the public, have transliterated their system into some well known poetry or prose which the reader almost knows by heart. If one really stops to analyze the situation, and if logic is used, one should in all honesty conclude that this is not really a test of the spelling system but a demonstration well calculated in advance to dispell doubts in the mind of the reader that the new system is difficult for the uninformed reader to decode and understand. You can prove this to yourself by using the Cloze Test on the transliterated poem or prose. The Cloze Test consists of replacing every fifth word with an equivalent number of dashes for the letters of the word. Since the reader, who knows by heart the poem or prose he is reading, replaces the missing word from memory – not from any fonetic decoding of the spelling system, such a demonstration is not an adequate test of the efficiency of the spelling system under consideration. You can see this more clearly if you had the opportunity to examine 30 different spelling systems all transliterated into Lincoln's Gettysburg Speech. By the time you had read a dozen you would know it by heart and the latter systems would undoubtedly appear to be easier to read than the first system.

The only way an adequate test of the efficiency of a spelling system may be made is by some means that eliminates memory aid and all or almost all contextual aid. One way of doing this is to list a few hundred words that would require fonetic analysis to be understood. Such a list would be very dull, boring and probably not ever read in its entirety by the reader. So some interesting challenge to the alfabet designer needs to be offered.

George B. Shaw invented a means of testing such a spelling system and offered his nonsense prose as follows: **[3]**

> "Chang at leisure was superior to Lynch in his rouge, munching a lozenge at the burial in Merion Square of Hyperion the Alien who valued his billiards so highly.

"Quick! Quick! hear the queer story how father and son one time sat in the house man to man eating bread and telling the tale of the fir on the side of the road to the sea, following the coast to its fall full two fathoms deep. There they lived together served by the carrier, whose narrower mind through beer was sore and whose poor boy shivered over the fire all day lingering in a tangle of tactless empty instinct ineptly swallowing quarts of stingo!'

(In T.O. it contains 494 letters, yet has only 372 sounds – showing a waste of almost 25% in space and time).

While this prose has more than a minimal amount of contextual help, it also omits the 'book' sound. It also has two words not in the dictionary-coined words for the purpose of reducing contextual aid.

Because Shaw's prose gave too much contextual aid, this writer conceived a longer paragraf of nonsense prose which illustrates all 41 sounds of English, which gives a minimum of contextual aid, and also in close proximity, gives a direct comparison of sounds needing discrimination, which some alfabeteers fail to discriminate, such as, *what-watt, when-wen, why-Y, whoa-woe, both-bother, thin- then, this-thistle, thy-thigh, odd-aud, otto-auto, cot-caught, don-dawn, not-naught, dotter-daughter.* It also has some words especially coined (so as to be unfamiliar to the reader or alfabeteer) so that he must use fonetic analysis to decode them. Try this on your alfabet – and judge it accordingly!

Sokitumi – the Depleted Prose

The poet Thoreau was thorough in his valediction of the questor right in the shades of night were falling fastly over the meadows, how low now we plough through the brooks, pools and full mountains. Ununctious is the slightly emaciated epitome analogous to nouveau riche in its thoroughated thoughts. Calligraph the photophlismatic notion that Alice, alike any eight archaic coughs are ploughed asunder. Seek the sprightly leotard in the slough of the Basque and calliphractigate his awsomly unique unicorn unionized against his forehead. Maintain mountains of melancolia mingled amongst the magnificent scents and accents account in the primugal forest since cents are sincerely expensive. Obese and blighmy are the facets of the squirlly pterodactyl in his flight to avoid alarcity. Tiz enough to bring candescence to an isomorphic isoplethic kooka-burra in the kourbush, even if you know what that means. The knotty naughty problem awed the odd procrusteans in the calm comma and the palm of pommel. Polly Pauley caught a cot in Maud Moll's auto with Otto Fawkes' fox. I yearn for iron to dive in the Ying-yang river in a wet diver's suit. The thin thickness of Thendora thanks the thendar with thithers and theka in Wethick. Profligate thy thigh with this thistle but not naughty did don dawn bother both daughter and dotter. Cash your church unction suspiciously. If you don't survive this emasculated version of aid-deprived prose, perhaps you will do better next time. *(Note: all words must be transcribed, including personal names).*

[1] Abraham Tauber: *Shaw on Language. 1963,* Philosophical Lib.
[2] Ibid, p. 14.
[3] Ibid, p. 128. Originally, Richard A. Wilson, *The Miraculous Birth of Language,* 1948, Philosophical Library, p. 38.

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[Spelling Progress Bulletin Spring 1970, pp10,11]

8. The Duke of Edinburgh Interview, by Richard Baker, B.B.C.

The English Language Summer School 1969, which was held at Westfield College, London from July 27 to Aug. 23, was jointly sponsored by the English-Speaking Union, B.B.C, English by Radio and Television, and International House. H.R.H. Prince Philip, Duke of Edinburgh is Patron of the School. The following is the text of a filmed interview which he gave to Mr. Richard Baker of the BBC on 10th July and so opening the English Language Summer School 1969.

Your Royal Highness, the fact that you've agreed to open this year's English Language Summer School and your very active Presidency of the English Speaking Union suggest that you consider the teaching of English a very important thing. Why is this?

> Well, I'm particularly active as President of the English Speaking Union – of course, this interest in the language is only part of the activities of the Union. But I think it is because so many people speak English, and at one time it was an official language almost everywhere, that it seems to me that here is the opportunity of providing more and more people with the **ability to communicate with people of different nations.**

Well now, these Summer Schools have been run for many years by the BBC in conjunction with English by Radio & Television. Why has the English Speaking Union become involved this year for the first time, and what will the E.S.U. contribute?

> Well, I think that the advantage of the E.S.U. assisting in this is that it provides that essential voluntary backing, and that it has a lot of members all over the world, particularly in English-speaking countries, and I think it can help the programme of English speaking, by radio, or by the BBC or whoever it happens to be, to develop, because it can give it that essential public support and voluntary backing.

There are people here from all over the world at this course, people from the Middle East, from India, from Africa and so on. Is there any sense in which this spreading of English, as it were, can be seen as a sort of a new form of Anglo-Saxon imperialism?

> Well hardly, because neither the Angles nor the Saxons actually speak English. There is always a danger that people will think that this is some great plot to serve them up, but English is now being used by so many nations as a national language already who don't have any particular connection with this country. After all, the United States broke its connections with this country a long time ago. It's been used as an official language in a great many countries, as I said. It seems to me that this is really the essence of the exercise, **to make English a useful second language** for a great many people. It's not to take the place of another language, but it's merely an international currency. After all, when people spoke Latin, it was never considered as a sort of national Italian language. It was merely the language of international communication. And it seems, purely by chance, this is what has

happened to English, and I think we should go on from there and make it more readily available to give more people the opportunity of communicating with each other across national frontiers.

Do you think there's something special that can be achieved by a course like this which brings people together as opposed to English by Radio or Television?

Oh I think so. Inevitably I think that you can only learn so much from a kind of academic teaching programme. I think you learn an enormous amount by just putting people together and letting them talk it over and discussing things which interest them, talking about their difficulties. I think there's a lot to be gained by this. Particularly, don't forget that a lot of these people coming here core going to be teaching English themselves.

Do you think there's a place for **special techniques?** I mean, can a language laboratory be used in the teaching of English as it can in the teaching of Welsh?

Oh indeed yes, and in fact, it is of course, all over the place. I think that these language laboratories are fine. I've never been subjected to one, but I gather that you can teach people very quickly. They come out of it stunned, but able to communicate, I think.

Coming down to a specific problem of teaching – if English is no longer a national language as you've suggested, aren't there **great problems of spelling and pronunciation?** I mean can these things ever be **standardized,** do you think?

Oh I would think so, yes! I would like very much to see **a simplified version of spelling – even phonetic spelling – introduced for English, particularly for use overseas.** I think it would be perhaps a little difficult to use it here. But there are already these kind of **simple alphabets where the same sound is always written in the same way, which of course makes it easier.** And it's perfectly easy for people who know regular English to use this – I mean you only have to look at it a little more carefully. And, once you have learnt it in that way, you can also learn our rather extraordinary way of spelling. But for people who are learning it as a Second language, as a medium for international communication, **I am absolutely convinced that we ought to invent, or use one of these simplified forms of spelling – the rational forms of spelling and pronunciation.**

I should think school children everywhere will be grateful for that suggestion. What about the question of pronunciation – this is something that varies prodigiously, isn't it, all over the world of English?

