

James Moffett

Language Learning in the Eighties

The current state of education in America

No one is better entitled to indulge in speculation about the future of English studies than James Moffett. Ten years ago, his work of theory and rationale, "Teaching the Universe of Discourse," lifted the teaching of English fifty years forward into the Seventies. It provided, it seemed for the first time, an intellectually satisfying analysis of great range, depth, and sensitivity for the distinctive processes of learning the language by which we think, and it remains a model of rational pedagogy in the field. Here he reviews the recent difficulties of this most public of school subjects, and then proceeds to raise our sights (and doubtless some eyebrows) with a forward look that takes into serious account many signs that are so much with us as to be subject to our too light dismissal. Here is one driver not obsessed by what is to be seen only in the rear-view mirror.

In considering education for the 1980's we have to make a special effort at the outset to shake off the limiting mood of the present. Along with the rest of North American culture, education is going through a spell of depression and repression. It is most important that negative tendencies now reigning should not be assumed for the future as well. Hard times can push people to an extremity that engenders better times — just as good times can dupe people into worse.

As an example of the latter, and as a starting point for a summary of current trends *not* to be assumed for the '80s, let's recall the large funds and great expectations that went with the Great Society programs inaugurated in the United States during the mid-'60s. The catch in all these programs was that the federal government wanted their funds accounted for in ways fetched up from Detroit and the Pentagon — cost-benefit, "systems" approaches such as the Planning, Programming, and Budgeting System that required making aims and budget categories one and the same and both strictly quantifiable. Such account-

ability not only did not fit human education, but did not, as it turned out, work well even for gross stuff like automobiles and heavy weapons (or at any rate, worked well only for special-interest groups, not for the public).

The computerizable fiscal accounting systems of heavy industry joined in unholy wedlock with two other trends, one in psychology, one in education. The behaviourism of Pavlov, Hull, Skinner, and, in education, Edward Thorndike, lent itself well to the industrial model of schools as factories turning out products from inert materials (students). It followed that such products (learning results) would be easily measurable, that is, countable. At about the same time, programmed materials were making a big splash. This was perfect. They inched the learner from one tiny measurable bit of behaviour to another, in steps so small they ensured a right answer to keep the learner moving, but never added up to the big goals of education. "Specific" or "performance" or "behavioural" objectives became the order of the day.

And that *was* an order. To get federal money you cut learning into pieces small enough to fit programming procedures and the standardized tests they plugged into. The testing industry had, of course, long since perfected the art of redefining learning to fit its bite-sized computer-scorable questions. Then schools could buy commercial materials that did it for you — taught and tested out the pieces, organized your classroom (even boasting "individualized instruction"), and made you accountable so you could get federal money. United States state legislatures and district governing boards got the point and followed the lead of Washington.

So by the '70s the emphasis on easily measurable, fractionated pieces of overt behaviour was locked into schools with the force of law and money at all levels of government. Today, in an era of tight money, these programs have been eliminated or severely curtailed, leaving the field of education stuck with a materialistic approach it cannot warrant in learning terms. What made the wave is mostly gone, but the wave is just now cresting across the continent! Unfortunately, Canada has, by a kind of infection, participated in essentially these same trends.

Two other painful ironies arose from this state of affairs. First, the idealism behind the thrust of the Great Society for improvement ended by reinforcing the worst of the past — the ineffectual drills-and-rules method of teaching that was itself what needed to be reformed. Ticketing parts of speech, picking synonyms, pairing words beginning with the same sound, doctoring dummy sentence structures, underlining the simile — all got defined as "cognitive" and "basic" and took over the curriculum, while few people noticed that the real basics — speaking, listening, reading, and writing — were not getting taught. They were assumed to be taught by the drills on the parts. "Reading instruction" was taught, but not reading; "composition," but not writing. Why should the wholes be taught if the test, which merely replicates the drills, is only about the pieces?

“Back to basics” as double misnomer

This very unfortunate perfecting of the errors of the past contributed substantially to the now-notorious rise of illiteracy and the fall of scores even on the standardized tests to which the drills-and-rules approach was teaching. At this point we hear the hue and cry to go “back to basics.” Where else have we ever *been*? No one opposes the teaching of reading and writing, of literacy. But those who fly banners of “back to basics” appear to champion the two R’s against some adversary who is opposed to them. Since the opponent does not exist, the movement is a sort of hoax. What the movement really supports is a certain way, or method, of teaching reading and writing — namely the drills-and-rules method that, if it were to work, would have done so some decades ago. Actually it cannot work because it assumes that parts can teach wholes, or add up mechanically into wholes the way sub-assemblies are assembled into machines, whereas the parts — the spellings, the vocabulary words, the various sentence structures, the similes — can be learned only as functions of the wholes of which they partake. The more they are isolated, the harder they are to learn — and the less motive the learner can find to want to learn them.

