Part 2

Wanting to Know

The point of investigation is to find out something new. But what is new to one individual or social group is not to another. Also, whether some finding is regarded as new even by a single individual or group may depend considerably on the form and the context it appears in—or on who says so. Maybe the *notion* of some knowledge, the *possibility* of its being true, is not new, but its confirmation or acceptance might be. If the validating of new knowledge involves considerable social negotiation, then we can certainly expect this to be even more true in order for this knowledge to be communally acted upon.

Researchers are in the position of trying to investigate the same physical, psychological, social, and cultural environments that determine the nature and conditions of their research itself. To be of any great use to education in the future, research must rise to a new sophistication in the kind of self-examination that we are familiar with, for example, in literary criticism. Like textual interpretation, research needs to undergo a kind of deconstruction. Just as the contexts of the author, text, and reader must be taken into account in dealing with the meaning of a text, so must the circumstances of the investigator, the project, and the applier of the findings in making sense of research. What are the personal and cultural subtexts of the research report? Just as current hermeneutics penetrates well beyond the truism that people read into a text some of their own inner life, and that authors say more than they realize, this new self-examination should far exceed the

mere reminder that any research is vulnerable to bias. As much as schooling itself, the research informing public education needs reform also.

Drawbacks of Traditional Research

Research is a kind of rhetoric, one among many ways of persuading. Our society seems to revere scientific research but actually ignores its findings when some other rhetoric better matches social motives. In education, for example, research results are used to justify traditional teaching practices far more than to innovate, for which less motivation exists. Thus literature and art have been taught as history and criticism, not for reasons inherent in the arts or in learning psychology but because the schematizing that history and criticism impose on a field format it to fit academic modes of operating, including research procedures. Formal grammatical analysis has for many years defied research indicating that it does not improve speaking or writing but displaces activities that do. Business and government were implementing the research on the effectiveness of small groups decades before schools ever considered "collaborative learning," which is still making its way into public education only with great difficulty. Most directions of curricular reform proposed in all subjects today could have been begun far earlier had both practical evidence and research results played a major role in determining public education.

Rationally, findings about how people learn and function should exert great influence on curriculum and methods, but they do not. Tests, textbooks, and college entrance requirements determine curriculum far more. But aren't these themselves based on research? Rather, even when findings do affect education via these three, they are impressed into the service of social, political, and economic factions vying to influence schooling to their advantage or persuasion.

Research lends itself to partisanship because on the big educational issues the findings are often opposed or inconclusive. In the supersensitive field of reading, for example, authoritative researchers summarize findings very differently. Barak Rosenshine and Robert Stevens (1984) conclude that children learn to read better in a strongly teacher-centered program of small steps, constant

monitoring, and teacher-run small groups, whereas Roger Farr (1981, 1986) concludes that student-centered activities emphasizing the personal feelings of the learner work best. Significantly, Farr was much influenced by Kenneth Goodman (an advisor on his summary) and Frank Smith—strong advocates of independent, naturalistic learning—whereas Rosenshine and Stevens don't even mention Goodman and Smith in their extensive bibliography. This sort of selectivity points up how easily one may use research to justify a position on learning of the greatest importance.

Especially as educational research is an applied science, we have to consider the circular ways in which it interacts with the society that sponsors it. First, university-based people usually do the research, some of which is conducted *in* schools as well as *for* schools. It draws on general or "pure" research in the behavioral sciences, as in cognition or child development, to the extent that findings there help make decisions about how to proceed pedagogically. But to bridge the gap between that research and practice, educators or social scientists may conduct experiments in school itself, commonly "intervention research" to find out if changing the way something is taught will improve results.

School research is tremendously limited by which practices schools will permit. A lot of findings just show these limits themselves, not what might best occur. Even innovative experiments prove little. Either it's not possible to control all the variables in such a multifarious setting well enough to convince decision makers to initiate change, or institutional climate and routines dilute the innovation in the direction of convention. So many factors are at play both in school and in students' lives outside that it is extremely difficult to ascribe failure or success to the particular conditions of the experiment. And any really serious change in learning practices or conditions seems to put some students at risk as guinea pigs. The worse off the school performance, however, the less there is to lose and the more risk can be taken. So the most drastic experiments tend to occur among poor and minority students already regarded as "at risk." Changes are apt to be made in these cases less on the soundness of research findings than on the principle that it can't hurt to try something else. Although comparisons of methods using actual student populations would seem to be the most effective form of educational research, in fact attitudes more than science will determine both the outcome of

comparisons that may be attempted and the changes that may, with or without the research, eventually take place.

Partly to control variables better, and partly just for practical teaching purposes, experimental school research has zeroed in on piecemeal activities and thus created another grave danger. No research that reports success in one area of language learning should be enacted into curriculum without knowing other effects of the procedure tested. Much serious damage is done by forcing results—usually short-lived—for one highly targeted skill at the expense of other, often more important components in thought and language or overall personal development. Scores resulting from a certain specific teaching practice can look very good if you don't look also at the price paid for them in the total learning picture.

But controlling for unintended effects is rarely built into experimental design and indeed would in most cases be impossible because too many effects are unforeseeable and widely scattered across the mental life. And since every segregated-skill experiment does similar damage, together they add up to an intolerable price—the betrayal of the real goals of, say, speaking, reading, writing, and thinking for the sake of ensuring periodic "progress" in the subskills alleged to comprise them.

Again trying to offset the frustrations of school research, investigators have focused considerably on how adult or proficient practictioners go about an activity targeted in school, such as reading or writing. How does the novice become an adept? Triangulating school experimentation, knowledge of child development, and observation of skilled performers does indeed seem a necessary way to piece together some practical understanding of how to teach. In reflecting on the "fragmented, staccato nature" of the history of reading research, the highly regarded learning researcher Richard L. Venezky (1984) observes first that today's research favors the parts of reading so much over the whole act of reading as to be of little help in teaching. Then he says, "But even if the studies being done today were directed toward an improved understanding of reading, a chasm between research results and reading instruction would remain. First, adults and not children are the favored subjects for most of the studies now being reported on reading processes" (p. 27). I myself have felt that some of the psycholinguistic findings about how adults read have been too readily translated into learning processes for children, with the result that the oral mediation between speech

and print that learners need to rely on has been downplayed on grounds that expert readers bypass oracy and directly connect text to thought. Though an understandable effort to bridge from this more reliable research to school practice, extrapolating backward from the second-nature proficiency of the adept to the initial learning of the novice has added to the confusion and contention in a field already too notorious for both.

Venezky goes on to make another observation worth keeping in mind during any deliberations about educational research. "Second, investigations on learning processes do not within themselves answer instructional questions. . . . Perhaps Henry James (1901) was correct when he said 'You make a great, a very great mistake, if you think that psychology, being the science of mind's laws, is something from which you can deduce programmes and schemes and methods of instruction for immediate schoolroom use. Psychology is a science, and teaching is an art, and sciences never generate arts directly out of themselves' " (pp. 27–28).

For their part, universities pose problems as obdurate for educational research as do schools. For career advancement, academicians are expected to make a "contribution to knowledge" and to publish it (or perish). This puts enormous pressure on researchers to produce and to produce fast—in time for that doctorate, appointment, promotion, or grant. Under these conditions, we can't expect most research to be significant. Indeed, research findings in education rarely reveal anything we didn't already know.

For example, Roger Farr, in his summary of reading research cited earlier, writes, "What, then, can we say about the teaching of reading after 80 years and over 12,000 investigations?" He answers that (1) it "should involve children in experiences that they enjoy and that demonstrate [what reading can do for them]"; (2) "the more closely skill-drill exercise is associated with a student's personal reasons for reading, the more likely such exercise is to develop readers"; and (3) the program should be "geared to the interests and needs of *individual* children . . . [including] many types of reading on many topics at a variety of appropriate readability levels" (p. 20). Should we really be flabbergasted by these findings? Pertinence, personal interest, and involvement are just three points making the same commonsense point that the best learning is individualized and pluralistic. Who needs to wait on research for such "data"?

This is the pattern. When I look at research in writing, which has received much more attention in recent years, I find there too that what seems to excite researchers are findings about human truths that we know already—or should know if we're paying any attention at all to children and to our own social and mental processes. Here are some research revelations excerpted from an excellent synopsis by two leading investigators of learning to write (Dyson and Freedman, 1991):

- Children "control first-order systems, like speech and drawing, before they control second-order systems, like written language. . . . "
- Children "play with print's basic graphic features, for example, its linearity and the arrangement of print lines upon the page . . . . "
- Children's writings "undergo transformations during the school years" in the direction of greater length, structural complexity, and internal coherence.
- "Children seem willing to change spelling and handwriting earlier than they do structure and content" and "may find little use for revision unless they are grappling with ordering of ideas . . . . "
- More expert writers allow more for their audience than less expert writers.
- The composing of adult writers consists of "several main processes—planning, transcribing text, reviewing" that occur recursively as needed.
- Composing is a "hierarchically organized, goal-directed, problem-solving process."
- When "writers see their topics as more abstract, they spend more time planning," and they "tend to pause more when writing pieces that require generalizations than when writing reports." (pp. 760–65)

I suspect that virtually any educated layman could have predicted these findings, if asked about each point, on the basis of observing either how people write out of school or children's general behavior, of experience reading texts of varying maturity, and of general understanding about such gradients as concrete to abstract

and subjective to objective. It is true that research reassures us of what we know, formulates this more precisely, collates examples, and marshals evidence for argument. These are all important psychologically and socially, but it's important too to understand precisely the nature and value of this sort of research.