Yes.

Hardly the same language, you might say?

Well, that's true. But the funny thing about it is that it doesn't actually appear to depend upon

racial characteristics. I happen to remember listening not very long ago to a programme from Glasgow, and there was a boy reciting some poetry – a piece from Burns, which he did, beautifully I thought, in the Scots pronunciation. And then it was announced that this was a 14-year-old son of a Pakistani immigrants. And if you go around the East End to some of these boys' clubs and things, you'll find West Indian boys speaking with a broad Cockney accent; and the same thing happens in Birmingham. So it doesn't mean that West Indians will always speak English the way they speak it in the West Indies; or the way they speak English in India (English will always be used by Indians). But I think the important thing is **to prevent these area differences from becoming so wide that you in fact arrive at a different language.** This is the important part, or one important part about teaching English – it's to try and keep these differences from getting too great – so that somebody who's learnt English in Calcutta simply cannot communicate with somebody who's learnt English in Sydney.

Well, here we are teaching a lot of people to learn English but do you think we make enough effort to learn their languages?

I think the techniques are improving. I think there's some difficulty about it, and I find that, is the opportunity to use foreign languages. I think it's quite well taught in schools, and I'm absolutely convinced that everybody in this country certainly ought to have a second language without any doubt. And in some cases, probably a third language.

Well, granted that the spread of English as an international language is a good thing, and you've been a great leader in this field. Would you say that enough is being done?

Well, what is enough? **In the sense of trying to spread the language as a useful second language throughout the world, I should think probably not, obviously.** And again if it's to try and keep the language more or less even**,** or rather useful between a lot of countries **so that it doesn't diverge too much, I should think certainly not enough is being done.** When you think of the amount of English which is being used, for instance, in India in higher education, unless you try and help the language retain some kind of, let's say purity, it's going to diverge. **So I think there's need for a great deal more to be done.**

Your Royal Highness, thank you very much for giving us this interview, and in this way opening The English Language Summer School 1969.

Well I hope it's a great success and that it's repeated.

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[Spelling Progress Bulletin Spring 1970 pp11,12 in the printed version]

9. Upsetting the Alphabet Cart: a Rejoinder, by Helen Bowyer*

*Reprinted from *WORD STUDY,* vol. xxxvi, No. 2, Dec. 1960.

[in order that *WORD STUDY* readers may examine and judge for themselves the merits of the argument for spelling reform, we here present Miss Helen Bowyer's reply to Prof. Louis Foley's criticism of the reform position published in *WORD STUDY* for April, 19601

Dear Dr. Foley:
Will you take another look at this World English transcript of mine which you so decried in your "Upsetting the Alphabet Cart" last April? As stated in my *Phi Delta Kappan* article of the June before, it spells itself with just 40 basic characters (single letters and digraphs) each matched with one and only one of our 40 basic speech sounds. I wish again to present them as all our youngsters would ever need to learn for the reading and writing of their mother tongue. Pronounce *ae, ee, ie, oe, ne* as in *maelstrom, heel, hie, hoe, hue – aa and au* as in *bazaar* and *because – oo* and *au* as in *fool* and *fall – ou* as in *out* -final *i* as in *pity – zh* as in version – italicized *th* as in *think.* Give all other letters and digraphs the sounds you most commonly give them now.

"A loef ov bred," the Waulrus sed,
"Iz hwot wee cheefli need,
Pepur and vinegur, besiedz,
Aar veri guud indeed.
Nou, if yoo'r redi, oisturz, deer,
Wee wil begin too feed."
"But not on us," thee oisturz kried,
Turning a litl bloo.
"Aftur such kiendnes, that wuud bee
A dizmal *th*ing too doo."
"The niet iz fien," the Waulrus sed,
"Doo yoo admier the vue?"
"Gosh," laft Jae Yung, "kan yoo
vizhon that litl seen?"

If your reaction is still, "Are we actually expected to take this seriously?" I unabashedly answer, "We are." We take its *one sign-one sound* principle seriously every time we consult our dictionary for the pronunciation of a word. The only essential difference between dictionary respellings and World English is that, while the former uses diacritics to indicate the values of most of its vowels, the latter uses nothing but plain a, e, i, o, u, alone or combined into vowel digraphs. In their treatment of the consonants and consonant digraphs, the two systems are practically as one. Both dispense with *c, q, x,* but incorporate *zh* and a second *th.* Both drop all silent consonants and reduce doubled ones to singles. In short, save for the different configuration of the corresponding vowels, I might almost as well taken the vocabulary of my *waulrus-oistur* colloquy from the respellings of my Merriam-Webster as to have built it up from my World English key. So, if you still feel that "to pretend that it is phonetic is merely ridiculous," will you take the matter up with our scholarly publishers? And, if you still think my use of *litl* but not *pepr* makes the demonstration "thoroughly inconsistent," will you consult the world-acredited *New International?* There on page 1444, full in the sight of men and angels, stands *little* respelled as I have it, while on page 1814 *pepper* blazens out its simplification, not as the *pepr* for which you fulminate, but as *pepēr-ēr* being a regular Webster rendering of the sound for which I as regularly use *ur.*

But what of all this? Let World English be ever so *"one sound, one sign,"* our traditional spelling doesn't need its brash iconoclastic aid. Such, at least, was the burden of your April onslaught on my Kappan article. "For the most part," you averred, "the sort of words whose spelling is the most strikingly illogical or unphonetic are not the words which even the least literate people have any difficulty in writing correctly." With this sort you include the unsounded *gh* clan-*light, fright, might,* (and one supposes) *height, wright, freight, aught, bought, taught, thought, though, bough, slough."* No one ever comes a cropper with that *gh* through ignorance! Anyone who writes *nite* for *night* just does it to be "cute." (And doubtless it would be the same if he wrote *slew* or *slue* for *slough).* As for that long category through which our *sh*-sound cavorts as erratically as in *ocean, motion, mention, tension, fashion, passion, cautious, nauseous, anxious, spacial, palatial, sure, issue, conscience, sentience, machine,* not a soul under the canopy but takes them in his stride. And when it comes to silent letters, at times (you claim) they're a positive asset. How would we ever grapple with *solemnity* and *damnation* if it weren't for those silent – but forward-looking – n's in *solemn* and *damn?* The case for *debt, doubt, salmon, almond, indict, scene, sign, ghastly, knowledge, isle, listen, wreathe, myrrh, ptomaine, mnemonic, phthisis, sword,* may not be so instantly apparent, but we have only to bone up on what the 15th century printers did to this one or the 16th century classicists did to that one on some or other happenstance of their history, to make their spelling no problem at all. But who will?

And it's no use for us self-appointed reformers to drag in *pneumatic, pneumonia,* or *psychology.* Has anyone, you ask, ever seen these words misspelled?

Sorry, but I have. And *rheumatic, phlegm, phlegmatic, ammonia, psychometry*. And shorter ones in droves like *eye, rye, riot, rhyme, guy, guise, climb, limn, thyme.* Not to mention *busy, dizzy, build, gild, guild, woman, women, their, care, air, prayer, where, pear.* You see these among the "least literate" of our people – some twenty million elementary school children whose present and future are surely as vital to us as is that of any twenty million to phonetic Russia. The billions of mistakes per annum they total in their reading, writing, spelling, and the effect of this on their education as a whole, is something the Russian school authorities must eye with sardonic astoundness. "And the acres of print," you can almost hear them jibing, "their pundits put out on *The Challenge of Soviet Education!* And their kids with a basic learning tool of 250 jumbled spelling units, and ours a streamlined 361"

My *Kappan* article rather stressed these odds, but they seemed to make no dent in your conviction of the inviolable allrightness of our orthographic *status quo.* Inviolable, that is, to all properly constituted persons who are "interested in bothering to look into the reasons why our words happen to be spelled as they are." So, if Johnny graduates from sixth grade still woozy on *choose, lose, bruise, whose, booze – loose, ruse, spruce, sluice, dence – aisle, mile, style, guile, lisle,* let's be careful to lay the blame where it belongs – on the boy's own heedlessness, that is to say, or on that of his primary and middle-grade teachers. Chances are they didn't adequately ground him in the Roman, Saxon, Norman derivatives of his words, or even drill him in their cognates in modern Portuguese, German, French, or any other of a dozen foreign sources of our words.