The “back to basics” movement attributes the decline of skills in thought and language to la-de-da liberal experiments of the Great Society’s heyday. Some of those innovations were bound to have been ill conceived and executed, as is expected for experimentation; some never got off the ground for lack of support; and some went well but were discontinued when Nixon began cutting funds for education and decrying change. Actually, the decline owes as much, or more, to sociological changes and the impact of television as to school performance one way or the other. To the extent that school performance is indeed responsible, the dominant method of the ’70s, the ’60s, and before is and has been the drills-and-rules particle approach.

So “back to basics” is a double misnomer. Not only is the movement not back, it is not toward the basics, which are the whole, authentic acts we call thinking, conversing, reading, and writing. The standardized tests that generate the scores cited in the outcries do not, in fact, measure the basics; they measure the bits and splinters that some people for years have erroneously assumed to add up to the basics. Actually, the productive activities, like speaking and writing, have seldom been measured at all by standardized tests. Problem solving and critical thinking are also finessed, and even reading is measured so unscientifically — there being no oral component on paper-and-pencil tests to separate its variables — that low scores are uninterpretable. That is, to avoid confounding decoding with comprehension, evaluators would have to assess the first by listening to a student sight-read aloud, and the second by reading aloud to the student.

The second irony of the Great Society’s well-intentioned program is that its

brand of accountability made it impossible to hold teachers accountable! The situation still obtains today. Taking over the old fractionated learning and dressing it up in performance objectives, programmed learning materials, criterion-referenced tests, and minimal competencies — all designed to compare costs with benefits — took decision-making away from teachers and placed it in the hands of national government agencies, state or provincial legislatures, and school boards and officials. This occurred because these parties had to cover (account for) themselves and hence dictated, through mandated objectives and tests, the sort of curriculum and methods they would tolerate from teachers. Stipulating specific behavioural results (as registered by computer scoring) acts backwards, as all required tests do, to determine what is taught and how it is taught. To the extent that national agencies, regional legislators, school boards, and district administrators force teachers to teach a certain way, they, not the teachers, must assume responsibility for the results.

Had teachers cleaned house before all this, however, they would not be forced to teach in futile ways now that they know better. And many do know better; far more people outside than inside the classroom want to pour the old wine into new bottles. But the imposition of centralized, standardized specifications of teaching and testing units has thoroughly confused the natural perceptions teachers have of how children learn. Add to this the “back to basics” movement, and you have a powerful negative atmosphere. By creating a false skills/frills schism, it virtually banishes from the classroom, in the name of the two R’s, such things as art, music, and drama, some of the very concomitants by means of which children may learn the two R’s.

In sum, as the people’s will, expressed in Great Society programs, was processed through government and industry, it became distorted and eventually even inverted, so that reform ended in the triumphant enshrinement, via the “back to basics” movement, of what was to have been reformed, even though it had long since been tried and found untrue.

Future trends affecting language learning

In order to describe the current educational situation that will be changing by the '80s, I have found it necessary to touch on politics, economics, and technology, because these have determined schooling more than have pure learning factors. Likewise it is impossible to envision future language arts in isolation from other aspects of education and social change with which it will become increasingly enmeshed. But fortunately, what language learning will be mixed with or determined by will be increasingly benevolent and relevant. Inevitably also, prophecy mixes what *will* be with what *ought* to be.

An isomorphic alphabet. An important socio-technical change that could come about during the '80s would drastically alter schooling as we know it. Fulfilling George Bernard Shaw's old recommendation, the English-speaking world might adopt an isomorphic alphabet (one-to-one correspondence between sounds and their spellings) just as it is now shifting to the metric system. Such adoption would reduce the problem of "basic skills" — literacy skills — to insignificance, since English spelling makes word attack and writing far harder to learn than, say, Italian or Turkish. Most European children learn to read and write a couple of years sooner than English-speaking children.¹

An isomorphic alphabet would make literacy easy enough that children could pick it up incidentally, with far less stress. This would free schools to shift upward into the higher sorts of learning more appropriate for this stage of civilization instead of staying hung up on a merely mechanical difficulty for years on end. Much school time now has to be expended on what amounts to remedial literacy, whatever the subject or grade.

