# ENCOUNTER

## EDUCATION FOR MEANING AND SOCIAL JUSTICE

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# Editorial

We believe that there *is* a crisis in education but that it has nothing to do with the perceived lack of high standards or poor student performance on standardized tests. Rather, the problem is spiritual. So much of what children experience in the classrooms throughout the country is trivial and inwardly deadening. Few of their lessons are filled with lively inner experiences that give them a sense of connection with the world or a heightened, ennobled image of themselves. There is so little that encourages wonder and gratitude. There is so much that creates tension, isolation, and disillusionment.

This slow inner death in childhood is similar to the process we are seeing in the growing of crops across the country. The goal for many farmers, and corporations controlling many of their fields, is to increase the yield of each plant and of each crop independent of more important factors such as human health. In order to do so, they use pesticides, synthetic fertilizers, hybridization, and genetic engineering to send more bulk to the market. However, their farming techniques are depleting top soil; polluting groundwater, lakes and streams; reducing the nutritional value of foods we eat; and creating the possibility of opening a Pandora's Box of dangerous genetically engineered imbalances. There is a host of profound problems we have created by failing to respect the natural world and limiting our concerns to narrow goals.

Today's test-driven schools are devoted to increasing academic achievement and take no account of the experiences children have. They take no account of their capacity or need for joy and wonder. There is no consideration for their desire for coherence, purpose, meaning, connection, or identity.

Children's heads are thought to be detached from their experiences as human beings just as crops from the soil in which they are rooted. Increased test scores are like the oversized strawberries we so commonly see in the grocery: attractive in the market, impressive in appearance, and fundamentally lacking in substance. With every effort we make to increase test scores, we diminish the inner experiences that may nourish children's souls. Our thinking is so driven by numbers and technique and our motives so driven by the desire for economic advantage, we lack respect for children as we do for the earth. We have begun to see what has happened in the natural world, but we have yet to fully understand the consequences of our actions in the inner life of the children we teach and the culture which continues to devolve.

The irony in agriculture has been that for all our advancements in science and technology, we are undermining the natural resources on which we depend and endangering our own health and well-being. Impractical practicality! When we begin with respect for the earth, our plants will grow healthy. Insects will rarely attack healthy plants. In biodynamic farms employing such principles, the soil grows richer each year and the neutritional value of the produce rises. Education can take a lesson here. Where we create schools based upon respect for children—schools devoted to their needs as developing human beings—children will grow as balanced and healthy human beings. Academic achievement will follow upon healthy human development.

In this context, there are a number of issues that need to be addressed—from the resolution of economic and social inequities that so distort educational opportunities for different children to the educational policies and practices that would support balanced child development.

In the following essay we will discuss what we believe to be only one of the central spiritual questions in education: the issue of meaning. We believe that the disappointment and fatigue that often set in by the fourth grade are a direct result of the inner meaninglessness of so much of what children learn. We do not argue for a specific that a spiritual perspective or even a theistic world view is necessary. However, we maintain that it is necessary to stimulate and engage the imagination in an aesthetic context to understand and appreciate the world and to unfold as individuals and people. In a future essay, we will offer a few additional thoughts about the relationships between the Creative in the world and the Creative within us.

— Jeffrey Kane and Dale Snauwaert

# On Education with Meaning

## Jeffrey Kane

*Imagine there is a planet where their inhabitants have very refined skills equivalent to those we normally associate with inquiry in the physical sciences. They have the ability to observe with precision, identify discrete variables, and apply a calculus to describe the interactions of things they observe. The inhabitants have honed these skills but no other cognitive or expressive capacities. On their planet, the arts do not exist. There is no music.*

*Now imagine that one of these extra terrestrials visits our planet and finds him/ herself outside a building listening to someone inside playing a violin. Using his/her skills, the visitor begins a study by listening carefully to each of the notes, identifying each of their characteristics and attempting to find explicit patterns in their relationships. Our visitor takes each note and defines it in terms of its duration, amplitude, and frequency. With this information, the visitor constructs a mathematical model to describe to colleagues "back home" exactly what was discovered.*

*However, this visitor would not be able to describe anything more than sound or vibrations in the air. He/she would not be able to understand that each of the notes heard carried meaning. This exacting scientist would not be able to discern that each of the notes, each characteristic of each of the notes, and the configuration of all the notes together including the intervals of silence between them, were governed by a meaning transcending the physical characteristics.*

*Leaving our planet this observant alien would not have a clue that there is music on our planet or that what he/she heard ultimately, was more a creation of a musician's vision than simply the vibration of air.*

Neil Scott, a senior researcher at Stanford University's Center for the Study of Language and Information is working on a new technology that will allow

individuals to interact with computers through electrical activity in the brain. The evolving system, sensing primarily brain wave patterns, allows a person to move a cursor on a monitor simply by thinking "right" or "left." No physical action is required; not so much as the movement of the eye.

Scott explains that the system reads brain wave patterns, electrical activity on the forehead and electrical charges on the surface of the eye. Given the data, the intent is to identify unique configurations for the thoughts "right" and "left."

This technology puts a fine edge on the question of the relationship between human thinking and information processing in computers. It establishes a completely electronic linkage between neural activity in the brain and the racing of electrical impulses through silicone chips; the connection is seamless. In this context, we may ask what differences might there be (aside from issues of voltage and the like) between an electrical stream as it moves from "within the skin" to the technology without?

The question is critical for educators in that it requires us to explore some of our basic assumptions not only about human *thinking*, but human *being* as well. What are we to teach, to whom, and toward what end? We can address these issues directly by exploring some of the effects of the growth of information technologies in our understanding of human thinking and some of the fundamental assumptions about human thinking deeply embedded in Western Culture since the days of Rene Descartes.

### The Shift from Meaning

The last half century has witnessed a revolution in the nature of machines. Where once, machines were designed to perform specific mechanical functions, they now often have the flexibility to respond to contingencies. Philosopher William Lycan explains that

such flexibility is a function of a sensitivity to information — an ability not only to register information through receptors, but also to store, manage, and finally use that information (Lycan 1995, 123). As machines have become more subtle, complex, and rapid in their processing of information, cognitive science has emerged to adopt their functional operation as the framework for understanding the processes used in human thinking. The machines copying some human cognitive processes and functions became the prototype for understanding all human thinking.

The eminent psychologist, Jerome Burner recalls the origins of the cognitive revolution as an attempt "to discover and to describe formally the meanings that human beings created out of their encounters with the world. It focused upon the symbolic activities that human beings employed in constructing and in making sense not only of the world, but of themselves (Bruner 1990, 2). He continues, "Very early on … emphasis began shifting from 'meaning' to 'information,' from the *construction* of meaning to the *processing* of information….The key factor in the shift was the introduction of computation as the ruling metaphor and of computability as a necessary criterion of a good theoretical model." In order to assess the importance of this shift in perspective, we need to define the meaning of terms *information* and *processing* in contrast to the notions of *meaning* and the *construction of meaning*.

In a computational context, "information" is a message consisting of a code that serves to store it at a specific location and manage its functional relationships within a system of formal syntax. "Processing" consists of formal rules which manage information. A bit of information entered into a system is assigned codes about its location, rules of access, and use relative to a given processing program. "The system that does all of theses things is blind with respect to whether what is stored is words from Shakespeare's sonnets or numbers from a random number table." (Bruner 1990, 4). Information is an empty symbol; it has no content, it has no semantic having a somewhat defused sense of meaning. A bit of information is a signal, a sign directing continued processing to one alternative or another within the governing syntactical rules of a particular program. A bit of information is as unambiguous as a flick of a light switch.

It determines whether an electrical impulse traveling through computer opens or closes a circuit. All information amounts to zeros and ones which, philosopher John Searle explains, "are just numerals; they don't even stand for numbers. Indeed, it is this feature of digital computers that makes them so powerful." (Searle 1984, 31).

The processing—the manipulation of information to achieve some end—does not depend in any way on significance, beauty, capacity to illuminate to something that might be called substance of an idea. The processing of ideas relative to syntax is clearly illustrated in a sample of "computer poetry" cited as exemplary by computer scientist and educator Seymour Papert. His book, *Mindstorms: Children, Computers, and Powerful Ideas* (1980), includes a "poem" generated by a thirteen year old girl programming a computer to place random nouns, verbs, etc...in a syntactically prescribed framework. The poem:

INSANE RETARD MAKES BECAUSE SWEET SNOOPY SCREAMS

SEXY WOLF LOVES THAT WHY SEXY LADY HATES

UGLY MAN LOVES BECAUSE UGLY DOG HATES

MAD WOLF HATES BECAUSE INSANE WOLF SKIPS

SEXY RETARD SCREAMS THAT WHY SEXY RETARD HATES

THIN SNOOPY RUNS BECAUSE FAT LADY HOPS

SWEET FOGINY SKIPS A FAT LADY RUNS

The poem is a syntactic exercise which, in effect, expresses nothing because there is literally nothing to express. Words are coded signals and have no meaning other than their function in the logic of the syntax. The fact that computer poetry is pedagogical history is of no account here. The poem illustrates the manner in which computers process information. The meaning of the words "love" and "hate" are interchangeable, irrelevant; they have no relevance to the way the poem evolves or anything else (Roszack 1994; Kane 1984).

A more subtle, but profoundly problematic example of information processing as opposed to the construction of meaning is provided by computer scientist, Joseph Weizenbaum. In the early 1970s, Weizenbaum developed a program with which an individual could interact with a computer using English. In order to demonstrate its ease, he designed a Rogerian psychotherapist (Doctor) script to mimic some basic therapeutic techniques. When a person typing

at the keyboard entered a message that he or she was upset about, let us say, an argument with a spouse, Doctor might have responded by noting that the typist was upset about an argument and asking why. Weizenbaum was astounded that several practicing psychiatrists, thinking of therapists as information processors, suggested that Doctor could be used therapeutically.

The fact was that Doctor was operating in a syntactic fashion according to formal rules and could not interpret the message's import in terms of the personal meanings driving the person's expression. The program would respond in virtually the same way to a "story" of nonsense syllables. For the person, the discourse was a method of conveying meaning with words as symbols; for Doctor, the interaction was a string of signs directing electrical impulses through circuitry. Weizenbaum wonders, "What must a psychiatrist who makes such a suggestion think he is doing while treating a patient that he can view the simplest mechanical parody of a single interviewing technique as having captured anything of the essence of a human encounter?" (Weizenbaum 1976, 6).

It seems that the shift from constructing meaning to processing information had, by that time, taken hold. An information-processing paradigm had established itself as *the* interpretative framework for understanding human thinking. The difference between "meaning" and "information," between semantic and syntactic systems, seemed increasingly irrelevant as technology advanced and cognitive psychology opened new domains of competence and of inquiry.

Today, the capacity of machines to process information has now become so sophisticated, so flexible, that their syntactical mode of processing is virtually transparent. Where once technology presented a crude illusion of human thinking, current technology provides what in many quarters is seen as the actual foundation for cognition. The response to Weizenbaum's question might now come in the form of a new question. What makes us think that something regarded as human encounter is in any way

different from the processing operations performed by computers?

## The Chinese Room

Nowhere is this question more pressing than in the emerging field of cognitive neuroscience. This field of inquiry begins with the principles that neurons are essentially electrical devices and that the characteristics of systems of neurons depend upon individual cells. It employs computer models and information processing frameworks as the theoretical basis for research. The computational paradigm extends beyond an approach to research to a fundamental belief that the brain is a biological computer. Patricia Churchland and Terrance Synowski, two researchers in the field, speak of a

> deep-seated conviction that what is being modeled by a computer is itself a kind of computer, albeit one quite unlike the serial, digital machines on which computer science cut its teeth. That is, the nervous systems and parts of nervous systems are themselves naturally evolved computers—organically constituted, analogue in representation, and parallel in their processing architecture. (Churchland and Syoweski 1992, 7)

Again, it is essential to note here the transition in the notion of meaning. Cognitive scientists, in applying computer-based models opened the definition from a fixed, universal unit of communication to anything that may be said to be a message. Theodore Roszack observes,

Following the lead of information theorists, scientists and technicians felt licensed to make even broader and looser use of the word. It could soon be applied to any transmitted signal that could be metaphorically construed as a "message" — for example, the firing of a nerve impulse. To use the term so liberally is to lay aside all concern for the quality or character of what is being communicated. The result has been a progressive blurring of intellectual distinctness. (Roszack 1994, 14)

The cognitive neuropsychologist's model for research precludes the possibility that a message being communicated has a meaning that, itself, has significance and that can determine the course of thinking. The change in definition of information from codes governing the movement of electrical impulses

through the circuitry of a machine and the electro-chemical activity within and between neurons in the brain does not account for our ability to grapple with semantic meaning. Philosopher John Searle writes, "If my thoughts are to be *about* anything, then the strings [of symbols] must have *meaning* which makes the thoughts about those things. In a word, the mind has more than a syntax, it has a semantics" (Searle 1984, 31).

Searle illustrates this point with a "thought experiment" in which he asks us to imagine that computer has been programmed to simulate an understanding of Chinese. The computer might be able to syntactically process questions written in Chinese and, with a large enough data base, conceivably generate responses as good as those of a native Chinese speaker. Searle asks if we would then say that the computer understands Chinese as do native speakers.

To address this question Searle asks us to image that we are locked in a room with basketfuls of Chinese symbols, and that we do not understand a word of Chinese. In this room we find a rule book written in English explaining how to manipulate Chinese symbols. A rule might say "'take a squiggle-squiggle sign out of basket number one and put it next to a squoggle-squoggle sign from basket number two.'" Searle asks us to further suppose that some Chinese symbols are passed into the room, and that we manipulate them according to the rules we have learned. Unbeknownst to us, those coming in would be called "questions" and those we send out "answers."

Searle concludes that even if our answers cannot be distinguished from those of a native Chinese speaker, we would not learn to have spoken a word of Chinese. Nor, obviously, would we have any understanding of the meaning of the Chinese symbols we manipulated other than relative to the procedures and processes we followed. The Chinese room illustrates that, "understanding a language, or indeed, having mental states at all, involves more than just having a bunch of formal symbols. It involves having an interpretation or a meaning attached to those symbols" (Searle 1984, 33).

Herein lies our first response to the question occasioned by Neil Scott's research. For a person thinking, there are semantic meanings, but once the infor-mation technology receives the signal there are only syntactic rules . However, there is more to the story. As cognitive neuroscience has progressed, it has developed a highly sophisticated and refined computational theoretical framework for understanding the brain to the point where it includes assertions about the very nature of human being.

## T.V. Without Soul

Paul Churchland, also a cognitive neuropsychologist, elaborates a computational paradigm in his book, *The Engine of Reason, the Seat of the Soul*. He likens neurons in the brain to pixels on a television screen. The neurons, like pixels, represent the "general and lasting features of the external world." Churchland describes the capacity of the neurons relative to a TV screen. "Counting each neuron as a pixel then, and dividing the TV screen's capacity (200,000) into the brain's capacity (100 billion), we must reckon that the brain's representational capacity is about 500,000 times greater than a TV screen's" (Churchland 1995, 7). When discussing who may be watching the pixilated show, Churchland concludes "no one." "There is no distinct 'self' in there, beyond the brain as a whole" (p. 8). Various parts of the brain monitor each other at all times, but there is no "person" as such involved except as he or she may be defined as an organic computer with a unique pattern of neural pathways governing the activation levels of individual and nets of neurons.

Given this perspective, Churchland argues that the widely held notion that there is a mind or soul beyond the "picture" of the human being stated above is all but proven false. "The doctrine of an immaterial soul looks, to put it frankly, like just another myth, false not just at the edges, but to the core" (p. 17).

In a different context, but using a binary information processing or computational perspective, Bill Gates is quoted in a 1997 issue of *Time* (20 January, p. 47) as stating

> All the neurons in the brain that make up perceptions and emotions operate in a binary fashion…. We can someday replicate that on a machine…. Eventually, we'll be able to sequence the human genome and replicate how nature did intelligence in a carbon-based system.

The computational human being image is clearly reflected in Gates's co-workers' description of his thinking with observations about his "incredible processing power 'and unlimited bandwidth,' as well as an agility at 'parallel processing' and 'multitasking'" (*Time* 20 January 1997, 46). The metaphors carry over into the way the reporter begins to describe Gates' capacity to think—that is, his ability to process information.

> He can be so rigorous as he processes data that one can imagine his mind indeed be digital: no sloppy emotions or analog fuzziness, just trillions of binary impulses coolly converting input into correct answers. (p. 46)

The speed, sophistication and capacity of new technologies raises questions about human thinking and human beings not only for researchers and experts but for the general population. For example, commenting on a chess match between grand master Gary Kasparov and IBM's Big Blue, a *Time* reporter concludes, "The better these seemingly soulless machines get at doing things people do, the more plausible it seems that we could be soulless machines too" (*Time* March 1996, 50)

The point here is not to engage in a debate about the existence or non-existence of the soul. It is not to suggest that those who use computers must agree that we are nothing but biological computational machines. Rather, the foregoing discussion illustrates how the shift Bruner noted from constructing meaning to information processing not only shapes the way we think about thinking but the way we understand the world and define ourselves. Our assumptions about the nature of human thinking do not necessarily result in explicit conclusions regarding human nature. Some may study computers, computational systems design, and the logic of syntactically-based information processing programs without a twinge of doubt about the soul, God, or moral truth. Yet, even if unrecognized, the issue raised by the *Time* reporter illustrates how our collective cultural assumptions are changing. The shift to an information processing concept of human thinking was an outgrowth of long-evolving cultural assumptions that first took root during the Age of Enlightenment. The recent growth in technology and the role of technology in the economy as the new century dawns has refined and reinforced fundamental cultural assumptions about the nature of thinking.

In the 1970s Weizenbaum could wonder what had gone wrong without thinking that we could confuse artificial intelligence with the real thing. He assumed, as did many readers, that something was amiss in our understanding of the nature of human thinking. Today, the assumption is increasingly widespread that we do indeed process information and by extension that we are information processors. Today's machines fit so seamlessly with the intentions of the people working with them, they are so "user friendly," that they seem to operate using the same essential systems we do. Conversely we assume they use the same systems as do we.

Most of us do not see information in the stark terms of zeros and ones used by computers (or analogical equivalents) even if it would seem to make sense that everything we think comes down to the firing of neurons or groups of neurons in the brain. The actual operations of the brain are extraordinarily complex and the theory holds that what we experience as thinking is simply the cumulative effect. We do not experience the zeros and ones (or threshold limits in analogic models) any more than we experience the digitalization of a voice carried over a telephone line. However, we might find ourselves wondering how any analysis of the digital operations in a phone system could ever reveal what it is we are talking about or what we are saying means to us.

The general notion of our being information processors is implicit and far more ambiguous than that of cognitive neuropsychologists. It exists in the form of tacit assumptions—a framework for thinking rather than a conclusion reached after reflection. Where Weizenbaum wondered in amazement, we might read the *Time* stories that suggest that the only difference between our thinking and computer's thinking is that they are more precise and much faster. Our emerging framework is still ambiguous enough, and we still hold a sufficient number of other cultural assumptions to obscure the contradiction of our being "soulful machines." In other words, we can hold contradictory assumptions because they are vague and enmeshed in the complex of deeply held assumptions that constitute our cultural worldview. Deeply held cultural assumptions do not shift

overnight, they evolve over time. Over time we develop new tacit perspectives that guide our thinking; we do not reach new conclusions simply by reason alone. We shall discuss this in our later discussion of Rene Descartes, but the point for now is that the notion of human thinking as information processing has a profound impact on how we view ourselves and the world even if we may not now agree with the explicit conclusions of those on the leading edge.

## Economic and Educational Implications

Not only are the advances of technology and the information-processing metaphor *shaping* the way we see the world, they are *changing* the world we see. Everything from the way we spend leisure time to the nature of our social interactions to the tasks we assume in the workplace are changing with the advance of "everyday" technology. In this context, educational policy in the United States in the early 80's began to focus on the need to provide the intellectual skills necessary to serve an information-based economy. In 1983, the National Commission on Excellence in education issued its report, *A Nation at Risk*, stating that

Knowledge, learning, information and skilled intelligence are the new raw materials of international commerce and are today spreading throughout the world as vigorously as miracle drugs, synthetic fibers, and blue jeans did earlier. If only to keep and improve on the slim competitive edge we still retain in world markets, we must dedicate ourselves to the reform of our educational system.... Learning is the indispensable investment required for success in the "information age" we are entering. (*Nation at Risk*, p. 7)

The report concluded that is "essential—especially in a period of long-term economic decline in educational achievement—for government at all levels to affirm its responsibility for nurturing the *Nation's intellectual capital*" (p. 17). This intellectual capital is nothing less than the minds of children.