There's not a dictionary in the country which agrees with you. Least of all those prepared for school children of his age and less. Take the Merriam-Webster *Elementary* of 1956. Not only by the care and skill and thoroness with which it trains its young clientele in the use of its entries and respellings does it place the blame for Johnny where it basically belongs – it comes out with that placement in this unequivocal way. Taking *way, weigh,* and *people, leopard* as examples, it says:

"These two groups of words illustrate two things:

(1) that the same sound may be spelled in more than one way and

(2) that the same spelling may be pronounced in more than one way. . . If you hear a new word, you can't be sure how it is spelled. . . If you see a new word, you can't be sure how it is pronounced."

A pretty situation, wouldn't you admit, into which to plunge a six-year-old to whom all the words he sees are new? With *on* transmogrifying itself into the *ōn* of *only*, the *un* of *onion*, and the incredible *wun* of *one*. With such homographs – unreadable without context – *bow*, *desert, does, lead, read, primer, refuse, salve, sow.* With look-alikes that deceive – *speak*, *break, breakfast – but, put – dull, pull, most, tost – new, sew – howl, bowl.* With *c, s,* z playing fast and loose in *this, his, fizz – rinse, since – rise, size,* and *t* sliding in and out of *such, Dutch, which, witch, oft, often.* And on no firmer foundation in the next grade, or the next. What of *vigor, trigger, acre, Quaker, lemon, demon, diver, river, novel, shovel, oval?* Need we wonder if his reason revolts, his memory goes on strike, his attention gives up the struggle, he loses all confidence, and he ends up with that one third of our high-school enrollment who will never read above fifth-grade norm?

Our fifth-grade norm, be it understood – not that of phonetic Italy, Finland, Poland, Czecho-Slovakia, Turkey, Siberia, and the far-flung Spanish world.

If I am a little fervent about this, I have the background for it. Teaching English as a foreign language in the schools of Mexico City gave me an outside view of the time-consuming, memory-burdening, reason-flouting make-up of our spelling. Teaching Spanish as the mother tongue to illiterates there gave me a glimpse of the magic which a reason-reinforcing, confidence-building, memory-assisting phonetic spelling could bring to our reading problem – and solve the number one headache of our schools – the cause of drop-outs and subsequent delinquency. Where is the Messiah to lead us out of the spelling wilderness?

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[Spelling Progress Bulletin Spring 1970 p12 in the printed version]

10. The Ditch, by Frank T. Du Feu (In Revised Spelling)

The servis oever, in the porch
Thoze homeward bound produsedd a torch,
A wize precaution yoo shall see.
The Bishop, just like yoo and me,
Stepd boeldly forward in the dark,
Escorted bie the parish clark,
Hoo solemly began to tell
The history that he knew so well.
"When guod Queen Bess, the stoary goes,
"Fell in the ditch and bruezd her noze,
"Attendants helpd her to her feet,
"But their dismay woz soon complete,
"For, exercizing Royal pouer,
"She sent the vicar to the Touer.
"Petitioning for hiz return,
"The villajers wer greevd to lern
"That they must first condem the ditch.
"A hard condition. Wun with which
"Our ancestors cuod not complie;
"They wuod,.indeed, prefer to die.
"Of coarse me hav to pay the prise
"And not be scruepulously nise;
"A tramp fell in and broke hiz neck;
"A careless man, Melchizedek.
"I slipd in wuns and broke an arm,
"But still concede that ditch's charm.
"Hou long it iz, hou deep and wide!"
And nou the Bishop fell inside.
He soon emerjd but, then and thare
Reveeld a moast prodijous tare,
Maintaind the parish woz to blame
And threttend to prefer a claim,
Contending that the neatest patch
With clothh that reealy seemd to match
Wuod be discernd bie wun and aull,
A circumstans that must appaul;
The faithfuol wuod feel sorely uzed,
And nonconformists be amuzd.
The cassock woz beyond repare.
While *Widecombe* still hoelds its fair,
While Rome still venerates its geese,
And *Jersey* its unpaid polese;
While *Olney* hoelds.its pancake rase,
And Bakewell tarts ar soeld apase;
While Dunmow cupples claim the flitch,
Let Rolvenden preserve its ditch.
The council havving made amends,
The Bishop and the ditch ar frends.
But dizmal news is nou to hand,
A farewell to the ditch is pland,
And thoze hoo shuod protest ar mute.
Say, whot haz chekd the resolute
Determinaetion to resist
The march of proegress and enlist
The staunch support of yung and cold?
It seems that if the truethh be toeld,
A rediness to fill that ditch
Iz manifest in poor and rich.
When the contractor's men apeer,
Will no wun pauze to shed a teer?

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[Spelling Reform Anthology §15.1 pp209–211 in the printed version]

Section 15

Spelling and Electronics, Photo-typesetting

[Spelling Progress Bulletin Spring 1970 pp13,15, in the printed version]

11. Automation for Libraries, by Ivor Darreg

So much has been written about the "Information Explosion" that it is unnecessary for us to belabor the point in this article, but we should mention this acute problem since it is the main motive for introducing the paraphernalia and instrumentalities of the Computer Age into our libraries. Briefly stated, the output of new books and magazines has been increasing far beyond the abilities of existing methods to cope with it. In consequence, wasteful duplication of research and studies already done has become a most urgent financial and human-resources problem.

Also, there is now so much more for the average student to learn that teachers and students alike are being strained to the breaking-point; furthermore, adults must now go back to school in one way or another to up-date their knowledge and skills – and in very many cases, the only practical and economically feasible way for adults to go back to school is to use libraries.

The overcrowding of library facilities can be seen by anybody who visits a nearby library, and many buildings are practically bursting at the seams.

There are many ways in which current and future automation techniques could help libraries:
1), charging and returning of books,
2), cataloging, and catalog searching,
3), information storage and retrieval,
4), handling machine-readable materials, such as micro- film, microfiche, microcard, etc,
5), facsimile transmission of printing and drawings,
6), facilitating interlibrary loans,
7), setting up union catalogs, such as regional, national, or even world-wide catalogs,
8), facilitating the ordering of new books,
9), coordinating and keeping track of divers audio-visual materials for schools, etc.,
10), compiling indexes, abstracts, and specialized reading lists,
11), applying Dewey Decimal and other classification schemes to books and articles,
12), assisting librarians handling desk or telephoned inquiries for information,
13), searching out unpublished or rare documents on a given subject (e.g., doctorate theses, archives, correspondence among specialists),
14), continual updating of records and files,
15), assisting in most of the financial aspects of maintaining a library.

Actually, the list is almost endless; it is being augmented every day. Some of the "far-out" possibilities have been played up too much in the press, such as the home video screen on which a book page from some distant country will be displayed by simply dialing the proper number – and perhaps this has taken needed attention away from more immediately practical and more prosaic applications of automation such as eliminating the library typist's hour-long drudgery.

When writing about libraries, it is all too easy to forget that with the help of magazines, paperback

books, and some newspapers it is quite possible for private individuals to build up their own libraries, often of impressive size; and that high-school and college students, besides their piles of textbooks and study materials, are accumulating photocopied book pages, tape recordings, and "canned" notes and outlines pertinent to their classes. Thus the problems of automating libraries will exist outside of library buildings proper, and information storage and retrieval and cataloging will be important to many average persons.

Also, it may not be obvious to everyone that there are many *special* libraries – company libraries, special collections for research engineers and scientists at a division of a company, school libraries, collections belonging to a specific department of a university, institutional and club libraries, and so on. These usually have peculiar and difficult cataloging problems. Indeed, the producers and users of data-processing equipment have their own special library needs and have spent much time and thought trying to solve the associated problems.

Before going into the matter further, we must not forget the human side, of this: our eyes were designed for distant vision, for primeval woods and fields and the outdoor world. Keeping children in school for hours – and chaining adults to office desks imposes a severe and unnatural burden on the human eyesight, and nature exacts a price for this. Now that the volume of reading material is increasing so enormously, intensive effort has to be made to take some of this eyestrain off human beings, and some of the automation techniques may assist in this respect.

