

The Whole-Word and Word-Guessing Fallacy

Helen R. Lowe

ARTHUR YOUNG, a painter and carpenter, is now twenty-eight years old. He came to me first when he was twenty-four, bringing with him a New York State high-school diploma which certified in impressive Old English type that Arthur Andrew Young had "satisfactorily completed the curriculum requirements prescribed by the Board of Education for the High School and is entitled to this Diploma." He also brought his final report card, certifying that he had received the highest mark — H — for Honor—in English throughout his senior year.

Arthur could not read, even at a primer level. He could not drive a car, because he could not pass the test for a driver's license; he could not read the street signs or traffic directions. He was unable to order from the menu in a restaurant. He could not read letters from his family and he could not write to them. He could not read the mixing directions on a can of paint or the label on a shipment of sheet rock. He had been cheated and swindled in various ways as a consequence of his inability to read. Arthur told me somberly, "I don't exactly blame the school for not teaching me to read. But they had no right to give me a diploma that said I had learned. I really thought I had a high-school education —till I tried to get a job."

We went to work. For more than two years he worked with me two or three times a week. It was a slow business, because he needed to learn to spell and write too. It was more than a year before we read a fifth-grade story, a real book, about John Paul Jones. Finally he began to buy *Life* and *Coronet* magazines and struggle through articles which attracted his interest. We read the newspaper, he studied to pass the examination for his driver's license, he discovered that he loved poetry. He began to read letters from his family to me. Finally he read his first adult short story, a not very remarkable piece called "Santa Claus and the Tenth Avenue Kid" which I had selected very specially for him because it was just beyond the range of his experience and understanding, full of implications and allusions strange to him. When we finished it, he said, "I want to read that again. I want to see what it feels like to get all those things as I go along." Arthur had learned to read.

To realize what Arthur is a symbol of, one has only to look at his diminished life, and then at the misrepresentative report card and diploma. That Arthur was not taught to read is a failure on the part of his school and an indictment of many of the accepted purposes, standards, and methods of our system of public education.

A group of United States school superintendents who recently visited Russia reported to a convention of school administrators here that Soviet schools cling to teaching methods our schools discarded years ago. They explained that under the antiquated Soviet system students learn the alphabet and phonics before being taught to read, instead of being taught to read by the word-recognition method, with the alphabet not taught until later.

We have here an unstated assumption that discarding the alphabetic approach has resulted in increased literacy in the United States, while the Russians, who have clung to the alphabet, have fallen behind us in education.

I propose to show how hundreds of children taught by the word-recognition method have misread to me; to relate these misreadings to the principles of learning which produced them; and to dissect from the controlling mass of theory and practice the fundamental fallacy of defining and treating the printed word as a symbol of meaning instead of as a symbol of sound.

The essential point to hold in mind when considering this evidence—and this requires a firm hold—is that it is evidence. It is not a prediction or guess about the consequences of look-and-say. It is objective records of performance that show how hundreds of students have read and do read today. These bright boys and girls have been taught and they have learned, and when they read like this they are doing precisely what they have been taught to do and precisely what common sense would expect them to do. That this is not reading, in any real sense of the word, would seem indisputable, but it is disputed.

Reading is no longer presented to the beginning reader as a matter of learning how to get from the printed page as exactly as possible the ideas committed to the text by the writer. It has become a process in which the reader projects his imagination, his preferences, his conjectures, his limitations, his inexperience, and his ignorance, using the words he chances to recognize—or to mistake—as points of departure for his improvisations and substitutions. This travesty of the achievement that gave man access to the wisdom of the past, that enabled him to enlarge and extend his own experience to levels he could never reach alone in an uncommunicating world—this is not reading.