I don't mean to disparage the work of the responsible, intelligent investigators who are accumulating such findings. If research turns up so little really new knowledge, I think that's for systemic reasons going well beyond the personal qualities of individual researchers to cultural, political, and economic forces that work their effects on schools and universities. Their institutionalism so depersonalizes learning that we dissociate personal knowledge from professional life and pretend not to know, in effect, or truly lose touch with our experiential understanding of how we function.

Let's pursue the university setting in which educational researchers operate. For one thing, there are simply too many academic people trying to advance their careers for very much of the research ever to make a real contribution to knowledge. In order to be sure of ascertaining some data definite enough and soon enough to earn that degree or that rank, the goal of the research must be too clear and the scope of it too small. Even well established investigators have to operate within funding terms intended to yield clear-cut results in a short time, because the administrators of funding institutions also must quickly prove themselves, like CEOs of profit corporations making those quarterly reports look good. The insignificance of much research stems rather directly from this short-term managerial mentality, which infects all of business and government, where administrators with real decison-making powers characteristically move after short terms in office. A researcher sets out to prove something already pretty sure to be true, for which evidence can pretty surely be adduced in time for the quick payoff. So if the findings are not obvious, they are trivial.

A truism that hardly anyone seriously doubts may be formally proved and thus technically counted as a contribution to knowledge. Often the "finding" will be pronounced in new terms, however, and the old truth renamed so that it appears as a revelation. Since previous practitioners and researchers may well have accepted or assumed this truth for some time, investigators sometimes have to use fresh terminology to try to patent their finding, carve out some professional turf to which their name can be affixed.

Now, a systemic problem like this can be allowed for by those who are well aware of it, but most lay people and no doubt some researchers themselves don't really understand that the new knowledge is not new, at least not in some quarters and in some terms. This is not harmless, because assuming that a finding is new when it is not confuses one's thinking. "If this is new, then it must be different from such-and-such, which I have always known but which must be something else." Or "I did not know this before because research has only now disclosed it." The researcher's need, as it were, to copyright something in the public domain may in this way cause the consumers of research to deny they knew something previously or to dissociate their knowledge from the new "findings." They give credence to professional researchers over their own knowledge making.

This is exactly what happens to students all through school. Of course schools do furnish them some facts they really didn't know, but by formatting and formulating information in unfamiliar jargon, they make it extremely difficult for students to seam in from what they do know (which varies with each student) to what they are truly learning for the first time. It is critical for people to build on old perceptions and understandings, to keep transforming these as they learn really new things. But they must know what it is they already know and not discount their own knowledge in deference to an authority asserting, "You didn't know this until I told you."

Ironically, one of the findings most bruited about today tells us that children actively *construct* knowledge by transforming old understanding as they assimilate new information into it (Resnick, 1987). But this depends on knowing and honoring fully what they already know. This finding itself is now utilized in school reform to support "active" (!) learning, student empowerment, and student centering, which is fine, but had schools and universities not treated us all as inert manipulables all those years, we would not be so astonished to discover that people build their own knowledge structures by actively putting together as best they can whatever information and understanding the environment makes available. Had we *let* children learn, set up an authentic knowledge-making environment not dictated by tests, textbooks, and political and institutional controls, every school would have been a natural laboratory in which we could have learned some really new things. Instead, for example, we learned only about school- and university-induced impediments to literacy until learning results were so terrible that we

finally started looking at how people read and write in circumstances that *are* real, outside of school.

In short, most educational research merely rips away the veils from understanding obscured by our learning institutions themselves. It is a form of permitting ourselves to know what we ourselves have suppressed. Such research serves a needed purpose. But let's be clear about what that role is and about what sense of *new* is true of research that gives us back to ourselves.

Let's take two important ideas that appear to have come from research but that observant teachers and parents have long known. One is the truth that the language used in many homes differs considerably from the way language is used in school and that consequently children coming from some homes will have a much harder time learning in school than those coming from homes more like those of the teachers. Researchers began to proclaim this during the 1960s, when the United States started to acknowledge the right of minorities to assert their identities and their differences, but minority children and families certainly knew this all along, and teachers were dealing with it, well or badly, all the time. What was new was a political change in society that permitted such truths to be acknowledged and acted upon. All research did besides document this old knowledge in some linguistic and cognitive detail was to *officially promulgate and validate it.*

Often the documentation took the form of anecdotal evidence and case histories—ethnographic research—differing only in degree of formalization from stories that children, parents, and teachers had long been telling, or could have been telling had someone cared to elicit their experience. Finally, society cared enough to ask. It was not that these discrepancies in language use were not known, and even complained or joked about, but that *academicians* didn't know about them or didn't bother to examine the details of these obvious ethnic and socioeconomic differences—not until more minority and rural people started becoming academicians themselves. To *whom* is this knowledge new? Or in what state of mind is this new knowledge?

The other example is the notion of multiple intelligences. With all due credit to the sensitive and much needed *attention* that Howard Gardner has given to this, most people have always understood that human beings function through more than discursive intelligence, that they know and cognize through their senses, their

feelings, and their bodies. Again, it may be *academic* people who have least known this, because they make a living mostly through verbal and logical knowledge. But no one needs research to tell them that some other kinds of intelligences are operating when people compose music and choreography, paint and sculpt, act, sail a boat, or grow corn. The knowledge of multiple intelligences was not new, at least to large parts of the society, but this knowledge was not welcome or implemented in education because schools were socially and politically too committed to discursive learning that aped the university. After school reform became a serious issue, *then* the knowledge was allowed.

In both examples, research "discovered" what the society was now willing to permit its schools to deal with. In this sense, research removed a bias that denied we knew what we knew and thus acted as an offical license to *implement* this old knowledge, which we will still probably not accomplish for a long time yet.

Actually, research about the methodology of reading and writing has never been necessary but has only seemed so because of the unnatural learning conditions that schools have imposed on children. As research is now "showing," the more schools approximate the authentic reading and writing circumstances in which literacy is practiced outside of school, the more they succeed. Only societal forces to the contrary, mainly for purposes of institutional and ideological control, ever prevented our seeing this obvious way of proceeding in the first place. *How* to teach reading and writing is a red herring, since we have always known what these authentic reading and writing circumstances are in the home or workplace, and since we can learn what else we need to know by observing children in comparable circumstances. The concept of teachers as their own researchers would have been part of good schooling generations ago had curriculum and methods not been dictated from beyond the classroom via tests, textbooks, and various regulations and requirements up the line. Teachers' ongoing investigation of what is or is not happening among their students is an intrinsic part of good teaching and should not have to wait on or depend on professional researchers to come in and formalize it.

No, the real need for research is not to find a methodology for teaching literacy, which was always there whenever students and teachers should be freed to engage in it, but to understand the place of literacy in an overall learning program for today's stage of evolu-

tion in culture and consciousness. This requires a shift in the nature of how research is conducted.

The recent shift from experimental and statistical research toward ethnography represents a positive effort to demythologize academic research, and still get academic credit, by honoring and sharpening how we learn all the time as observers and participants. Ethnography, case histories, teacher journals can document in more detail what we think we know, adjust and refine it, focus and raise to public forum what is personally known, and perhaps aid in seeing how to institute in schools those authentic conditions in which literacy and other human activities are learned out of school. As an antidote to the artificiality of manipulative schooling, ethnography at least focuses educators on realistic ways of learning occurring out of school that may be brought into school.

But if the real goal of research is *surprise*—truly new knowledge—ethnography too suffers from the small-scope, short-term framework and the societal biases that limit other types of research. Investigators work best when enabled to pursue a major learning issue for a long time and to draw on many disciplines and cultures. Multicultural, interdisciplinary teams of investigators probably work best of all, if freed of professional shibboleths and institutional politics. Another late disclosure of educational research has been the efficacy of "collaborative learning," especially when focused on "projects." The same authoritarian institutionalism and individual competition that prevented educators from knowing enough to implement cooperative small-group process in schools a long time ago has also impeded *researchers* from framing investigation in knowledge networks capacious enough to discover things we really did not know before.

What educational research needs is a more comprehensive perspective, a more pluralistic cross-referencing of knowledge, as I will attempt to envision now. Otherwise we do not know what to make of, or what to do with, even good research with authentic discursive activities, because we don't understand well enough the relationships among the various thinking and verbalizing faculties to know what we are doing in working with any one of them, such as comprehending or composing. Besides practical literacy, finally, what in the bigger picture of individual and social life are we really trying to accomplish through language? Ultimate values must enter into any thoughtful overview of present and future. For all these reasons,

literacy and literature, like other kinds of knowledge, are best discussed in constant relation to culture and consciousness.

Beyond Materialism

In their efforts to make their disciplines as "hard" as those in the natural sciences, behavioral scientists have often taken on a scientific swagger that, interestingly, the physicist has been forced to drop. The harder the science the harder does the scientist run up against the limits of the scientific method. After Einstein's relativity and Heisenberg's uncertainty have come other principles, like that of probability, to attenuate and qualify the realities of matter. The more one views holistically, from multiple vantage points and expanded perspectives, the more relativistically one thinks. As the interplay of "particles" in a nucleus dissipates the very idea of a particle, the meaning of a single text extends out across the whole network of reciprocally defining words and cross-referring intertextuality that makes up signification for writer and reader. If both literature and physics operate today on a principle of relativity, behavioral scientists should be able to drop the defensive effort to pretend their disciplines are "hard."

Within this framework of new self-awareness, the subject matter of research should be drastically and daringly enlarged. It remains far too physical, partly in allegiance to a lingering behaviorism and partly in adherence to an old-fashioned doctrine of nineteenth-century positivism, according to which nothing is real that can't be hefted, counted, or perceived by the senses. In an era when theoretical physics sounds stranger than scholastic theology, and the most important "things" in science are mathematical constructs, this materialism seems inappropriate indeed. Researchers have got to quit intimidating each other by disparaging attempts to explore the intangible—especially when investigating the mental life! The old positivistic scientism has created a climate we still live in which I call the "scientific inquisition," whereby the research establishment punishes its members for dealing with taboo subjects, as the church did before it.