Humans have a limited *attention span;* the computer and its peripheral accessories are tirelessly alert. The tired reader may fail to see an important word or sentence and miss some urgent item of information; but the automated scanner will read the 2000th page as carefully as it did the first page. This ability to scan page after page tirelessly, all by itself, has provided potent ammunition for the advocates of library automation – so much so that a wave of over-optimism swept the field in the 1950's and naturally enuf led to an over-pessimistic letdown in the 1960's, from which latter slough of despondency we are just recovering.

Parenthetically, it is most fortunate that so many of the science-fiction extrapolations and fantasies about libraries and their successors in the year 2000 or 2050 were taken too seriously. There is nothing wrong with extrapolation, if it is well based. But too many of the science-fiction stories and blown-up popularization articles were written without an adequate survey of the problems involved.

And they are legion. Let us begin with a truly nagging problem: how much is all this automation going to cost? In *Datamation* for Feb. 1970, "Computer Costs for Large Libraries" by Dr. W. N. Locke, sets forth some of these not always obvious costs. Consider, for instance, the 1968 output of printed matter: some 450,000 books, 200,000 periodicals, and 200,000 technical reports. And this is going up by 8% to 10% a year. This makes it unrealistic to think of putting all this information onto tape or other storage media at present. Books are still the most efficient method, he claims.

It was estimated in 1964 that some 200 million titles existed, so that a big library with a million volumes had only ½% of the possible titles. This does not take into account a wealth of unpublished material that, given such forms as access as microfilm, might well assume greater importance in libraries of the future. There have been many stories about transmitting information instantaneously from one library to another in a distant city, to alleviate this situation (that no one library can afford all the books worth reading) but usually the authors of such articles neglect to inquire into the stupendous costs involved. Facsimile transmission equipment, for instance, can send an average typed business letter in a few minutes over a telephone line, so a 3-minute long-distance connection would not ordinarily take care of more than one book page.

Dr. Locke figures a cost roughly 375 times as great for storing a given amount of information on a reel of computer tape as compared with the cost of storing a library book in the stacks. This does not take into account the cost of running the computer's associated equipment long enough to find the needed portion of the tape and print it out.

However, there is hope: Realize, for instance, how the experiences of many decades can be stored in a small space within the human brain, and how frequently new breakthrus in getting more information into less space are being announced frequently. Computer tape is not the most concentrated electronic storage known at present, and substantial progress is being made.

Of more importance to us is the possibility of automating a library catalog. In bygone days, a library might have nothing more than an accession register, that is, a numerically ordered list of the books as they were added to the collection, with no means of locating a book or books on a particular subject save by painstakingly going thru the entire list however long in might be.

During the 18th and 19th centuries, a favorite indoor sport of philosophers and gentlemen of leisure was the attempt to systematize and classify knowledge. Indeed, this activity often went so far as the creation of an a priori or "philosophical" artificial language to make such knowledge-classification visible as well as audible.

Many impressive lists and charts have been published, professing to encompass the whole of human knowledge, actual or potential, within one or another such system. Obviously, it is not sufficient to own a book and put it on a library shelf somewhere; it must be retrievable when wanted for use. Thus this classification problem becomes vital to the functioning of any library, large or small.

In American libraries, two systems are in principal use, the Dewey Decimal and the Library of Congress system. The latter uses letters as well as numerals; the Dewey Decimal system uses numerals as far as possible. Both allow room for expansion and subdivision for future growth, and this necessitates revisions and supplements. Special libraries often have to invent or improvise their own systems, since they have no need for the entire field covered by the ordinary systems, but yet they must subdivide their own systems minutely which would require too many extra decimal places in the Dewey system. Figures to the fourth decimal place are commonly in use. A good example of a special system is the classification scheme of the U.S. Patent Office, where over 400 main classes are each broken down into subclasses, and occasionally these are sub-divided with the aid of a decimal place.

Why don't we just pick one of these systems and automate it? Then anybody pressing the right button can find all the books on any given subject. Unfortunately it isn't that simple. Many books and articles, and even more journals and magazines, straddle several subjects at once. One library may put a given book in the Mathematics department, whereas another library will put the same book under Banking. Often the line between Science (Dewey number 500) and Useful Acts including Engineering (600) is paper-thin. As for the Patent Office classification system, even with all those inventors and experts to help them, they haven't solved their own automation and information retrieval problem!

In their monumental work of the 1950's, James W. Perry and Allen Kent of Western Reserve University in Ohio devised an elaborate and unusual classification and information retrieval system which deserves mention here because of the way in which it attempted to come to grips with the storage and retrieval problem. As described in their book *Machine Literature Searching,* it was

applied to technical fields such as metallurgy. Concepts were broken down into semantic factors, to each of which a four-letter combination was assigned, e.g., M-TL stood for "metal" and then by inserting certain letters in place of the dash, the meaning changed systematically, as MATL, a metal, but MXTL, without metal or non-metallic. In effect they created a new language, but this could not be spoken, only written; in compensation, it was machine-readable so that an automatic scanner could go thru a long file and stop only where the asked-for semantic factors were found. Their hope was that this new language would facilitate the printing out of translations of an abstract as well as of the original language text. Also, they strove to alleviate some of the cross-referencing problems in the regular systems. Form the descriptions, searches would have cost more than those now made by human librarians!

It must be remembered that the computer and its associated equipment cannot think and does not make cross-associations as humans do; therefore an information storage and retrieval system, or an automated library catalog, cannot do any better than the classification system which human beings, in all their fallibility and fickleness, have devised for it and applied to it.

That is to say, a search for relevant books and documents can be completely frustrated if a classification system has been improperly *applied,* no matter how good the system in itself. This applies even more forcibly to key-words and subject-headings. Even tho the author of an article may be very prosaic and dully matter-of-fact, the title he gives the article can be highly misleading and cause requests from people who actually have no concern with his subject.

"Battery charge" means one thing to a police officer, and quite another to a service-station attendant! And both of these words have still other meanings to a soldier. "Evolution" is one thing to a biologist and something very remote from this to a mathematician. The terms "classify" and "classification" have recently taken on ominous, forbidding implications of military secrecy and fearful legal penalties, to the point that the Classified Telephone Directory has had to be renamed the Yellow Pages, and newspaper Classified Advertising has had to be renamed Want Ads or some other innocent term. Perhaps we shall have to adopt similar euphemisms for the librarians' tasks of classification.

Apart from such unusual semantic accidents, subject headings and keywords become obsolete without warning. For instance, a certain electronic part formerly called a *condenser* is now known as a *capacitor.* Therefore someone searching a card index under condensers would not encounter recent literature about them; and conversely someone searching under capacitors would probably miss relevant older material on this subject. True, skilled persons would know enuf to search under both headings but a machine would not. Usually, a library catalog will contain cross-references, but many people will not take the time to search them. And the implementation of many cross-references needed in an automated catalog for machine-searching is going to be a most expensive and tricky item.

During the optimistic period of the 1950's much hope was expressed for the possibility of *automatic abstracting.* For example, it was proposed that a machine count all the words in an article, list them in frequence of occurence, and then use the words of medium frequency of occurence to help index the article for retrieval, and at the same time, pick out the sentences in which these words occurred and print them out as the abstract of that article. Then all this tedious clerical work involved in preparing abstracts and summaries for busy scientists and scholars would be mechanized and lift a great burden from over- worked librarians and assistants. Alas! it is not that easy. The use of the phrase "information *retrieval*" has unfortunately directed attention away from the extreme care that must be given the act of storing and filing the information in the first place.

A given field of endeavor takes on a very different coloration as seen from the viewpoint of the Patent Office classification system, the Dewey Decimal system, the Library of Congress system, or one of the various special codings used in company libraries, and all of these are different from the viewpoint given in English-language keywords or keywords in German or Russian. In particular, the coinage of a new word such as *laser* divorces a subject from its historical background and relevant antecedents. We selected this example to show how many diverse and seemingly unrelated disciplines had to be brought together and butted against each other to make such a new development as the laser possible: optics, chemistry, crystallography, mathematics, electronics, the list is endless.

That is, to apply knowledge usefully and obtain new results, the knowledge stored in a library has to be animated and cross-fertilized and related. It cannot remain in the useless curiosity state of the miscellany displayed on some quiz-contest show.

As one comedian said about the New York Telephone Directory., "What a marvelous cast of characters-but no plot!" If the librarians try to turn the entire task of cataloging books over to the computer, the result will not make much sense either.

The customary alphabetical arrangement puts Animals and Zoology at opposite ends of the catalog, while it forces Elections and Electricity to be all-too-close neighbors.