Man achieved speech long before he invented writing. As he began to try to record and to communicate, he developed two main systems of writing. One was picture writing. This sometimes became ideographic; that is, it developed to become a form of writing in symbols which had lost their explicit pictorial character. These symbols conveyed ideas but not sounds. The other kind of writing which began to evolve was sound or phonetic writing. The invention of an alphabet, from which there is evidence that all alphabets derived, took place about three thousand years ago. An alphabet is a set of characters each representing a simple or unit sound, with no meaning in itself. From that time on we have record of the growth of the alphabetic languages and the impetus given to civilization and to the mind of man by this infinitely precise and flexible means of recording language.

No one knowing the history of language or the definition of an ideogram could mistake English for an ideographic language. Ideograms convey ideas but not sounds. We use many ideographic symbols—the arrow, the skull and crossbones, plus and minus signs, 3 or 5 or 9, the dollar sign, the red cross, all clearly conveying meaning and understood by persons who do not even understand each other's spoken language. These are not words, any more than comprehensible gestures are words. Nor are the printed words of the English or any other modern alphabetical language ideograms; that is, symbols of meaning unrelated to sound. The very words *literate*, *literacy*, *literature* bear testimony to the relation of the letter—*litera*—to reading and writing.

Civilization took a great leap forward when the alphabet was invented. Look-and-say was a reversion to a primitive stage beyond which English and the other modern alphabetic languages advanced hundreds of years ago. It is difficult for an open mind to believe that those who devised and defended this primitive parody of the invention by which man achieved the ultimate flexibility and effectiveness in communication were entirely innocent in their folly.

I have made a careful study and classification of over a hundred thousand accurately recorded misreadings, which show more than twenty-five distinguishable types of errors characterizing the reading of hundreds of bright normal students of all ages. To simplify this material for presentation these misreadings have been grouped under four main types: (1) misreadings deriving directly from the fundamental fallacy of regarding the printed word as a symbol not of sound but of meaning; (2) those clearly but more remotely related to this concept; (3) those resulting logically from the elaborate teaching techniques developed to overcome or to conceal

the shortcomings of the look-and-say method; and (4) finally, most extravagant of all, the random readings, without common denominator or common sense, evidence of something graver than a lack of reading skill.

The almost standardized errors presented here show clearly the nature and something of the extent of the damage done to the learning mind by the imposition upon an alphabetic language of a theory of ideographic communication.

The first group of recorded errors consists of misreadings which proceed directly from the concept of a word as a visual symbol of an idea, to be recognized by its configuration or total appearance, without awareness of its parts, their sequence, or their function. This includes several easily differentiated types of errors, all clearly the product of whole-word reading, which does not treat letters as symbols of sound. Here are characteristic examples of the simplest type of configuration misreading, where one word is read as another because the two words look alike.

squirrel	<i>read as</i>	special
mystery		majesty
equatorial		equilateral
bouquet		banquet
cottage		college
peninsula		penicillin

Here nothing but Look has determined the Say. Such uncomplicated whole-word readings as *futility* for *futurity*, or *feet* for *feel*, must be clearly understood to be not mispronunciations, but ideographic readings which did not come off. The reader often gets the idea, which he has been taught; what he does not get is the word. When this happens the reader has made an association between a visual form and *what it does not mean*.

Now a printed word is exact, in one important sense. It ties the reader to the writer's choice of a certain word. Words stabilize communication, which even the educationists do not explicitly deny to be the purpose of speech and writing. The unrealistic assumption that a word is a visual image conveying an idea belittles both ideas and words. Indeed, Dr. Albert J. Harris tells us that if a word occurs rarely or is not a key word, it does not matter very much whether the reader develops a really accurate comprehension of it or not! To the thoughtful mind there is more than irony in the fact that this opinion is voiced in a chapter of a book entitled *How to Increase Reading Ability*.