The Body Electric: Electromagnetism and the Foundation of Life (Becker and Selden, 1985) not only gives an account of orthopedic surgeon Robert Becker's pioneering experimentation on the healing

power of electricity but also makes of this research a case history of how scientists may reject for a long time well-substantiated findings if these contradict established beliefs. Since the eighteenth century, when Volta challenged Galvani's assertion that frogs' legs operated electrically, most biologists have squelched or ignored evidence of animal electricity. The book chronicles in detail how clear findings presented by many others as well as Becker were repeatedly brushed off right up into the 1960s, when the scientific community finally began to accept that bodies generate electricity and are influenced by electromagnetic fields—a finding of far-reaching significance and practical value. In a postscript titled "Political Science," Becker exposes how the politics of funding determines the kind of research and therefore the kind of knowledge that is permitted.

Even today, prejudices against electrical healing, a heavy medical commitment to treatment by drugs or surgery, and commercial protection of microwave ovens and other electronically hazardous appliances still starve funding for research on electrical physiology. For questioning the safety to humans of various military and power installations radiating electromagnetism, Becker was deprived of all research funds and demoted from chief of research at a Veterans Adminstration hospital to night-admitting physician. Even today the United States government and the commercial companies it supposedly regulates will not admit an EM radiation hazard and resist research to investigate the possibility.

But besides these worldly factors, ever since Galvani's and Volta's day the mysterious and invisible power of electricity had been associated with the philosophy of vitalism, according to which the universe, as Plato and most other later philosophers taught, is animated from beyond itself by an immaterial force. Vitalists backed electricity as the candidate for this force while mechanists fought strenuously to disprove its presence in living beings, which electricity would appear to animate from another dimension. So a metaphysical dispute, potentially threatening the material basis of science itself, has underlain into our own time any research in bodily electricity. If researchers like Becker, well grounded in both medical practice and orthodox experimentation, have encountered such resistance in investigating purely physical phenomena, imagine the difficulty one may meet investigating less material phenomena.

Even Freud and Jung were intimidated by this conformist pressure, as Arthur Koestler points out in *The Roots of Consciousness:*

An Excursion into Parapsychology (1972). Though not personally inclined toward the paranormal, Freud came to believe in telepathy from direct experience of it with his patients and joined both the British and the American Society for Psychical Research. Ernest Jones dissuaded him from speaking or publishing about it, though Freud's papers on the relations between telepathy and psychoanalysis appeared posthumously. For most of his career, Jung felt obliged to explain his own numerous psychic experiences and his theory of the collective unconscious as somehow existing or happening in the individual mind, but near the end of his life he acknowledged that these had reality beyond the physical brain.

Though this sort of censorship has lifted somewhat today, physicist Fritjof Capra suffered career difficulties because he compared nuclear theory to oriental metaphysics in *The Tao of Physics* (1981). Biologist Rupert Sheldrake was castigated in an editorial titled "A Book for Burning?" (1981) in science's most prestigious and traditional journal, *Nature,* for the theory he set forth in *A New Science of Life: The Hypothesis of Formative Causation* (1981). Sheldrake hypothesizes that, along with heredity and environment, a nonmaterial field for each species may govern the formation of its members. It may be intellectually chic to speak of a "shift of paradigm" in the sciences, but it is not yet professionally very safe to propose one.

These examples are not idle. Not only is telepathy related to the idea of a collective unconscious or group mind like Sheldrake's formative field but both, if real, bear tremendously on learning. So let's use them further as examples of the bolder and broader research that educators might do well to foster and follow. Actually, the notion of intelligence as a force field exerting action across time and space has a tradition in modern biology that includes many others than Freud and Jung, who certainly took seriously the likelihood of such fields, since telepathy presupposes some such means of communication and since a collective unconscious would also depend on a nonphysical transmission in the present. ("Racial memory" begs the question of how individuals can remember experiences others had before them.)

Force Fields of Mind

One idea that recurs among scientists goes well beyond the now demonstrable fact that organisms give off an electromagnetic field.

It is that members of a set of living beings, including humans, participate in some kind of force field, escaping the detection of physical instruments, which individuals at once collectively generate and are in some measure directed by. Sheldrake calls these fields "morphogenetic" (from the traditional study of morphogenesis or developmental forces) to indicate that some characteristics of species are beamed to members in the present, beyond what genetic transmission can account for. Generally, according to this hypothesis, repeated action builds up a "morphic resonance" to which members are tuned and that perpetuates such action in the field until new actions have been repeated enough to change the field (as in evolution). The idea curiously resembles the Hindu *samskaras,* which are habits based on the self-perpetuating repetition of thoughts, words, and deeds that likewise generate a formative field by which the past determines the present. Experiments with people and animals before and after Sheldrake proposed his theory tend to indicate individuals may learn new behavior more easily after others have mastered it, a phenomenon that could explain the constant setting of new records in sports and of achievements in other fields that seem to extend human capacity. But certain proof for this controversial "new science of life" awaits, precisely, further research, which the *Brain/Mind Bulletin* faithfully covers, as it did the original controversy.

In the fall 1982 issue of *Revision,* Sheldrake placed his hypothesis within a lineage deriving from vitalists like Hans Driesch, an embryologist who defected from mechanism at the turn of the century because it could not explain how bits of an embryo could regenerate themselves, and from Alfred North Whitehead's organismic framework of the 1920s. Sheldrake's geneology of biologists proposing some sort of morphogenetic fields includes Alexander Gurwitsch of Russia, Paul Weiss of Vienna, C. H. Waddington, René Thom, and Brian Goodwin (p. 41). Writing before Sheldrake, in *The Roots of Coincidence* (1972), Koestler mentions that biologist Sir Alistair Hardy thought that the highly skilled and coordinated activities of some lower animals "could only be explained by a kind of group-mind where each individual shared a 'psychic blueprint' " (pp. 101–102).

In Lifetide: *The Biology of the Unconscious* (1979) another biologist, Lyall Watson, uses lifetide as a metaphor to evoke a field of interconnectedness among living things that may explain "paranormal" events such as the now famous "hundredth monkey"

phenomenon. A young female monkey on a Japanese island began washing potatoes in the sea before eating them, a significant innovative behavior soon imitated by her peers and from them by their elders. Then on other Japanese islands other monkeys who could not have been learning from observation started washing their potatoes. Watson conjectures that after a certain critical mass has been reached—the hundredth monkey, say—the behavior becomes directly available to the whole collective unconscious of that group. This would of course exemplify exactly Sheldrake's idea, but, pertinently enough, Watson had to tell anecdotally the island-leaping part of the story because some researchers involved did not believe what was happening and those who did feared for their reputation if they reported it officially. Having to fill in this crucial gap in the journals with unofficial oral accounts brought Watson in for heavy criticism, especially from organizations that specialize in debunking quacks.

The common motive behind these various concepts of invisible formative fields has been to explain certain material observations that materialist frameworks cannot account for. Scientists who oppose a hypothesis like Sheldrake's tend to be biochemists, he points out, who work with a microview that obviates the inexplicable facts that zoologists and botanists encounter in the larger time-space scope of whole organisms and their evolution. Physicist David Bohm has proposed in *Wholeness and the Implicate Order* (1980) a theory comparable to Sheldrake's and for the similar reason that Bohm believes present-day quantum mechanics "does not have any concept of movement or process or continuity in time" because it too takes a microview (the momentaneous interactions of accelerated particles in a cloud chamber), "but out of this truncated view physicists are trying to explain everything" (Sheldrake and Bohm, 1982, p. 45). This from a highly respected former co-worker with Einstein and an author of a widely used textbook on quantum mechanics.

Like the morphogenetic field, Bohm's implicate order is a formative ground unmanifest itself but determining the particulars of what we do see. It is the enfolded, potential order behind the unfolded, manifest order and so corresponds, as Bohm does not hesitate to say, to metaphysical concepts of a nonphysical reality emanating the familiar material world. Sheldrake and Bohm agree on the similarity of their theories and of the theories' function, to make sense of the more comprehensive findings in their respective fields.

The limitations of physicalist assumptions have been forcefully impressed upon all the great brain researchers of the last hundred years. Michael Aron (1975) points out in the December 1975 issue of *Harper's* that I. V. Pavlov, Sir Charles Sherrington, Sir John Eccles, A. R. Luria, Wilder Penfield, and Karl Pribram all had to resort to positing some nonphysical plane or order of reality that, as in Sheldrake's and Bohm's theories, acts as a field governing what one observes. In *The Mystery of the Mind* (1975), after reporting his famous experiments with electrical stimulation of the brain, Wilder Penfield writes:

> Because it seems to me certain that it will always be quite impossible to explain the mind on the basis of neuronal action within the brain, and because it seems to me that the mind develops and matures independently throughout an individual's life as though it were a continuing element, and because a computer (which the brain is) must be programmed and operated by an agency capable of independent understanding, I am forced to choose the proposition that our being is to be explained on the basis of two fundamental elements. (p. 80)

Here Penfield is quite deliberately picking up a problem in the philosophy of science that was old in Newton's day—the one referred to earlier, about whether the universe is utterly mechanical or is animated by a force from another dimension. One of the "fundamental elements" would be physical and the other not. But like most other scientists today, Penfield hesitates to employ a term like "nonphysical" or "immaterial" because the definition of physical matter could simply be changed to fit the findings, as indeed may soon happen in a reconstrual of the nature of "nature" that can comfortably include the "supernatural."