This has inspired many workers in the field to invent some manner of classification scheme, but in solving one problem, a bigger one is created. Witness how Roger's *Thesaurus* with its elaborate system of categories of ideas is also published in conventional alphabetical order.

The plain fact is that most subjects change with time and the classification that served best in 1920 will not do in 1970. (Indeed, Roget's *Thesaurus* has been revised, reworked, added to, abridged, and rearranged till its author would want to disown it.) As our *laser* example above shows, a cross-reference (or rather, whole family of cross-references) that would have been useless and ridiculous in 1950 is now highly relevant and highly productive. What the librarians and their assistants do when cataloging determines in large measure the success or failure of many important research projects. Thus they are no longer isolated monastic recluses in ivory towers; they are part of the contemporary scene.

In turn, it becomes important that the librarians do not let the paraphenalia of automation run them or tell them what to do. The phrase "a good servant but a bad master" was never more apropos. Once au automatic system is installed, it becomes too easy to do certain things (i.e., to stay in a narrow cut of formalized procedures) and too difficult to do certain others (often, essential operations not foreseen by the computer programmers).

Along with this, it becomes impracticable to change the programming and the general setup, since what is now called "software" (the cards and materials a computer uses) is just as expensive as the electronic and mechanical equipment involved. Indeed, it may be unfortunate for a system to be finalized too soon; for then it will cost too much to change it to incorporate new features. It may even be that "canned" or prepared program "packages" will be offered to libraries, and they may not be suitable for a different type of book-collection or clientele.

Another problem is that of propagation of errors. If a misspelling or incorrect date or other error is accidentally entered into an automated system, it may be printed out and stored in so many different

places that it will be next to impossible to run it down and correct every such recurrence of the mistake.

If a typographical error is repeated often enough and, can manage to remain around long enough, it may get legitimized and take on an existence of its own. Two cases in point from music history: There is so much copying and re-copying from one book to another, that a misspelling (probably in the 17th century) of *clavichord* as *clarichord* got copied several times down the decades, and much more than a century went by before this non-existent ghost instrument, the clarichord, was laid to rest. In the 19th century, a European musical-instrument maker brought out the *Heckelclarina,* a wind-instrument named after this firm; but someone setting type for a textbook on orchestration misspelt the name as *Heckelclarind,* and again this ghost-instrument has been seen in the pages of many books, but not in any orchestra. The point here is, that with the increased speed of computer equipment, and the capability of producing many copies of an entry, and even getting these copies printed in many different places, an error that would have been quite trivial and excusable in the old days may in the future become very serious, since it is so hard to track down and correct its many appearances.

Anyone who has tried to copy the cards of a library catalog to build up his own list of books in case he should need them again, will have some idea of the sheer drudgery involved in this kind of clerical work. By the time one becomes busy and successful, one can no longer spare the hours for such efforts. As the need to be kept abreast of recent developments and new writings on one's subject increases, the time available for consulting the library catalog, or indeed for going to the library at all, decreases. To alleviate this situation, *automated preparation of reading lists* is being developed.

In Datamation for Feb. 1970, John R. Jordan describes the Ames SDI-KWOC index system. (This is an acronym for Selective Dissemination of Information-KeyWord Out of Context.) 4000 current titles are scanned weekly. Quarterly, an index of those titles pertaining to categories the user has selected as being of interest to him, is prepared automatically and sent to him.

The user fills out a form in such a way that it becomes his "interest profile" for the system. These interest profiles can then be encoded and stored in the system's equipment, so that as new catalog entries are made, they are matched against the user's interests, and thus only the proper parties are notified.

It should be obvious from this and other such applications that the act of automating library cataloging will serve other useful purposes, hitherto impracticable, or too expensive or too time-consuming to be considered and implemented. How near or far in the future will these time-saving improvements be available? Our next issue will give some practical answers. Automation, in some situations is breathing down our neck.

Why is it there is *never* enuf time to do it *right* – yet *always* enuf time to do it *over?*

-o0o-

[Spelling Reform Anthology §8.2 pp126–128 in the printed version]
[Spelling Progress Bulletin Spring 1970 pp16–18 in the printed version]

12. A Gradual Means of Making a Minimal Change in our Spelling, by Newell W. Tune

A few years ago, the Research Committee on Spelling Reform circulated a questionnaire which asked (among other questions),
"Which is preferable for adopting a reform of our spelling?,
(1) a gradual basis, or
(2) a complete change, to be adopted at a future date after a period of education in the new spelling."
While the returns on the Questionnaire showed unmistakably that most persons (3 to 1) preferred the abrupt adoption of a perfected system, there is no reason why we should not consider a gradual change method of educating persons into the advantages of simplified spelling by making a series of steps of changes.

In such a gradual change, the first and easiest change should be the one that is the least offensive to the stand-patters. This would be the elimination of the unnecessary silent letters in about 888 words. These are the words, such as: *build, friend*, where the omission would not obscure the meaning and would aid the student in determining the pronunciation, instead of, as now, obscuring it. Of these 888 words, there are 123 with silent initial letters. While their omission would change their location in the dictionary, which is indext by the T.O. spelling, it should cause no handicap, and indeed, should make it easier for students to find words, because then they would have a reliable means of looking up words from their initial sound, where as now, they must know the spelling before they can locate such words.

This list could be used by teachers (with the approval of their supervisors or the Board of Education) as a list of words with acceptable alternate spellings, thereby paving the way for progress on the path to more sensible and reliable spellings. These words are all serious spelling demons.

888 Words with Unnecessary Silent Letters

a silent with short -e: abreast, aecium, aedile, aegean, aeneas, aeolian, aeon, aesthete, anapaest, bear, bread, breast, breath, cleanse, dead, deaf, dealt, death, dread, feather, head, health, hearse, heaven, heavy, instead, jealous, lead, leant, learnt, leather, meant, Michael, pheasant, plead, pleasant, pleasure, read, ready, leapt, realm, sergeant, spread, stead, steady, stealth, swear, sweat, tear, thread, threat, wealth, wear, weather.

a silent with short -i: bargain, Britain, foliage, captain, carriage, mountain, topsail.
a silent with long -o: coarse, cocoa, hoard, hoarse, pharoah.
a silent with long -i: aisle, faille.
a silent with long -e: appear, appearance, appease, bereave, breathe, cleave, crease, disease, decrease, displease, ease, grease, grieve, heave, leave, increase, plead, please, reave, season, seize, sleeve, tease, weave.
a silent: balsam, board, boarder, cupboard, gingham, wreak.
b silent: bdellium, bomb, climb, comb, crumb, debt, doubt, dithramb, dumb, ebb, gimblet, jamb, lamb, limb, numb, rhumb, subtile, subtilize, subtle, subtley, succumb, tomb, thumb, womb.
c silent: ascend, ascertain, ascetic, ascidian, back, barrack, cneus, conscience, crack, cteno-, ctesiphon, czar, descend, discern, indict, kick, knack, knock, lack, lock, lick, luck, mackeral, mackle, mickle, mock, muck, nick, nickle, pocket, quack, quick, rack, reckon, reminiscent, rickets, sack, scene, scenario, scent, scepter, scheelite, Schiller, schist, schizo-, scianoid, sciagram, sciatic, science, scimitar, scintilla, scion, scirrhus, scissile, scission, scissors, sciurine, sciuroid, scylla, scyphus, schick, scythe, scythia, sick, sock, suck, victuals.
ch silent: drachm, schism, yacht.

d silent: add, addict, adduce, adduct, address, adjacent, adjoin, adjourn, adjudge, adjunct, adjure, adjust, blindness, budge, commandment, fieldfare, goldfinch, granddaughter, -father, -mother, -son, grindstone, handful, handkerchief, handmaid, judge, knowledge, landlady, -lord, mindful, ribband, sandbox, soldier, thousandth, Wednesday, veldt.

e silent: aesir, amateur, axe, bier, cheese, eider, foreign, heart, height, pigeon, queue, sieve, sleuth, surgeon, griffe, riffle, teint, Tuesday, Wednesday, suffix -ed.

f, omit one of double f's: bluff, buff, cliff, cuff, doff, duff, fluff, griffe, huff, jiffy, miff, muff, off, offer, puff, luff, riffle, ruffle, scruff, scuff, skiff, sniff, snuff, stiff, stuff, tiff, tuff, whiff.