A plain illustration of the effect of the ideographic fallacy is the very frequent reading-by-association, where the printed word communicates an idea, expressed in words of the reader's choice arising spontaneously in his mind in response to his perception of the visual pattern. For example:

diphtheria	<i>read as</i>	Seppula*
snow		cold
fire		stove
milk		bottle
regiment		army
turkey		Thanksgiving
Christmas		Santa Claus

*The driver of a dog-sled which carried diphtheria serum to Nome.

In this kind of reading a word like *field* triggers a visual image and the reader, sometimes at a high-school level, says *meadow*, or *pasture*, *lawn*, or even *park*. Or when he sees the word *milk* he visualizes it as he most often sees it, and without hesitation says *bottle*. If he has grown up on an unmodernized farm, he may even say *bucket*, or *pail*, and while I have never had this happen, it would not be at all surprising if he said *cow*. Rhetorically speaking, this is metonymy, the use of the name of one thing for another to which it has some logical relation, the sign for the thing signified, the container for the thing contained. It is not reading. A frequent variant of this ideographic phenomenon is reading by synonym. Thus we have:

stillness	<i>read as</i>	silence
lazybones		sleepyhead
puppy		little dog
fiddle		violin
afraid		frightened

A more complex and at first sight inexplicable variant is the reading by opposites, where we find:

asleep	<i>read as</i>	awake
down		up
mongrel		pedigreed
attendance		absence
north		south

This occurs when the idea established by former contacts with a word is retained in a diffuse, unfocused fashion, and only a hint of the general implication swims into the would-be reader's consciousness. The reader hazards *light* for *dark*, *winter* for *summer*, *started* for *stopped*, or *before* for *after*, with deluded consistency. A grotesque variation of this occurs repeatedly when the idea so vaguely recalled is that of some part of the human body. *Arm* is read as *leg*, *ankles* as *knees*, *hand* as *head*, *knee* as *neck*, *eyebrows* as *elbows*, completely regardless of the utter impossibility of the contortions involved.

Words thus read are often indelibly remembered to mean their exact opposites, and crop up in writing even at a college level. The dislocation of sound and sense which makes it possible for an intelligent eighteen-year-old to write *dark* when he thinks *light* cannot be dismissed by blandly citing the circulation statistics of the American Library Association.

Still another current phenomenon closely related to the fundamental fallacy of seeking meaning without regard for the particular word is the habitual paraphrase of the clever, inventive reader. This kind of reading sometimes distorts, sometimes reverses the meaning, and, occasionally, is astonishingly competent—as a paraphrase. Any sort of paraphrase is, at first thought, astonishing, since it must necessarily be based on at least partial comprehension of the passage, *which is then discarded for the reader's version!*

Actually there is little cause for astonishment. This is the transfer of the principle of ideographic reading from the word to the phrase and the sentence. Typical examples of this follow where the idea has sometimes been caught, sometimes distorted, diluted, or missed completely. We have:

What was the cost of the house? Stop! Stop, Spot! into a sizzling frying pan	<i>reads as</i>	What did he pay for it? Complete riot! into a skillet
I'll get you another ticket (for a ride) within hauling distance (cougars prey upon) anything that can't defend itself	<i>read as</i>	I'll take you again anywhere anything they can get

Burdened to bewilderment by the multiplicity of new and often similar visual patterns, memory produces a flood of random errors where proper names are involved. Proper names are merely designating and identifying sounds. *Dick* designates, and identifies, and may summon a boy, but as a word it conveys no meaning. Proper names suffer so significantly and so spectacularly from whole-word reading that the bizarre items which follow are merely a small selection from crowded files.

Massachusetts	<i>read as</i>	Switzerland
Tom		Betty
Washington		Grant
China		Corinth
Africa		America
Mary		Bert
Bethlehem		Baltimore
Asia		Amsterdam

Here is something quite different from the reading from configuration, or from association, synonym, or opposites. This is whole-word reading where the double play — Look to Say to Sense — fails to come off, because memory cannot trigger meaning when there is none.