Contrast Penfield's conclusion here, the same as his mentor Sherrington's and his other predecessors, with a statement in *The Dragons of Eden* (1977) by astronomist Carl Sagan, who was trying to head off just such a line of thinking in the public: "My fundamental premise about the brain is that its workings—what we sometimes call 'mind'—are a consequence of its anatomy and physiology, and nothing more" (p. 7 of the Introduction).

The current successor to the brain researcher's dilemma, Karl Pribram (1982), has brought theoretical physics and mathematics to bear on the brain/mind duality in such a way as to transcend the division into physical and nonphysical, natural and supernatural. He

has adopted a holographic model based on the realization from Karl Lashley's and his own research that a memory has no particular brain site but is distributed over such a large portion of the brain that most removal or damage cannot destroy the memory. Just as each part of a hologram contains an image of the whole photographed object, different parts of the brain contain a record of a given experience.

Furthermore, in the same way that converging laser beams create a pattern of wave interference photographed as a hologram, although the pattern looks nothing like the photographed image, sensory wave frequencies intersecting at junctions between neurons register a pattern as a memory that also does not resemble the perceived object. "Images are mental constructions," Pribram writes in *The Holographic Paradigm.* "But the process of image construction involves . . . a transformation into the frequency (holographic) domain. This domain is characteristic not only of brain processing . . . but of physical reality as well. Bohm refers to it as the implicate order . . ." (1982 p. 33). Pribram continues, " . . . Time and space are collapsed in the frequency domain . . . . In the absence of space-time coordinates, the usual causality upon which scientific explanation depends must also be suspended" (p. 34). However much we might share Sagan's concern that knowledge not be polluted by popular superstition, educators must recognize that the scientific paradigm is rapidly shifting among leading researchers to accommodate formally what Sir Arthur Eddington said for some scientists even several decades ago, that the stuff of the universe is mind-stuff.

A hypothesis should not be ruled out of serious consideration because it is physically untestable. After all, the more comprehensive and important an idea, the harder we should expect it to be to confirm empirically. If we insist on material evidence, we doom our understanding of nature to the less consequential. Rather, we may avail ourselves of other ways of testing an hypothesis. First, how well does it explain otherwise inexplicable phenomena? Second, how well generally does it fit knowledge already accepted? Third, though no experiment may be devised to test it directly, does a synthesis of empirical evidence culled over time from across different disciplines tend to bear it out? Finally, are there logical ways to reason a case for it? Research that truly contributes to education in the future will have to help us understand better the relations among thought, language, and consciousness. This will not happen without consider-

ing seriously some ideas not so honored so far in education, though given considerable thought on the growing edge of the scientific community.

Entertaining the idea, for example, of mental force fields acting in exemption from time and space would make an enormous difference in how we might think about language learning. If collective consciousness and telepathy are real, what new truths might these imply, and what light would they shed on old facts? Koestler says that Freud "theorised that ESP was an archaic method of communication between individuals, which was later supplanted by the more efficient method of sensory communication" (1972). If this is true, we *must* know it, because the ramifications are enormous. Reflect a moment on the import of such an idea for language acquisition and for the roles of speech and literacy, especially to the extent childhood may recapitulate history. Does language, for example, supplant telepathy for the child, as Freud theorized it once did for humanity as a whole? If so, in what sense does the child gain? Are there losses? What effect does the acquisition of speech have on cognition and consciousness? There may be no more important question for learning. It is not nearly enough to assume that language is all good and to focus only on how to further its acquisition.

And if morphogenetic fields exist, a human individual must be participating in several at once—familial, ethnic, linguistic, cultural. How do these interplay? Of the several fields to which an individual is tuned which field dominates in influence? Dominates by virtue of which factors? What is the relation between knowledge beamed directly and constantly to the individual from these group minds and knowledge learned by personal experience or by oral and written transmission? Are people in fact gaining access telepathically to knowledge that is attributed to deliberate teaching? What opens or blocks attunement to these fields (and some perhaps beyond the human families)? Can people learn to control attunement so as to choose which field to resonate with at a certain moment?

Let's begin to move this inquiry closer to language learning by using as transition a couple of lines of valuable research already in progress. One was begun some thirty years ago by H. A. Witkin, who proposed a psychological dimension running from field-dependent to field-independent where 'field' refers to a physical or social environment. Originated in investigations of how much people

orient themselves spatially by internal versus external references, this initially perceptual dimension has since become a common dimension of cognitive style and of personality and has even been usefully applied to cultural comparison, as in the finding that individuals in hunter-gatherer societies tend toward independence from the social field whereas members of herder-farmer societies tend to depend more on the group. These differences are reflected in their respective ways of rearing children. Because language is social in origin and in function, the degree of individual dependence on the group must affect considerably how one learns and practices language, especially as this degree itself is in part culturally determined. But this whole promising line of investigation of one's relations to the social field might take a quantum leap if researchers saw fit to consider research subjects within several sorts of fields, perhaps simultaneously sometimes, one possibility being physically detectable fields such as those of gravity and electromagnetism, another being the more inferential fields of society and culture, and another being the "immaterial" fields of collective telepathic knowledge.

With a more enabling concept of "field," research might yield greater understanding about familiar practical learning issues. Does truly mastering a foreign language, for example, entail participation in a new group mind, a new attunement? Do small children learn a native language so rapidly and foreign languages so much more readily than elders because they are more telepathically receptive? Does our current concept of literacy, that the learner joins a community of readers and writers, mean more than we know, in the sense that joining is not just learning by interacting with people physically present but tapping into the whole pool of the literate group mind of one's society? How different is a literate field from an oral field? Putting the question anew like this might help us make better use of what a Walter Ong or an Eric Havelock tells us about the relations of orality to literacy.

The most neglected problem in education may be why children go into a slump by the end of primary school, around the age of eight. As psychologist Joseph Chilton Pearce described probably most forcefully, in *The Magical Child* (1977), a prodigious creative learning capacity enjoyed during the preschool and primary years seems to wither then. Do language acquisition and external acculturation cause this as a side effect by overmolding experience? This para-

mount question might become more answerable if researchers were willing to recast it into terms of group-mind resonance. Does orality first, and then literacy again later, alter the receptivity of the individual to such resonance—reduce telepathy and hence make it harder to gain direct access to the pool of collective knowledge? Does shifting cultural transmission from telepathy to oral and written language free individuals from the tyranny of an unconscious group mind only to cut them off from the genius of the genus, with all its accumulated knowledge and capacity, and set them plodding to piece this all together bit by bit? Researchers are going around and around, as in the debate between the followers of Chomsky and Piaget, about how much environment and heredity, nurture and nature, contribute respectively to human formation. This forum may need another dimension—the ways in which morphogenetic fields are forming the mind directly, interplaying with these physical and social fields.

The Evolution of Consciousness

The work of psychologist Julian Jaynes exemplifies both some directions for new research and some limitations of the old. In *The Origin of Consciousness in the Breakdown of the Bicameral Mind,* (1976) he sets forth a daring thesis based on an admirable synthesis of knowledge from art and archaeology, physiology and psychiatry, myth and history. Before about three thousand years ago, he argues, individuals did not experience personal consciousness and could not think for themselves. They depended almost totally on the culture and had a "bicameral mind," by which he means a two-chambered mind of which half carried out orders received from the other half, which was really a program of cultural imperatives perceived by the individual as voices of gods or ancestors. Jaynes hypothesizes as the mechanism for this bicamerality that these standing orders were transmitted from an area in the right hemisphere of the brain to a corresponding area in the left hemisphere (Wernicke's area, a major site of speech), where they were translated into hallucinated voices. So people felt directly commanded to act by the gods, as in the *Iliad,* and were indeed run from the outside.

Two developments broke down the bicameral mind, says Jaynes, and made today's personal consciousness develop as a necessity.

Mobility confused the cultures, and literacy silenced the voices. When cultures began to mix, individual action was confounded beyond the capacity of programmed commands. At the same time, laws inscribed to be posted or circulated replaced the hallucinated vocal directives. (Moses' bringing down of the tablets would presumably represent a transition.) Individual mentation became necessary for action, and literacy made it possible by teaching people to metaphorize and hence to build an inner model of the world. So consciousness evolves from group to individual but with many throwbacks to remote authority as in the auditory hallucinations of modern schizophrenics.

In its ingenious weaving of disparate information and its application in turn to different domains, the theory is brilliant if only one-quarter true, because even what may not be true catalyzes very productive thinking in the reader. Here are some thoughts from this reader. First, some notion of evolution in consciousness does seem prerequisite for discussing in depth the other matters of language acquisition, cognitive development, and cultural heritage. Second, such a comprehensive framework does entail a rare sort of scanning across areas of knowledge and across periods of history. It was heroic to attempt this alone. Third, the direction of the evolution of consciousness that Jaynes indicates, from collective to individual, seems well confirmed by many other things he does not refer to, as does also his splendid evocation of the waning of the gods and the fading of the voices, so well attested in a vast mythology and literature of lost paradises and in the long subsequent history of efforts to reestablish contact through divination, auguries, prophecies, and other seership by those still gifted to hear divine or ancestral voices. (Yeats: "The falcon can no longer hear the falconer.") Finally, and this does not exhaust the riches of the theory, Jaynes illuminates past and present by bringing them to bear on each other in a living continuity pertinent to the purposes of education.

The drawbacks of Jaynes's thesis reflect the limitations of his profession and his culture. Let's begin with his date for the origin of our sort of consciousness. It's set too late. His timetable of causation obliged him to place it after the advent of writing, but in writings as early as the *Vedas,* which are surely transcriptions of long oral traditions, meditation practices are referred to as antedating writing and presuppose a personal consciousness already so developed that it needed to be quieted and reattuned to fields beyond. The meta-

phorization that Jaynes sees as inaugurating individual consciousness more likely *prepared* for writing than *resulted* from it. That is, it seems easier to imagine metaphorization deriving from visual homologues such as tree limbs/body limbs, from which in turn could develop the categorical concepts needed for common nouns and further verbalization.