The Unifon Alphabet, invented by John Malone, comprises 40 symbols closely resembling conventional letters, and each standing for one phoneme. One use might be for initial literacy learning only, as a transition into the intricacies of actual English spelling, but few teachers consider a special learning alphabet as worthwhile. (The old Initial Training Alphabet never caught on, and its inventor John Downes now backs Malone, who claims only a few days of transition are needed.)² A second, more dramatic use could be to reform English spelling wherever the language is used. Unlikely as it might seem at first thought, the English-speaking world may start to move this way during the '80s, in response to two main forces.

For one thing, more and more of the world is speaking English; it has already become virtually the international language. As a second language for different nations, it serves admirably, being not only the language of a major literature, but being inextricably interwoven into the world's political and commercial transactions. Second, great incentive is growing to create machines for typing out recorded speech and for electronically sounding out a text — that is, for machine translating between voice and print. Such machines would require almost certainly an isomorphic alphabet. Add to this the advantage itself of lifting a great burden from public schools, and you have reasons to take seriously the possibility of spelling reform. Even if only begun in the '80s, it would force educators and the public to support the higher kinds of learning to fill the large vacuum so created.

Toward pluralism and holism. By the 1980's the technocratic approach and the "back to basics" bandwagon will dead-end in ineffectuality, because they are inorganic and unrealistic, and the humanistic forces will gain ascendance. Temporarily buried during the '70s by fearful reaction to change, the innovative im-

pulses of the '60s to reform society and education will resurge, but with greater knowledge, effectiveness, and balance. Standardization will give way to pluralism; the particle approach, to holism. Drills-and-rules will give way to realistic, well-motivated activities found outside of school, as people become aware that human ends cannot be achieved by mechanistic means.

So one hallmark of education in the '80s will be *alternatives*, to accommodate the plurality of differences in personal make-up and development, and of familial and ethnic background. But these differences will be constantly reintegrated on the basis of human *universals*, the other hallmark. Students of different age, capacity, and temperament, for example, will be accommodated by flexible sub-grouping within a heterogeneous group or "class;" special education and English-as-a-second-language students will get some special treatment while remaining mainstreamed.

Restating our description, perhaps it makes more sense to say that pluralism will replace the particle approach — since both share an emphasis on differences and breakdowns; while holism will replace standardization — since both of these share an emphasis on similarity and unity. In reality, then, trends may not be reversing, but rising rather to a higher plane. Instead of putting analysis and synthesis in the service of rationalizing institutionalism, people will be putting them to "the human use of human beings" (mathematician Norbert Wiener).³ This elevation will play a part in the ongoing evolution of human consciousness.

Individualized instruction, alternative schooling, student contracts, special education, classroom learning stations, multi-ethnic curriculum, electives, and the open classroom will coalesce into a fully developed practical management of student-centered learning, accommodating every significant sort of individual variation. Parallel to this, such trends as team teaching, cross-grade grouping, pod arrangements, racial integration, older students teaching younger, school resource centres, community aides, work-study courses, inter-disciplinary studies, and flexible scheduling will coalesce into the instituting of larger, more mixed pools of learners. Any such pool will give an individual daily opportunity to work with different adults, older and younger students, and a variety of materials, methods, media, and environments. This dual coalescence will not only allow for differences, but will put these differences into useful interaction, by flexible subgrouping within a pool not too large to cohere nor too small to afford variety and a sense of community.

Alternatives

Alternative means to the same general goals will be accepted and facilitated. Children will learn to read and write, for example, by different combinations of the four possible approaches to literacy — phonics, sight-word, "language experience" (the learner watching his stories being written down), and

read-along (following a text with the eyes while hearing it read). They will practice reading by reading individually selected texts and practice writing by doing individually selected assignments, all in a personal order but often with partners. One sequence for all for each year, and one lesson plan for all each day, will phase out and become a thing of the past. These variant routings to the same goals will be logged for each learner, and this logging will accumulate in records, along with learners' products, and be passed on from year to year so that students can start where they left off the year before.