One of the earliest and most influential of the answers to the inability of look-and-say to produce proficient readers was the restricted vocabulary. Dr. Arthur I. Gates, Professor of Education at Teachers College, Columbia University, urged that all reading texts for the first three grades be based largely on a vocabulary of 1811 selected words, and that words used in other subjects and in announcements be confined—Dr. Gates's word — as far as possible to the same vocabulary, he also recommended that to develop *language ability* the same words should be used in writing and spelling as well as in reading. It is difficult to see how the concept of reading could be further degraded, or how skill in reading could be made to seem less worth acquiring. Only the very gullible could believe that the limitation of the child's vocabulary could enlarge and stimulate his reading ability.

I have assembled some curious evidence as to how this restricted vocabulary really works and what effect it has upon reading. Careful recording of thousands of reading errors, made by students at all levels and from many different localities, has revealed an odd fact. Certain words were misread with conspicuous frequency by many students, and they were usually misread in exactly the same way. As these words established themselves as practically standardized errors,

they were put on a list, which, surprisingly, ceased suddenly to grow longer after it had come to contain 98 words and became known to my students as The Ninety-eight. It was at once evident that these particular mistakes were extremely difficult to eradicate, that they persisted and recurred even at high-school and college level. Reference to Dr. Gates's vocabulary list revealed the extraordinary fact that 73 of these 98 words were among those assigned to be taught in Grade One. That is to say, approximately 75 per cent of these stubborn, ingrained errors, misread almost as standard practice by disabled readers, were among the first words taught, as wholes, with innumerable repetitions, in accordance with the accepted method of teaching beginning reading. Further, 18 more were among those assigned to be taught in the second grade, by that rote recognition which arbitrarily relates a sterile visual image to a taught meaning—or, as with The Ninety-eight—fails wholesale to do so. Thus we have, striking evidence that 91 of the 98 words the record shows to have been consistently misread at all levels, including the high school, are among those which were first and most often presented to the beginning reader for recognition by the whole-word method. Some of these words are *with, when, then, they, how, we, did, of, hand, head, for, said, the, and, from!*

This device of decreasing the child's command of language by restricting his contacts with it had disastrous side effects. Not only was the content of elementary reading texts reduced to an inanity unparalleled in print, but any resort at home to well and normally written children's books was stringently disapproved by the school.

Dr. Gates at one point discusses the extent to which a child may be *entrusted* with miscellaneous children's material at school or at home!³ The meeting with a new word is now considered a peril to be prevented. One reading expert actually debates whether certain words are "safe" to introduce in the fourth grade.⁴ The age of discovery must seem very remote to today's children.

Among the practical solutions devised to solve the problem of teaching children to read by the look-and-say method was the idea of deducing the meaning of words from contextual clues. That the reader has no right to *decide* but must *discover* the meanings of words seemed not to occur to the whole-worders. Certainly it did not deter them from seizing upon this ingenious way to get an idea of sorts from the printed page—and not the idea as expressed by the writer, but one developed by the reader. Children were encouraged to think-what-would-make-sense, and Scott, Foresman, the principal publisher confused little girl remarked indignantly, and, I think, pertinently, "They ask you what you think, but they don't want to know. They want you to guess what they think."

It should be pointed out that substantial parts of many of the standardized reading tests are presented in this predicting-the-probable-outcome form, and obviously the best predictors are rated the best readers — provided they are canny enough to stick to the preformulated predictions and do not free-think too imaginatively. Tests of this sort do not tell simply how well a child can read but illustrate his ability to guess within limits. Furthermore, tests favored by many schools are skillfully constructed not to discover whether the student can read but to demonstrate that he can.* Scrutinize carefully the test material supplied with and keyed to the reading texts from which your child is being taught. For an authentic test, give your child some good book by Stevenson or Kipling — or literary work proper for his age — and listen with pencil in hand while he reads to you.