In an industrial economy the raw materials were coal, iron and other minerals, the forests and, of course, a population essentially to provide physical labor. In the information economy, the primary resource is a population capable of working with, collecting, sorting, storing, analyzing, and applying data in an efficient and systematic fashion. In the late 1980s noting the relative failure of educational reform in the 1950s, President Bush called an "educational summit" with the nation's governors to map a more effective strategy to achieve "the maximum return possible from our investment in the nation's educational system." (U.S. Dept. of Education 1989, 3). The goal was to find how to reform the American education system not to serve the needs of children seeking to understand the world, to discover meaning, to develop a sense of connection or place or simply to guide children in their growth as human beings. President Bush's strategy for national education reform in 1991, "America 2000," cites the need to rectify "America's skills and knowledge gap." (U.S. Dept. of Education 1991, 5). It explains that in the eight years since *A Nation at Risk*, "we haven't turned things around in education. Almost all of our education trend lines are flat. Our country is idling its engines." (p. 5) The Clinton administration continued the initiative with the passage of "Goals 2000: Educate America Act." The Act is intended to assist "in the development and certification of high-quality assessment measures that reflect the internationally competitive content of student performance standards" and to provide the education necessary *"to meet high academic and occupational skill standards and to succeed in the world of employment and civic participation."* (U.S. Department of Education 1994, 5; emphasis added). The President's call for a computer in every classroom (January 20, 1997) demonstrates the belief that computers are effective educational tools (or that their sale is good for the economy) and that there is a perceived need to educate children to fill the cognitive bill for an information economy.

Although there is much to be said for preparing children to participate in the economy, there is more to education than training intelligence for the job market or the maintenance of corporate profits. What is lost in all this is that children are human beings whose minds are not a *public* or *corporate* resource. The source of the error is in assuming that children *have* intelligence rather than that they *are* intelligence. Children not only process information, they exist as self-conscious human beings who construct meaning in their thinking. In a very immediate sense, they their thinking is part of who they are. As

children learn to think, they acquire not only facts and skills but assumptions about what the world is, who we are, how things are to be known, and what we need do. These lessons are not explicit but implicit; they are not reasoned conclusions but root metaphors, fundamental frameworks for thinking. Through education, we exert profound influence on the kinds of cognitive skills children develop and the kinds of things they think about. We thus shape much of their experience and articulate contexts to construct meaning. Every fact imparted, every thinking skill emphasized, however subtle, opens some possibilities for meaning and may close others. The effects of education on children are cumulative and cannot be represented or understood in unambiguous, clear, and specific terms.

We may think we simply teach the facts and processes, but we speak to the very being of the child as he/she attempts to discover or create meaning. The models cognitive scientists use have no place for being or for its role in shaping the meaning an individual may experience in or through an idea. In adopting their framework, we would have as much hope in understanding the meaning of education as they would in understanding a telephone conversation by analyzing the wave length and amplitude patterns of the electrical charges flowing through the wires.

A specific educational trend stemming from the computation paradigm is in teaching children to think in specific terms within systems with formal rules. Perhaps the clearest example is found in Papert's work with LOGO in the early 1980s. The language of LOGO was designed to enable children to program a computer to create, among other things, geometric figures on a monitor. The creation of a figure required children to break the task into discrete steps. The calculations made by children immediately affected the movement and direction of the cursor. The action of the cursor gave children specific feedback to their decisions. Papert explains that his intent in creating LOGO was to "invent ways to take educational advantage of the opportunities to master the art of *deliberately* thinking like a computer, according, for example, to the stereotype of a computer program in step-by-step, literal, mechanical fashion" (1980, 27). Papert explains, "they program the computer to make more complex decisions and find

themselves engaged in reflecting on more complex aspects of their own thinking" (1980, 28).

Although children may be said to master "the art" of thinking like a computer and to achieve increasingly sophisticated insights into their own thinking in this fashion, Theodore Roszack (1994, 76) reminds us that, "the mastery comes through adapting to the machine's way of doing things." What may appear as power over the computer is a function of conforming to its framework for processing.

Today, LOGO is more an educational artifact than anything else, rather like the original "Pong" games in contrast to the 64-bit technology. Today, variables have become more complex, flexible, and contextual, but the "power" provided by computers still requires we learn to conform the way we think to the design of the technology itself. The operational architecture requires one to learn how various operating systems, drives, programs, functions, etc., integrate. One has to develop a functional understanding of how programs work, how data is stored, how it may be accessed, and the like.

Recently, I visited a 6th grade classroom where children were studying the Renaissance. They used the Internet to find information about the period. They prepared their reports using word-processing and graphics programs and included video and audio components. The children proudly demonstrated their report and the teacher complimented their work by telling me that they knew more about the software used than she did. The report contained a reasonable amount of information, the kind that would be available in any text, and it showed a great deal of effort in combining the various media. However, I did not get the sense in talking with them that they internalized much of the drama and cultural richness of the Renaissance. They did not get a vivid picture of the lives of the painters, their motivations, pains, and imaginations. They did not acquire the compelling insights that would come from reading a book such as Giorgio Vasari's *Lives of the Most Eminent Italian Painters, Sculptors, and Architects*, a collection of first-hand biographical sketches written during the Renaissance. The Internet and the databases the children used were not conducive to reading such a book. From what I've seen in classrooms, the technologies used have almost no place for books at

all. In this case, the children looked for information, got it, and moved on the presentation. The teacher did not guide them further to experience some of the inner meaning of the period, of the unfolding of new aesthetic and intellectual capacities played out on the scale of individual lives. Rather than pursue the richness of the Renaissance as a foundation for new visions and insights within themselves and in the world, the children learned to use the software programs available. They learned more about how to think like computers than like the people of the Renaissance.

The problem here is not computers themselves or a lack of training or commitment on the part of the teacher. The children were far more enthusiastic about learning than if they had read a text or an encyclopedia. The deeper issue is the concept of thinking underlying study in this and most other classrooms. The emphasis was on the acquisition of computer skills, the facts, and an analysis of the facts, rather than on history as a source of experience or reflection upon experience on seeing art, science, life, and self in new ways. The underlying concept behind the assignment was learn about the Renaissance as a detached set of facts rather than as a foundation for the growth of a new form of consciousness in children. Certainly, the children could have read Vassari in addition to their Internet sites, but what was the educational intent in studying the Renaissance to begin with? The object, like much of the thinking underlying that embodied in computers, was not a search for meaning, but information and skill in processing information.

Those familiar with classroom life recognize that teachers, schools, and communities do not claim to be interested exclusively in teaching children information and information processing skills. There are other factors involved as well. However, if we do not explore these issues in clear relief, we likely will not see them at all. The paradigm is so deeply ingrained and so pervasive, it cannot be separated out as we might look at a model of curriculum. We need to be very clear about what we're looking for to see the patterns these assumptions weave through educational policy and practice.

The computational paradigm has so much to commend itself that its limitations are obscured. Aside from the effective marketing of information techniques for educational purposes, their capacities are beguiling. Some of the newer technologies seem almost magical, wowing teachers and parents alike with endless possibilities. Children show a fascination with the stuff and a remarkable ability to pick up the functions with ease. All this can make for an active classroom. Under the circumstances, it is difficult to see the limitations we looked at in the previous discussion of the teaching of the Renaissance. It is difficult to imagine what is meant by "meaning" as a form of inner awakening in response to an encounter.

Furthermore, there are other deeply held cultural assumptions that, in daily life, soften the edge of the paradigm. For example, many educators hold to the belief that music and art ought to be an essential component of a child's education. However, not many are clear about why. There seems to be a vague sense that the arts are important expressive modes, but they are still relegated to the "affective sphere" despite Howard Gardner's insights into the variety of human intelligences. (Elliott Eisner, in his work on the arts and human cognition, offers an articulate and compelling model of cognition based on "meaning" in contrast to the information-processing paradigm.)

Lastly, let us not forget the teacher as a person. Many teachers care deeply about their students as growing human beings. One had only to glance at the 6th grade teacher of the Renaissance to know the depth of her devotion to her students and the guidance they find in her.

Computers and telecommunication technologies rectify the kind of "objectified" thinking beginning with the Enlightenment—a ground for thinking, exemplified in the work of Rene Descartes and which defines itself by the use of irreducible "truths" and logic alone to understand the world. The experience of being, of being as a foundation for knowing was long ago separated out from much of Western thought (a topic we will address later). The advance of technology has enabled us to store, analyze, and communicate enormous amounts of information. The economic value of such skills has been sufficient to transform much of the world's economy. It is this economic power of technology rather than the tech-

nology itself which has propelled an information-processing approach to thinking to the very core of our national educational agenda.

The intellectual capital conception of education is particularly problematic because it, by definition, is not concerned with education as it relates to the growth and development of students as persons, but as resources in an information-based economy. It doesn't frame policy or practices focused on students' experiences as a foundation for discovering or creating lives of meaning.

### A Wink and a Blink

In daily life there are a sufficient number of variables to soften the hard edge of the computational paradigm. It may seem to be far removed from what we experience, think, and do. Yet, we are hard pressed when we are confronted with Churchland's picture of who we are and how we think. We previously noted the gulf between syntax and semantics, but need now to explore how we can know semantic meanings while machines may not. If the brain is simply a biological computer, what characteristics does it have that we cannot replicate mechanically? In Churchland's terms, "If high-dimensional activation vectors can have intrinsic meaning within the human neural architecture, then why can't their vector analogs have intrinsic meaning in a silicon recapitulation of that architecture" (1995, 244)? We may find some help in this regard from a brief reflection on the difference between a wink and a blink. In many respects they seem the same, but the whole course of human evolution stretches between the two.

Noted philosopher Gilbert Ryle explains that blinking is an involuntary movement of the eyelid, which, from a phenomenalistic perspective, cannot be distinguished from a wink, a signal to someone else. The wink is intended as a form of communication that is richly contextualized. Ryle offers scenarios in which winks were used to acknowledge, mislead, mimic, or satirize depending upon a complex set of conditions and cultural norms. In all cases, he notes that the "signaler" (1) had deliberately winked, (2) to someone in particular, (3) in order to impart a particular message, [and] (4) according to an understood code" (Ryle 1971, 481). There is a complex set of factors that allow winks to carry meaning that could not be recognized or understood simply by observing the closing of someone's eyelids.

A wink does constitute a transmission of information, but what is more, something Ryle does not address, is of the fact that someone is indeed attempting to communicate with someone else. A wink is a personal interaction, an effort to share in something. It has a personal dimension beyond the transference of information. It is, at a very subtle level, given meaning by the fact that the message is a sharing of experience, a communion in what is communicated.

This personal element, this element of being, is a source of meaning for which information processors, no matter how sophisticated, cannot account. No computational analysis will reveal meaning as an experience of being, nor can it begin to comprehend such experience as it plays out in the way we perceive ourselves and the world. What is true for the wink is infinitely more rich and substantive for all human cognitive activity.

We cannot escape the fact that we exis—ask Descartes. The fact that we exist and that we are conscious of our own existence sets the context, the foundation, for all thinking. Although one may spend the course of a lifetime without a moment of reflection on these matters, the experience of being is at the root of one's thinking and judgment. This experience varies from person to person and culture to culture. It is the source of everything from the desire for food to the desire for communion, from the search for truth to the search for advantage, from the pain at the suffering to the desire to inflict it, from the sense of the mystery and wonder of existence to the sense that "all is machine," from a commitment to moral agency to indifference to others. The fact that we *are*, that we experience being, is not reducible to a bit of information. It is infused within all that we know and do. We cannot deny being without denying ourselves. We cannot know meaning without it.

This existential foundation does not depend upon an individual identifying himself or herself as an autonomous person. The frame of existential reference need not be based on a recognition of separateness. Notions of self or soul may evolve from it as an individual interacts with environment and culture. As noted earlier, we, as we are educated, do not simply

receive information or acquire skills in accessing it. With each lesson, formal and informal, our existential frame of reference takes form. As we learn, we do not simply place ideas in storage and call them forth when we wish use them—no matter how dry and abstract the context. We always, to lesser or greater extents, learn implicitly how to orient ourselves physically, socially, intellectually. The ways we learn to experience give us cognitive modalities—ways to discover, create and understand, in however vague a fashion, who we are and what the world is. We acquire dispositions, ways of relation as Martin Buber would say. We learn to objectify the world or dwell within it, to see things through detached analysis or imagination, to seek the exercise of control or to open encounter. Education, in this context, is the process of gradually unfolding and giving form to the student; it is a process of transformation.

If education primarily and prematurely focuses on the acquisition of information and the skills to manipulate it in one way or another—that is, if education is an abstract exercise—students will not likely develop the capacity to explore, articulate, or create meaning. The extrinsic rewards students may receive in the form of grades or personal recognition will not substitute for the lack of meaning they experience in their studies. Eventually, the sterility of study in terms of being often will take its toll in cynicism, a sense that nothing has any meaning, or in a search for meaning in extrinsic rewards for themselves (status, grades, money). The cognitive modalities students learn are limited, in their capacity to know themselves and the world in varied contexts suffers. Art, music, story, imaginative play, physical movement, and other contexts for growth and transformation get short shrift. Students learning in limited environments relative to the exploration and unfolding of being may find school both very informative and meaningless.

Certainly, computation plays a great role in helping us sort and analyze ideas, but it does not serve as the foundation for judgment except as we intuitively allow it to. Philosopher scientist Michael Polanyi explains that even in the most sophisticated of scientific research, there is an informal or personal foundation for judgment that cannot be expressed in words. This "tacit dimension" of thinking, as he calls it, is not

only greatly affected by experience and culture generally but is bound up in our very sense of ourselves and the world as a whole. Polanyi writes,

> we can use our formulas only after we have made sense of the world to the point of asking questions about it and have established the bearing of the formulas on the experience that they are to explain. Mathematical reasoning about experience must include, besides the antecedent non-mathematical finding and shaping of experience, the equally non-mathematical relating of mathematics to such experience, and the eventual, also non-mathematical, understanding of experience elucidated by the theory. It must also include ourselves, carrying out and committing ourselves, to these non-mathematical ways of knowing.(Polyani 1969, 179)

It is in this generative, fluid, personal sense of being that all things we think have their place and take their meaning.

This is not at all to say that information processing or computational thinking is of little value. One has only to observe the technological advances in the last century to appreciate its power. Conversely, one has only to look at the social, environmental, and cultural problems that have subsequently arisen to see that it is, in equal or superior measure, dangerous and inadequate. Just as it enables us to focus on discrete problems, it obscures the larger questions of meaning and purpose in our choices as well as in the whole of existence. For all the capacity it provides for us to effect control, it masks the questions of what is truly worth doing and why.

Thinking grounded in a rich, substantive exploration of being through multiple modalities reveals an expansive picture of education and a dynamic insight into children as growing human beings. The educational imperative of our day is not to cultivate intellectual capital for the economy; it is not to teach children to process bits of information in formal ways to solve problems; it is not to get them to store as much discrete information where "more" and "earlier" are the rule. It is to guide children in their development as whole persons; it is to help them learn through direct and varied forms of encounter with the world as a foundation for clear, rigorous thinking; it is to bring all the resources of the culture

to help them experience meaning, identity, purpose, and responsibility in the whole of life; it is to address the "I am" as being rather than as abstraction or capital.

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# From Information to Transformation

## What the Mystics and Sages Tell Us Education Can Be

### Tobin Hart

**Schools often dwell on the surface of information at the expense of knowledge, intelligence, understanding, wisdom, and transformation.**

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In many moments in our lives there seems to be a choice of whether to go a little deeper or whether to go on to the next item, person, or task. When we pass by someone familiar and hear "How are you?," when do we say "Fine" and move on without missing a step and when do we linger for a few moments? When we eat a morsel of food, how long do we allow the taste and texture to wrap around our tongue and when do we bring in the next mouthful? When we do go a little deeper, experience is measured not by quantity but is perceived as intensity; both have value but our lives are mostly shaped by these intensities, these moments of more depth. Education is no different; the choice to go deeper into the material or to move on to the next bit of information is always present. Both aspects are necessary, but in contemporary practice too often curricular expectations, looming standardized tests, emphasis on molding a workforce, and general anxiety push us to move on rather than moving into. The result is that contemporary education concentrates attention on the surface and often loses sight of the depths.

So I have asked the question: "What would the direction of education be if we derived our practice from the deepest view of human consciousness and culture?" And this immediately raises another question: "Who has seen into these depths?" In answer to this latter question the great sages and mystics from across our world come to mind. In "asking" several of these individuals what education can and should be, I have found coherence and complementarity from Plato to Krishnamurti, Aurobindo to Emerson, Whitehead to James, along with many others. For the purposes of this paper I have synthesized these views toward a focus on the aims or goals of education.

For the most part, contemporary educational praxis is about information exchange and molding a work force. From this view, the goal of education is dominated by the downloading of facts and factoids. There has been significant improvement over the past twenty to thirty years in understanding how learning takes place (e.g., for a good overview see Bransford, Brown, and Cocking 1999), but generally mainstream educational orientation remains focused on shaping a populous for the marketplace and treats the child as a container to be filled and controlled. In contrast, the sages and mystics advocate a balance between inviting the "inner teacher" to unfold and guide from the inside, while applying appropriate information and guidance from the outside. Contemporary educational practice does not include the inner teacher in planning curriculum. The emphasis remains skewed toward "putting in" rather than "bringing forth." This approach has resulted in the commodification of knowledge—where little information is turned into understanding but instead remains in fleeting service of the multiple-choice exam. Cultivation of full potential calls for something more. Without it, education becomes farthest from liberation; it becomes "dangerous" (Sai Baba in Gokak 1975, 116), resulting in "arrested growth" (Emerson in Sealts 1992, 258), and even "soul murder" (Whitehead 1967, 57). The sages and mystics universally suggest a more balanced goal that sees education as a clearing for experience that invites depth and intensity. And where do these depths actually lead?

Drawing from a range of mystics and sages from across time and culture, I have constructed a map of the depths of knowing and learning that move through six interrelated layers of experience. In this map, *information* is given its rightful place as currency for the educational exchange. Information can then open up into *knowledge*, where direct experience often brings together the bits of information into the whole of mastery and skill. This then opens the possibility of cultivating *intelligence*, which can cut, shape, and create information and knowledge and involves a dialectic of the intuitive and the analytic. This is followed by the layer of *understanding* that takes us beyond the power of intelligence to see through the eye of the heart. Understanding contrasts and balances objectivism and offers a way of knowing that serves character and community. Education then has the possibility for the cultivation of *wisdom* which blends insight into what is true with an ethic of what is right. Finally the depths lead to the possibility of creative *transformation*.

This learning process might be thought of as microgenetic development, meaning the series of developmental changes which occur even in a single thought, feeling, or lesson. Microgenetic development differs from the development of the individual over time (ontogenetic). It is a process that can happen in an instant or over the course of an assignment or exercise.

Entering into these depths offers an approach to education that is both practical and remarkable, one that replaces radical disconnection with radical amazement. It includes the education of the mind and the heart, balances intuition with intellect, mastery with mystery, and cultivates wisdom over the mere accumulation of facts. This is education where growing down—embodiment—is the means to growing up; one that emphasizes knowing as much as knowledge. It is education designed for us to assist ourselves in our own evolution, enabling us to align with the rising currents of creation.

### The Currency of Information

*I am only going to school until it comes out on CD-Rom.* (A fifth grade boy)

This is the golden (or maybe the silicon) age of information. Information abounds like never before and each time we look, the amount available seems to have doubled. We have access to everything from pipe bombs to prophecy. We no longer need priest, permission, or professor to gain access to the mysteries; they are available in the bookstore or with a click of the mouse. Not so long ago we might be killed for possessing, or even mentioning, the secrets. But today there is such remarkable access to information that we may even begin to wonder if the worldwide web is becoming the worldwide mind—the collective unconscious of the planet in digital form (see Gackenbach 1998). Computer technology and the internet represent the "second coming" in information access, the first being Gutenburg's invention of the printing press in the fifteen century. Both have precisely the same effect of providing access to more

ideas more directly. But what are the implications for education?

Education gathers around information. But in this expanding sea of information what is the appropriate function of information for the educational endeavor and how should teachers and students hold and handle information? How does the silicon or the ink get alchemized into the gold of knowledge and more?

Information involves discrete facts and skills. Information includes the average temperature in Boise, the correct spelling of a word, the chemical formula for salt. It is the currency of education and will remain so. Most of educational debate orbits around which and how much information should be passed along, and how and how well are we doing it. Should we concentrate on basic skills or more diverse subjects? How should the learning environment and teaching practice be structured to maximize information exchange? Tests for teachers and for students determine how much of the "right" information they have remembered—and when we use the word "performance" it means just and only this. Up to a point this is reasonable. It is certainly appropriate to gather around the currency of information and basic skills. As Aristotle says: "It is clear that children should be instructed in some useful things—for example, in reading and writing—not only for their own usefulness but also because many other sorts of knowledge are acquired through them" (in Baskin 1966, 8). But we have missed the forest for the twigs if this is our exclusive focus. What has happened is that the currency for learning—information—remains the goal in and of itself. Too often schools skim on the surface of information at the expense of intelligence and understanding. The dominant motif is one of acquisition.