Here I feel Jaynes is following our common cultural assumption that thought is beholden to language. Our culture bears nearly as strong a bias against the nonverbal as it does against the nonphysical. Language is revered out of all measure, at least by those who make their living by it, to the point that we can hardly imagine the mind developing without it, whereas as Hans Furth, for one, has pointed out in *Thinking Without Language: Psychological Implications of Deafness* (1966), thought can grow independently of language. But the very perceptiveness of the rest of Jaynes's theory calls our attention to this telling assumption that, precisely, needs much more thought and research. It is most likely that vocalization became speech in the measure that thinking was already developing and pressing for a means of communicating itself, though, once associated, each fostered the other.

More important, the materialist framework of the scientific establishment within which Jaynes is still trying to work obliges him to contain the voices within the physical brain, as hallucination, whereas I think the bicameral or externally directed mind can be better explained by telepathy and better developed by the concept of a collective mental force field operating from the past and within the present. This adjustment would not seriously disrupt Jaynes's thesis, but it would alter the relations among thought, speech, writing, and consciousness—which are all the more important for educators as children may pass through whatever sequence humanity may have undergone. So, according to my own theorizing, thought evolved before speech—conceptualization independently of verbalization—but was group thought, shared by telepathy, which can be wordless. What we call "instinct" in animals, which permits them to do astonishing things that they never learned, may be just this nonverbal collective consciousness operating across a whole species.

The mixing of bloods and cultures did indeed muddy each group mind, however, and did force individuals to think for themselves. The emergence of individual consciousness, speech, and literacy are indeed related to each other and to the disappearance of the gods and

voices, but it could as easily have happened as follows. If speech evolved out of the necessity to replace telepathy, it was because the development of personal consciousness was already weakening the attunement with the collective consciousness.

Consciousness would be evolving, as Jaynes and others indicate, from group to individual. Effect rather than cause of this evolution, literacy would nevertheless have made personal consciousness at once more necessary and more possible as it replaced telepathy. Hallucination probably did occur as a frantic effort to renew contact with the authoritarian imperatives. Being in touch with the culture externally but out of touch with the group mind internally could have left us with the nostalgia for ethnocentricity that today plagues not only world peace but haunts cultural research itself. Understanding the direction of the evolution of consciousness deserves top priority, because educators need to think about how schooling should fit this development.

Another cultural bias may play a part in Jaynes's theory that is critical to thinking about the evolution of consciousness, namely, the notion that our age is superior to the past. Thus he posits a pathological behavior like hallucination to explain how our former mind was externally directed, not a positive faculty like telepathy, which modern people usually don't have access to or don't believe in but would envy in earlier people were they indeed endowed with it. (The esoteric literature, which we will soon examine, consistently assumes telepathic consciousness and the evolution of this into personal consciousness.)

A notion of progress that condescends to the past destroys the very concept of evolution in consciousness, which must acknowledge that trade-offs occur over history among human faculties. Memory and reason, let's say for example, became respectively necessary to create and retain knowledge as human beings became more individuated and lost telepathic touch with the group field. Misleading value judgments can enter here. Moderns are more willing to concede that preliterate peoples had a better memory, because we regard memory as an inferior faculty, whereas telepathy, if accepted, would appear to be "higher." But if consciousness is evolving from collective to individual, then of course telepathy would be most appropriate to the earlier, collective stage. And also, the evolution of consciousness may well spiral so that, for example, telepathy might return as a willed capacity that individuals might switch on and off rather than, as previously, an unconscious, involuntary bond to which no alterna-

tive for knowledge existed before memory and reason. Thus, just as personal memory of acquired experience would have taken the place of the waning telepathic group mind, so memory would have had to decline before logic could fully flourish.

If literacy triggers intellectual growth, it may be because it undercuts memory and makes reason needed as a supplanting means to knowledge. If you can't tune it in or recall it, figure it out. Maybe we should regard reason as both a third-best and a cumulative achievement. So it is in this evolutionary way that we must consider the interplay of faculties, and not mourn this loss or vaunt that gain. It may come about that as the technology of printing made memory less necessary but brought reason to the fore, the technology of computers may cause logic to atrophy and force a yet more sophisticated knowledge-making faculty to emerge.

Cultural Literacy as Cross-Cultural Fluency

Still, isn't all this too speculative, unprovable? How can research be research and depart so far from the evidence of the senses? Part of the point is that research has always been more speculative than it appears. And the more "proof" accumulates the more it topples of its own weight. Hence the "deconstruction" occurring now in philosophy: greater knowledge has led to greater uncertainty about the larger, more important matters. Research needs to become more frankly speculative, philosophical, and even metaphysical, because such frameworks cannot truly be omitted, they can only be secreted or disregarded.

Partialities are not just personal and partisan but cultural. In fact it is from the cultural that we discover how much we still function as a group mind. Ethnocentricity, more than anything else, limits understanding. Personal and partisan biases can detect and counter each other, and a synthesis of disciplines can offset the limitations of each field of formal investigation, but what is to correct cultural partialities? Yes, other cultures, at least to a great degree, but research rarely crosses cultures. The corrective is to draw not only on other current cultures but on those of the past, for impartiality–the *whole* truth—requires tension over time as well as space.

To focus these considerations and relate them more to the classroom, let's cast them into the terms of the "cultural literacy"

debate, which concerns whether schools should identify and teach to everyone certain key ideas, values, and works deemed to characterize the culture in which the education is to occur. Immediately one wonders how a culture is defined for this purpose. Most states have required their students to take courses in the history and culture of their state or region, and most U.S. schools have required courses in American history and American literature, often leaving ancient or European history, or British or European literature, as options, though sometimes the course in the larger culture may be required as well.

Advocates of Great Books have in mind a coverage or sampling of "Western" culture, alleged to have begun with the Greeks but allowing that Christianity had roots in Judaism. To designate those classics that culturally literate students ought to have read, educators often refer to them, by analogy with holy writ, as the "canon" (other books being presumably apocryphal). Of course actually "covering" a culture so defined necessitates students' reading a great deal in translation and instructors' surveying for students a vast amount that their charges could not be expected to read for themselves. So besides the partialities built into the culture itself, we must take into account the endless possibilities for misrepresentation that inhere in all this purveying of three millenia of culture, at each stage of which the inheritors are selecting, translating, and summarizing according to their bents and lights. Characterizing a culture poses a profoundly compounded problem in research, inasmuch as each generation of researchers is somewhat at the mercy of all its predecessors as well as of its own predilections.

Recent efforts to make "cultural literacy" a central curriculum goal may well owe much to the threat posed to national and cultural identity during the last twenty years by the self-assertion of old minorities like blacks and Hispanics and by new immigrations of Southeast Asians, Central and South Americans, West Indians, and Middle-Easterners. But the threat to identity comes from without as well as from within. Commerce, finance, politics, and ecological safety are rapidly becoming internationalized. The interdependence among countries is creating so sensitive and intricate a fabric that the very viability and validity of nations is coming into question, and the need for planetary regulation and cooperation is coming to the fore, pioneered by the European Community. At the same time, the United States has been losing the supreme position it enjoyed follow-

ing World War II and is becoming just another nation striving to hold its own in international competition. Backlashes of nationalism and ethnocentricity have resulted from all this, including the gratifications of Desert Storm.

When in 1988 Stanford changed its required course in Western civilization to include non-European cultures and works by women and members of minorities, U.S. Education Secretary William Bennett charged that this was "primarily a political, not an educational decision" and that ethnicity had nothing to do with it (Bennett, 1988). But the very definition of a culture is political, and nothing has so much to do with a culture as ethnicity. This inability or unwillingness to acknowledge these substrata of books and ideas is something the future will not abide.

Research can play a perhaps salvational role in dealing with the conflicts inherent in the educational goal of cultural literacy. As Europeans and Americans have had increasingly to share scholarly authority with researchers of other cultures, a less parochial perspective of civilization has emerged. In his trilogy *Black Athena: The Afroasiatic Roots of Classical Civilization* (1987), historian Martin Bernal argues on considerable evidence that the Greek language and culture derived from Egypt and Phoenicia, as stated by the Greeks themselves, but that European scholars of the eighteenth and nineteenth centuries, mostly British and German, discredited these derivations from Africa and the Orient for ethnocentric and racist reasons, establishing instead an "Aryan Model" that kept the founts of "Western" civilization in Europe and hence its great works in the family. Bernal's ongoing trilogy has ignited an ongoing controversy over his thesis, first given a forum in a special issue of *Arethusa* in the fall of 1989 and now aired even in the popular press. Bernal traces in great detail how European scholarly vogues for Rome, Egypt, China, India, and Greece succeeded themselves during the last two centuries until preference settled on Greece, around which many great scholars of the period constructed a godlike mystique befitting Caucasian and Christian superiority. This Hellenophilia influences powerfully today even an eminent classicist like Eric Havelock. When he claims in *The Muse Learns to Write* (1986) that the Greeks invented the first real alphabet and thereby became the first philosophers, he combines this cultural assumption of Greek primacy with the cultural assumption that intellectual achievement awaits literacy.

It is true, as one can see for oneself, that many if not most of the great scholars of the last century, on whose work we often rely, were startlingly chauvinistic. In the Introduction to his 1882 translation of the Chinese classic *The I Ching: Book of Changes,* James Legge's irritation with his subject erupts more than once. He makes invidious comparisons with Western texts, calls the hexagrams themselves a "farrago" (p. 25), and disparages the philosophy when it doesn't resemble Christian doctrine. This was the standard translation until Richard Wilhelm's in 1950, published by Princeton's Bollingen Foundation and introduced by Jung.