After the whole-word-guessing from context, undoubtedly the most damaging bit in the look-and-say approach has been the attempt to wrench pictures out of their use full role of contributing vividness and interest to the printed text, and to enlist them to supply specific words

that the reader cannot read. Pictures, not words, tell the story in modern beginning reading texts, and it is to the pictures that the child's attention is directed, and there it is rewarded.

How can the educationists believe that giving the beginning reader dull and uninformative printed words will spark in him a passionate desire to read and read and read? How can he learn to read words when he is taught to look at and think about pictures? In this connection must be noted the spelling books which present page after page of small pictures with the direction: "Spell these words to yourself." This is confusion confounded, a fallacy which has lost its way, its identity, its destination. One bright little seven-year-old, dizzy from trying to spell pictures and read ideas, looked at a lively red silhouette of a rat and asked, "I can read that word animal, too, can't I, as well as mouse?" Other theories evolved to explain why a child had difficulty in learning to read. One, more directly damaging than most, was the assumption that a substantial percentage—estimated variously from 10 per cent to 35 per cent—of the children entering school suffered from a congenital inability to deal satisfactorily with words, and, specifically, from a congenital inability to learn to read.

Conservative and careful statements of men like Orton and Gallagher, who believed they had evidence that the primary cause of what they called specific reading disability is to be found in some variation of the central mechanism from the norm, were seized upon by educational psychologists and perverted and diluted to mean that if a child reads *was* for *saw* or *bolt* as *blot* he is the victim of an obscure but grave neurological anomaly. Elementary schoolteachers of inadequate education diagnosed with spurious authority but enormous effect a condition which, if it exists to the extent Dr. Gallagher, for example, believes, demands for its recognition a training, skill and experience far beyond the level of the classroom teacher.

Well before 1948 I had become convinced that so called specific reading disability, as indicated conspicuously by reversals and bizarre misreadings, was largely made and not born. Moreover, for many students referred by school psychologists, psychiatrists, and teachers as severe cases of mixed cerebral dominance, a simpler explanation was easily found, which led to a simple remedy. A failure to develop that was due to hereditary causes would not yield to the simple procedures which I find effective with students from kindergarten to college level. They are told, "Oh, you read backwards? Well, don't. It doesn't work. I'll show you how to read forward." This is not psychotherapy nor yet remedial reading. It is, perhaps, nothing more remarkable than horse sense.

The eager and indiscriminate extension of the blight of mixed cerebral dominance to any child who, because his introduction to reading consisted of looking at and enumerating in any order he pleased the objects in a picture, looked at words in the same way and read *on* as *no* and *was* as *saw*, is a striking instance of the increasingly urgent effort to find some kind, any kind of explanation for the nonreading children crowding the remedial classes.

Remedial reading is a misnomer for these frustrated groups, since there is little remedy and less reading involved. What is usually offered is little more than the repetition of the practices and procedures which were responsible for the failure, and the boredom and the inescapable stigma of inferiority do not enhance the charm of learning to read.

*California, beset by angry parents and mounting criticism of her ultra-progressive schools, has devised a reading test on which the children of the state score a *year* or *more* better than they do on the standard national tests.

From the educationist effort to establish at any cost that the whole-word method is working and to divert attention from its disastrous failure—rather than improve the teaching of reading—there emerges another damaging program. This is the emphasis upon speed, which has had the most powerful impact upon public opinion of any of the so called remedial procedures. The stigmata of speeded reading are unmistakable. Equally clear is the correlation between the injunctions to the reader and the resulting misreadings. One best-selling work⁷ explaining how to read better and faster brightly enjoins us to guess all we like. It goes on to explain that the efficient reader does not bother to look at every word or every part of a word, and refers cozily to that excellent habit of word and phrase surmise. The writer further points out that when the reader glimpses the first three or four letters of a word, without pausing to examine the remaining letters, he can surmise. Indeed he can. Let's watch him at it.

paralyzed	was surmised	paralleled
detachment		detective
persuaded		perspired
twenty		twelve
company		comfortable
furnace		furniture
substance		submarine
traveling companion		train coming
reconsider		recognize
abstract		absent

Then we are told that it is most necessary to look only at the beginnings and ends of words. This produced, among thousands of others: *ambiguous* for *ambitious*, *irresponsible* for *irresistible*, *servants* for *sergeants*, *similarity* for *simplicity*, *acquainted* for *acquitted*, and *under panties* for *utter panic*!