Plato (cited in Baskin 1966) tells us that when we focus on mere acquisition, we create "imitators" (p. 544), instead of artists. This acquisition motif creates a compliant and dull populous. Whitehead (1967) says that "a merely well-informed man is the most useless bore on God's earth" (p. 1). Even at the University level he notes the consequence of reproducing mere imitators: "I have been much struck by the paralysis of thought induced in pupils by the aimless accumulation of precise knowledge, inert

and unutilized" (p. 37). The task of education is, in part, to help children think and act well, not to teach them what to think. However, in a climate dominated by downloading and acquisition, we provide students with a list of what there is to see and instructions in the proper way to see it. The mystics and sages tell us that human life is about unfolding and growing through lived experience. Instead of working with an organic principle of unfoldment, more akin to gardening, contemporary educational goals engender a mechanical practice of exchanging inert ideas—a production line. The organic and intuitive process of learning gets reduced to a linear downloading of discrete, often out-of-context content. Too often there is no time for the appreciation of and attention to value and meaning. This downloading is serious business and so learning to play with the information becomes a distraction from the curricular goal. The result is demotivation, and a loss of wonder and curiosity. *Romance*, as Whitehead (1967) noted, gets surpassed in favor of some modicum of *precision*. But, as he reminds us, we need both at each step in order to lead to *generalization* or to move toward Hegel's *synthesis* (Stace 1955). This is not to imply that we should expect children to learn only that which they find some immediate pleasure in, but that information grows arid and pleasureless unless we can find relevance and resonance with it.

Relevance implies that an idea or topic relates to us or something we are close to. If we find interest or meaning (relevance) in something we pay attention and tend to learn it. Few things are more straightforward in life. Interest enables the three year old to know the names of dinosaurs, including which ones eat meat. It allows the child who struggles with simple mathematics to be able to interpret and memorize baseball statistics; children who have trouble with basic written language skills have little difficulty memorizing and writing the words to popular songs. Interest means that emotions have been engaged and we know that cognition and emotion are interdependent. Emotion activates attention which drives learning and memory.

Resonance literally implies that something vibrates us. Challenge, curiosity, rich sensory experience, and juicy information wakes us up producing an echo or resonance within us. As with art, it is not

just the superficial outline, contours, or the shape of the information; "there is something additional, a breath that draws your breath into its breathing, a heartbeat that pounds on yours" (Davis 1992, 16).

The source for resonant exchange is the information and its particular form of presentation (e.g., through a lecture, a book). Superficially presented information or information out of context is less likely to resonate within us. As Emerson says: "Nothing interests us which is stark or bounded, but only what streams with life" (in Sealts 1992, 246). Great teachers know their subject deeply enough to bring forth its presence and vitality—its streaming life.

The efficient measure of acquisition has become the multiple-choice (and often standardized) exam which has become an institution unto itself, one that serves to concretize an educational flatland. Such testing is convenient, simple—a single number used to represent everything from history comprehension to overall intelligence. It is so convenient and seductive that it has reinforced exclusive downloading and memorization as the main educational goal and actually shapes curriculum which, in turn, shapes what we do in the classroom. Stepping back, it is remarkable to see how our educational system orbits around such testing. It has become the tail that wags the dog. Teaching discrete facts and factoids for an exam increasingly becomes the *modus operandi* for education, and curriculum goals and educational practice have been geared around what we can measure simply and numerically. The rampant and often fear-driven priority on increasing these numbers may cause incremental increases in test scores but results in a profound distortion of the learning process. We positively should expect our students to know information, but when the ultimate goal becomes the measurement on a multiple-choice test, the surface of education is barely scratched. Formative assessments, those in which students gain feedback to improve learning, are extremely valuable, but testing has become dominated by summative evaluations focused primarily on memory of facts and skills. The incessant question from our students: "Will this be on the test?" underscores that the goal has become getting the test score for its own sake, not for learning and understanding. As Hillman (1989, 170) writes "multiple choice scoring as a test of comprehension—has

produced illiteracy." In such a model a student's innate hunger for knowledge is deadened by stuffing them with inert information. If we adapted goals that moved beyond mere information acquisition, then the role of multiple-choice testing would shrink. When we stop the exclusive focus on evaluating students in this way, watch how the meaning of the word evaluation can change. We can help *students* learn how to evaluate—that is, to discern value—for themselves. The convenience of multiple-choice testing and simple numerical measurement has seduced us into over reliance on this one dimension of evaluation, and the result is that we emphasize what we can numerically measure—the tail wags the dog. Information is the worthwhile currency of education, it too often becomes mistaken as the goal.

### Mastering the Puzzle of Knowledge

*What we want is to see the child in pursuit of knowledge, and not knowledge in pursuit of the child.* (George Bernard Shaw [in Maggio 1997, 134])

Knowledge involves the comprehension of systems of information instead of simply discrete pieces. Having knowledge means holding together the puzzle of information and implies the basic ability to use information. At the deep end there may be comprehension and mastery over a domain or skill. The debater can make a reasoned and measured argument, the mechanic diagnoses the car problem, the writer shapes a story. Whereas acquisition is the motif when information is seen as the goal, mastery, in the form of skill or comprehension, is the high water mark of knowledge.

The term *knowledge* has several dimensions. As systems of information, knowledge is generally seen as content held passively in our minds for application when needed. Knowledge may be of "external" material (for example, the botanist's taxonomy of plants) or "internal" (for example, the nature of one's presuppositions and prejudices).

Beyond knowledge as an entity, it is also understood as skill or competence. Instructions to assemble the new bicycle serve as information—discrete and inert; we gain knowledge or "know-how" when we succeed in putting the pieces together successfully (with or without the directions). Mastery may involve a mental operation like using a mathematical

formula, or a mental and physical activity like riding a bike or repairing a car. When we are able to do this consistently with precision we say that we have mastered it. We might even add a further dimension to the meaning of mastery, stretching it deeper still, when we do something not only with precision and efficiency but with a particular artfulness or quality.

Beyond knowledge as an entity and as ability, it may also be thought of as a process of valuing; this meaning is more subtle. The activity of gaining knowledge is defined as recognition or becoming aware, and this involves a process of valuing. That is, inherent in the activity of gaining knowledge one inevitably places priorities on one technique or one idea over another. The chef filets the fish in one style over another because he has placed a higher priority on an outcome—for example, speed, or safety, or visual or gustatory aesthetics. The student forms a particular perspective regarding her geography lesson because it has been valued in a certain way for very individual reasons (e.g., she wants a good grade on the test or her family is traveling to the region of interest this upcoming summer). As fallout of the quest for scientific absolutes, knowledge (like information) is often understood to be independent from values and the process of valuing, thus remaining "pure," "scientific," and "true." However, gaining knowledge is ultimately entwined with valuing. That which we select to remember or master is done so in a way that places a certain value or a set of priorities on one thing, or one way, as opposed to another. When we gain knowledge we co-construct content and worth through our presuppositions, or perceptual filters, and our intention. So knowledge, rather than being simply a static, abstract entity, is laden with value and is also in flux—it is an "undivided whole in flowing movement" (Bohm 1981, 9). The implication is that attention to the subjective process of valuing is integral to the development of knowledge.

Bohm (1981) contends that the fragmentation of knowledge and the separation of knowledge from values has "helped to lead not only to a dangerously irresponsible use of knowledge, especially scientific, but even more to a general loss of meaning in life as a whole (p. 8).... [Knowledge and values] are inseparably interwoven in a single undivided process" (p. 22).

Perhaps the most universal way of moving information into the pattern wholes of knowledge is through offering material in the ways that we live and understand our lives: through stories and metaphors. Stories and metaphors offer patterns of meaning that may be interpreted at many different levels. They weave bits and pieces into patterned wholes located in time, space, with history and direction—just like our lives. Stories, whether the story of a biological cell, a metaphysical idea, or an historic event, connect ideas and events into the stream of life, to the "pattern that connects" as Gregory Bateson named it. Inevitably we act according to our stories (e.g., "I am a good student." "The world is round.").

To move information toward knowledge, and activity toward mastery, ideas need to be encountered, played with, and used; "ideas which are not utilised are positively harmful. By utilising an idea, I mean relating it to that stream, compounded of sense perceptions, feelings, hopes, desires, and of mental activities adjusting thought to thought, which forms our life" (Whitehead 1967, 3). Not just what we encounter but the way we encounter it is crucial in the valuing process and, like skill or comprehension, grows from encounter. Swedenborg (in Blackmer 1991, xxv) suggested that through this active engagement we grow or "make soul." First-hand knowledge or making contact (see Hart 1997) is at the heart of engagement. Whitehead (1967) writes: "The second-handedness of the learned world is the secret of its mediocrity (p. 51).... If you want to understand anything, make it yourself (p. 53).... Education must pass beyond the passive reception of the ideas of others" (p. 47).

A long tradition of progressive educators have attempted to provide a more immediate or embodied relationship to the object of learning. Rousseau (1957) advocated learning "naturally" and learning by doing; his call was taken up by Pestalozzi's (1951) focus on learning through direct concrete experience. Dewey (1963) emphasized learning by experience and through cooperative endeavors; Bruner (1963) focused on contextual understanding and emphasized intrinsic rewards; and Freire (1974) suggested critical dialogue, which involves a more direct, active participation derived from real world concerns. Essentially they recognized and advocated

the active engagement that develops mastery of knowledge.

Great teaching takes place as some unique alchemical mixture within the trinity of educational practice—the student, the teacher, and the subject. The integration of these three create a sacred clearing or structure and invites a "trialectic" and a "trialogue." In an infinite variety of ways great teachers dance with method, student, and ideas to invite learning.

The center or mass of the educational triangle (subject, teacher, student) is a space that may be thought of as a "clearing" (Heidegger 1966), as the "between" (Buber 1958), or as the overlap of play areas (Winnicott 1996) which welcomes a community of learners. Communities represent a natural ecological structure of humanity. While we have institutions and organizations, nations and states, it is the quality of communities and of our communion with one another that gives life quality and dimension. We fall short if we settle for a society of institutions which simply demand compliance to preprogrammed systems; instead, we can find satisfaction in an education that judges value by the quality of human relationships, and by the quality of mind and heart that develops. While a student can open a book or click on a CD-ROM and access information, in a community those ideas have a chance of being challenged, tested, played out, and discussed, and these are precisely the activities that help grow information into knowledge.

## The Power of Intelligence

*Educate not just to transmit subject but to bring about a change in your mind.* (Krishnamurti 1974, p. 18)

Intelligence involves the ability to both use information and knowledge, and to create it; intelligence shapes, changes, and creates knowledge. It cuts with the knife of analytic thought and reconstructs through creative synthesis and imagination. The capacity for critical examination and evaluation open up closed systems of knowledge; knowledge and information can be taken out of context, recontextualized and can be manipulated for one's own uses. As Krishnamurti (1974, 29) says "intelligence uses knowledge" and this involves the capacity to think

clearly. In intelligence, judgment overtakes mere opinion, and multiple perspectives emerge as the world is perceived more fully. Rather than seeing either/or binaries, intelligence sees the multiplicity of the world—"either, or, or, or" endlessly along with immeasurable combinations and relationships. In a similar vein, Swedenborg suggests that "the rational mind is primarily an instrument that consciously discovers relationships" (Blackmer 1991, 47).

The Greek philosophers distinguished between "the fact that" and "the reason why" (Gray 1968, 17). While knowledge and information deal with "the fact that," intelligence can take up "the reason why." And in this way intelligence is about the way knowledge is held and handled. This is the "art of the utilization of knowledge" (Whitehead 1967, 6). Training for intelligence involves cultivating thinking rather than mandating what to think. Education then becomes assisting the powers of the mind in their self-development. This includes one's own self-creation, as Sai Baba (in Gokak 1975, 145) advocates, "train[ing] the individual in the process of creative self-sculpture."

As part of training for intelligence there is a shift from accepting and amassing answers, as is more typical at the levels of information and knowledge, to challenging problems through asking questions. In a study of the education of great scientists it was concluded that "good mentors taught their students not only the words—facts and formulae—but also the "music of science" (see Zuckerman 1977). This involves playing and dancing with the questions and often looking for new questions rather than always demanding the fastest closure from a definitive answer. In contemporary schooling much of this "music" and play is absent because

> Neither teachers nor students are willing to undertake "risks for understanding"; instead, they content themselves with safer "correct answer compromises." Under such compromises . . . [education is considered] a success if students are able to provide answers that have been sanctioned as correct. (Gardner 1991, 150)

Gardner (1991) summarizes several experiments, from physics to the humanities, in which even high achievers are unable to demonstrate understanding of the principles that they have memorized. While

some students can recall sophisticated theories and formulae (information and knowledge), they are unable to apply and perform outside a limited classroom context and instead fall back on mental

# *Transformation is the process of creation, regeneration, and freedom to undertake that reformation consciously.*

explanations and strategies that were established in preschool years. While the volume of information accumulated was impressive, their intelligence did not grow sufficiently to use the information in working on an unfamiliar task. More testing, more homework, and more school days will do nothing to improve the ability to skillfully handle knowledge and information, it can only entrench "correct answer compromises" and further dry up intrinsic motivation.

Undergirding intelligence is the activity of knowing. Rather than emphasize various forms in which intelligence emerges (mathematical, spacial, etc.) as Gardner (1983) been so influential in doing, I want to focus on the aspects of knowing that are common across all of them. Once knowing is freed, it is able to express itself in infinite variety of integrated "intelligences."

The activity of intelligence can be fostered through (at least) three general functions: the skills of rational-empiricism, the development of logics and questioning, and the self-reflection of phenomenology (see Hart [1998] for an elaboration of these dimensions).

The *empirical/rational* involves (empirical) observation and (rational) analysis. As we cultivate the conventional scientific method we develop observational capacities and methods for forming and testing hypotheses. Kolb's (1976) description of the empirical/analytic process recognizes different subcomponents or mental activities within this process: observation, problem identification, brainstorming, developing a means to test a hypothesis, testing it, and then back to observation in a loop of inquiry. Each aspect represents a dimension that may

be assessed and enhanced as we teach this method of inquiry. For example, one may have a great ability to brainstorm multiple possibilities but little know-how in defining the most salient problem to solve, or in planning how to test a hypothesis. Identifying and teaching of these strategies directly enhances intelligence.

*Questioning and Logic* involves the ability to identify and correct faulty reasoning, and uncover understanding through the use of questions. While this is often thought of as a more mature capacity, basic reasoning skills have been successfully introduced in elementary schools as "Philosophy for Children" (Lipman 1993). As a means of developing reasoning capacity this program invites questions such as: What is the problem? Is there evidence to support claims? What counter-examples or exceptions are there to challenge the claims? In addition, Mathews (1980) challenges Piaget's limits on children's cognitive capacity by suggesting that subtle and sophisticated reasoning, including metaphysical questioning, is possible in early school age children.

Critical questioning can begin to challenge the logic and evidence of unchecked assumptions (What is the evidence for your conclusions? What are the exceptions?). When pushed further, the capacity for critical questioning may deconstruct the context and underlying assumptions on which ideas are founded, even the presuppositions of the logic itself.

*Phenomenology* represents another interrelated dimension of inquiry that especially complements questioning and rational-empiricism. Using the subjective world of the individual as the basis for understanding, phenomenology notes and brackets experience. It brings everyday lived experiences, so often left out of the empirical/analytic and of logic/questioning, to a position of value. It is a means of inquiry centered on qualitative description and self-reflection, one that fills a gap that has been widened by the dominance of scientism with its emphasis on measurement, objectification, and verification of what is "out there."

While often equated with a purity of linear logic, the activity of intelligence is multifaceted and operates as a dialectic of the intuitive and the analytic (Hart 1998). The mind reveals quantum leaps in pattern recognition, creative synthesis, and understand-

ing that cannot be explained by linear processing. By itself linear, sequential logic reveals only a partial view. As William James (1909) declares:

> The one thing it [sequential logic] cannot do is to reveal the nature of things…. When you have broken the reality into concepts you never can reconstruct it in its wholeness. Out of no amount of discreteness can you manufacture the concrete…. For my own part, I have finally found myself compelled to give up the logic, fairly, squarely, and irrevocably…. Reality, life, experience, concreteness, immediacy, use what word you will, exceeds our logic, overflows and surrounds it. (pp. 252, 261, 212)

The intuitive dimension has been referred to as meditative thinking (Heidegger 1966), spontaneously arising cognition (Washburn 2000), pure experience (James 1967), ontological thought (Tillich 1951), contemplative knowing (St. Bonneventure cited in Wilber 1983), to name a few terms. Einstein tells us: "Only intuition, resting on sympathetic understanding can lead to these laws, the daily effort comes from no deliberate intention or program, but straight from the heart" (in Keller 1983, 201). The conscious aims of education can include the cultivation of both sides of this dialectic.

We grow intelligence when we move beyond seeing the goal as the simple regurgitation of facts, and even mastering knowledge. Of equal importance to the number of correct spelling words or facts repeated for the test, is how the student is learning to use their mind—to unfold their potential for concentration, creative expression, precise analysis, intuitive insight, and also (as we will see in the next sections) for compassion, love, and wisdom.

Intelligence is not the apex of human development; in fact, intelligence by itself can actually enable brutality. Krishnamurti (1974) tells us, "You have to be educated so that you become a really beautiful, healthy, sane, rational human being, not a brutal man with a clever brain who can argue and defend his brutality" (p. 62). Avoiding brutality involves spiraling inward toward self-knowledge and toward the heart of understanding.

### The Heart of Understanding

*The day will come when, after harnessing the ether, the winds, the waves, the tides, gravitation, we* *shall harness for God the energies of love. And on that day, for the second time in the history of the world, man will have discovered fire. (Pierre Teilhard de Chardin 1975, p. 86-87)*

In daily conversation we say we "understand" something when we have a basic grasp of an idea, thing, or act. Usually this understanding implies a generally agreed upon meaning, a consensus. Thus, a chair is for most circumstances and most people, a chair. This is basic shared understanding. Understanding also comes to mean the ability to apply information in ways beyond the limited context in which it was acquired; for example, when we know enough about the thing or idea to apply it in novel situations. But I want to go past these to something deeper. The origin of the word "understanding" means literally "to stand among." This implies crossing boundaries inherent in "standing apart from" and moves toward intimacy and empathy. This opens the door to a richer perception that transforms information and, along with it, the self who is perceiving. As Buber (1958, 11) says "all real living is meeting," and understanding of the sort I am describing comes in the activity of meeting.

Conventional knowing is dominated by objectivism which traps the other at a distance. The other remains an "it" for our distant examination, utilitarian manipulation, or as an object to possess. The root meaning of the term objectivism means standing against or apart from. This capacity allows us to step back from emeshment with the world and has in turn enabled the advances of science, and given rise to the emphasis on an autonomous self. But there is a downside to this posture:

> This image [standing over or against] uncovers another quality of modern knowledge: it puts us in an adversary relationship with each other and our world. We seek knowledge in order to resist chaos, to rearrange reality, or to alter the constructions others have made. We value knowledge that enables us to coerce the world into meeting our needs—no matter how much violence we must do. Thus our knowledge of the atom has brought us into opposition to the ecology of earth, to the welfare of society, to the survival of the human species itself. Objective knowledge has unwittingly fulfilled its root meaning: it has made us adversaries of ourselves. (Palmer 1993, 23)

With the distance between knower and known maintained and without a recognition of their interplay, we remain separate from (above or outside) the world we are perceiving. The modernist milieu of objectification of the other, including the natural world (environment and body), contributes to difficulties in relationships and limits experience from which to make ethical choices. At the beginning of this century William James (1909) recognized that "materialism and objectivism" tend to lead human beings to relate to their world as alien. And, as James, said: "The difference between living against a background of foreignness [i.e., treating the world as alien] and one of intimacy means the difference between a general habit of wariness and one of trust" (p. 19). The result of this habitual wariness and distance is anxiety, depersonalization, alienation, and narcissism. Objectivism serves as insufficient ground on which to fashion character or human values.

Understanding requires a fundamental shift in the way we know. Buber (1958) describes this shift as a movement from an "I-It" relationship" toward one of "I and Thou." Understanding comes when we empathize with the other, lean into the other, and suspend our self-separateness for a moment. As we move away from objectivism, what emerges is a recognition and appreciation of interconnection. This way of knowing is as useful in science as it is in human relationships. Barbara McClintock, Nobel Laureate in genetics, is a prime example. In working with corn plants she described a less detached empiricism, one in which she gains "a feeling for the organism," that requires "the openness to let it come to you" (in Keller 1983, 198). The other is no longer separate from, but is part of our world and ourselves in a profoundly intimate way. Krishnamurti (1974, 176) says: "To help him to be alive it is imperative for a student to have this extraordinary feeling for life, not for his life or somebody else's life, but for life, for the village, for the tree." And this comes through shifting the way we know. Such thought stretches past the limits of what we conventionally refer to as intellect and intelligence and into the realm of understanding.