But consider a far more recent work, also much relied on, Montague Rhodes James' *The Apocryphal New Testament,* put out in 1924 by Oxford University. In his preface James cheerfully explains that a main reason for making the texts available is to show how they deserved to be excluded from the Bible. He then gives as reasons for his excluding Gnostic texts even from his Apocrypha that Gnostics were not "normal or Catholic Christians" (p. xvii); that the texts, which he named, were unavailable (though he deemed it his job to translate and make scores of other texts available); and that they were not readable or made little sense. Thus this twentieth century scholar carried on the censorship of the Gnostic literature that Irenaeus and other church fathers had initiated so successfully in the second century that Gnostics rarely spoke for themselves until the accidental discovery in 1945 of the Gnostic Gospels at Nag Hammadi in Upper Egypt, buried there in the fourth century to escape Roman Christian scourging.

In *The Sufis* and other works, scholar Idries Shah has pointed out how much more some sources of Western literature and other culture lie in Arabic civilization than most Americans and Europeans realize. He refers not just to known works such as *A Thousand and One Nights,* which provided the concept of a frame story for a collection of stories, borrowed by Boccaccio for *The Decameron* and from Boccaccio by Chaucer for *The Canterbury Tales,* and traced by its most popular translator Sir Richard Francis Burton back to Indian "parrot stories," in which a series of stories is told within the frame of a larger story. Nor does he refer merely to the Sufi allegory "The Rubaiyat of Omar Khayam"—which Edward Fitzgerald fashioned into a classic of wine, women, and song—but also to the troubadour and Grail literature of the twelfth and thirteenth centuries, medieval

scholasticism, and the work of such figures as Dante, Roger Bacon, and St. John of the Cross. Europeans have never fully acknowledged how much "Western" culture has drawn from, interacted with, or at least been preserved and transmitted by this "other" culture.

Ever since studying Chaucer in college I wondered about the origin of the tradition from which he got the strange idea of his *Parliament of Fowls.* Years later my wife came across a copy of *The Conference of the Birds,* a twelfth-century Sufi allegory by Farid Ud-din Attar. In the full-year course in Chaucer that I took at Harvard in 1952 no such Eastern tradition was mentioned. In the scholarly edition read in the course, F. N. Robinson's *The Poems of Chaucer* (1933) in the Cambridge Poets series of Houghton Mifflin, we are simply told that the device, "familiar in medieval literature, of a council or parliament of birds . . . has no definite source or model, but draws freely for its materials from French, Latin, and Italian" (p. 361). Could American scholars not have known of a work four times translated into English (including by the renowned Burton, who considered it a key text) and so well regarded in Islam that a new edition of it has appeared every few years since the twelfth century in one or another country of the Near East? If not known, why not? And if known, why not mentioned?

It is difficult to distinguish cultural chauvinism from religious competition. Christian censorship over the centuries deliberately removed knowledge of other religious and cultural influences such as Manicheism, which was Persian, and Gnosticism, which flourished in Egypt and the Levant. The showdown during the first centuries after Christ between Rome and Alexandria, which Rome of course won, typify the West's periodic efforts to purge itself of the East. The chief reason for the Christian burning of libraries at Alexandria (the Saracens also burned some later) and for the murder there by monks of Hypatia, the brilliant, renowned female mathematician/philosopher, was to destroy that great Afroasiatic pagan culture, which succeeded that of Athens and surpassed that of Rome. Bernal's point that European civilization was never limited to the northern shores of the Mediterranean—to Europe—involves controversies about which cultures were antecedent and which derivative. Many Christian scholars have tried to prove, for example, that both Egyptian and Greek religions derived from the teachings of Moses.

But an equally important point, typified by Alexandria, concerns the constant synthesis of cultures occurring not only in the ancient world but all through history. Ideas have been so syncretized, inventions and discoveries so cycled around cultures and built on from one to another, that it becomes ludicrous to start assigning credit, especially to one's "own." When Aristotle's pupil Alexander founded his Greek city in Egypt, he was bringing back to the "East" in a new form ideas that came from there, and his Hellenism then became utterly fused with cultures stretching from Iran to India that were, like Egypt, now receiving back through his conquests a transformation of what they had earlier contributed to.

What Alexandria was to the ancient world, the Languedoc area of southern France was to the medieval world—a rich fusion of cultures that the Christian empire destroyed because it was offering a whole alternative civilization. Up over the Pyrenees in the eleventh to thirteenth centuries there spilled an astonishing hybrid culture that was part Christian, part Jewish, and part Islamic, but harmonious. From it was generated not only part of the troubadour Grail literature but the Albigensian or Cathar heresy and the Knights Templar, both of which the church and the government of France ruthlessly exterminated. Jewish Cabalism, Muslim Sufism, and Christian mysticism not only coexisted for a while in Spain and southern France but enriched each other and produced an illuministic strain of culture that, had it been allowed to survive, could have vastly improved "Western civilization" and that in any case was to prolong subterraneanly into modern times the multicultural esoteric doctrine of antiquity.

And here we come upon some little discussed matters that future research should certainly bring out into the open and deal with if cultural literacy is to be more than a kind of academically glamorized jingoism. Beneath cultures that we think of as different there seems to run a universal substrate, but this does not come through in traditional history partly because history is usually written ethnocentrically from within one culture (or even a faction of a culture) and partly because what is common to different cultures is a universalist metaphysic transmitted more or less secretly and quite often in oral forms that escape most historians. (See Rudolf Steiner's *Occult History* [1957] as an antidote.) Because it is about the cosmic, this underground culture is cosmopolitan—international, cross-cultural, and remarkably consistent over time despite its many transformations.

A Universal Metaphysic

Moot and buried as it is, this sort of metaphysical common denominator may deserve highest priority in future research, for several reasons. Substantiating it could show that (1) all cultures are at bottom kin and can identify with each other; (2) minorities belong to whatever culture they're in because whatever other culture they originated from has contributed to the one they're now in, as African, Asiatic, and Semitic have to "Western"; (3) to become culturally literate about one culture has to mean about all cultures, simultaneously—about culture and acculturation; and (4) this universal metaphysic may provide just the sort of comprehensive framework for future investigation that will benefit not only educational subjects like literacy and literature but knowledge generally.

My own studies for many years have focused on what is variously called the "perennial philosophy" (the title of Aldous Huxley's [1944] work on the subject, taken from Leibnitz), the "wisdom literature," the "esoteric doctrine," and so forth. This is the universal metaphysic, just mentioned, that has been transmitted across cultures from preliterate times to the present, taught in the ancient world through various "mysteries" and in the Middle Ages through Christian heresies and such channels as the Knights Templar and the Cabalists. It posits a cosmology of multiple realities successively precipitating from rarer to denser—metaphorically speaking!—and correspondingly informing people as multiple levels of being. It surfaced during the Renaissance as Rosicrucianism (Spenser's Red Cross Knight reflects it) and in the eighteenth century as Freemasonry, the form of it that so profoundly influenced the Enlightenment and the men who founded the United States. Today it is represented by the Theosophists, Rudolf Steiner's Anthroposophy, some Rosicrucians, and various New Age groups. Steiner's many books build up a stunning presentation of its thought, history, and applications to the twentieth century. Max Heindel's *The Roscicrucian Cosmo-Conception* (1909) treats it most fully in a single text. But the book that best covers it across its various traditions, and does so through copious quotations and old illustrations, is Manley Hall's *The Secret Teachings of All Ages* (1978).

At times the teaching took on the transformative language of alchemy or the force-field language of astrology, both of which, like official church teachings themselves, were frequently debased by

people unready to understand their symbols. Indeed, the danger of misunderstanding and consequent abuse was the chief reason this doctrine was kept esoteric, secret—a later reason being also to escape persecution. People today perhaps more even than then are almost bound to misunderstand the language and imagery of these traditions, because we read the symbols too materially and read into them the "prescientific" ignorance and superstition we expect to find and which indeed abounded all about this subtle metaphysic, often as popular degenerations of it. Jung, however, spent the last seventeen years of his life studying alchemy, because he knew better, and because he knew the esoteric tradition perhaps better than any other investigator of our time not actually transmitting the teaching like Steiner, Heindel, Helena Blavatsky, and Alice Bailey.

Most of the "West's" great philosophers were participating, more or less awarely, in this tradition, as Liebnitz acknowledged in his term *philosophia perennia.* The esoteric literature takes for granted part of what Martin Bernal is documenting in *Black Athena* (1987), that Pythagoras, Plato, and the other Greek philosophers were—themselves, not just the Neoplatonists!—all working off of Egyptian Hermeticism. But the latter itself is regarded by esotericists as incorporating elements from Mesopotamia and India and having antecedents as well in whatever the civilization of Atlantis was. We may find it hard to believe that preliterate cultures could have had thoughts deep and subtle enough to have been worthy of transmission and transformation by the finest minds of "our" civilization. Indeed, we tend to date a culture from its first texts—Homer and the Bible—as if these were not vestiges of oral and nonverbal traditions predating writing by many centuries.