Children will be taught from primary how to render experience into alternative media and alternative symbolizations — to dramatize, depict, or narrate stories, for example; to express feeling through mime, dance, song, music, poetry, photography, or plastic arts; or to cast information quantitatively as mathematical relations, qualitatively as verbal description, or combining these with graphics, as maps, charts, diagrams, slide-tapes, captioned photos or drawings, or moving pictures with voice-over. This will fulfill the theme of logician/epistemologist Suzanne Langer that human beings have various alternative “semantics” to express “feeling” (thought/emotion).⁴

Balancing the brain. Powerfully supporting this offering of “equal time” for the modes of communicating and informing is the recently disseminated research finding that the human brain cognizes in two main modes. One hemisphere is analytical, intellectual, verbal, and literal, and processes data serially. The other is synthesizing or holistic, intuitive, non-verbal, and metaphorical, and processes data simultaneously. One strikes one note at a time; the other, a resonant chord. They are different but equally valid, and should collaborate on many tasks (such as reading, which combines linear processing with the metaphorical nature of words).

Until around eight or so years old, people cognize both ways in both hemispheres of the brain; but then, perhaps because socialization and acculturation begin to threaten with extinction the holistic mode, the hemispheres specialize — so that, in most right-handed people, the left takes charge of the analytical and linear, associated with the “academic curriculum,” while the right takes charge of the mode associated with metaphor, arts, crafts, and sports.⁵ It is around this time, during or after third grade, that a notorious slump occurs in many if not most school children. We may have a clue here to ways it can be avoided. The influential work of Joseph Chilton Pearce strongly asserts that stereotyping and premature stress on verbal/conceptual learning during primary schooling together account for the slump and seriously cripple the astonishing native learning capacity of the small child.⁶

A growing number of psychologists and educators are arguing very convincingly that our culture currently favors the left hemisphere so much as to create a dangerous imbalance, and that school must make deliberate efforts to

educate for the right hemisphere by restoring the arts to elementary school — now scorned as frills impeding the skills — and by letting children's intelligence fully explore the imagistic, metaphoric, fantastic ways of symbolizing.⁷ Bruno Bettelheim has recently made a penetrating and eloquent case for the profound emotional and conceptual value of fairytales.⁸ Ironically, it is holistic cognition, so undervalued today, that best copes with the intricacies of inner and outer life that characterize our epoch.

Alternative realities. The ultimate alternative for which the '80s will educate is a set of *alternative realities*⁹ in the sense that Carlos Castaneda has now made a part of our modern heritage — that is, fundamentally different experiences of what is real. Carl Rogers said precisely this at a conference two years ago at Stanford called "Readin', Writin' and Reality." The title itself, yoking the humble literacy skills directly to one's level of consciousness, serves as signpost to the educational changes we can expect.

Up to now it has always seemed natural that schooling should perpetuate a single public reality to fit routine acculturation processes going on outside of school. But at our present stage of evolution this may destroy rather than preserve society, for if we do not encourage variant perspectives and a range of levels of consciousness, society will fail to solve its complex problems for lack of creativity. One notion of reality is not enough, especially if it represents the conventional, common-denominator, center-of-gravity stance. Exactly parallel to the danger of teaching a single reality is the peril of suppressing the right-hemisphere functioning, so badly needed to deal with today's intricacies and to restore the balance of the mind. Fostering alternative realities really means letting the mind entertain all possibilities and find its most expanded state of consciousness. What will enable learners to do this are precisely the alternatives in means, methods, materials, media and, especially, symbolizations, mentioned above.

The shift in psychologies

The reign of behaviourism is clearly over. It lingers only as embalmed in some commercial and administrative circles. For some time it has been losing ground to the deeper insights of child development, psycholinguistics, neurophysiology,¹⁰ Gestalt or holistic psychology, the psychologies called humanistic or transpersonal that focus on the highest human capacities and follow such exponents as Carl Rogers and Abraham Maslow, and finally the various dynamic and interactive psychotherapies aiming beyond mere coping to liberation and even bliss. Checked momentarily during the '70s, these psychologies are becoming irresistible because obviously more accurate and fruitful than the simplistic stimulus-response psychology so dominant in this century. As a bloc these emphasize innate capacity and the possibility of indefinite evolution.

What these psychologies say runs counter to conventional education. To

survive, schools will convert in the light of this new knowledge and in the light of old failures. This better understanding of how people learn makes clear that constant prodding, provoking, and manipulating actually retards learning, appearing necessary only because students can find no motivation to work with particles. People are born learners. The greatest learning occurs spontaneously before school,¹¹ and before heavy acculturation and institutionalizing. Schools will improve in the '80s by de-institutionalizing.