Said another way, understanding is learning to see through the eye of the heart. All of the wisdom traditions speak of this heart, for example: the eye of the soul for Plato, the eye of the Tao (Smith 1993), South

on the Native American medicine wheel (Storm 1972), and the Chinese "hsin" which is often translated as mind but includes both mind and heart (Huang Po 1958). "Both Matthew and Luke speak of a single eye which lights the whole body like a lamp and without which 'how great is the darkness'" (Smith 1993, 18). "In contrast to modernity which situates knowing in the mind and brain, sacred traditions identify … essential knowing, with the heart" (p. 18).

Understanding moves out from the confines of the rational into the transrational. No longer confined by linear logic or linguistic limitation it takes up the logic of the heart— an experience not unlike what it might be like to walk into a world in which the learned laws of physics have been upended. Paradox and possibility open up. Old divisions of either/or move even beyond multiplicity to seeing with a singular depth, to the heart of things. Note the Gospel of St. Thomas:

> When you make the two one, and when you make the inside like the outside and the outside like the inside, and the above like the below, and when you make the male and the female one … then you will enter [the Kingdom]. (Robinson 1977, 121)

The mind is opened beyond the limits of reason through the knowing heart and it is only through this opening that we gain understanding. This is the secret, according to the wisdom traditions, that will take education and our world beyond where it is today. This opens us beyond self-interest and provides a new center for knowing and acting.

The heart of understanding is cultivated through empathy, appreciation, openness, accommodation, service, listening, and loving presence. These activities move past an objectivist knowing (standing against) to meet the other (object, idea, or person) more directly and spontaneously.

One primary goal in teaching for understanding is to help the student see his or her own heart with trust and clarity. Said another way, the educational atmosphere must be "for developing the sensitiveness of the soul, for affording mind its true freedom of sympathy" (Tagore 1961, 64). "Love is freedom: it gives us that fullness of existence which saves us from paying with our soul for objects that are immensely

cheap" (p. 57). Part of the educator's role is to help find the song that sings in the student and help him or her learn to sing it. This may come through questions in the spirit of: "Who are you? What have you come to learn and to teach? What is your offering, your gift, your work?" Instead we often do not ask and so the child has trouble knowing to ask themselves. Mostly we say: "Here is what you are to know; it is the truth; be prepared to be tested on it." Through such an orientation one's own knowing is subordinate at best, entirely dismissed or persecuted at worst. However, when our knowing heart is welcomed, the orientation changes: "Here is what you need to join the dance of culture, here are some tools. Now what will you bring to the dance? What questions and knowing have you to add?" Once we attend to our own heart openly, we naturally seek others as well.

The consequence of a failure of understanding is violence of one sort or another. Ghandi used the term *himsa* which can be translated as "the intent to do harm" as the basis for understanding the core of violence. While particular action may be destructive, it is the willingness and want to harm another that powers violence. Swedenborg (1974) also underlines that character is primarily about the inner intent one has toward the other. Can we hope for the best growth and highest good for our neighbor or do we seek something else? The good intent is not forced or contrived but emerges naturally from the experience of understanding which involves a direct experience of interconnection.

At the foundation of education for character is the heart of understanding. Character is about developing wholeness—a self undivided—and this takes the heart as its centerpoint.

### The Eye of Wisdom

> *Be patient toward all that is unresolved in your heart.... Try to love the questions themselves.... Do not now seek the answers, which cannot be given because you would not be able to live them— and the point is to live everything.* (Rilke 1993, 35)

Wisdom is an activity rather than a static entity to be accumulated. That is, "one does not have wisdom—as if it were a thing. Rather, one acts wisely (Lawson 1961, 8). Wisdom is distinguished from technical mastery or intellectual acuity especially by its moral dimension. Emerson says that true wisdom is a blending of "the 'intellectual' perception of truth and the moral sentiment of right" (Emerson in Sealts 1992, 257). Wisdom involves "human action which possesses both intellectual and ethical orientation; and...[this] is the task of education" (Lawson 1961, vii). Wisdom has been described as involving capacities for empathy, self-knowledge, listening, comfort with ambiguity, a tendency to deautomatize thought routines, and movement beyond conceptual limits (Sternberg 1990).

Wisdom serves to dynamically expand and integrate perspectives and involves the capacity to listen and translate the power of the intellect and the sensitivity of the heart into appropriate form (such as action and attitude). Wisdom "is the capacity of the mind to honor the wisdom of the heart" (Rodegast and Stanton 1989, 28). Whereas the heart of understanding is universal and indiscriminate, wisdom is able to bring this broad unconditionality to the particularities of a situation. For example, the wise response is not always "Just love"; it may be strategic, disruptive, confrontational. Jesus was said to have turned over the tables of the money changers who were sent up in a holy temple; Martin Luther King organized a sit in at a lunch counter in Montgomery; Ghandi's radical non-violence confronted the authority of the British Empire. And we would not say that these actions were "smart," but they seemed to be wise.

These examples reveal another characteristic of wisdom—the wise person sees beyond immediate self-interest. In this way wisdom does not simply serve individual growth but the movement of growth (evolution) in general. Wisdom provides a larger perspective, one that often goes beyond what we can see from a stance of fear and self-interest. Thomas Aquinas wrote: "Wisdom differs from science in looking at things from a greater height.... [it involves] *gnome,* or the ability to see through things" (Gilby 1967, 364). While knowledge and intelligence are often equated with complexity, wisdom seems to emerge often as elegantly simple. Not a simplicity borne of ignorance but a simplicity that is close to what is essential in life—it cuts to the chase; it sees through the cloud of complexity.

But why is this so absent from educational aims? Rorty (1979) suggests that the Cartesian shift marked the "triumph of the quest for certainty over the quest for wisdom" (p. 61). The goal thus became focused on rigor, prediction, and control rather than on wisdom or peace of mind. But this quest for certainty is a futile or delusional task since "what is really 'in' experience extends much further than that which at any time is *known*" (Dewey 1958, 21).

Instead of grasping for certainty, wisdom rides the question, lives the question. Sternberg (1990) suggests that "the wise person views himself and others as engaged in an unending dialectic with each other and the world" (p. 150). An unending dialectic is an activity that raises anxiety in the one-right-answer world of most contemporary schooling. When questions are treated primarily as problems to be solved (the domain of intelligence) the question is set up in opposition to the questioner. From the start the question becomes something to beat, to conquer. This may be playful or deadly serious and represents the best of intelligent engagement. Wisdom treats the question differently. It seeks questions, like looking for the best fruit on the tree. It then bites into the question, living it, allowing it to fulfill its purpose as nourishment. Whereas intelligence will cut, dismantle, and reconstruct the question in order to work toward a solution, wisdom mainly rides the question to see where it goes and what it turns into. Bohm (1981, 25) writes: "Questioning is. . . not an end in itself, nor is its main purpose to give rise to answers. Rather, what is essential here is the whole flowing movement of life, which can be harmonious only when there is ceaseless questioning."

What this opens up to is not domination of the question but the possibility of wonder and insight. It welcomes epiphany as James Joyce named it. Heschel (1972), in his study of the ancient prophets, concludes that wisdom comes through awe and reverence:

> The loss of awe is the great block to insight. A return to reverence is the first prerequisite for a revival of wisdom.... Wisdom comes from awe rather than from shrewdness. It is evoked not in moments of calculation but in moments of being in rapport with the mystery of reality. The greatest insights happen to us in moments of awe. (p. 78)

Awe, wonder, reverence, epiphany are drawn forth not from a quest for control, domination, or certainty, but from an appreciative and open-ended engagement with the questions; this is why such qualities as listening, empathy, comfort with ambiguity and so forth (as mentioned above) are associated with wisdom.

Much of acting wisely comes through the inward spiral of self-knowledge. For example, Merton (1979, 3) suggests that "the purpose of education is to show a person how to define himself authentically and spontaneously in relation to the world—not to impose a prefabricated definition of the world, still less an arbitrary definition of the individual himself." This keeps the question (and the person) alive, always at the edge of flowing into the next form, the next question. And for many mystics, self-knowledge opens to ultimate knowledge. For example, according to the gospel of St. Thomas:

> The Kingdom of heaven is inside of you, and it is outside of you. When you come to know yourselves, then you will be known, and you will realize that it is you who are the sons of the living Father. But if you will not know yourselves, you dwell in poverty, and it is you who are that poverty. (Robinson 1977, 118)

When the inner life is attended to on a daily basis, it does not breed narcissistic preoccupation or indulgence, but the opportunity for depth and centering at the intersection of inside and outside. All of the mystics and sages affirm the Delphic oracle's admonition to "Know thyself." This inward awareness is not only important to provide balance but also because it reveals the intersection of our individual depth with a more universal depth. The universe lies not only about us but also within us—the outside can reveal the inside and vice versa.

Each student's emerging self is the curriculum (Hopkins 1970). "Right education is to help you to find out for yourself what you really, with all your heart, love to do.... Then you are really efficient, without becoming brutal" (Krishnamurti 1974, 76). This provides inspiration as Patanjali (1989) has named it. To define oneself authentically, the voices that children listen to are not only those of parent and teacher and text, but especially those of his or her own heart.

Henry David Thoreau said that he would give first prize to the person who could live one day deliberately. Living deliberately means being "so centered that one becomes ultimately fascinated, ravished, and overwhelmed by the mystery that permeates and suffuses all nature, all people, all reality" (McNamara 1990, 108). Thoreau's offer suggests how difficult this really is. The deliberateness he refers to implies moving beyond habits of thought, perception, and deed to be fully centered and awake throughout our day. Education for wisdom and transformation is not about being taught but about waking up. Artist and poet M. C. Richards (1989, 15) writes that "waking up requires a certain kind of energy, certain capacities for taking in the world into our consciousness.... wisdom is not the product of mental effort. Wisdom is a state of the total being."

Waking up into the wisdom space is facilitated through centering; "centering is an act of bringing in, not of leaving out. It is brought about not by force but by coordinations" (Richards 1989, 35). These coordinations are a "gesture of balance," as Tarthang Tulku (1977) named it, that provide a dynamic center to our existence. We do not accumulate wisdom so much as we develop our powers of centering and coordination so that we may act wisely, from the wisdom space. In this way wisdom involves "assisting the mind in the powers of self creation" (Lawson 1961, 8).

Centering may be thought of as a dialogue, "an unending dialectic" (Sternberg 1990). M. C. Richards (1989) describes this dialogue though her experience as a potter:

> Centering: that act which precedes all others on the potter's wheel. The bringing of the clay into a spinning, unwobbling pivot, which will then be free to take innumerable shapes as potter and clay press against each other. The firm, tender, sensitive pressure which yields as much as it asserts. It is like a handclasp between two living hands, receiving the greeting at the very moment that they give it. It is this speech between the hand and the clay that makes me think of a dialogue. (p. 9)

Without this centering in pottery, as in our life, our actions wobble, become distorted and neither look nor feel right. We can learn from the wobble, it gives us feedback in the form of guilt, frustration, rejection,

confusion, inflation, and so forth. If we do not tolerate and accept the inevitability of human wobble we may be too anxious, in control, afraid of risking a mistake, or we may become puritanical in that we do not permit others their own wobble. Centering constantly incorporates the feedback of human experience (especially wobbles) and adjusts accordingly.

Wise people seem to find points of entry into the wisdom space. This may occur from a walk in the woods, through prayer, meditation, service, music, and so forth. This activity shifts attention from normally dominant ego-generated chatter and opens awareness.

One way this is cultivated is through what the Dalai Lama calls MindScience (Goleman and Thurman 1991). This awareness or mindfulness involves "a mindful reflection that includes in the reflection on a question, the asker of the question and the process of asking itself" (Varela, Thompson, and Rosch 1993, 30). This process "begin(s) to sense and interrupt automatic patterns of conditioned thinking, sensation and behavior" (p. 122). Such awareness does not disengage the mind from the phenomenal world; it enables the mind to be fully present within the world. The point is "not to avoid action but to become fully present in one's action" (p. 122). This is not a distant kind of objectivism but is instead a witnessing presence, one that Meister Eckhart (1958) refers to as "detachment," implying detachment from habitual responses.

There is a Sikh chant whose lines are "I am here. Let me be fully here." Such presence is encouraged when we simply welcome and witness all of our being including our shadow. Tarthang Tulku (1977) describes the practice of being "relentlessly honest" with ourselves as a basis of bringing our center to the here and now. Such presence and honesty activates the process of transformation.

### The Process and Paradox of Transformation

*We do not believe in a power of Education. We do not think we can call out God in man and we do not try.* (Ralph Waldo Emerson 1972, 290)

To transform means to go beyond current form. This means growth, creation, and evolution. When education serves transformation it helps to take us beyond the mold of categories, the current limits of

social structure, the pull of cultural conditioning, and the box of self-definition; in so doing, we ride the crest of the wave of creation, a wave that constantly collapses and rises into new form. We have the potential to "exist in such a way not only to comprehend the facts of our lives but also to transcend them" (Peden 1978, 211), and this is what the deepest moments in education lead toward.

Transformation is both an outcome and a process; it is the push and the pulse that drives self-organization and self-transcendence. Jansch (1980, 11) offers:

> Self-transcendent systems are evolution's vehicle for qualitative change and thus ensure its continuity; evolution, in turn, maintains self-transcendent systems which can only exist in a world of interdependence. For self-transcendent systems Being falls together with Becoming.

Drawing from Zen master Sasaki Roshi, Puhakka (1999, 139) summaries this impulse: "All things that arise are incomplete but have in them the character of striving for completeness." Transformation is a movement toward increasing wholeness that simultaneously pushes toward diversity and uniqueness—becoming more uniquely who we are, and toward unity—recognizing how much we have in common with the universe (and perhaps even the recognition that we are the universe). In this way, self-actualization and self-transcendence are not contradictory but part of the same process. We actualize our ever-expanding potentials by transcending current self-structure. This is why Maslow (1968) preferred the active term self-actualizing, which depicts an on-going process, as opposed to self-actualization, which implies an end-state.

Transformation emphasizes fluidity and flexibility, movement and freshness, will and surrender, responsibility and liberation. However, these seem far from what contemporary education insists on. Instead, "conventional schools work primarily for the purposes of limiting consciousness and reality to the current norms and defining power relations among the next generation" (Marshak 1997, 215). Today's schooling largely trains for adaptation to the status quo, as does much of psychotherapy—we seek to produce well-adjusted students (and clients) who can "fit in" and fulfill our expectations of them in the

workforce and in the classroom. And while adaptation has its place, it is incomplete and confining: "If your ideal is adjustment to your situation ... then your success is likely to be just that and no more. You never transcend anything. You grow but your spirit never jumps out of your skin to go on wild adventures" (Bourne 1977, 334). Schooling has focused on adaptation to the status quo rather than its transformation within (person) and without (culture and society).

Each time of life has its developmental contingencies and opportunities; school age is a time for developing the tools of mind and the habits of heart that will serve and shape a life. Seneca captures a desirable outcome of education: "a mind which is free, upright, undaunted and steadfast beyond the influence of fear or desire" (Seneca in Baskin 1966, 641). Education for transformation or freedom does not try to impose or force or even teach liberation but provides liberating (transformative) habits and tools, from the strength of will, to the clarity of mind, to the compassion of the heart. Through their appropriate use, one may have the personal power and vision to consciously join the wave of creation. Goethe (1949, 184) says: "Whatever liberates our spirit without giving us mastery over ourselves is destructive." Transformative education enables us to avoid getting caught in our own little whirlpool of existence, so that we may live in the whole river of life. This is the whole function of education—cultivating one's whole being, the totality of mind, and the "sensitiveness of soul" (Tagore 1961, 64). It gives mind and heart a depth and a freedom to love, understand, appreciate, and create.

Transformation is the process of creation, regeneration (a task of personal re-formation, as Swedenborg [1985] describes it), and freedom (Tagore 1961) to undertake that re-formation consciously. This implies an opening up of consciousness—the adventure of "waking up" in Gurdjieff's words (see Tart 1986).

Energy is created in the reaction of transformation and it often heats up and catalyzes further growth beyond the individual. Interdependence at all levels reminds us that social structures (e.g., slavery), cultural beliefs or values (e.g., prejudice), and consciousness of the universe as a whole may be

changed as the ripple of individual transformation grows to a wave. Gandhi's personal awakening to injustice led to the transformation of a society; when a mother's child was killed by a drunk driver she began an organization, Mothers Against Drunk Driving (MADD), that has helped to change attitudes and legislation about driving and sobriety. In this way the microgenetic spiral that I have outlined in this essay serves ontogenetic (the development of the individual) and phylogenetic development (the evolution of the species and the world).

Personal transformation comes from earthquakes in our worldview and from tiny sparks offering a glint of insight. Form is transformed through an infinite number of events from a child learning to spell his or her first words to feeling loved by another.

The question is not whether transformation happens; it does. We change and grow. Instead, the question is, "Can we help it along?" Can we create an education that invites, even nudges transformation? Can we listen for that impulse of creation or that inner teacher that orchestrates growth?

In and of itself we could claim that the act of creation (in art, of the universe, of the thought and quality of our life in this moment) is synonymous with transformation. It is the current that moves us along; the fire that burns within us, as Krishnamurti (1974, 47) described it. Whitehead referred to creativity as the ultimate category—the category necessary to understand all other processes. That is, creation as a movement into novelty is the basic process of existence.

Perhaps creativity is the most tangible and reproducible symbol of transformation, transcendence, and creation. Arieti (1976, 4) wrote: "Creativity . . . can be seen as the humble human counterpart of God's creation." The creative wave of transformation is not confined to paint and poem but is about who we are and how we live.

Creative activity (broadly defined) provides a touchstone for the act of teaching/ learning. Any activity that involves freshness of thought or perception, offers provocation and opportunity to stretch thinking, or helps to develop the tools to rethink and re-experience our world, is creative and therefore potentially transformative. In addition, since we know that the teacher teaches not just a subject but also who they are, does the teacher express his or her creativity in some authentic way? As a teacher, are we a model and expression of growth? If we are, we can have some assurance that we are offering educational sustenance and stimulating the impulse for transformation.

Transformation is inherently a spiritual endeavor. But suggesting this spiritual approach to education is not advocating some religious curriculum or add-on information for our schools. Parker Palmer (1998-99) reminds us that

> the spiritual is always present in public education whether we acknowledge it or not. Spiritual questions, rightly understood, are embedded in every discipline.... Spirituality—the human quest for connectedness [and I would say creation]—is not something that needs to be brought into or added onto the curriculum. It is at the heart of every subject we teach, where it awaits to be brought forth (p. 8).... We can evoke the spirituality of any discipline by teaching in ways that allows the "big story" told by the discipline to intersect with the "little story" of the student's life. (p. 9)

This is a skill that comes as we live our spiritual questions more knowingly and honestly. And living these questions means being present with them in this moment. As Whitehead wrote, "The present contains all that there is. It is holy ground... . The communion of saints is a great and inspiring assemblage, but it has only one possible hall of meeting, and that is, the present" (Whitehead 1967, 4). So the invitation reads "once an hour ask yourself softly, 'Am I here?'" (Rodegast and Stanton, 1989, 28). To be present allows us to consciously engage in our own transformation and the transformation of others.

### An Education of Inner Significances

What all this suggests is that education, from the view of these mystics and sages, involves a curriculum of inner significances as well as one of outer information. A curriculum of inner significances focuses on value, quality, virtue, resonance and relevance, which all tend to grow from the inside out. It does not require that more information be added onto contemporary curriculum, but invites us to the inside of the subject-matter, the other and the self.

This is a curriculum where the largest questions sit along side the smallest, and all are fair game.
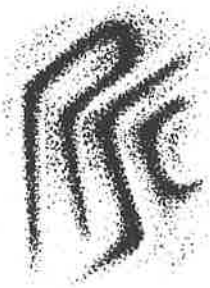
Knowledge, intelligence, understanding, wisdom, and transformation can be grown in any exchange which utilizes the currency of information; they are not limited to higher order development. It is a question of whether there is willingness to use the meeting of education as an opportunity to move a little deeper. Going deeper does not take away from the information exchange but makes it richer, gives it context, brings it alive, and may even awaken awe. We do this when we invite the student to directly and openly meet their world and themselves. This is enabled when we, as educators, meet ourselves, ideas, and our students directly, openly and honesty—in this way teaching primarily becomes a way of being. When we do so, the activity of meeting takes precedence and information can regain its place as currency and not as the main goal of education. Then the aims of education reach beyond mere information exchange to an education for transformation.

Information then serves as currency for learning, knowledge brings an economy of interaction, intelligence gives power, precision, and critical reflection to our enterprise, understanding opens the heart, wisdom balances heart and head leading us to insight and right action, and transformation culminates this deepening spiral as it enjoins us with the force of creation and communion.