Another precept of the reading-speeders is that an efficient reader learns to leave out all the little unimportant words, judiciously skipping unimportant prepositions, articles, pronouns, conjunctions, and so on. One small boy's question in regard to that injunction is very pertinent. "How," he asked anxiously, "do I know which are the unimportant ones if I skip them?" Speed phenomena produced by students of a variety of ages, from about the third grade to a college level, show strikingly how this judicious-skipping-of-the-unimportant works.

They reflect a radio wave as a mirror in your home can reflect *the light from a flashlight*. Read—"They reflect the light from a flashlight"

from a length of bamboo and an umbrella handle.
Read—"from a bamboo umbrella."

Find two consecutive numbers *such that the smaller increased by 3 times the larger equals 39*.
Read repeatedly and insistently—"such that the smaller increased by 3 equals 39."

This kind of reading, if it must be called that, has no concern with the skillful and sensitive use of words, the sparkling wit, the delicate, sly implication, the illuminating simile, the vivid description, and certainly it has no time to admire close reasoning, vigorous sentence and paragraph structure, or the noble yet subtle beauties of our matchless English language. No unhurried savoring of a fine phrase, an animating idea, something never encompassed by the mind before —not at so many words a minute or else. Speed for a beginning reader is as inappropriate and about as damaging as a fire hose for watering seedlings.

There is cogent objective evidence that in only a small percentage of academic failures at any level is there involved any real inability to learn. Two principles of importance can be established from the intensive study of retrieved casualties of the whole-word and word-guessing fallacy. The first is that as a preliminary to any possibility of uninhibited learning there must be established a logical and realistic concept of reading, not simply as a prerequisite to reading in the ordinary sense of the word, but as essential to the whole learning process. The student must recognize that ideas are expressed in and are to be recovered from the words on the printed page. The reader discovers; he may not invent. The second, closely related to the first and carrying profound neurological implications, is that a subjective concept of reading, in which the reader's experience, his conjectures, his expectation and his preferences take precedence over the printed text, not only produces the disabled reader with whom we are so unhappily familiar, but carries over disastrously into other areas, notably those of mathematics and foreign languages, and, further, induces emotional tensions, conflicts, and a disastrous conviction of inferiority. This damage is not merely a limitation of learning in certain specific academic areas, although it is indeed that. It is an alienation of the learning powers.

Students of excellent abilities are being thrust into the discard of second and third tracks largely on the basis of mediocre marks in tests they could not read accurately. These misshapen and misguided young minds, bewildered, thwarted, disturbed, and inarticulate, are misunderstood by the very nature of their handicap, which cuts them off from communicating with us.

There is still another kind of damage, however, usually complete and irreversible, where not merely the right to learn but the right to live has been abridged. Students who read "the travelworn paper bag" as twelve onions, and "masses of reddish-gold clouds" as molasses and radishes will almost certainly get odd and unfounded ideas about the functioning of the U.N., the properties of liquid helium, and the provisions of their life insurance policies. Students who never learn to read at all — and the record of illiterates discovered among young men drafted during World War II underlines how many of them there are — these discarded young men and women are struggling to make a living, to pursue happiness, with nearly all doors closed to them. For many these doors are closed by the fallacy, the folly, and the fraud which are the subject of this chapter. Few of these doors ever open again. Arthur Young's did, only because of his passionate desire, his determination, his patience and pertinacity, and his uncorroded courage.

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