Reading readiness. The United States Government has clearly “bought” the evidence that pre-school children are sensational learners and has espoused Early Childhood Education. Funding in this area runs counter, however, to another insight from these same psychologies, which is that forcing learning, before readiness, retards that learning. Forced instruction may even seem to succeed, as reading scores often appear to indicate for a while, but scores usually crumple. Or scores may hold, but at a cost in total growth not worth the price. Piaget has always felt that Americans try too hard to speed up developments that will occur anyway. Virtually all of the psychologies above would agree that verbal learning is pushed too soon in our schools, a condition that accounts in large measure for the swelling ranks of “remedial readers.” It is said that Einstein did not talk until three, and that Buckminster Fuller suspended speech for a year before he invented the geodesic dome.

There seems little question that all youngsters would learn to read without stress if given time. It's not that hard, requires little intelligence, and can happen quickly when circumstances are personally right. But a first-grade teacher today is considered negligent if she allows a child to pass on illiterate — or she may be accused of racial discrimination or of depriving the child of his “right to read.” Many primary teachers will admit they force children against their better judgment, but they have to cover themselves. An entrenched aspect of current education requires “grade-level” reading scores, a denial of individual differences.

By the '80s, this self-defeating pressure will perforce yield to the realities of learning. Primary teachers then will have to allow for some children becoming literate before entering school or early in school, and for others becoming literate only by third or fifth grade. Now being rediscovered, Rudolph Steiner, founder of the international network of Waldorf schools based on his clairvoyant views of growth, recommended 50 years ago that literacy be deferred until around nine, when, he said, the child's full consciousness of having an ego separate from the world readies him for the degree of conceptual objectification necessary for literacy to take well. Children build abstract conceptualization out of imagery based on physical experience. The proper and well-established order is from bodily enactment to pictures to abstract symbols. Furthermore, the real basics of language learning are conceptualizing and verbalizing, which children need time to develop from their expanding experience with the world. Pairing

spoken words with written words is hardly developmental and *may* be learned early, but the *point* of it, meaning, is developmental.

Incantatory uses of language will be emphasized more in the future as preparation for and accompaniment to literacy. Chanting while jumping rope, or singing words to music, represent excellent extensions of the non-verbal into the verbal. The Carl Orff-Schuler and Shinichi Suzuki methods of teaching music to children claim to prepare for or foster other kinds of learning, including the verbal/conceptual, and will increasingly influence education, along with Steiner, who emphasized not only a whole-soul approach but specific utilization of rhythms, music, and body movement to help teach language and math. We can expect music, rhythm, song, and dance to play a serious role in all of public education in the future, not merely restoring the arts but undergirding more abstract learning.

Regulating mind and body

Allied to these ascending psychologies, the “human potential” movement begun in the '60s will flower in the '80s, having in the interim picked up tremendous momentum from Eastern spiritual/physical disciplines, biofeedback and autogenic techniques of self-regulation, and the acceptance by growing numbers of scientific and medical communities of the validity of psychic phenomena. All of these are already making their way into schools. With stunning force and rapidity, Eastern and Western methods of increasing mental and physical capacity beyond conventional norms are fusing into a major cultural force, as Alan Watts presaged nearly 20 years ago.¹² From the oriental martial arts; from Western physical and mental therapeutic techniques; from the practices of yoga, zen, sufism, and Amerindian shamanism; from commercial self-improvement courses like EST, Arica, and Silva Mind Control that synthesize the preceding techniques; and from scientific research in self-hypnosis, parapsychology, and neurophysiology has emerged an increasingly coherent methodology for teaching people of all ages how to live at their highest capacity — not merely personal capacity, but even transpersonal. This teaching methodology begs for introduction into schools, and many public school teachers now are teaching forms of meditation and related exercises for relaxation, internal awareness, concentration, centering, balancing, and energizing.¹³ These fundamental controls of mind and body underlie other learning, however academic. Consider just the role of attention in reading and math.