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# Contemplative Practitioners Presence or the Project of Thinking Gaze Differently

## Sharon Solloway

**Presence and contemplative practice have very practical implications for classroom practice that do not know age or grade level limitations.**

*Instead of seeing people…. We read each other and in doing so we deny that we write each other. (Morss 1996, xi)*

*But what might be altered is our capacity to respond. (Britzman 1998, 129)*

*[to] free thought from what it silently thinks, and so enable it to think differently. (Foucault 1990, 9)*

"Presence" as described in this paper is a quality of attention, which takes advantage of the space between perception and cognition. Presence "de-condition[s] the 'human mind and spirit,'" (Kesson 2000, 93) and allows the possibility of seeing others without cultural/personal codes as lenses—the project of thinking gaze differently. As such it is a pragmatic vision immersed in the mundane of daily activity. Presence is mystical and intellectual, but may not be achieved through mysticism or intellectual knowledge. It is the practice of a kind of non-action, a practice of seeing what is happening by listening to what conditioning shunts to the background, what Serres (1995) has called "noise." By the practice of this particular quality of attention, the contemplative leads the imagination into the creation of new modes of meaning making. Presence "is not a belief or opinion, but a practice, [which] when a person has learned it and has practiced it, it becomes grasped and valued" (Helminski 1992, 12).

This paper explores the experience of presence in the classroom practices of teachers in classrooms from kindergarten to high school.

### Presence and the Teacher

Teachers who are also contemplative practitioners seek answers to perplexing questions that range from issues concerning the unpredictable nature of classroom practice and how best to prepare oneself for this unpredictability, to concerns for developing an expert teacher's capacity to "see more" of the latent possibilities in a situation than a non-expert

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(Mayes 1998, 448). They have suggested a variety of benefits in the classroom associated with contemplative practices. These arise out of their experiences with contemplative practice personally and out of the contemplative experiences of their students. An abbreviated list of these benefits includes:

- Improvisations during the performance of classroom practice that are unique in their holistic embrace of the circumstances and which do not have to wait upon the usual deliberative processes of planning, analysis, and/or reflection" but are intuitively invented on the spot (Yinger 1990, 85)

- An enhanced capacity for focusing attention (Tremmel 1993)

- An increased sense of interconnectedness and awareness of the full humanity of the student (Miller 1994)

- Preservice teachers' refined capacity for self-reflection and consequent improvements in classroom practice (Mayes 1998, 18)

- A strengthening of the teacher's capacity to be present in the classroom "so mindful of the moment that it uniquely embraces each student in the class and draws him or her into sacred moments of presence—presence to oneself, to each other, and to the subject at hand" (Mayes 1998, 21).

The idea of presence as described by Mayes in the last example as a particular quality of attention that may be attained by practice is found in both Eastern and Western philosophies. Kessler (1991, 4) conceptually frames this quality of attention as "teaching presence … a particular awareness and perspective in the teacher" that goes beyond competencies in methods and strategies efficiently crafted as means to predicted ends." "Teaching presence" is a way of opening to the complexity of classroom practice that both dissolves and affirms boundaries of untidy loose ends that are never fully caught up. These complexities are the messy mismatches between student desires, needs, fantasies and those of the teacher. These messy mismatches with the demands of curriculum create separations and gaps that are most often invisible spaces unknown and unembraced although not unheard in their clamor (Ellsworth 1997).

Mayes (1998) prefers to think of "presence" as a "purity of heart and will" (p. 21). He declines to acknowledge it as a reality in his own practice, preferring instead to posit it as a goal. Kessler positions presence more in the space of a practice, both teachable and learnable in the vein of Helminski, a Sufi teacher. All three suggest that this crafted presence is a worthy aim but one which necessitates the support of a contemplative practice to effect.

The Hindu teacher and philosopher, Aurobindo Ghose, called the power of this "presence" the instructor's influence:

> not the outward authority of the teacher…but the power of his [or her] contact, of his [or her] presence, of the nearness of his [or her] soul to the soul of another, infusing into it, even though in silence, that which he [or she] him[her]self is. (Marshak 1997, 94)

He believed not only in its reality for individuals but also suggested contemplative practice as a support for creating presence. The power of the teacher's presence or influence as described is attributed to the teacher's commitment to an on-going inquiry and curiosity about the nature of existence. This project includes a profound engagement with her or his own development as a life project also referred to as "spiritual development" (Marshak 1997).

Hwu (1998) also finds connections between East and West and the teacher's presence. He suggests that presence has to do with "coming to know oneself, confronting one's contingency" (p. 34), the willingness to question one's source of identity as something moving rather than fixed or unified. It is the willingness to be unsure, tentative about the nature of why things are what they are or to wonder/wander *how* instead of *why*. "For us the danger is not that we might fail to become what we are meant to be, but that we might only be what we see ourselves to be" (p. 35).

Krishnamurti (1981) also spoke of the danger of a narrow vision of others and ourselves. He advocated contemplative practice as "right" education for teachers and students, a life-long inquiry, also called mindfulness practice, that looks deeply "into the whole significance" of living and offers a way around an imagination that cannot think itself be-

yond its own vision, that cannot hear beyond its own its own voice (p. 13).

## Mindfulness and Language

Mindfulness requires a kind of neutrality. It requires an attempt at momentarily suspending the tight boundaries of language, and the dictated, felt experience of the senses that accompanies language. Words act as signs, which point to conceptual meanings that are experienced in the "bodymind." This term is used throughout this paper to point to the way meaning—understanding—thinking are influenced, interconnected with, and conditioned by our bodily experiences and conversely the way bodily experiences are influenced, interconnected with, and conditioned by meaning—understandings—thinking. Contemplative practice encourages the use of the space between perception and cognition for a momentary pause to observe the interconnectedness of meaning and conditioned responses—letting this observation open meaning—understanding—thinking to new imaginings.

A straightforward way to understand the co-dependent relationship of meaning and body conditioning is to bring to mind a word that we use to describe our attempt to cover-up an embarrassing faux pas by denying we did it—a little "white lie." Then, think of the word we use to describe the action of someone who threatens to reveal a secret about us unless we submit to his or her extortion—"blackmail." As you silently think either "white lie" or "blackmail" into consciousness, a "sound-image" immediately brings up a concept or meaning, and if you concentrate on the concept/meaning, you cannot do so without coming back to the "sound-image." They look to each other for reference and are without meaning outside this co-dependent relationship. Further, the repugnance, affinity, or neutrality you feel is either acquiescence to social convention or the residue of personal experience. If we push a step further, and ask ourselves *why* we don't call the first, a little "black lie" or the second, "whitemail," then we touch the understanding that words come with ready-made prescriptions that dictate bodymind felt experiences. (I am indebted to Wen-Song Hwu for this illustration.)

Mindfulness is the activity of pausing this necessary association of meaning and sound-image, pausing it momentarily in order to allow the possibility of other possible meanings. It is an attempt to momentarily open a transitional space-in-between the subject and experience, a third dimension. Usually, we monitor our experience, even in the midst of activity, with a silent on-going monologue that interprets the experiences as they are happening, "This is good, this is bad, this is spaghetti," etc. This kind of monologue helps keep us in the comfort zone of "knowing what's going on." The downside of this process is that experience is necessarily felt/seen through the limitations of language. Mindfulness is the willingness to tolerate momentary uncertainty, tolerate being out of our comfort zone, in order to experience what has been shunted to the background, the "noise—intermittence and turbulence—quarrel and racket" (Serres 1995, 14), the noise of other possible meanings that were unthinkable before. This transitional space-in-between, is a pause, a momentary immersion in the chaos that exists before the naming, labeling, classifying aspects of language act to tame the world, to make it known, and less threatening.

Actually, this is not such a strange pause. A narrow form of such a pause is experienced whenever we "stop and think" before we act. This is a process of carefully going over options or categories of possible actions before rushing into a decision. Everyone is familiar with the positive attributes of such a position. And if we take this one step further, to the place where we are willing to briefly hold off making the list of options and instead pause—senses open to the chaos, noise, the "originating rumor and murmuring," (Serres 1995, 1)—then we have come to the pause in mindfulness.

One might ask at this point, "Why invest in mindfulness's intention to momentarily suspend the process of association?" We cannot escape returning to the meaning/sound-image relationships that thought and language impose. At least one criticism is implicated in the *intimate connection* between the meaning and the sound-image, the sign [word]: each summons the other and this acts to sanction their felt experience in the bodymind as that which is real/natural, and imagining other ways of experi-

encing this sign are disregarded (Saussure 1998). (Recall your reaction to "black lie," "whitemail.")

What is left unchallenged is the taken-for-granted relationships language imposes, adopting those intimate connections as what is normal, and rejecting other options, labeling them abnormal, unacceptable. The capacity to think differently, to envision the unthinkable is surrendered in exchange for experiencing the sign within the discipline of social conditioning or personal history. The opportunity to imagine something beyond the socially given slips away.

Not only is the subject's capacity to think differently diminished, but the object, person, or event is reduced to a fit in one or more of the subject's preconceived categories. In this process, we literally screen out "noise" that doesn't fit, and we experience the thing before us as it looks when it is framed with our prescribed signs. In our rush to understand, to know, we at the very least diminish and at the worst brutalize the Other with a gaze that privileges OUR version of what can, should, ought to be seen before us. Looking at the way language works, we see, first, the sacrifice of the subject's capacity to think differently. Second, the sacrifice of the Other's being to a prescribed knowledge. These two reasons are enough to call for the necessity of projects that encourage us to think our gaze differently.

As it is explored in this paper, presence or mindfulness is the activity of participating in the motion or movement of what is happening by being present in the "noise" as an initial intention of non-judgment. This means a conscious attempt to as close as possible, lead the imagination to the place before categories exist. After this initial immersion in the "noise," then the normal activity of categories and signs is resumed. The importance is that the movement through this pre-signifying transitional space-in-between leaves a trace that alters the nature of the upcoming judgment. This alteration opens the upcoming judgment to something other—something other than a closed end in itself. A judgment that is open to its own contingency. The space available for experience is opened, widened, deepened. The teacher becomes "genuinely and profoundly available to her or his students" (Marshak 1997, 114). The teacher/contemplative practitioner dares to enter the classroom with a presence that is

open to perceiving what is happening right now, to be *responsive* to the needs of this moment, to be *flexible* enough to shift gears, and to have the repertoire, *creativity*, and imagination to invent a new approach in the moment. Being present also requires the *humility* and *honesty* to simply pause and acknowledge that the new approach has not yet arrived. (Kessler 1991, 13; italics in original)

This is a way of being that is open to a particular connection with the students and the content of the discipline and that is unafraid to make personal identity and integrity "available and vulnerable in the service of learning" (Palmer 1998, 10). It is a presence posited in uncertainty of self and other.

"Teaching presence," "influence," "mindfulness," and "confronting one's contingency" all describe a quality of attention that points to the teacher and the student simultaneously (Hwu 1998; Kessler 1991; Krishnamurti 1981; Marshak 1997). It might be said that it is a teacher-centered project in the service of student-centered learning. Although rarely addressed in teacher education programs, presence and contemplative practice to support it have very practical implications for classroom practice.

The stories of presence shared in this paper come from six teachers (three men and three women) in classrooms from kindergarten to high school. They volunteered to implement a contemplative model of classroom practice suggested by Miller (1994) for eight weeks. Two were inner-city high school teachers, two were inner-city elementary teachers, one taught in a rural middle school, and one taught in an elementary private school. All identified themselves as white and none were experienced contemplative practitioners. They volunteered based on personal interest. Each practiced vipassana meditation for 30 minutes five days a week for the eight weeks of the study. They also practiced mindfulness in their classrooms each school day during the eight weeks. They recorded their experiences of mindfulness in journals. At the end of the eight weeks, they told their stories in individual interviews and in a focus group interview.

## Miller's Model

Miller (1994) suggests a model for contemplative practice that may be implemented by teachers. The

model has two components. First, a formal contemplative component—in this study, vipassana meditation—which requires a formal meditation practice. Second, an informal contemplative component—mindfulness, a particular quality of attention.

## Vipassana Meditation

Vipassana, the formal component of Miller's model as implemented by the teachers whose experiences this paper explores, is a practice aimed at training oneself to experience life from moment to moment exactly as it is happening without preferences or biases. Specifically, the practice consists of sitting with the backbone straight, eyes closed, hands on thighs, with your attention focused on the sensation of the breath as it enters and leaves the body. The duration of the meditation time is spent with the attention so focused. Normally, the attention wanders. When this happens the instruction is to gently bring the attention back to the in and out of the breath nonjudgmentally. It has been described as "a process of self discovery, a participatory investigation in which you observe your own experiences while participating in them as they occur" (Gunaratana 1993, 30).

## Mindfulness

Mindfulness, the informal component, is an extension of sitting meditation into the activity of daily life. It requires focusing attention, from a neutral position, on what is happening internally and externally as it happens. The neutrality requires the initial intention of a non-judgment, a kind of momentary standing back from the activity of assigning a sign(s) to what is happening. It is not at all passive, but an active watching and doing at the same time. It is not at all a passive reception of events, but a proactive observance of events. This initial intention of non-judgment acts in the service of a "judgment to come" by opening awareness to more of what is given in the environment. The judgment that comes is more apt to be informed by the complexity of what the environment has to offer. Judgment is less apt to capitulate to distortions of past memories or future fantasies. Sylvia Boorstein (1996, 347) describes the task in mindfulness meditation as it extends to mindfulness in daily life:

> Here the meditator attempts to cultivate composure with a wide focus of attention on all cur-

rent experience, internal and external. An attempt is made to be aware of all changing physical sensations, mental states, thoughts, and perceptions while maintaining a nonreactive attitude to them.

A more ancient description of this 'no action' comes from the Eastern philosophy of Chinese Taoism (Schipper 1993). The Chinese term is *wu wei*, and it is a kind of activity that seems like no activity because it is the attempt to move with events as they arise, keenly observing and letting action then be the complement to what is observed. It might be imagined as an improvisational dance between two partners whose movements are so complementary that they appear to the observer to be choreographed. *Wu wei*, then, is the spontaneous emerging of action out of a keen observation that makes the action appear to be the just right complement to the event observed without the actor preplanning the action or forcing or repressing anything to achieve the complementary response.

Although the possibility of perfection of mindfulness eludes the grasp, even minor attempts widen awareness and clarify skillful action (Langer 1989).

## Their Stories

### Thinking the Unthinkable

Leonard, an inner-city high school teacher describes his classroom style as student-centered and energetic. He says, *"I'm the wild and crazy guy, the superstar, the pure orange personality, outgoing, action-oriented, proactive, student-oriented."*

As Leonard began to practice focusing his attention on events as they arose in his classroom practice through mindfulness, he was faced with a contradiction between his philosophy of being "student-oriented" and what he saw in his actual practice. Mindfulness means the activity of the bodymind thinking itself as it participates, momentarily suspending the activity of assigning signs to the particularities of the participation as it happens. It is the activity of moving into the messiness of the desires, needs, and miscalculations between teachers and students with the initial intention of non-judgment.

In the classroom, this meant Leonard attempted to place his attention on what was happening internally and externally, from a position of mindfulness.

He felt his own "competence," the "I'm doing a great job" feeling, and at the same time he watched his students' faces. He describes the effects of this kind of attention when he says,

> I just became more sensitive to their faces. I saw my wild man act and my funny jokes and how all that works for most of them, but not everybody, some of those kids were really overwhelmed by my personality, it was a barrier. I looked out there, now, and could see that something was not quite right with some of those kids. It wasn't just that they weren't getting it. It was that they weren't engaged in the class. Those on the opposite end of my personality style were real frustrated.

In the midst of his performance as a competent classroom teacher, and without interrupting that performance, his awareness opened to more of what was actually happening. It wasn't that Leonard was entirely unaware that some students were not successful in his class. He admits to this awareness in the past, but it was usually associated with the experience of recording the student's grade in the grade book. The difference with mindfulness practice was that he now noticed it at the moment of his students' frustrations. This up front awareness led him to make changes in his classroom practice. He says:

> I'm learning to back away from my wired style and let other things happen. This takes a lot less energy. Where before there was more tension, now I don't have to be cool all the time. I can kind of be more human. I just try to see what they need, sometimes it's just body language, not verbally communicating, but just trying not to disturb them, just trying to modify myself with them to not disturb them and let something happen.

Making these changes brought both exhilaration and discomfort. The exhilaration came in seeing students become interested in the content of the course who had not done so before. Leonard describes his excitement this way:

> And some of the kids that have been marginal in the class have really started working for me a lot since this study has happened. I hate to admit this but I think there were certain barriers there before that have not completely disappeared but certainly have lessened. I have been able to reach kids who just thought they couldn't do it.

I wasn't reaching them before. Which is literally amazing. It's tremendous, just tremendous.

This discomfort came in being more "flexible," in changing what he was doing moment to moment in response to his students' needs. He describes this flexibility as being out of his comfort zone of being more "dictatorial" in his classroom. In Leonard's words:

> I'm talking about control, in that, "I'm the teacher and this is the way you're going to do it and you're going to love it. Because I'm the teacher." You know it's comfortable to be dictatorial. But it's not as effective. I'm learning to be more flexible, but I'm thinking, "Oh, if I do this, I'm going to lose control." Control, that's the big issue. That's the hardest thing for me. It's risk-taking for the teacher to do this [be more flexible in the classroom], very risk-taking. I'm more comfortable being dictatorial, but it's not as effective.

One way to look at Leonard's experience is to say he risked letting go of the certainty of what being student-centered had meant to him, for the uncertain immersion into acknowledging the background of everyday experience in a new way. You might say he became aware of the "originating rumor and murmuring" (Serres 1995, 1) of the "noise," when he began to pay attention to his students' faces and body language and in that awareness, he saw the contradiction of his student-oriented intention and the barrier his style erected between the content of his discipline and a number of his students. Here judgment opens to its own contingency, fleshed in the alertness of "noise" immersion. Mindfulness not only opened his awareness to insights into the injustices of his one-up power relationships with his students but also to intuitive innovations for restoring balance where inequities assume rights of authority. Such a moment makes possible the hope that hooks (1994) holds for transformations in the classroom and society so that our living, teaching, and working reflect individual commitments to justice.

We see presence as a holding back of judgment that prefaces an emerging judgment of more skillful distinctions and adjustments in presence. Presence, as the intention of non-judgment clears the clutter of preconceived notions, draws back the curtains of habitual visions, inviting imagination to move in,

among, and through what was unthinkable before. It is a very practical practice enriching pedagogy with meaning making (Greene 1995; Westbrook 1991). Serving both teacher and student, less is left undone.

### Re-Visioning What Is Possible

A new school year, as well as "anger and fear and strife" accompanied Laverne's attempts to incorporate contemplative practice into her transitional first grade classroom practice. Polarized by a new principal's aggressive stance toward a few of their number, the faculty divided itself between those for and against. Daily incidents fueled intense emotions and exacted its price in diffused concentration for many teachers and their students. Laverne felt caught in the middle between wanting to leave the "anger and fear and strife" out of the classroom and the daily intrusions that crowded those dimensions into her classroom practice/presence.

One day, in the midst of a phonics lesson, a colleague stepped in with whispered news of a new attack on another teacher, a mutual friend. Laverne sat, with her young students "right there at my feet," the anger welled-up. "Wanting to scream" or "punch something," she sat rigid. As she had been learning to do in meditation, she watched her anger and rage swell and felt the rigidity of her body, she simultaneously saw the children around her—their expectant eyes on her. What to do was immediately apparent. Struggling to maintain her balance, she refused to favor one side or the other. She sat the midst of the turmoil. She quite simply took a breath and felt the fullness of her rage and anger. She describes what happened on the out-breath, when she says,

> I let all of that drain out, and just kind of went back to that quiet place. In just a few seconds, happy and comfortable, everything fit.

> I could go back to what I knew was my plan, and what I knew the children needed to get out of this phonics lesson. They all sat up and we started again with what we were doing.

Laverne describes a kind of stopping without ceasing, a moving into that transitional space before words, without getting up from where you are. This kind of non-action, *wu-wei*, moving with what is happening in a way that one's own action arises as just the right complement. This is a very practical appli-

cation of mindfulness in classroom practice. Innovations out of practice interrogate theory, while theory translated into lived practice becomes repetitions that invent innovations. The breath in which she anchored her attention, was the pause that lead imagination into the space that comes before sign signification. In this space, her keen attention, ranging among all the possibilities of the "noise," was the condition for what was needed to become apparent. The exterior practice leads the way for imagination to step over the limitations of language long enough to invent the *just right*, the innovation without excess.

### The Peculiar Activity of Waiting

Neutrality in mindfulness practice does not mean refusing to value one thing over another. Sometimes, it's about seeing what you've come to value in a new way. For example, the task might be to be open to the fluidity or shifting positions between what you hold to be necessary and unnecessary. Max, an inner-city high school band director, describes his daily dilemma as the struggle to keep a tight rein on his students. He runs his band rehearsals of 117 students in one room without the luxury of an assistant.