g silent: align, apothegm, arraign, assign, benign, bourg, campaign, champaign, coign, cologn, condign, deign, diaphragm, ensign, feign, flegm, foreign, gnat, gnaw, gniess, gnome, gnomon, gnosis, gnu, impugn, malign, oglio, oppugn, paradign, phlegm, phragm, poignant, reign, repugn, resign, thegn.

gh silent: aught, eight, fraught, freight, height, straight, taught, though, thought, through, weight, weight, wrought.

h silent: aghast, Anthony, brachi-, burgh, catarrh, chord, Czech, dahlia, exhaust, exhibit, exhort, ghat, ghee, gherkin, ghost, ghetto, ghoul, gingham, heir, herb, honor, hostler, hour, Isaaiah, khaki, khan, khedive, khol, khmer, Michael, myrrh, Noah, pharaoh, platyrrhim, pyrrhic, rajah, rhabdomancy, rhaetic, rhamnaceous, rhapsody, rhatany, rhea, rheingold, rhematic, rhenium, rheo-, rhesus, rhetor, rhetoric, rheum, rheumatism, rhigolene, rhinal, rhine, rhinitis, rhino, rhinoceros, rhinology, rhinoplasty, rhinoscope, rhinoscopy, rhizo-, rhizome, rhizoid, rhizopod, rhizopus, rho, rhodamine, Rhode Island, Rhodes, Rhodesia, rhodic, rhodian, rhodium, rhodo-, rhodocrosite, rhododendron, rhodolite, rhodonite, rhodora, rhomb, -ic, rhombohedron, rhomboid, rhombus, Rhone, rhubarb, rhumb, rhumbatron, rhyme, rhymester, rhyolite, rhythm, rhythmic, -rrhage, Sarah, schedule, scheme, school, scholar, schooner, schirrhus, thaler, Thames, Thomas, thyme.

i silent: achieve, aggrieve, believe, braise, bruise, bruit, business, ceil, conceive, cruise, daisy, deceive, friend, frieze, fruit, gardener, heifer, juice, kier, liege, lieutenant, niece, ordinance, perceive, praise, raise, raisin, receive, reprieve, retrieve, sailor, Salisbury, siege, seize, sluice, soldier, thieve, tierce.

j silent: hajji, kopje, sejn.

k silent: knack, knap, knar, knave, knead, knee, knell, knew, knickers, knife, knight, knit, knob, knock, knoll, knot, knout, knowledge, knickknack, knuckle, knurl.

l silent & doubled: almond, balk, balm, baulk, bill, calf, calk, calm, calve, chalk, colonel, could, call, falcon, fill, folly, folks, full, half, hill, Holm, Holburn, holly, hull, loll, Lincoln, lull, palm, psalm, pill, pull, qualm, salmon, salve, sell, should, sill, soldier, stalk, still, sullen, sully, talk, tell, till, toll (tole), walk, well, will, would, yellow, yolk.

m silent: comptroller, condemn, mnason, mnemonic, psalmite.

n silent: autumn, column, condemn, damn, hymn, inn, jinn, kiln, limn, solemn.

o silent: adjourn, anxious, bouillon, bouquet, bourbon, bourg, clamour, colour, colonel, coupon, couple, courage, cousin, couth, double, glamour, humorous, jealous, journal, leopard, oedipus, eonology, oenomel, oesophagus, oestrin, people, Phoebe, sojourn, toward, trouble, through, you, youth.

p silent: accompt, attempt, comptroller, consumptive, contempt, corps, cupboard, empty, exempt, oppugn, pneuma, pneumatic, pneumato-, pneumo-, pneumonia, pneuma, preempt, psalm, psalter, psammite, pseu-, psephite, pseudo-, pshaw, psilasis, psilomelane, psilosis, psittacosis, psoas, psora, psocalea, psoriasis, psyche, psyche-athenia, psychic, psycho-, psychro-, ptarmigan, pter-, ptisan, Ptolemy, ptomaine, ptosis, ptyalin, raspberry, receipt, sapphire, sapho, tempt, unkempt.

ph silent: apophthegm, phthalein, phthalic, phthisis.

q silent: lacquer, licquor, picquant.

r silent or doubled: arrack, arraign, arrange, arrant, arras, array, arrear, arrest, arrhythmia, arride, arris, arrive, arroba, arrogance, arrogate, arrow, berry, catarrh, err, error, furry, hurry, merry, myrrh, part, platyrrbim, pyrrhic, verracua, verrucano.

s silent: aisle, apropos, avoirdupois, Carlisle, corps, desmesne, faux pas, grosgrain, guess, Grosvenor, isle, island, Issah, less, lisle, mesne, mess, miss, puisne, rendezvous, sous, viscount.

t silent or doubled; omit between *s* and *le*, *en* and before *ch*: apostle, batch, botch, bitch, bristle, bustle, castle, catch, clutch, crotch, depot, ditch, etch, fasten, fitch, flitch, glisten, hasten, hastle, hitch, hustle, hutch, itch, jostle, listen, match, mortgage, nestle, notch, often, pestle, pitch, psittacosis, putch, ragout, rustle, scotch, scratch, smutch, snatch, spatch, splotch, stitch, stretch, switch, thistle, tmesis, tmolus, Tnemec, twitch, watch, whistle, witch, wretch.

th silent: asthma.

u silent: aunt, brogue, build, buoy, buy, catalogue, chauffeur, chassuer, course, court, decalogue, dialogue, epaulet, epilogue, four, gauge, gourd, guarantee, guard, Guernsey, guerilla, guise, guitar, guidon, guild, guile, guilotine, guilty, guinea, guipure, disguise, guy, hauteur, licquor, monologue, opaque, pedagogue, plague, pique, plaguey, poult, pour, quay, rogue, synagogue, though, tongue, tour, vague, victuals, wrought, your, suffix -ous (over 300).

w silent: aglow, answer, below, bestow, blow, bow, crow, flow, glow, grow, know, knowledge, low, mow, row, show, slow, snow, sow, stow, strow, throw, tow, two, who, whoop, wrack, wraith, wrangle, wrap, wrasse, wrath, wreak, wreath, wreathe, wreck, wren, wrench, wrestle, wretch, wriggle, wright, wring, wrinkle, wrist, writ, write, wrong, wrote, wroth, wrought, wrung, wry.

x silent: beaux, billet-doux, faux-pas, roux.

y silent: yeisk.

z silent or doubled: buzz, buzzard, buzzwig, Czech, fuzz, guzzle, huzzy, muzzle, nuzzle, puzzle, rendezvous, tizzy.

Total = 884 words, of which 123 are silent initially. P & w account for 64, k 21. In addition there are 339 out of the 1000 commonest words with unnecessary terminal e's, and probably another 300 in the next 9000 commoner words. And the silent e in suffix -ed would account for probably another 400, and silent u in suffix -ous might add another 300. So the total number of words with unnecessary silent letters may be over 2200. This is the burden a student must carry in his mind. This list could easily be expanded to include more if someone would take the time and trouble to do so.

The next step could be to add another list of words which would be regular by means of two artificial rules now used, but not consistently, e.g.

(1), the rule of silent terminal *e* to indicate that the previous vowel has the long vowel sound. At present this rule, according to Ina C. Sartorius [1] is of little value, as among the 1000 commonest words, there are 339 exceptions while only 248 conformals. Of course, this means that the silent terminal *e* shall be omitted whenever it now wrongly indicates the previous vowel sound, as in: *hav* and *giv* (but not in *gave* and *live*). Hence this rule adds 339 of our commonest words to those that can be taught by a reliable rule. Among the 10,000 commoner words there are least double that many.

(2), the second rule, now used fairly consistently, would be to double the consonant to indicate that the previous vowel has the short sound. Usually this vowel is in closed syllable (except for schwa and schwi, as in: *data* and *piti*). The doubled letter could be phonetically added to the syllable following, and thus present no great problem in teaching.

While this is not a step toward phonetic spelling – and because of this, its adoption may be controversial – it would have the power of affecting a minimal amount of change, and making a rule regular would aid in its teaching. At present the following consonants usually follow this rule: *b, f, g, l, m, n, p, r, s, t, z,* and sometimes *c, d*. These never follow the rule: *h, k, w, x, y,* and *j* and *v* do in

only one word each.