Most scholars still argue, for example, that the Hermetic texts can't represent an expression of Egyptian thought because they were written in Latin and Greek circa the first couple of centuries after Christ and clearly contain Platonic and Stoic ideas! In the only version most English-language readers are likely to find of these texts—another publication by Oxford in 1924, *Hermetica*—editor-translator Walter Scott first rules half of the corpus out of his collection on grounds that they are "pseudoscience" and "rubbish" not connected to the religious philosophy of the other half (p. 4 of the Introduction). He then proceeds to speculate that these anonymous authors ascribed their texts to Hermes (Egyptian Thoth, scribe of the gods and inventor of writing) only because "it had long been accepted

as a known historical fact that both Pythagoras and Plato had studied in Egypt" and so their writings would gain prestige from associating them with this illustrious genealogy. Of the original Egyptian writings themselves, such as *The Book of the Dead,* this authority writes on the same page that "it may seem strange to us that anyone should have imagined them to contain a profound philosophy." Though Scott believes that these writers were merely recasting Greek thought for themselves, he acknowledges that they themselves "were teaching what they held to be the supreme and essential truth towards which Greek philosophy pointed; and it was taken as known that Greek philosophy was derived from the Egyptian books of Hermes, in which that essential truth was taught" (p. 5 of the Introduction).

The very founders of modern science—Newton, Bacon, and Descartes—were so steeped in the esoteric doctrine that half of what they said has been passed over in embarrassment by those moderns who don't realize that physics cannot be disembedded from metaphysics. When Descartes said that the seat of the soul is in the pineal gland, he was merely passing on an idea transmitted to him from the esoteric doctrine and found in the Vedanta as well as in the Hermetica (and made less embarrassing perhaps by recent research on the pineal, regarded until the last few decades as vestigial, like the appendix, but now likely to replace the pituitary as the "master gland"). For the same reason, however, that some Christians don't want to admit influences from pagan and heretical sources, some members of the scientific community don't want to acknowledge how much the fathers of modern science were inspired by their background in the esoteric doctrine, which includes of course the now anathematized alchemy and astrology.

In one of periodic efforts to stave off such an unholy relationship, a conference was held at U.C.L.A. in 1974 to counter the credence that some of the scientific community was showing in such theses as historian Francis Yates's, that Giordano Bruno and other esotericists of his time adopted the Copernican theory because it corresponded to their Hermetic metaphysic. One of the papers delivered there, published in *Hermeticism and the Scientific Revolution* (Westman and McGuire, 1977), was by a Newton specialist, J. E. McGuire, who says, "Although Newton's alchemical manuscripts lend support to the position that the general character of his pre-1680 views on the aether and the powers of light may derive from alchemical texts, this

claim should be treated with caution" inasmuch as, he continues weakly, we don't know from his reading notes on them or from his commentary on them what he thought of them (p. 119). Despite this ignorance, McGuire goes on to say that "no matter how it is interpreted, alchemy cannot explain the genesis and nature of Newton's claim that light and bodies are 'convertible into one another' " because *McGuire* sees nothing compatible to this idea in alchemy, although in the same breath he says that "Newton probably saw alchemy as a deep and esoteric expression of true knowledge that had to be properly interpreted . . . ." (p. 120). Indeed, the idea of conversion between light and bodies is more than compatible with the esoteric cosmology of successive emanations, rarer to denser, eventually manifesting the world we know. Here in this cosmology, by the way, is surely a precursor, via Newton, of the concept that energy and matter are convertible into one another, formulated as $E = mc^2$ by Einstein, who was not at all embarrassed by metaphysics, of whomever's culture.

In *The New View Over Atlantis* archaeologist John Michell wrote, in regard to the worldwide megalithic culture of monuments, mounds, and alignments, that we live amid the fragments of a vast human creation we do not see the whole of or the purpose of. This is exactly how I have come to feel about the esoteric doctrine, which may be central to our ultimate understanding of knowledge and learning. We know bits of it from literature, religion, history, and philosophy, but scholars have never put it together so as either to interpret the pieces properly or to discern its coherence and continuity through "Western" and other cultures. For research it poses the inherent problems of having been transmitted secretly, often orally, or nonverbally through glyphs, so that it does not always manifest in texts, and when it does, the texts may be regarded as about something else, or as unintelligible, like Plato's *Timaeus,* his most esoteric and probably least read work today.

Indeed, I suspect that many important texts have been ill translated by scholars not conversant enough with esoteric tradition to understand fully the content of the texts, like even the great translator of the Egyptian *The Book of the Dead,* Wallace Budge (1895), who could have better rendered the intricate Egyptian spectrum of realities had he better known its counterpart in esoteric Christian, Jewish, and Islamic teachings. This might in turn have helped Walter Scott to translate and edit the *Hermetica.* But, paradoxically,

the very ubiquity of the esoteric doctrine makes it accessible if researchers know to look for it and enjoy a spacious enough purview to be able to connect its scattered and various manifestations.

The more serious problem is that modern academics and intellectuals have been little inclined to pursue it for fear of being associated with superstition or "occultism," which has sensationalist connotations in America, where also the scientific inquisition has reigned most punitively. Ironically, the scientific establishment inherited this taboo from the religious establishment, which profoundly resented a teaching more spiritual than its own exoteric popularizations of it and that was, furthermore, transmitted outside the church.

Thus both establishments have kept from public awareness and from standard American history books, as noted earlier, the fact that international Freemasonry played a decisive role in establishing modern democracy. The old Jesuitical conspiracy theory originated by Abbé de Barruel in 1797, still much alive today in extreme right circles, correctly traces Freemasonry back through the esoteric chain to Egyptian Hermeticism but makes of it a satanic force bent on destroying Christian civilization. For example, *Secret Societies and Subversive Movements* (Webster, 1924), a scholarly book by a British lady of the twenties, currently published in America by the Christian Book Club of America and distributed by the John Birch Society, opens with this sentence: "The East is the cradle of secret societies." The lineage she reconstructs matches remarkably the one that esotericists trace for themselves, only she is unearthing it in order to warn the world of its conspiracy.

In *The Mythology of the Secret Societies* (1972), J. M. Roberts argues that the Masons could not as an organization have plotted the French Revolution, which actually decimated its ranks. Charles Heckethorn's seminal two-volume work of 1885 and 1897, *The Secret Societies of All Ages and Countries,* presented the esoteric tradition as a regenerative force in civilization. To judge from his novel *Foucault's Pendulum* (1988), Italian scholar Umberto Eco has accumulated enormous erudition about this tradition but is less interested in what it is about than in what jaded postmoderns have spawned about it by way of satirizable conspiracy theories and faddist cults in Europe, where, we note, the tradition is far better known than in America. In *Gnosis: A Journal of the Western Traditions* (winter, 1990) reviewers Deborah Belle Forman and Jay Kinney, (also the

journal's editor) interpreted Eco's novel as disparagement of the tradition if not a downright return, under all the academic and literary sophistication, to Catholic denunciation of an ancient enemy. At any rate, advocates of right-wing conspiracy theorists like Catholic Nesta Webster share with many academic people of the twentieth century a revulsion to the esoteric doctrine and a repudiation of the "East" that engendered it.

Modern scholars can best avoid rebukes from both scientific and religious quarters if they just ignore the whole matter of the role in overt events of this underground strand of civilization, even though this strand most likely constitutes the single most important continuity in it, if not the very substrate of it. This buried but all-pervasive cosmology must be declassified, nevertheless, history deconstructed, and culture reconstructed on pain of much interim research merely compounding the problems and their attendant distortions. That is, the partialities we have inherited in default of the total, universalist teaching have skewed our view of knowledge and rendered much research useless or misleading.

Lit Crit and Holy Writ

My own studies in the esoteric traditions have greatly impressed on me how much more profoundly they have influenced literature than traditional studies indicate, as in the case of Chaucer's *The Parliament of Fowls,* where not only may the author be unaware of all that is in the stories or symbols he is taking over but where equally culture-bound scholars may not know either. Of course literary scholars already know a lot about neoplatonism or the terms and tropes of a tradition like alchemy if only to be able to gloss the allusions to them in medieval or Renaissance texts. But the full relation between literature and the esoteric teachings has hardly begun to emerge. Most American literature professors who know of *The Occult Philosophy in the Elizabethan Age* (1979), by the much honored late British historian Dame Francis Yates, don't take her work seriously though George Steiner and other scholars abroad praised it, probably because she was pioneering in precisely the threat-laden direction just indicated. She relates key works like *The Faerie Queen, The Alchemist,* Marlowe's *Faust,* and *The Tempest* to Christian cabalists such as Raymond Lull, Pico della Mirandola, Cornelius Agrippa, and the

much caricatured John Dee, resident magus of Elizabeth's court. (Shakespeare and Spenser seem to have honored the esoteric tradition while Jonson and Marlowe seem to have distrusted it, but this needs more study.) We have only to look at the work of the Romantics, the French Symbolists, Yeats, Eliot, Joyce, and Pound to realize how intimately this tradition has remained a part of literature.

But the most far-reaching aspect of the relationship concerns less the conscious participation of authors in the tradition as the subtle workings of it on the most profane writers. In fact, I would like to see researchers take on the hypothesis that all literature in any culture is a secularization of some holy writ that is in turn a localized version of a universal metaphysic. The earliest literature is sacred and cosmological, the following literature does a kind of exegesis on this scripture, the next a commentary on the exegesis in turn (*Torah, Talmud, Midrashim*), and so on and on through retelling and reinterpreting, the sources becoming outwardly dimmer as they become more incorporated.

The religious but worldly Chaucer seems unaware that his story of a courtly love contest among the fowls on St. Valentine's Day (*The Parliament of Fowls*) secularizes an allegory of pilgrims seeking self-realization in the Great Spirit, explicitly expressed in the Sufi text (*The Conference of Birds*) through what the birds discuss and through the story itself of traveling to a great figure who is themselves and into whom they merge. Cicero's "Dream of Scipio," furthermore, which Chaucer exploits to introduce his dream vision, so popular in medieval times, was one of the great esoteric texts of antiquity, a classic literary account of a spirit-guided journey to other realms, with which esoteric literature is saturated, modeled on the out-of-body mystery initiations that the hierophants provided around the Mediterranean for centuries before the advent of Christ (who entranced Lazarus for this same purpose and opened up the heavens for Peter, James, and John during the Transfiguration).