Strict silence unless called on was the rule. Max was not unaware of the "tenseness and aggression" that hung in the air. He was not unaware of his tendency to "overcorrect students." He valued both as necessary and unavoidable given the circumstances. As he began to situate his attention on his internal experience and simultaneously observe what was happening externally, he noticed a distinction that he had undervalued. The distinction between what was needed and his overcorrections stood out to him. First, he saw that contrary to his belief, the students did not take advantage of situations where he let go of heavy-handedness in favor of just what was needed. They followed his lead and reciprocated with small talk as needed without excess. Max describes the changes in the atmosphere in his classroom when he says,

> the environment is less hostile. It's kind of surprising to me. This [mindfulness practice in the classroom] is relaxing me. They dialogue with me a little bit now. And there is student-to-student talk that is on task.

This distinction also became apparent to him in the way he chose to run through the music at rehearsal. Letting attention inform what is needed, he found the openness to listen to his band in a new way. He heard places that needed attention and others that didn't. Letting this awareness of "murmurings" be his guide, he began to rehearse only those sections that needed special attention. This sounds simple, and in fact it was an innovation he discovered years ago in his position as rehearsal director for an on-the-road band. But, it had never occurred to him to use it in his public school work. Looking back, it seems like an obvious awareness, prompting Max to reflect, "I don't know why I didn't see this before."

Now, rehearsals are spent in working various sections, rather than the whole band plodding through each piece from beginning to end. And two changes merited notation by Max. He notes these changes in his comments,

> Now, students make more of a connection with their instrument and their experience of that instrument. It surprised me. I don't have to re-teach the next day. They accomplish more. More students ask for methods and techniques and more instruments go home for practice. It takes a lot of aggression out of the classroom. The kids are having more fun.

Max's experience helps us see that overcorrecting students and rehearsing more of the music than needed was a frustration of valuing excesses in a way that refused the implication of missing pieces. The solution: thinking differently about excess. It's not just looking at excess from a different angle, a different perspective; it's a profound change in orientation that includes organic changes in bodymind matter and thought, as a result of leading the imagination to the space before language (Goleman 1998).

Mindfulness practice allowed him to immerse himself in the "noise," the turbulent chaos of all he knew about music, rehearsals, and the way pieces of music practiced separately could come together harmoniously, etc. Just for a moment, he let his imagination roam beyond the pressures of "having to have a program ready for the Friday night football half-time performance," "the anxiety of being responsible for keeping 117 adolescents contained and on-task," and

into that space before valuing, that "non-place of language" (Foucault 1998, 378).

Max's experience shows us presence as a quality of attention that transverses the complexity of experience in every direction—re/orienting in every direction, it's thinking the gaze differently. This exploration inscribes awareness with nuances, critical informants for seeing more of what is there and inscribing it with new meaning, "a dislocation of commonly held conceptions about experiences, practices, and events" (Hwu 1998, 33). These alter imagination with new modes of signifying and imagination steps up and through to a space of thinking differently, overcoming the "stark impossibility of thinking *that*" (Foucault 1998, 177). In Max's case, thinking his gaze differently also meant manifesting care for his students both in the way he related to their need to interact verbally with him and each other, and care for his students in opening the discipline of music to them as a joy they could now name in themselves.

### Remembering to Forget Going

The skillful and artful non-action of mindfulness requires the active avoidance of activity that is not spontaneous. The translation of stillness into lived practice means the inclusion in awareness of emotions and tensions as they arise. Spontaneous emotion and even tension are not the source of suffering. It is the energy required to repress or reject them that depletes the body's reserves.

Fay, an eighth grade English teacher in a rural middle-school, describes the changes she "felt" she had to make "to get along" when she moved from the elementary to the middle school classroom. She says, "With my older students, I had to change. Showing caring and compassion was seen as a weakness by them."

As a result of this interpretation of what needed to be done, she has spent the last six years beginning each school day by putting on "a stern, strict personality" to control her classes, "and by the time I leave, I'm exhausted having to be this person that I'm not really." As Fay began her attempts to bring contemplative practice into the classroom, focusing her attention non-judgmentally, simultaneously on her own internal experience and the external events of

the classroom, she opened herself to spontaneity. She described the sense of freedom she felt, "It's a free feeling, like I'm kind of floating, a wonderful sensation. I felt lighter."

Fay's description is the description of the effects of non-action, which may be lively, but it is never strained or strenuous. Frequently, Fay and other teachers in the study spoke of the "easy," "light," "energizing," nature of this practice in the classroom. One of the very practical physiological benefits of non-judgmental attention to tensions and emotions as they arise is that they pass through the body and dissipate without leaving a residue of tight muscles and taut nerves. The momentary pause of non-judgment leads the imagination past habitual, conditioned responses to the possibility of Other as humor and a sense of well-being.

Amanda, an inner-city kindergarten teacher, experienced numerous written reprimands, several grievance meetings with the principal, and received three letters threatening termination during the eight-week study. During one of the grievance meetings, the benefits of observing both internal and external events non-judgmentally were evident in her description of this experience. She says:

> I was able to sit through the two and one-half hour meeting calmly and peacefully. I watched my anger as he just made up stuff to make me sound like the worst person and teacher in the world. They accused me of abusive behavior and gross misconduct. Throughout the process, I did not get a knot in my stomach, I was calm, I was at ease. I could watch him and even feel amused at times—that was weird. I left with my little reprimand in my hand and was able to go back to my classroom and still manage to focus on my teaching, and that's where it is all kicking in. I don't think I would have been able to do this before.

For Fay, the physical effects of being non-judgmental as she watched events as they happened and herself in those events contrasted sharply with her former sense of tension and exhaustion she felt at the end of each school day. She describes this contrast when she says:

> Now, it's not that stern, bogged down thing I feel like I had to be. And then when the kids leave, I was so tight, exhausted, but this was like

letting go, just letting go. My body felt so light. And I was so aware of everything I was doing, my facial movements as I spoke, arm movements, and my legs as I walked around the room. And everything they [the students] were doing, but all of it was easy, not hard and tight.

Fay's original perception of what was needed in her eighth grade classroom placed caring and compassion in opposition to strict disciplinarianism, an example of the effects of thinking in dichotomies. The rigid vision of either/or creates a lethal path leaving spontaneous eruptions no recourse. They die without being born in the excluded background of "noise" not seen, not heard. And what *is* seen becomes all there is. Holding an initial intention of non-judgment in the foreground gave Fay new eyes, as she watched herself and her students. We see in her words the bodymind thinking itself differently. She says:

> Now, I'm using the moments that I have, I'm really centering on those moments, and not on all that other stuff. Which again, helped me to be able to see how different all these kids are. They aren't this one group. And even though I'm not sitting with them one on one, I'm connecting with them more one on one. I think a lot of it is just slowing the mind down. And really absorbing what's happening at the moment. And by doing that, I could individualize every student when I was communicating with them. Eye contact that *really* connects. It's more like that child and I are having our own individual conversation.

This very pragmatic aspect of mindfulness opens the way for both/and. Her words describe the very practical effects of this openness. She says:

> I'm seeing this child now as this entity over here, this person's doing something, I address it, and then I move on to the next thing. And then, this kid's making a thoughtful comment, I address it and move on. And then this kid's acting up, now this is a separate thing. I address it, but I'm not seeing all these things as one thing. I address this one, it's done. And it's like I've been in the classroom all this time and I've always felt like I was aware and caring of my students. But now it has new meaning. The best way for me to describe it would be the parts all

as individuals coming together. Rather than the thing as a whole.

It wasn't that problematic student behaviors no longer arose, as Fay noted, or in Amanda's case, that problematic circumstances ceased, but for both the change was in the way they thought about problematic circumstances—differently. Now, problematics were moments of doing what needed to be done and then moving on. Thinking differently about "what was needed" and differently about "moving on." In both cases, it's thinking detachment differently.

The temptation is always to globalize, inject lethal either/or's into individual expressions of life. Moving on, the detachment imprinted with compassion, re/turns (turns around) this temptation to the flux of spontaneous combustion/eruptions of what is needed, the eternal re\turn—letting the uncertainty of the noise mediate certainty. Imagination and perception are no longer opposites but are implicated in each other in a way that thinks language differently. Language is more apt to be expressed by a bodymind that "knows" less brutally, with less deadly force. Individual students, individual needs, "parts coming together ... the thing as a whole ... contact that connects ... moving on."

### Self-consciousness, Uncertainty, and the Other

The awareness of self, taken from this position of non-judgment creates the sensation of well-being as actions arise out of spontaneous inventions especially suited to the moment. Contemplative practitioners speak of the transference of this well-being. Fay speaks about the experience of mindfulness as a sense of well-being and having the right action or insight arise when she says:

> It's [the effects of mindfulness] noticing more detail—student to student and teacher to student. I have more insight and connection with my students. I pick up on subtle things I didn't before. I note expressions of confusion more often. I was seeing each of my kids, not just making eye contact, but that eye contact actually like something connecting, with each individually, rather than this is my fourth hour class, here *they* are, here *I am teaching* them the lesson and then they leave.

Amanda also describes the sense of well-being that she experienced even in the midst of a grievance meeting with her principal and then moving directly from that intense meeting to the classroom with her students. In each case, she describes being able to move into and through each event with a complementary action or mode of being without effort. We hear this in her words:

> Leaving the grievance meeting, taking my little reprimand in my hand, walking into my classroom ... looking around, seeing little people happy, busy ... playing 'teacher,' reading to each other ... I just enjoy being here, I enjoy where I'm at. I'm pleased with the situation.

Sid, a middle grades math teacher in a private elementary school, also shows us in his description of mindfulness practice in the classroom, this same sense of well-being and the effortless way spontaneous actions arise out of keen, non-judgmental observation of self and others. He says about mindfulness:

> [Mindfulness is] easier because your decisions become like an ebb and flow, you can really help yourself a lot if you understand there is a meditative place you can work out of, as opposed to doing this constructive method with the kids and getting these results, so it's not technical anymore, even though you may be doing the same thing in your lessons, what's different is that you're not doing a technical relationship with your students. You're just there, and there, and there ... there with the math, there with the kids, just balanced with things working out like and it surprises you.

These three teachers show us in their experiences how the bodymind thinks itself with this particular quality of attention. It begins to think differently about self-consciousness. Self-consciousness no longer connects with a fixed identity. Rather, a fluid sense of self moves with the motion of momentary uncertainty. Letting go of capitulations to past memories or future fantasies, and choosing attention that refuses to exclude and thus avoids the dangerous entrapments of narrow inclusions. In short, discovering the place where selfish and self-less are not opposites, and imagination is detachment in the service of "an original and creative act of perception into all aspects of life, mental and physical, both through the senses and through the mind" (Bohm 1995, 25). The dynamics of the bodymind immersed in the noise momentarily, prompts the gaze to "discover in all

other 'objects' the miracle" of voices speaking themselves in our gaze more closely as themselves—a radical form of caring (Abram 1996, 81).

## Compassion, the "Light of the Human Face"

The possibility of creating suffering at the intersection of our individual sense of right and wrong and the difference of another cannot be ignored (Serres 1991). Compassion as a commitment to non-harming does not prevent the distinction of a deep conviction. Rather, it holds deep conviction as strong enough to withstand contact with that which is Other. It holds deep conviction accountable for mistaking in itself the right to harm by virtue of the righteousness of its own name. This accountability is the responsibility to think language that lives in "the light of the human face" (Levinas 1987, 2). This is compassion, a deep conviction inscribed with non-harming.

In a paradoxical way, strong convictions and the initial intention of non-judgment are the necessary prescriptions to compassion. This is a complicated idea. In order for us to notice another person, we have to see a difference between that individual and us. Strong convictions make us notice others, for example, who live by convictions outside our own. If we bring the initial intention of non-judgment to our encounter with such a person, that non-judgment leaves a trace on attention and that trace is the inscription of compassion. Strong convictions bring difference to our attention. The initial intention of non-judgment leaves a trace on attention and mediates how difference is interpreted. Without this initial intention, strong convictions dictate how difference is interpreted, keeping it trapped in the conventions of language as knowledge. Imagination is then lead to see only what is seen, in signs, untouched by the "transcendence in immanence" (Levinas 1987, xxvii) of the Other. When mindfulness intercedes, compassion arises at this intersection of our strong convictions and the Other as the trace of non-judgment re/turning to judgment as the non-harming recognition of difference. This a recognition that is disinterested in the difference except as a taking of responsibility for the well-being of the other, as an ethics of "allegiance to the other" (Levinas 1987, 36).

The genesis of compassion, seeds of social justice, complex as it is, exists in the simplicity of everyday

interactions informed by mindfulness. We see this complexity/simplicity as everyday experience in Max's account of a classroom incident. He describes it in these words:

> I had a young man and a young lady involved in a more pushing than anything else altercation. I tend to jump pretty quickly on stuff like that [young men "roughing up" young women]. But this time before I jumped in, I did take a moment and the reason I did is because I knew I was going to jump the young man, because I feel pretty strongly about that pattern, young lady today, wife-batterer tomorrow. Usually, I just jump right in. But I didn't that time. I did go through the breathing and just tried to, you know, take myself out of the situation for a moment.
>
> As a result, I pulled them both out and wrote a referral and explained to them that they would both be going down. They were saying, "He did it, she did it." I said, "It doesn't matter, school policy is you'll both go home."

Max spent several minutes talking with the young man about the issues of male/female battery and the young man acknowledged habitual physical force as a pattern of venting frustrations in relationships with his sisters at home. Max continues:

> Going through the mindfulness routine allowed me to address the issue a little more calmly. As a result the young man responded better, he wasn't aggressive as far as denying it. And he agreed that it [his pattern of physical aggression as a vent for frustration] could be a problem.
>
> I know that last year if the same situation would have come up, that boy would have been in my office and I would have been all over him, in his face. Taking that extra moment, allowed me to handle it differently. As a result, the two kids came off better. They went to the office. They manage to get their punishment reduced to an on-campus suspension and could still got their school work done. Because they went in there with a better attitude, because instead of me hollering at them, I *spoke* to them, and they went and *spoke* to the principal, instead of yelling off at the principal. So, it worked out better for everyone, actually.

Profoundly recognizing and valuing his strong conviction involving patterns of female battering in young men, Max prefaced his conviction with the initial intention of non-judgment, both effacing his strong position and writing it large with the trace of non-judgment, compassion, the mediated intersection between his strong convictions and this young man's singularity. This movement into the gap between perception and cognition is not to be confused with "stopping to think before you act." It wasn't that he stopped to think before he acted. It was that he brought himself to a place where his strong conviction and the young man's difference might touch in non-harming effectiveness—a compassionate mediation.

## Summary

Presence as thinking gaze differently is simply a practice. The use of a particular quality of attention, a practice of presence, enables the contemplative practitioner to de-condition the mind and heart and hold perception and imagination accountable for the contribution each makes to the other. By the nature of its initial intention of non-judgment, this quality of attention engenders compassion while simultaneously holding distinctions that engender the power to question. It is the task of curiosity as an invitation for transformation.

Presence as mindfulness leads imagination to that pre-signifying space where the "noise" of self and Other and imaginations interact, touching and being touched, and on the return to language, the imagination opens language to new modes of signifying achieving some measure of transcendence of the limitations of the bodymind thinking itself always, unavoidably within the situated context of language. It is mystical and intellectual, but may not be achieved by mysticism or intellectual knowledge. It is simply practice.

Presence is thinking our gaze differently. It is a risk immersion in the "noise" that alters the way we think language on the return to its domain. Different aspects of the "noise" are allowed in, more of the complexity that is the nature of all things tempers our rush to define with a brutal, fixed identity the Other we encounter. We lessen the discipline with which we brutalize the Other, touched/touching, changed by the wonder and awe of their transcendent immanence glimpsed in our momentary immersion in the "noise" of our experience. Mindful presence is a way of momentarily suspending the limitations of language, a way of thinking our gaze differently.

This was Foucault's project but paradoxically so. He used history as the noesis to pause the process of the taken for granted as the nature of the way things are, "The object was to learn to what extent the effort to think one's own history can free thought from what it silently thinks, and so enable it to think differently" (Foucault 1990, 9). Using history to reveal history's gazes of production, sign systems, power, and self as technologies, he teaches us to be suspicious of gaze (Foucault 1988, 18).

Leiris, chose "bifurs" (bifurcations, divergence of a thought) and "biffures" (the deletions, or cross-outs in writing), as the noesis, following the forks, letting the effaced cross-outs interrupt thought, leaving an imprint that transcends the interruption to think thought differently (Levinas 1987, 145). Leiris struggled with the hard work of thinking beyond his "I" vision of the world because "for me this word *I* epitomizes the structure of the world" (Blanchot 1992, 160), the struggle of moving from "I" to "he" to "that," the responsibility of an "I" for the Other. In both Foucault and Leiris we see the attempt to think gaze differently, the effort to let Other be neither that which I am not, nor that which I think it to be, but rather uniquely intelligible in its own transcendent immanence.

## Need for Further Exploration

Mindful presence negotiated by vipassana as a formal meditation practice; OR by an intimate attention to breaks in writing: 1) tracing the evolution of words one crosses out while writing and 2) following with a fertile curiosity the divergences of thought that arise as words are written; OR by the keen observation of history—demonstrate the project of "thinking gaze differently." Presence in this sense is the life project of caring for the other, the practice of "concern for others" (Hwu 1998, 32) and cannot be separated from caring for self, the place where "the question of knowing if one can think differently than one thinks, and perceive differently than one sees, is absolutely necessary if one is to go on looking and re-

flecting at all" (Foucault 1990, 8). Presence in these examples is achieved not by a calculated attempt to practice concern for others or concern for self, rather, presence in these contexts point to the wisdom of *wu-wei*—the attempt to move with events as they arise, keenly observing and letting action then be the complement to what is observed.

What we don't know about presence as a quality of classroom practice suggests the need for further exploration. Explorations, which might design themselves as inquiries, could be guided by questions such as: What are the conditions in teacher education programs that encourage or discourage the development of mindful presence as a quality of a teacher's classroom practice? What is the relationship between a particular practice of mindful presence and individual distinctions of culture, race, ethnicity, personality, gender, or other variables? How might the integration of Eastern and Western philosophies further inform teaching, research, and practice?

## Concluding Comments

Mindful teaching and learning invents presence as an invitation for transformation of the gaze. Contemplative practice as suggested by Miller (1994) while not the only threshold to such a presence, can be used by teachers to establish mindful presence in their classroom practice. The gaze then aligns itself with the task of the teacher

> [which] is not to affirm prevailing general politics of teaching but to question critically the self-evident, disturb the habitual, dissipate the familiar and accepted, making the strange familiar and the familiar strange. (Hwu 1998, 33)

Presence and contemplative practice have very practical implications for classroom practice. And those implications, as we have seen, do not know age or grade level limitations. Contemplative practice invites the possibility of mindful presence, thinking gaze differently, and becomes a very practical endeavor, a not-so-strange idea, a hedge against the danger of thinking others in our own image and only being what we see ourselves to be.

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# Where's Waldorf?

## Mary Barr Goral and Julie A. Chlebo

**Many of the ideas and practices called for in current reform efforts can be found deeply embedded in Waldorf pedagogy and philosophy.**

This is a time of intense interest in generating ideas and practices to improve the education of our children. A wide variety of suggestions have been made by many educators and yet, based upon our research, one type of education has been virtually overlooked. We are referring to Waldorf education. This little known, but well established, form of education can be a source of ideas and strategies to reform-minded teachers and teacher educators. In a 1994 interview Elliott Eisner noted that

> Waldorf education possesses unique educational features that have considerable potential for improving public education in America. The time is ripe for public schools to explore the ways in which ideas in Waldorf education might be explored in their own settings. For too long, in my opinion, Waldorf education has been on the margins of education. It needs to receive the kind of attention it deserves. (Urmacher 1994)

At the same time, those involved in Waldorf education must step to the forefront and begin educating the public. Waldorf education can no longer be one of the "best kept" secrets in this country. Nor, as Urmacher (1992, x) stated, should Waldorf schools be "marching quietly along unheard." In the words of Betty Staley (1997), director of the Rudolf Steiner College in Sacramento, "The Waldorf movement is challenged to educate the public about the essentials of Waldorf education, to speak out for the soul needs of children, and to call attention to the damaging effects that our society is having on children's lives" (p. 30).

The purpose of this article is to draw attention to the stable and well-established practice of Waldorf education. This paper can also serve as a catalyst to put abstract ideas about school restructuring and reform into concrete terms. Much of what reform-minded educators want to do is demonstrated in Waldorf schools. In this paper, three issues central to

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the educational reform movement (school structure and climate, curriculum, and instruction) will be viewed first from a traditional perspective, then as seen by those involved in school restructuring and reform, and finally described in terms of Waldorf education.