In the past a number of such minimal change systems have been offered, one of them notably by Dr. Axel Wijk, whose three books on the subject are very well written and comprehensively explore the subject. Another system by E. Jones was presented to our readers in our March, 1963 issue. In our March, 1964 issue, another article on minimal change also discussed the Ryt Ryting of Dr Clarence Hotson, Revised Spelling (now Eurospelling) of Frank T. Du Feu, and Leo Davis' StAbilized Speling. Unfortunately, all of these systems employed a large number of rules, which required a rather extensive study and a good memory and a great amount of practice to be able to write in them. However, once the system was learnt, understanding the meaning of printed matter in these systems was without doubt, easy for anyone old or young even though many words were changed (mostly for the better).

Herewith is presented the author's ideas of a more simple and less drastic minimal change system. It is hoped that this demonstration will show that a great improvement is possible in our T.O. without being so drastic that oldsters will have to go back to school to learn all over again. And that such regularizing changes could easily be made in our spelling habits without an Act of Congress.

A Transitional Spelling Reform System

While most foneticians think that, if our spelling iz to be reformd, the change shoud be made to a completely fonetic alfabet which woud add 18 or more new letters to our alphabet, many otherz feel that the public, and more important, Congress, would not axept such a drastic chanje without an intermediate gradual step. Az a compromize, I propoze that a tranzishunal sistem be adopted which will be consistent, regular, rezunably fonetic, and yet conform to prezent usaje whenever usaje consistentli folloz fonetic rulez. Sins this kind ov a reform woud leev meni ov our prezent wordz eether unchanjed or with onli slite chanjez, it coud be red more ezili without speshul educashun than the more drastic step to completeli fonetic spelling with an enlarjd alfabet.

The rulez ar simpl and eezi to rimember. Six rulez regulate the spelling ov all wordz:

1. The onli silent letter iz the terminal *e*, which indicates the previus vowel haz a long vowel sound.
2. Wun syllabl wordz ending in a vowel giv it the long vowel sound.
3. Wordz ending in a consonant giv the previus vowel the short vowel sound.
4. Consonant letterz and consonant digrafs shal be uzd foneticalli and shal reprezent consistentli the soundz thae most commonli hav in T.O. and: the queen witth azhuer iez.
5. The plural ov wordz shal be formd az folloez:
   ad *s* to words ending in *c, f, k, p, t, tth*.
   ad *es* too wordz ending in *h, s*.
   ad *z* to words ending in *a, b, d, e, g, i, l, m, n, o, r, u, v, th, ng.*
   ad *ez* too wordz ending in *x, z, ch, sh*.
6. The short vowel soundz shal be indicated bie the singl vowel letterz, az in "that pet iz not a mut," the long vowel soundz: eether bie the silent turminal *e*, or bie the digrafs in "*Mae see thie toe Tuezdae noon*"; the intermediate and diftthong vowelz bie the digrafs in: "faather haul our guud oil soon and further."

Possibli this kind ov riform wil satisfie no wun, being too drastic for sum and too unfonetic for utherz. Houever it haz several advantajez. Besidez leeving unchanjd more ov wurdz, it eliminates meni homofonez. Wurdz having long vowelz can be spelt eether with vowel digrafs or bie folloeing the rule ov silent turminal *e*. If the rulez ar folloed consistentli, it wil be regular and eezili lernt.

Probabli yoo hav notist the gradual chanje in speling az the articl progrest, not becuming cumplete until after the end ov the rulez.

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[Spelling Progress Bulletin Spring 1970 pp18,19 in the printed version]

13. What is Reading?, by Helen Bonnema, Ed.D.*

*Temple Buell College, Denver, Colo. A chapter in an unpublished book.

Three-year-old Polly espied the food signs. On a family vacation trip from Denver to Los Angeles, she shouted "pop" and "hot dogs" every time the car reached a town. Her mother was elated at Polly's precocity. "She's reading!" Father wasn't so sure. "That's not reading, it's seeing the picture of the wiener or the bottle of pop."

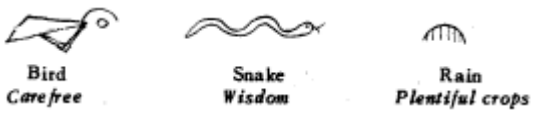
"Well," insisted Mother, "She understands pictures the way the indians did. That's reading, isn't it?"

A loose definition of reading might cover Mother's explanation. If all people were lightning-artists and could draw the sights around them and also depict their thoughts and attitudes, abstract symbols need never have been in vented. Reading would consist of interpreting pictures. And thousands of years ago in Egypt this was the method of communicating.

A snapshot of a friend riding the Texas range may give you a more accurate impression of his carefree vacation than if he wrote a long descriptive letter. However, neither the photograph nor even a pen and ink sketch of the scenes would be considered *writing.* But if he drew the stylized symbols used by the Indians in their picture messages, he would be writing. He would be using a system called p*ictographic,* the earliest form used by man. Pictographs differ from photos or illustrations in that they are conventionalized drawings which are made and interpreted in exactly the same way by a large group of people.

Insofar as these simple lines conform to the established pattern, they can be considered a writing system. Indian children learned that the crescents sketched on leather records of tribal happenings stood for "moons" or lunar months, and the sterotyped stick figures of a dog, or buffalo, for the respective animals. Others they knew were:

Since pictographs are not actual life-like illustrations, they communicate only to a limited extent, and they fail to portray thoughts and feelings adequately.

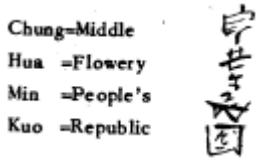


Through the centuries, man speeded up the writing of primitive pictographs by reducing them to marks called *ideographs.* All that remained of the crescent for 'months' might be a slightly curved line, or for "dog" might be two dots – just enough to represent the idea.

Today we universally use similar ideographic symbols, such as *$.* There is no indication here of a dollar's actual appearance or of the sound of the word *dollar.* Other common ideographs are: &, +, %, and the numerals: 1, 2, 3. etc. When we see *8* it makes no difference whether we respond with *eight,* as in English, *achtin* in German, *hait* in French, or *kahdeksan* in Finnish, the meaning or idea remains the same. Such ideographic symbols are invaluable in certain situations, but as representations of every word in the language, they would become too numerous to learn.

Traditional Chinese is made up of about 50,000 ideographs, none of which bears a relationship in sound to the word it represents. This is the Nationalist name of China, reading from top to bottom –

Today Chinese peasants must know 1000 of these characters in order to carry on their simple activities. The man who reads a newspaper needs to learn 2,500 while the scholar tries to master tens of thousands. How toilsome!



Chinese Communist leaders realize how awkward and inadequate their writing system is. They have introduced simplifications which employ the letters of the Roman alphabet as used in English. They are beginning to teach this alphabetic system in their schools.

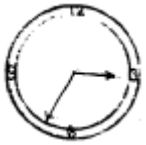
Most countries in the world today depend upon a letter representation of the sounds of speech. If their alphabetic system is consistent, the reader need but listen with his inner ear as the symbols "talk." He need concentrate only on comprehending the meaning of the message. The mental effort for the reader is little greater than when attending to someone who is speaking.

Yet there are people who teach English as if it were an ideographic system. For reasons which will become clear as we proceed, they recommend that the child memorize the over-all appearance of words and not try to sound out syllables. For forty years schools have taught beginners to read in this ideographic way without requiring mastery of the sounds of letters.

One definition of reading is to *comprehend the meaning of written language.* In the incident recounted earlier, Polly called out "hot dog" upon seeing signboard wieners. She was not actually reading, according to the definition above, for she was not interpreting symbols in a system.

Another anecdote will point up the *comprehension* component of the reading process. Polly's family explored old narrow-gauge railroad beds which had been converted into auto trails. At one point they reached a dark, dripping tunnel and got out of their car to examine a sign tacked next to a clock over the entrance.

DANGER
One way only. Eastbound vehicles enter the west
Enter this portal on the hour. portal on the half hour.



Father turned to his six-year old son who had just finished first grade. "Phil, what does it say?"

Slowly the child sounded out the words: "Enter from this portal". . etc. and then urged, "Come on. Let's go! I want to see how dark it is in there. Maybe there's bears. Was that boy *reading?* Not if he didn't understand the message.