Psychic powers. For millennia yoga has calmly asserted that advanced practitioners achieve extraordinary powers as a by-product of their spiritual discipline. Now the recent letting out of psychic phenomena from the closet, reduplicating tremendous interest in the subject by leaders of thought in the late 19th century, seems destined to convince people of the near future that they can learn to do far more with the mind and body than modern human-kind has conceived. America's foremost psychic healer, Olga Worrell, has been published in the

Journal of the American Medical Association, and flourishing organizations for holistic healing or medicine such as the Academy of Parapsychology and Medicine are usually founded by physicians, assuming energy fields in our bodies that mind can influence. Nuclear physicists and electronics engineers, who work with invisible entities and high-vibration fields, are beginning to explain how psychic phenomena and mystic experiences may be governed by the same laws that modern science is discovering.¹⁴

The Stanford Research Institute research by Targ and Puthoff, on the psychics Uri Geller and Ingo Swann, has been published in *Nature*, the foremost journal for announcing scientific discovery. The reality of psychic phenomena such as telepathy, clairvoyance, and psychokinesis has been acknowledged by many scientists and other serious professional people.¹⁵ Parapsychology has been gathered into the fold of the American Psychological Association — finally — after J. B. Rhine and others had been proving in labs at Duke the existence of these phenomena for 30 or 40 years and Carl Jung had written a classic account of his own out-of-body experience. (As Einstein said, pursuing the physical always leads into the metaphysical.)

So-called extra-sensory perception and supernatural powers are being accepted as potentialities that everyone might manifest if the single reality of acculturation did not suppress the small child's belief that anything is possible, and if academic schooling did not break his initial attunement with the force fields in which he lives.¹⁶ The years between the shedding of the teeth and the onset of puberty constitute the period of greatest susceptibility to hypnosis and of spontaneous psychic powers, of absorption in reading and of concrete intuition. Some children may well be seeing the auras or energy fields emanating from others.¹⁷ Instead of being a period of slump, the ages 8-12 should see a depth of growth equal to the rapidity of growth characterizing the years of preschool or infant school.

At the 1976 meeting of the American Association for the Advancement of Science, Burton White, head of Harvard's Pre-School Project, reported that the brightest, happiest, most charming children of the school years not only spent much time during pre-school years freely exploring the environment, interacting with others, and playing with everyday objects — all key determinants — but spent 15 to 20 percent of this pre-school time staring steadily at some object — their single most common waking experience. This kind of raptness seems rather clearly to be a form of meditation, and this way of learning about things, by vibrational attunement between subject and object, resembles remarkably the yogic and mystic experiences of gaining knowledge of whatever the mind beams during the deepest meditative state. It no doubt partakes of the "direct knowledge" that psychologists and philosophers speak of as gained through intuition.

Changing priorities. We know now that human beings can learn to regulate

their own heart beat, respiration, brain waves, metabolism, skin temperature, mood, state of health, level of energy, state of mind, focus of mind, and state of consciousness. The real revolution in education, due for the '80s, will focus on the extension of personal capacity to control one's own mind and body in relation to other people and to the force fields of our natural and man-made environment.

The senior policy analyst of the United States Office of Education has made a step in this direction by promoting a series of papers and conferences on precisely the human-potential trends I have just described, including the exploration of extraordinary and "psychic" powers.¹⁸ The value of learning such control is obviously so great, approximating as it does the basic intent of all education, that matters now held of great importance will be dropped, deferred, or played down. In this reordering of priorities we can well expect that literacy may not be an important objective of primary school, especially since it can be deferred with more chance of gain than loss. And instead of being separated as a subject during the later school years, as now, language will be completely enmeshed with other sorts of learning and will in fact develop more favorably for being thus bound and balanced.

Paradox. Let me end with a paradox — literally, a "double teaching" — because language is double-edged, both valuable and dangerous. In the future we will have to unteach it at the same time as we teach it. Verbal thinking is not the highest mode of knowing and in fact usually blocks the highest mode of knowing. Learning to use language is learning to conventionalize the unspeakable, to trade off for social thinking of a pragmatic sort the "clouds of glory" that Wordsworth said we as infants come trailing into this world. I think the fourth-grade slump shows one effect of this trade. But we will start teaching young people how to suspend verbal thinking at will (as soon as we learn to do it ourselves!). For one thing it is simply true that if you turn off verbal thinking from time to time, it works better when you turn it back on. In their desperate effort to escape the tyranny of symbols many people have suspended verbal thinking through drugs, but there are other and better ways of freeing consciousness.

One means involves another use of language itself, a use very different from symbolization — namely, incantation, much neglected today but a primal function of language. Along with the other arts, for example, poetry originally aimed to induce trance, to bring on what children fall into spontaneously when they "stare." This way for language to offset itself helps accomplish our double teaching . . . and may at the same time reassure those language teachers who fear that verbal learning will lose out to non-verbal activities or that telepathy will put us all out of business. No; but the future will better balance cerebration with celebration. Otherwise, inner speech acts as a transmitter to jam our channels and drown the subtler signals of higher knowledge that nature is now vainly, but patiently, beaming to us.

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