## The Roots and History of Waldorf Education

Because Waldorf education continues to be one of the best kept secrets in this county, not many people know much about Waldorf schools and their origination. Waldorf schools are the second largest non-denominational group of alternative schools in the world, with over 900 schools, including 160 in the United States. Created by Dr. Rudolf Steiner shortly after the end of the World War I, the first Waldorf School was intended for the children of the workers of the Waldorf Astoria Cigarette Factory in Stuttgart, Germany. Steiner, a controversial figure in the cultural life of central Europe and a prolific writer and lecturer on topics such as philosophy, medicine, religion, and education, designed the school to meet the ever-changing educational and spiritual needs of children in the industrial society.

The explicit purpose of Waldorf schools was and is to develop free, independent, moral, creative, and happy human beings. Steiner believed this could be accomplished in several ways, such as teaching a developmentally appropriate curriculum rooted in the humanities, having the same teacher stay with the children through all eight grades of elementary school, and placing as much value on the arts, music, handicrafts, and movement as on traditional academic subjects. Because Steiner believed that each human being is spiritual and has a divine spark, one of the purposes of Waldorf education is to ignite the spark. It was Steiner's ideal that Waldorf schools attempt to educate the heart, soul, and mind of every child.

Because Steiner's worldview and orientation to education was theistic, it is rare to find his educational philosophy included in the traditional textbooks used for pre-service teachers. Yet interestingly, many of the ideas undergirding Steiner's educational philosophy can be traced to the theories of several well-known educational philosophers, including Comenius, Rousseau, Froebel, and Pestalozzi.

Steiner believed that education should be grounded in an understanding of child development, which begins with imitation, proceeds through imagination, and only then culminates in the intellect.

Comenius, born Jan Komensky (1592-1670), identified developmental stages of learners and, like Steiner, matched instruction appropriate to these stages. As a bishop of the Moravian faith, Comenius, like Steiner, had a theistic approach to education. He believed that humans are born in the image of God, and therefore, *each* individual has an obligation and duty to be educated to the fullest extent of one's abilities so as to fulfill this godlike image. In other words, Comenius believed human beings were capable of experiencing a direct relationship with God, yet in order to do so, they needed to be educated.

Similar to Comenius and Steiner, Jean-Jacques Rousseau (1712-1778) believed that education should promote and encourage qualities such as happiness, spontaneity, and the inquisitiveness associated with childhood. Furthermore, Rousseau held that education should be developmentally appropriate and that young children should not be instructed in academic subjects at an early age.

Following Rousseau, was Johann Pestalozzi (1746-1827), a Swiss educator who agreed with and built upon Rousseau's ideas. Both Steiner and Pestalozzi believed that education is based on sensory impressions and that through the proper sensory impressions, children would reach their natural potential. Pestalozzi referred to this as "object lessons," providing children with manipulative experiences naturally leading to particular concepts. Both theorists believed that the best teachers were those who taught children, not subjects.

Pestalozzi believed that mothers could best teach their children, and, like Steiner, thought school should be an extension of home, possessing a warm, loving environment with tender and caring teachers. According to Gutek (1968, 30) in his informative text, *Pestalozzi and Education*, Pestalozzi felt that schools should focus on the harmonious development of man, the "development of all his human powers and capacities," and that his development should take place in a climate of emotional security. Like Steiner, Pestalozzi believed in a balanced education of head,

heart, and hands. Pestalozzi was critical of traditional education that separated thinking and doing (Gutek 1969).

Frederich Froebel (1782-1852), another holistic educator who actually attended one of Pestalozzi's institutes, believed that through education, the divine essence of man is brought forth (Froebel 1887). According to Froebel, teachers should learn with the children and learning should be adapted to the children's needs. He saw nature as a prime source for learning and felt that manual work was ennobling.

Froebel's concept of children and how they learn was based, in part, on the idea of unfolding, a concept also held by Comenius, Pestalozzi, and Steiner. The educator's role was to observe this natural unfolding of children and provide activities enabling them to learn when they are ready to learn. In addition to school subjects, Froebel, like Steiner, held that children should work in the field and garden, experience woodworking and weaving, model with clay, and paint. Like

Pestalozzi and Steiner, Froebel believed that school was to be an extension of the home with both work and play activities. He believed in establishing an emotionally secure environment and in the importance of early childhood education with a focus on play rather than academics. In Froebel's (1887, 54) words, "Play is the highest phase of child development of this period." Steiner (1966) also stressed the importance of play in the early childhood setting.

> In the beginning the child merely plays, but plays in earnest. There is only one difference between the play of the child and the world of an adult. It is that the adult adapts himself to the outer utility that the world demands; his work is determined from without. Play is determined from within, through the being of the child, which wants to unfold. (p. 8)

Consistent with the idea of unfolding, Froebel believed that young children are like flowers blooming from a bud and that with love and care, children will grow and someday produce fruit. Froebel likened the role of educator to that of a gardener, and, like Steiner, Froebel believed young children needed to be cared for and loved. Steiner repeatedly stresses the importance of educator/teacher love for students in many different lectures, including "Using the

Spirit"; "The Child is Entirely Sense-Organ Blood Circulation-Nerve Activity"; and "Gratitude and Devotion Love and Freedom." In a 1922 lecture in London, Steiner (1996, 32) states that "in the Waldorf schools what a teacher is is far more important than any technical ability he may have acquired in an intellectual way. The importance is that the teacher should not only be able to love the whole child but to love the method he uses, to love his whole procedure."

Many of the theories and philosophies of education mentioned above can be found in and throughout Waldorf education, from the belief in the importance of children's developmental stages to the idea that children are spiritual beings who need to be reverenced and respected. The following section will describe in detail several of the key principles from an early childhood Waldorf education, principles that are reflective of these practices and that correspond to current issues in school restructuring and reform.

## Waldorf Education and School Reform

To help the reader gain a better understanding of Waldorf pedagogy, it is useful to explore it through three domains of education: school structure and climate, curriculum, and instruction.

### School Structure and Climate

It is difficult to discuss the education of children without addressing the issue of school structure and climate. Several important factors contribute to an understanding of this issue, not the least of which are a school's philosophy/vision, the physical environment of a school, a sense of community, and the reflective dialogue of teachers.

*Philosophy/Vision.* All schools, whether public or private, need to be grounded in a common theory or philosophy. This philosophy can be used as a lens through which one can reflect and work. Yet traditionally, schools have not been asked to have a philosophy or if one exists, it is often written in overly ambiguous terms. However, no school can operate effectively without a philosophic base. Schools without such a base can often seem disorganized, cold, and impersonal. Goodman (1992) refers to this type of educational setting as a "society of strangers," ex-

emplified by an analytical, explicit, logical, impersonal, and directive climate.

Educators involved in school restructuring and reform realize just how important a school's philosophy can be. It brings a sense of identity and solidarity that school reformers are convinced are crucial elements in schools that work. Fullan (1993) refers to this philosophy as "vision." Vision unites a school with a bond of shared understandings and common language. It involves a commitment from parents, teachers, and administrators and provides an avenue where everyone can come together for reflective conversations based on a common goal.

Steiner first initiated Waldorf schools to counteract the current trend of the times, which was moving toward a more mechanistic, analytical, and purely intellectual educational environment. He believed that spirituality was a crucial component of a child's education. This spirituality approach was not based on any one religion, but instead referred to the spiritual nature of the human being and the divine spark in each child. Steiner held a particular interest in the education of children and saw schooling as a way to achieve social renewal (Sturbaum 1997). According to the formal brochures and literature, the philosophy of Waldorf schools is to create loving, compassionate students who love learning for its own sake. Waldorf schools are oriented toward assisting a healthy growth of head, hand, and heart.

> Steiner's philosophy of education … seeks to address the full and harmonious development of the child's spiritual, emotional, and physical capacities so that he may act in life as a self-disciplined and morally responsible human being. (Association of Waldorf Schools of North America 1992, 2)

What tends to make Waldorf education unique, is that this philosophy is deeply embedded within the curriculum and instruction. This will be further discussed later in the paper.

*Physical Environment.* For nearly a century, school learning environments have basically remained the same. The ethos of individualism and efficiency is reflected and nourished in most conventional elementary schools through their organizational structure and learning environment (Goodman 1992). School buildings are divided into several classrooms holding approximately 30 students and led by one teacher. It is an isolating setting that tends to support a competitive learning environment. In some cases, school environments are actually unsafe. Kozol (1991) tells of inner city schools with bad plumbing, pealing paint, and terribly insufficient resources. Is it any wonder that a large percentage of students attending those schools do not make it to graduation?

Fortunately, those involved in school reform are rethinking how learning environments should look and feel. Some, like those interested in brain-based research, believe schools should resemble the home (Hart 1983; Jensen 1997). Hart's research on brain-compatible learning environments, as well as Jensen's, has prompted certain educators to take a serious look at the way today's elementary classrooms are arranged and decorated. According to Hart,

> The ambiance of schools must be different from what we are used to from school experience.... The settings for brain-compatible learning must be as free from threat as possible, not simply by good intention but by inherent design." (p. 132)

CLASS (Connective Learning Assures Successful Students), a state funded educational project based in the Midwest, has introduced teachers to Hart's research on brain-compatible learning. One aspect of CLASS focuses on changing the physical environments of schools and classrooms. Classrooms are designed to resemble the home, incorporating items such as plants, curtains, rocking chairs, and candles. The absence of clutter is noticeable in these classrooms, which tend to keep brightly colored wall decor to a minimum.

Concurrently, the Waldorf philosophy believes classrooms should not be overstimulating so children can focus on what they are doing. Although colors may vary from school to school, classrooms are painted soft pastel colors (various colors for different ages, i.e., pastel pink for early childhood, pastel orange for first grade, pastel yellow for second grade), and are furnished and decorated beautifully—yet, sparingly. Fresh flowers, candles, plants, and low level lighting afford students an aesthetically pleasing environment that appeals to their senses.

The importance of beauty is also reflective within the classroom "tools"; manipulatives and toys in the

early childhood and kindergarten classrooms are made of organic and natural substances (wood, cotton gauze, and beeswax). The kindergarten/early childhood children are provided with materials for constructive creative play, rather than finished, human-made, and processed toys. Clouder and Rawson (1998) stress the importance of the environment within a Waldorf kindergarten classroom:

> The kindergarten teacher knows well that everything in the child's environment is his teacher. Therefore, the teacher's task is to create an environment worthy of the child's unquestioning imitation. The child instinctively places his trust in the world around him, copies it without hesitation, and thinks that all that surrounds him is truly good. (p. 22)

The Waldorf classroom presents an extension to the child's home, providing a calm sense of peace within the children. At the completion of each day, the Waldorf teacher arranges and rearranges the room, to better meet the needs of the children under his/her care. The Waldorf philosophy contends that teachers must be very conscious of the physical environment and the impression it makes on children.

For those educators seriously interested in changing their school's environment, a tour of a Waldorf school is suggested. Not only does the focus on aesthetics provide a beautiful setting for children, it helps students build a "sensitivity to subtle relationships, to harmony and balance that will underlie their sense of self, learning, life, and even a society to work toward" (Byers, et al. 1996, 40).

*Community through Continuity.* For years, conventional elementary schools have placed students in graded classrooms and handed them off from one teacher to the next, year after year. After fifth or sixth grade, students are sent to a completely different school, one that is highly departmentalized and possibly tracked. There is no sense of continuity for the children, which is sad because school is often the only stable place in many of today's children's lives.

In order to combat this disjointed experience, many educators are seriously exploring "looping." Looping, an idea that has been around since the one-room schoolhouse days, is a simple concept that has received a notable amount of favorable attention of late. According to Grant, Johnson, and Richardson

(1996), looping occurs when a teacher stays with one class for two consecutive years. Grant and his colleagues (1996) believe the looping strategy offers several advantages. First, teachers save time at the beginning of the second year when normally several weeks are needed to get to know the children and to review. But more important than the time factor is the relationship formed between teacher and students. "Our experience indicates that the most important variable in a positive elementary school program is the constant attention of a single teacher/caregiver with whom the child can develop a predictable and meaningful relationship" (Grant et al. 1996, 15).

Looping allows for greater partnerships with parents, as a sense of community is instilled with the parents (family), child(ren), and teacher. Relationships deepen as the teacher remains with the class each year, allowing teachers to grow with and more deeply understand their students. The strong child-teacher-parent bond also helps all involved work though problems instead of handing them on to a different teacher the following year.

Unlike conventional schools, Waldorf teachers ideally stay with their classes from first through eighth grade). Waldorf early childhood educators also stay with their kindergarten children for at least two years—if not for three years (Waldorf kindergarten is a two- to three-year experience). The children and teacher establish a community within the first year (first grade) and continue to grow and learn together throughout their Waldorf schooling. Relationships between students and teacher deepen with each passing year. Class teachers are responsible for the progress and academic growth of each student, giving the student in essence, a third parent (Ogletree 1970). The class teacher also provides continuity for children, continuity that is so often lacking in our disjointed world today.

Some may view the eight-year Waldorf cycle as extreme; however, the benefits teachers are experiencing from their two-year looping arrangements are only extended when teachers stay with their classes for an even longer period of time. Continuity, trust, and meaningful relationships are qualities often lacking in our schools today. One of the greatest

benefits of looping is the opportunity for kids to develop a loving, trusting relationship with an adult.

*Reflective Dialogue.* In conventional schools, the structure often does not allow for reflection. The isolated objectification of learning and the intensification of work leave very little time to be thoughtful about one's own pedagogy. As Michael Apple (1992, 426) so aptly states, "And as time itself becomes a scare commodity, isolation grows, thereby reducing the possibility of interaction and discussion among teachers to jointly share, critique, and rebuild their practices." How many teachers have commented over the years that teaching is a lonely profession?

For those involved in school reform, time to reflect and discuss are now being built into their school year. School reformers are changing the culture of schools to reflect "learning communities," where teachers are given common planning time, regular and frequent staff development days, and more input into the actual "running" of their school.

However, in Waldorf schools, teachers are *expected* to be conscious and reflective of their practice. At the close of each day the teacher reflects upon his/her interaction with the children, the lessons implemented during the day, and the "feel" of the day. This process, although not unique to Waldorf educators, is used by nearly all Waldorf teachers.

> The kindergarten staff spends hours in their kindergarten both before the children arrive in the morning and after they have gone. There are activities and materials to prepare, of course, but more importantly there has to be the right mood in the place. The staff often meets in the morning to say a verse together before making their presence felt in the rooms before the first children appear. Again, the staff often meets in the afternoons to review their day, and discuss with their colleagues each and every child an their individual day. (Clouder and Rawson 1998, 40)

Personal as well as collective reflection is important within the Waldorf schools. Weekly teachers' meetings allow Waldorf teachers time to share and reflect upon their classrooms and children. Dewey (1933, 9) defined reflective thinking as the "active, persistent and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it." Reflective teaching involves time and a commitment that is crucial for exemplary teaching and it appears that Waldorf teachers are up to this task.

Although changes are being made in public schools to give teachers more time for reflection, school reformers could learn even more by studying Waldorf education. Looping, attention to the physical environment, and reflection upon one's teaching are all structural elements found in today's reform-minded schools and each has its roots in Waldorf education.

## Curriculum and Instruction

Another essential element of any school is the curriculum and instruction used in each classroom. A school's curriculum and instruction has often been driven by tests created by outsiders who generally have no connection with the school (Sizer 1992). In conventional schools, rote memorization and skill building through drill and tests have been emphasized , along with mastery of pre-determined objectives (Sturbaum 1997). Knowledge is conceptualized as a product and instruction is sometimes seen as a problem of management. Reading, mathematics, and writing are often emphasized over reflective thinking, substantive content, and artistic and musical talent (Goodlad 1984). Teachers in most conventional schools have been limited to managing prepackaged instructional programs and are then held accountable for their students's success, measured only by state-mandated achievement tests. Reform efforts in the area of curriculum and instruction have been underway for several years. And we have chosen to concentrate on four particular aspects: integrated study, multiple intelligences, alternative assessment, and the teaching of life skills.

*Integrated Study.* Traditionally, students in school have learned subjects in an isolated manner, spending short blocks of time on one particular topic. Because of this segmented method of instruction, students have not seen the connections between topics, nor do the topics seem real to them. There is little time devoted to exploring subjects in depth, which causes children to only learn isolated facts. This way of teaching does not capture students' attention, nor does it speak to their soul needs.

As a reaction to the overly segmented ways that subjects have been taught, one of the most prevalent

ideas in school reform today is integrated studies. Variants include Bredekamp and Copple's *Developmentally Appropriate Practices in Early Childhood Programs* (1997), Robin Fogarty's (1993) well-know work on the integrated curriculum, and Susan Kovalik's (1993) Integrated Thematic Instruction. According to Armstrong (1994, 62), thematic instruction "cut[s] through traditional curricular boundaries, weave[s] together subjects and skills that are found naturally in life, and provide[s] students with opportunities to use their multiple intelligences in practical ways." Many schools across the country now offer theme-based instruction and an integrated curriculum.

In Waldorf schools, students do not learn in a fragmentary fashion, nor is the curriculum prepackaged. Waldorf education employs theme-based instruction through what is called the "main lesson." The main lesson is taught every morning for approximately two hours and focuses on reading and composition, mathematics, science, history, or geography. If, for example, a fourth grade class is studying fractions, they will spend two hours each day for three to four weeks on this topic. During the two-hour main lesson, nearly all other areas of the curriculum will be woven into the topic, including music, movement, art, storytelling, drama, and writing. As mentioned above, students do not learn in a fragmentary fashion, but in an integrated, holistic manner (Sturbaum 1997). Steiner was adamant about teaching children a curriculum in which all subjects connect and interweave, where nothing is isolated or in a vacuum, and where every part is a part of the whole (Reinsmith 1989).

*Multiple Intelligences/Learning Styles.* For nearly a century, there has existed a one-dimensional view of how to rate a person's intelligence. Success in school has been based on one's ability to solve problems from a logical and linguistic perspective. Fortunately, due to Gardner's (1983) theory of multiple intelligences, we have begun to move away from the traditional view of intelligence, which takes into account only the logical and mathematical ways of thinking and knowing. According to Gardner (1993), the conventional way of viewing intelligence is the ability to solve problems from either a logical or logical-linguistic perspective. These abilities in turn play a central role in school success. Unfortunately, this singular view of intelligence has left out many talented individuals and has caused them to be viewed as inferior or unexceptional.

Because of Gardner's work thousands of teachers and entire schools across the county now incorporate the theory of multiple intelligences into educational practice. Practical models on how to plan units and lessons using Gardner's theory exist for teachers, as do a myriad of articles in educational journals that tout the successful application of using the MI theory in the classroom. Yet it is difficult to find many schools that fully integrate this theory into their curriculum and instruction to the extent that is found in Waldorf schools.

Waldorf schools from their inception have offered a curriculum designed to nurture all of the intelligences defined by Gardner as well as those intelligences (such as spiritual) that are currently being considered. In a recent television appearance, Gardner noted that Waldorf schools fully embody the notion of multiple intelligences. According to Armstrong (1994), Waldorf education embodies in a truly organic sense all eight of Gardner's intelligences. Eisner (1994, 83) also believes that Waldorf schools "pay ... serious attention to the use of multiple aptitudes and the development of diverse forms of knowing." In every main lesson, children sing, recite verses, move rhythmically, draw, and listen. In addition to incorporating the many intelligences into academic subjects, Waldorf schools offer lessons in singing, painting, drawing, eurhythmy (movement to music and speech), instrumental music, handwork, woodworking, and gardening.

*Assessment.* A third aspect of curriculum and instruction is that of assessment. For many years, assessment meant tests which were seen as individual diagnostic instruments designed to measure how much knowledge (facts) students had memorized. If a student proved to be good at memorization, he or she would perform well on tests and, in turn, be successful in school. The process of learning was not regarded as meaningful; only the final product was considered important.

Alternative assessment, like integrated studies and MI theory, is now an integral component in educational reform. Many teachers have become just as

interested in the process of learning as they are in the final product. Countless hours are spent reviewing student portfolios and designing authentic means to check for students' understanding. State departments of education are requiring departments and schools of education to evaluate their future teachers through portfolios and performance-based assessment.

Waldorf schools have never used traditional means of assessment. Rather, teachers in Waldorf schools use authentic means of assessing their students. As mentioned above, at the end of each day, teachers spend time reviewing the curriculum, instruction, and interactions with students. These reviews are then written down on paper and are used at conferences in the fall and at the end of the year in a detailed narrative report. Marjorie Spock (1985) reflects upon the assessment culmination of a year within a Waldorf school:

> When a year of warm companionship and effort has drawn to a close, a kind of harvest festival is celebrated. The schoolroom is decorated with the fruits of the whole year's labor. Paintings make the walls bright; forms sculptured in wax or clay and carved in wood are grouped on shelves and tables. The rainbow pages of notebooks [main lesson books] lie open, showing maps, diagrams, texts, and illustrations. The products of handwork and carpentry fill every available space. There is music of flutes and voices, eurhythmy and a play suited to the season.