As Chaucer imagined himself guided to another world, like Cicero, by Scipio Africanus, Dante had imagined himself guided through Hell and Paradise by Vergil and Beatrice, and Vergil had had himself guided into Hell by the Sybil. Vergil had only to draw from the mysteries going on all around him, which at some point secularized themselves into some sort of awesome spectacle *symbolizing* such a trance journey or astral travel. This may be the point at which literature took over from the actual transformative ordeal of

these initiations, rendered in myths of being stolen off, like Proserpina, to netherworlds. Classical scholars generally place the origins of Greek drama in the mysteries of Eleusis, and indeed Aeschylus eluded the death penalty for revealing some of their secrets only by proving that he had never been initiated into them. I believe that piecing together across time and space this now dimly perceived mosaic will not merely strengthen the historical continuity of literature within itself and with sacred thought but will relate both to modes of knowing—preliterate, literate, and . . . postliterate.

For another example, the double, or doppelgänger, is well recognized, at least since the Romantics, as a literary adaptation of an esoteric concept. Poe's "William Wilson," Dostoyevsky's "The Double," and Conrad's "The Secret Sharer" all feature two characters who at some literal or figurative level represent different aspects of one person. But the double is only a fragment of the esoteric cosmology, according to which the successive emanations create a spectrum of realities, all of which are represented within a human individual as "vehicles" or "bodies" of what we might think of today as different frequencies. The *ka* and *ba* and other Egyptian hieroglyphs that Christian scholars try unsuccessfully to translate with words like "spirit," "shadow," and "soul" denote vehicles in this gradient of vehicles bearing names in Western esoteric literature like "etheric," "astral," "mental" and "causal" bodies. Like the Christian Trinity itself, St. Paul's distinction between the "natural body" and the "spiritual body" represents a truncated exoteric simplification of this spectrum.

The double is the etheric body, just a shade off the regular physical body and therefore perceptible, it is said, to clairvoyant vision, as Carlos Castaneda's shamanic teachers Don Juan and Don Gennaro demonstrated to him on several occasions. The relationships among these vehicles, and the circumstance in which they may split off from each other, as in sleep or trance or trauma, make up a considerable part of esoteric lore. In Karl Miller's *Doubles* (1985), an exhaustive and otherwise valuable treatment of doubles in modern literature, you will find no discussion of esoteric origins beyond the notion in the word doppelgänger itself of a sort of ghost. For a modern description of some of what is typically missing in doubles criticism see A. E. Powell's *The Etheric Body* (1969) or Annie Besant's *Man and His Bodies* (1896, 1960).

The literature of doubles begins with myths of twins like that of Castor and Pollux, one of whom typically is immortal, perhaps the

guardian angel to the other, as in "William Wilson," or otherwise depicted as inhabiting a higher plane than the other (the etheric or astral plane). Literary critics tend to regard the use of twins in *The Comedy of Errors* or in its main source, Plautus's *The Menaechmi,* as a plot device to exploit mistaken identity for comic effects, sometimes dark, but the potential seriousness extends beyond the realistic dangers of misunderstanding, and even beyond the psychological symbolism of multiple personalities inhabiting the same body. During the revelations near the end of *Errors,* when the twins come together, Adrian says, "I see two husbands, or mine eyes deceive me." To this the Duke responds: "One of these men is Genius to the other./ And so of these, which is the natural man/ And which the spirit? Who deciphers them?" Here *genius* means *attendant spirit.* Shakespeare knew he was taking over more than just a plot device, and his other plays show understanding of some of the esoteric teaching, most directly dealt with in *The Tempest,* but by his time it was considerably diluted, debased, and fragmented except in certain circles such as the Rosicrucians.

Twins abound in popular fiction and teleplays today, where Jekyll-and-Hyde or multiple-personality symbolism often seems deliberate. But do twins mean still what the zodiacal sign Gemini and the Egyptian *ka* (hieroglyph of double arms) meant to the ancients—the etheric body shadowing the visible body and bespeaking another plane of reality . . . and others beyond that?

Thus esoteric doctrine engenders holy writ like the Hermetica, the Bible, the Vedas, and the first myths, which set in motion forms and processes that evolve and revolve throughout a gradually secularizing literature—themes that are orchestrated and tropes that are encrusted or transformed. The original born-again initiations and the orally transmitted teaching began before writing. The first literature is always poetry because scripture is poetry, and scripture is poetry because only language at once multileveled and incantatory can do justice to the reality it evokes and invokes. For a while it is difficult to tell liturgy from scripture, then canon from apocrypha, or scripture from exegesis. Like Milton's *Paradise Lost* or Shelley's "Endymion," retelling is a form of commentary and reinterpretation. However secular it becomes, literature never severs itself from holy writ, never ceases being apocrypha, because the impact and meaning of any text any time depends on a colossal intertextuality that evolves from one epoch into another and revolves from one culture into another.

More gingerly than I hope will be necessary in the future, two great critics of our day have in some way already taken on this hypothesis—Kenneth Burke in *The Rhetoric of Religion: Studies in Logology* (1961) and Northrop Frye in *The Secular Scripture: A Study of the Structure of Romance* (1976), *Creation and Recreation* (1980), and *The Great Code: The Bible and Literature* (1981). The best way to understand verbalization, Burke says, is to look to theology, the supreme model, because through words referring to the natural world it manages to refer to a supernatural world. From among Frye's complicated analogies between literature and scripture arises also the notion of holy writ as a master code by which to understand language and literature (as Muslims regard the *Koran*). Esoteric doctrine, I believe, is the code to the code, precisely because it is a universal metaphysic underlying the holy writs of various cultures and therefore permeating their gradually secularizing literatures.

Research as Recollection

There is another reason for cultural reexamination and the pursuit of the universalist metaphysic. Except for members of certain organizations like the Association for Moral Education and the Philosophy of Education Society, most educators have avoided issues of moral or spiritual education, though the "laity" often raises them, as in fundamentalist objections to school curriculum and textbooks. Understandably, researchers especially do not want to appear to violate either the separation of church and state or the separation of science from religion. But issues of value underlie research as much as any other activity, as we have seen, and so it would be only honest to include them as part of the subject. The American founding fathers would not have seen the slightest need to separate spirituality from science, since the essence of both is the holistic connectedness of the universe. A main tenet of the esoteric doctrine in which they believed, as Freemasons, is that all things are in correspondence with one another, expressed in "As above, so below" and "I am That." Such expansive identification must surely be a large part of the English teachers' claim that literature educates the moral sensibility.

Researching the hypothesis that literature is a secularization of sacred acts and words—and especially of a universal metaphysic—could clarify and substantiate this claim and could open the way for schools to deal with scripture as scripture, not just as literature,

without "teaching religion." By framing literature cosmologically, metaphysically, school can deal with spiritual and religious dimensions while improving the professional offering of literature, which badly needs this dimension. (This of course contrasts with a merely moralistic application of literature to life.) Literature is a cornucopia of diverse riches, but this very profusion affects us more when read against its ultimate ground, which the total intertextuality of scripture and literature itself provides.

What is today called literary criticism has in fact turned sharply in the direction of philosophy and metaphysics and has done so by using cross-disciplinary, cross-cultural knowledge to conduct political, personal, and cultural self-examination. Jacques Derrida has recently focused on Spinoza's theology in relation to the contention that literacy destroys the sacred aspect of language (an issue, incidentally, for Navajos today). A book that caps such trends in typifying fashion is Mark C. Taylor's *Erring: a Postmodern a\Theology* (1984), the title itself expressing how the far-reaching explorations of contemporary literary criticism have brought it back, with perhaps exactly the physicist's ironic ambiguity, to those cosmological considerations that literature secularizes. At any rate, the hypothesis I'm proposing for literature would automatically generate the metaphysical framework within which, it seems to me, researchers should situate themselves anyway for investigating the whole universe of discourse—and other fields of knowing as well.

The American Transcendentalist and innovative educator Bronson Alcott set up a very interesting experiment at his Temple School in Boston. A man who took seriously his cultural inheritance, he taught his pupils by a kind of Socratic dialogue, and the experiment was to test a belief dear to Plato and the whole esoteric transmission—that knowledge is recollection, available from looking within because "I am That." This is one of those "great Western ideas" that advocates of cultural literacy are not apt to list as such, perhaps because they don't believe it squares with science. It accords perfectly, however, with a metaphysic that includes a master force field or cosmic mind having a cosmic memory—like the "reverberating circuits" some neurophysiologists have posited for personal memory—which individuals may access by attunement. In one of the classics of English literature, "Ode: Intimations of Immortality from Recollections of Early Childhood," Wordsworth characterizes the

newborn child as "trailing clouds of glory" from the spirit state and "haunted forever by the Eternal Mind."

Alcott asked his students to explain passages from the Gospels on the grounds that, for the very reasons Wordsworth alludes to, they are best qualified to do Biblical exegesis. In 1837 he published his transcriptions as *Conversations with Children on the Gospels.* Even allowing for how his own beliefs about the Gospels must have polluted his research, the children's commentary is remarkable. Community disapproval of the book and of his teaching methods forced Alcott to close the Temple School. But the tradition of knowing as recollecting is a part of cultural heritage that some researchers today are again taking seriously, as Thomas Armstrong makes clear in *The Radiant Child* (1985). Ideas worth transmitting should be worth investigating! Perhaps a child prodigy and an adult genius are just people who have ready access to at least some knowledge that they did not have to learn because their minds attune to what esotericists call the Akashic (Etheric) Record. If we do already know most of what we establish through research, as I speculated at the start, then maybe we are recollecting our knowledge more than we care to admit. Maybe we do research not just to increase what we know but to discover *that* we know.