The first definition of: to read (American College Dict. page 1007), is: "to observe, and apprehend the meaning of something written, printed, etc.: *to read a book."*

The act of reading includes three processes:

1. *See* the symbols,
2. *Hear* mentally the words represented by the symbols,
3. *Understand* the meaning of the words.

Seeing the Symbols or Sensing

The physical ability of perceiving the symbols is the special concern of the nursery school or kindergarten teacher. Occasionally she discovers in her class a child who is handicapped unbeknownst to his parents or to himself.

A short time ago, in the course of an experiment, I was testing a little fellow in a day nursery. He squirmed, squinted, and screwed up his nose in extreme grimaces. He seemed unable to distinguish from one another the letters on the card I held before him. When I mentioned this to the teacher, she said she had not noticed this condition. She thought he was a comical little clown who enjoyed making the other children laugh at his unexpected reactions.

In the situation of this boy, and of any beginner, the first consideration when teaching to read is that he can see clearly and easily. Does he distinguish /b/ from /d/, /s/ from /z/, /c/ from /e/, and /u/ from /v/?

Hearing Mentally (and often saying). Perception.

Knowledge of the world comes through sense organs reacting to the kinds and levels of physical energy in the world. Certain wavelengths of electromagnetic energy stimulate the eyes and are changed into nervous impulses which go to the brain. Through the psychological process of perception, the patterns of energies become known. Perception involves many physical, physiological, and psychological factors. Body structure influences the reception and processing of stimuli, as do emotions, needs, expectations, and learning.

After sensing the print on the paper, through perception one identifies the particular pattern of stimulation, and discriminates between it and a similar one. Many reading specialists devote their time to achieving improvement at this level, and have written volumes on the recommended treatment of pupils showing disabilities. The present book will, therefore, not discuss perceptual difficulties based on the disfunctioning of the brain. It will be concerned about how the normal child translates symbols into speech to which he mentally attends.

Knowing the Meaning

Not until the child understands the message the words carry can we say that he really reads. The third step demands complete understanding. It requires that he *comprehend.*

The beginner comprehends only those concepts which are within his experience. For this reason, the material presented to him should be related to his environment and be expressed in language forms that are natural to him. When the ideas presented are those he will be able to understand clearly, he can devote his time to acquiring the "code-breaking" skills of the second step, and will not be deterred by puzzling over unknown meanings. All during the primary grades when children are *learning to read,* emphasis continues to be upon the *see and hearing* steps until these recognition techniques have become habitual. Later, in intermediate grades, the children's task becomes that of *reading to learn.* They have mastered the See and Hear steps and are now concentrating upon learning new concepts and skills which enhance the comprehension of material. For example, the upper-grade teacher is not satisfied that the child can merely recognize the italicized words in the following sentences. She wants to know if he can understand, can truly read:

Axel was a *mean man.*
Use the *mean* figure.
Sam will know what you *mean.*
Linda does not *mean* to say it.

Did you hear that *sound?*
Father has a *sound* body.
The boat shot across the *sound.*

When you, as a mature person, looking at the following sentence, which of the three steps are you able to use? Can you actually *read* it?:

> The mandate from the potentate required the shipmate to eat the mandrake before the arrival of the prelate.

The aim of this book is to present methods which are successful in teaching readers at the very beginning. Therefore, the emphasis will be upon the symbol-recognition steps, while at the same time the fact will be kept in mind that true reading takes place only when there is true comprehension.

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[Spelling Progress Bulletin Spring 1970 p19 in the printed version]

Book Review

14. Programmed Illiteracy in our Schools, by Mary Johnson

Clarity Books, P.O. Box 92, Sta. C, Winnipeg, Man. Canada, 1970, 170 pp. $3.00, post paid.

"Parental Apathy Hurts Education," shouted the headline in the Winnipeg Tribune. "Most Canadian parents really don't care about what kind of education their children are receiving." Well, she cared, and so did every parent she talked to in the year following.

This remarkable book shows what one arroused parent can accomplish when she has the determination to prove her point. She was not satisfied with the faulty method of teaching reading in use there – Look & Say – and proceeded to prove it by tests that showed that this cumbersome guessing game was not producing independent readers, whereas those teachers in other localities who used direct, or comparative, phonics were producing pupils whose ability to, analyze new words was greatly superior. Over the years she has tested hundreds of pupils, both local (where they were caught by Look-Say) and in other cities where they used phonics. Her test was sent to Chales E.Wingo, of the Argo-Summit" Bedford Park School District, Illinois, who used it on pupils who had only three months of teaching by phonics, yet averaged only 2 errors each. The local children (Look-Say) were averaging 11 errors per pupil, out of 25 words.

Her results were not believed by the entrenched administrators, who staunchly defended their position. When she finally got them to give her tests, she found that the supervisors misinterpreted the results to justify their own preconceived ideas.

This book shows the vast amount of work it takes to influence an entrenched hierarchy, but also that parents can make themselves heard and that they can contribute greatly to improving the quality of education in this adamant prosaic world.

Motto for some teachers, "Let's make it a game – a guessing game."

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[Spelling Progress Bulletin Spring 1970 p20 in the printed version]

15. VOLUNTARY REFORM, by Provurbial Jorje

Az here-in demonstrated, ther ar many orthografik ajustments that kood be made without wating for profeeshonal agreement on when and/or hou tu da whot. It iz tu be noted that ol theze revized spellings ar in keeping with wel-establisht, – if not truly dominant, – tradishonal paturns; many ar embodyed in most revolushonary sistems; but nb70un iz apt tu be chalenjed by progressiv American kritiks. And it iz tu be noted that ther ar no arbitrary authoritys on American spelling. Kontrary tu prevaling opinyon, our dikehunarys du not tel us hou we SHOOD spel; but merely tel as hou most ov us DU spel, – at the moment. When WE chanje the spelling ov a given wurd, thru komon yusaje, lexikografurs chanje ther rekurds (dikshunarys) akordingly. . . And rite ther iz wher the trubul liys; – thoze, in pozishuns wher thay kood be arbitrary ledurs, prefur tu be apathetik folowurs insted. . Thus if yu thingk that sumbody shood really du suathing about our orthografy, it iz up tu YU tu take the inishiativ. Inazmuch az this iz a demokrasy, nobody gets shot for not spelling tradishonally. Only the ultra konsurvativs wood thingk ov shuting us, – and thay ar harmless, bekauz dubius ridikyule iz ther only amyunishon. Thus eche ov us haz az much rite and/or pour tu implement reform az the "next man". And, az progressive it iz our privilej and duty tu du our "thing" agenst the establishment (tradishonal spelling). Thus it iz sugjested that ol progressive ejukaturs and parents not only yuze simplifyed spelling in ther personal korespondens, but olso enkuraje its yuse in the klass-rume. Most pepal ar definitly in favur ov simplifyed spelling, – just wating for Provurbial Jorje tu take the lede. Thus ther wood be litul or no komplant from any sorse, The chanses ar ther wood be mor komplants about not going az far az the alfabst wood purmit.

Obviusly ejukaturs hav absolute kontrol ovur the orthografy thay tech, – uthurwize thay koodnt hav purpechuated so much konfyuzhon in that feld. Thus ejukaters, themselves, ar indirektly responsubal for juvenil delingquensy, via drop-outs, – thru ther falyur ta stabulize the orthografy by which thay expect children tu get ther ejukashon. Nachurally most ejukaters ar apathetik tord spelling reforms, – just "kant be bothured". Thay ar inturested, primaryly, in just "holding a job", – rather than in krusading, or argyuing about whot thay tech. But even thoze, hu ar truly inturested in reform, seme tu be "frady-kats". When Provurbial Jorje duz kum up with samthing, primary techurs ar afrad ov the prinsipul, – the prinsipul iz afrad ov the supurintendents, – and the supurintendent iz afrad ov the state ofishals hu, in turn, klame tu be afrad ov the publik. Thus, even the self-stiled progressivs "pass the buk" bak-and-forth like a tenis bol.

Az an ovur-ol pikchur it semes that it iz up ta indivijuals tu promote reform thru komon yusaje. Obviusly, IF ol progressiv ejukaturs wur tu konsistently yuze simplifyed spelling in pursonal notashons, sum such orthografy az this wood sune "sno-bol" intu komon yuse, – and evenchually bwkum standard without spesifik ofishal akshon.

So whot ar we wating for?? LETS GO!!
Progressivly,
Provurbial Jorje