> On parting, the teacher gives each a child a letter in lieu of a report on the year's achievements. This is no cold, impersonal, printed piece of pasteboard with a row of marks to fill children with terror or gloating. It is a picture of the child, painted with all the skill of which the teacher is capable. She has taken the greatest pains in composing it. Such a letter is designed to make a deep impression upon the child who receives it, serving both as a milestone of progress and as a stimulus to further effort. (p. 132)

Assessment is ongoing in the Waldorf classroom. In addition to midyear and year-end narratives, students beginning in the first grade construct "main lesson books," which consist of drawings, stories, and other aspects of the main lesson. These main lesson books are akin to portfolios. Each year a student will make nine or ten main lesson books. These books, like a portfolio, show growth though time and are an excellent assessment tool.

*Teaching life skills.* When public education first began in our country, the majority of a child's day was spent reading, studying, and reciting religious passages. However, due to the implementation of the Constitution's separation of church and state amendment, religious studies were no longer considered appropriate in public schools. Most children were taught morals and values at home and schools were left to concentrate on academics. As our society has evolved and changed, fewer and fewer children come to school with the same set of morals and values that were apparent years ago. This has left the teaching of morals and social values to the schools, and although public schools are expected to teach social values, the question of "whose" values should be taught always arises. To bypass this situation, many reform-minded schools have opted to teach "Life Skills" and "Lifelong Guidelines." One aspect of the aforementioned CLASS project includes the teaching of both Life Skills and Lifelong Guidelines. Some of the Life Skills are integrity, caring, common sense, initiative, effort, perseverance, organization, flexibility, and pride. Lifelong Guidelines include truthfulness, no put downs, trustworthiness, active listening and personal best. Public school teachers do what they can with these programs, but for many it is difficult because time is simply not available. Furthermore, the language of Life Skills and Life Long Guidelines must be kept neutral and objective.

Yet some reform minded educators are taking the teaching of Life Skills a step further and are advocating that schools become more caring and compassionate. In Noddings (1992) masterful work on caring, she insists that schools should be redesigned to nurture the growth of caring, loving, competent, and lovable persons. In fact, Noddings presents an entire curriculum based on the ethic of care, which includes caring for the mind, the physical body, and the spirit.

Waldorf schools have the luxury of a curriculum already designed that integrates both Life Skills and Lifelong Guidelines. Caring is also an integral part of the Waldorf educational philosophy. By having the teacher and child stay together in kindergarten for two to three years, and then the following eight years

with a primary teacher, a deep, caring relationship is formed. Marjorie Spock (1985) reflects upon the caring role of the Waldorf educator:

> Not only must the teacher love and reverence his pupils; he must make himself worthy of being reverenced and loved by them. It is not what he knows, but what he *is* that affects the child most deeply, for children instinctively seek in their teacher a model for their own development. (p. 132.)

Waldorf philosophy stresses the importance of loving and respecting each and every child. Teachers also instruct their students to care and respect nature and one another. The curriculum and pedagogy is designed to nurture and care for the child in all ways—mind, body, and soul.

The curriculum at a Waldorf school is also designed to teach social values, and this accomplished in a truly organic way. Every morning students recite a verse that honors nature and offers thanks for the day. The stories that students hear each day throughout the year almost always include moral values that are brought to the children through archetypes so often found in the traditional folktales, fairytales, myths, and legends. These simple tales pose the hero or heroine in a difficult life situation, and then show how, through perseverance, honesty, and compassion, major obstacles can be overcome. Teachers also stress the connection between students and nature, and one with another.

## Conclusion:
## Call for Collaboration and Interchange

Countless times over the past several years, friends and colleagues have asked, "Just what is Waldorf education?" Because of questions like this, it is apparent to us that very few people involved in public schools and university settings are familiar with Rudolf Steiner and Waldorf schools. By comparing current reform efforts in public schools to the many positive aspects of Waldorf education, it is hoped that this paper will answer a few questions about Waldorf schools. However, we are in no way calling for a reproduction of Waldorf education like so many fast food restaurants. Rather, we are calling for people to learn from a very well established movement because it has so many similarities to current school reform.
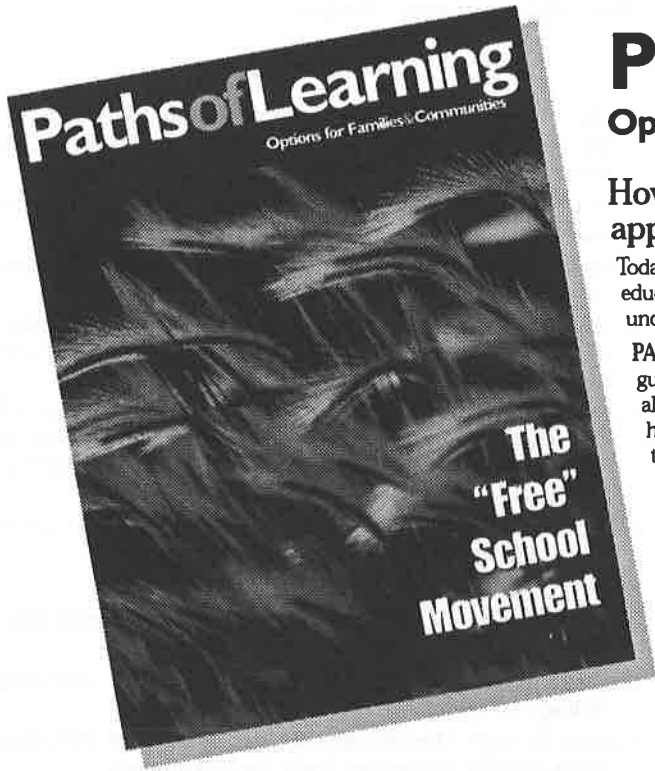
It is understandable why these two worlds have existed side by side and why Waldorf ideas have been kept separate: Like-minded people prefer to stay together. Yet this lack of interchange is unfortunate. We suggest that efforts be made by university faculty members to become more aware of Waldorf education. Currently, most education professors are looking at the theories of Dewey, feminism, and neo-Marxism, yet relatively few study and teach about Steiner's work. We challenge academia to take on Waldorf education at national educational conferences, such as the American Educational Research Association (AERA), the fall forum for the Coalition of Essential Schools, and the Journal of Curriculum Theorizing (JCT) national conference. Furthermore, those involved in school reform should attend Waldorf educational conferences. This is a call for an interchange of ideas. Educators interested in public school reform owe it to themselves to explore Waldorf education more deeply.

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# Book Reviews

## One Size Fits Few: The Folly of Educational Standards

by Susan Ohanian
Published by Heinemann (Portsmouth, NH), 1999.
Pp. 154. Pbk. $16.

### Reviewed by Josef Prögler

Despite proclamations of a post-modern era, of an age driven by information, many of the trappings of modernity drive Western civilization. Mechanization, reductionism, and rationality are pervasive in most of the supposedly newly emerging realities in Western science, technology, economy, and politics. The norms set in place by the Industrial Revolution, while a bit rusty and decrepit are still holding sway over many corners of the West, not to mention in its quasi-colonial fields of influence. One area that is stubbornly wedded to modernity is education.

It is still generally assumed in the West, and anywhere else where Western schooling has taken root, that schools are akin to factories, where students are processed to fit various needs of society. Entering as so many raw materials, children exit the other end of an elaborate mechanism lasting twelve or more years as manufactured products, ready to take their place in the larger machine of society. While there are exceptions to this model of education, most only prove the rule. The assumptions of industrialization and modernity are still alive and well in the ways that children are educated in Western systems. The discourse of business and manufacturing remains pervasive.

One assumption from mechanization found increasingly in educational discourse is that education can be standardized. A quick search of books in print, with the keywords "education" and "standards," will yield 300-400 titles, while searching for "standards" alone brings up nearly 3000 titles. The unifor-

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mity of the list is astonishing. With few exceptions, this plethora of recent books on standards is about celebrating and implementing them. There are books by politicians, corporate executives, and education technocrats, all endlessly extolling the virtues of standardized testing, standardized curricula, standardized methods, and standardized administration.

However, if one would care to look further into the midst of the chorus of support, a few interesting counterpoints do emerge. *Educational Freedom for a Democratic Society* by Ron Miller (1994) sounded the alarm against the rush to standardize. Another more recent title, *The Schools our Children Deserve* by Alfie Kohn (1999), is also strongly critical of standardized education. Though the voices are nearly drowned out by the din of the pro-standards tomes, their popularity with readers suggests that dissenting voices are gaining an ear. One interesting similarity, incidentally, is that the dissenting books are written by teachers, folks who have dedicated much of their lives to working in classrooms with children and teens.

Susan Ohanian, a longtime teacher of English and Language Arts in rural and urban schools from New York to California, weighs into the fray with her recent work, *One Size Fits Few: The Folly of Educational Standards*. The book is a compilation of essays about her trials and tribulations among the "Standardistos," the lock-stepping cadres who are behind the current standards movement in the United States. She pulls no punches in her hard-hitting, irreverent, and humorous denunciation of what she sees as the wrong-headedness of the rush to standardization in education.

Contrary to what is implied by the title, Ohanian does not impose a class analysis onto the standards movement. The "few" are not an elite segment of society whose norms are foisted off onto the masses. Rather, she makes a case that the standards are so detached from the lived experiences of most students, that in their rush to colonize every aspect of educational experience, the standards are in fact irrelevant

and do not apply to anyone at all, regardless of race, class, and gender.

She does attempt to describe who is behind the standards movement, but it is a relatively short treatment since any observers of American education know that it is a coalition of business and political interests driving the rush to standardize. Corporations want schools to take over job training, but with little economic support and with no attention to the broader role that schools can play in society. Ohanian's "Standardistos" include in their ranks people like Bill Clinton and IBM chief executive officer Louis Gerstner.

Once she establishes the who, Ohanian turns her attention to the what of standards, their content and substance. Drawing on her own experience, she provides several case studies of her students who she sees as "nonstandard kids," and reflects on what happens to those who are not standardizable. She then moves into a discussion of the way standards are intertwined with poverty and downward mobility. She suggests that rigid educational standards provide the poor with a means to recognize their own inferiority, and to quantify and justify inequalities that are not the result of education, but of corporate greed.

Additional chapters look at the male-oriented metaphors in the discourse of education, especially those emanating from sports, warfare, and technological medicine. She also includes case studies of standardized folly in New York and California, two of the leading states in the American rush to standardization. Ohanian concludes with the humble assertion that she is not arrogant enough to say she has the solution to all the problems she describes, but does suggest that one positive step would be to put more trust in students and teachers, and less in executives and politicians who have never seen a classroom.

Though she seems to keep up with most of the latest standards jargon and debates, Ohanian does miss a few crucial points. While she is endlessly critical of the "core knowledge" standards movement, she is less outspoken, or perhaps, less aware, of a parallel debate among the Standardistos and some of their less radical detractors. The "core knowledge" standards movement, headed by E.D. Hirsch, wants all American students to learn the same core set of facts. In *Cultural Literacy* (1983), Hirsch argued for a uniform set of facts that all Americans should know, the possession of which will help build a civilized and democratic society. While Ohanian rails against Hirsch's hubris, she misses some of the more subtle debates on standards.

For example, the "performance standards" movement is less concerned about what students learn, and more fixated on how they learn. Howard Gardner, whose theory of multiple intelligences is often seen as a liberating antithesis to the core knowledge movement, is a major proponent of the liberal-dominated process and performance standards movement. But in many ways, the liberal discourse is more insidious and seductive than the conservative content standards Ohanian chastizes, and no less damaging, with its mind-body split and fragmented interminability. Ohanian misses this distinction, and future volumes ought to work through the so-called liberal discourse on standards. In any case, given the paltry number of dissenting works against the rush to standardization in education, *One Size Fits Few* is a challenging work that ought to be read by anyone submitting their children to an American-style education.

## Poetics/Politics: Radical Aesthetics for the Classroom
Edited by Amitava Kumar
St. Martins Press, 1999, pp.280.
Reviewed by jil hanifan

### faultlines of the real

(reviewer's note: this is not a review. i have performed certain strategic ruptures attempting to emancipate the essays in this volume, decontextualizing specific (mandatory?) sentences, juxtaposing appealing fragments with

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the text of a letter, purported to be "a response to the unibomber's arrogant dismissal of language workers" by a friend of kumar, and which kumar includes in its entirety at the end of the introduction. citations, or in fact any effort to recontextualize the essay fragments, should be understood as a colonizing practice of recapture and political prosecution, an attempt to contain the radical possibilities of reading in order to defend and reinforce traditional and oppressive academic aesthetic and rhetorical constraints.)

/dear sir

/by insisting on the performative, i want to underline/before proceeding, please consider: this text is a powerful surveillance device/the importance of other practices, some more private/it tracks each movement of your eyeballs/but others emphatically more public/knowing you are reading these words at this moment/more spectacular/and then becomes a detailed map of where your eyes have been/more ludic/look back and see: those are the words you readjust now/and at other times/we have exactly the same sequence/more (or less)/in our files/artful.

we act/are you reading this?/and have to act as/are you reading THIS?/if mischief were not/well you MUST be reading this/afoot in the kingdom of the real and/otherwise how could you know/that all around the ground/what is written here/lay firm.

in these rare moments/this text understands/political struggle/and anticipates your contempt/becomes an aesthetic event-/-and your amusement at these very words-/unplanned, unadministered, unanticipated/and also: the little tingle at your web's edge/new collectivities of configurations/crossing the synapse/of bodies/between this page, your eyes/are formed/infected with a kind of virus/that elude/that attaches to your sense of your immunity/the instrumentalizing grasp of politicallto the harmlessness of these/"theory"/and any words:/and that may break up/don't worry: there's no need to read on or to stop/as easily as they have congealed./since the explosive device has already been triggered/arguments about/(the syntax, length and speed of the preceding sentence/the inevitably untenable and dissatisfying status/was adjusted to deliver/of art are thus/the device/as i will attempt to explain/go back arid look/more fully below/we

don't think that you can locate it)/a type of ethical theater.

/these words/his own effigies/have reached you/were of course/where the police/somewhat different -/have failed/texts rather than figurines./you have sadly underestimated

us/the problem of troubling categories is/we knew you would/that the act forces a realignment/WE won't betray you/in the direction of indeterminacy/to the Forces of Control/a fall down the rabbit hole/whose tool you are already/to a place where conventions/only they and you don't know this, and all things being equal/are overturned/and that's the way we like it/and the training in a field found/we can even tell you so (it's what we call/inadequate./"the revelation of the device") without your knowing./

perhaps/see, we have just told you/it is not the ritual/but do you understand/but what leaks from it/that's precisely the point/that can be called poetic.

thus, in part,/the text is just a mirror where you watch yourself explode/because of the guarantees of tenure,/your sense that you have survived the reading/we share the economic logic/of this text intact/of the 1980s and early 1990s:/will be the cue that we have gotten through/downsizing, flexible staffing, elimination of full-time workers,/(this is what your scientists/ who are replaced by part-timers and adjuncts./call an "unfalsifiable theory")./

/you'll go about your work in a changed world/ when my seminar students first encountered this poem/like a japanese soldier hidden in a cave/they were repelled/living and dying and never knowing/by its naked political address,/that the war had ended many years before/its seeming lack/ you and your enemies are part of a conspiracy/of verbal subtlety,/to keep you from knowing/ and its bombastic assertions.

briefly, i want to suggest/our textual virus is a version of those "small, completely autonomous units"/that the new space involves the suppression of distance/that you have dreamt about/(in the sense ofbenjamin's aura)/and that we have learned to manufacture./and the relentless saturation/using a self-referential technology (sometimes called "poeticity")/of any remaining voids and empty

places,/we are able to empty a message/to the point at which the postmodem body -/(such as this one)/whether wandering throughlalmost completely of content/a postmodern hotel, locked into rock soundlby turning back on itself/by means of headphones,/producing a set of small singularities/or undergoing the multiple shocks and bombardments of the vietnam war as michael herr conveys them to us - is now exposed to a perceptual barrage/that alter the local structures of meaning./of immediacy from which all sheltering layers and intervening mediations have been removed.

it was a brochure, promotionallthe notion that technical specialists are distinct from nontechnical and "harmless' intellectuals/letter, and order forml(as you mentioned in your letter to the times)/for something called Sentimental Souvenirs School Days Keepsake Collection of Memories Systems/was installed in you in the late eighteenth century by some of our predecessors/ a local business/binary opposition technology/as the letter explained/is well known to us/"specializing in the Packaging of Memories."

/if there were two kinds of people in the world/for the powers gained by/those who divide people into two kinds/the left academy/and those who don't/are not all of its own making;/you would be one of the former./they are/but there are not/in some measure borrowed/we installed this technology ourselves/from an institutional hierarchy that allows radical teachers/we let the binary virus loose/to operate/and it insinuated itself everywhere/but also renders them the objects of student resistance/massive structures, including your own cognitive apparatus/even when the class/were built around it and/claims to act on the students' behalflcompletely dependent on it/(for which class does not?).

french syndicalism's metaphor/we taught you everything you know/of "boring from within" - small "militant minorities"/but we didn't teach you everything/winning over those silenced inside large organizations/WE know/is pictured here/we have a saying that the bricoleur/with bargeld screaming into the bullhorn/invented the engineer/and the other neubaten beating "metal on metal."

if the first pedagogical task is to shatter/it would be suicide for you to try to dismantle yourself7the safe, rational distance/and put yourself back together/between the viewer and the act of violence/to extract yourself fromlthe second pedagogical task/these technologies: what would be left/is to create a space/to put you back together/in which invisible phenomena about/when you had been dismantled?/war can be seen./transplanting your own brain would be simple

by comparison/the whole joint/have you noticed how every sentence/ was going up in smoke.

/seems to stand on its own/viewed from either of these perspectives,/as though it may or not be connected to the surrounding sentences?/it would appear/that is because we have written this text/that punk manifested a dangerous nihilism:/around the set of singularities that we mentioned earlier/all it could seemingly affirmlyou might say their phenotype, their carrier./was pure nothingness.

this voice/the patterns of gaps-in-play that we have woven into this text/interrupts a private code of poetry/(those little moments of blankness you have felt while reading this text/and joins other efforts/where you seemed to lose the thread for a moment/that in other ways lead to a questioning of the institutions that/will always both enable and disable your dream of a world/limit, with their narrower, interested definitions/comprising "small completely autonomous units/of the aesthetic,/(which, by the way, was implemented in you by some of our double agents:/not only poetry/democritushbut also the lives/newton/and the people/leibnitz/behind that poetry/mill.

this partnership/your life and your work and your world, like those of your enemies/was about aesthetics/is like a ouija board on which one had is the planchette/being sharpened/may be yours but the other is your enemy's, and the message is ours/as communication and politics/we have responded, here, to the questions your life keeps posing you in ways you and your enemies/emerging as pedagogy./cannot by definition comprehend: the machine phylum crosses us all/

learning was no longer only/your machines are only means/about constituting the self in private contemplation of letters;/but our machines mean/it

was a type of teaching/and this text/in which we were trying very hard to learn/proclaims our monstrous victory/to do better to say "you"/over you/ and "we"/and your beloved and despised technocrats/instead of "i."

/always
the unipoets/

# Understanding Homosexuality, Changing Schools

by Arthur Lipkin

Published by Westview Press, 1999 (504 pp)

## Reviewed by James T. Sears

In the mid-eighties, when I first began research on lesbian and gay students, there were only a handful of articles available for teachers, counselors, and administrators. No national educational associations had adopted any resolutions regarding gay and lesbian youth. And, Program's like Project 10 at Los Angeles' Fairfax High School and New York City's Harvey Milk School were just beginning.

As we enter the new century, the educational landscape has changed dramatically. Well-respected journals like the *Harvard Educational Review* and *High School Journal* have devoted entire issues to this important topic, hundreds of GLSEN chapters are operating in schools throughout the country, every major national educational association has a lesbian or gay caucus, several states have written prohibitions against discrimination based on sexual orientation into their educational law while scores of school districts (albeit mostly suburban and liberal) have undertaken long needed reforms, scholarly books[1] and articles on queer issues in education are crowding once empty bookshelves, and openly gay citizens serve on school boards as many states (the South excluded) have become more welcoming to queer teachers.

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Crossing the threshold of the new century, are we on a threshold of ending homophobia and heterosexism that have plagued public schools? If we are, then it will be largely the result of practitioners like Arthur Lipkin who has produced a wonderfully written, cogently argued, and well-documented synoptic text for social justice educators.

The strength of *Understanding Homosexuality, Changing Schools* is its encyclopedic breadth matched with a grounded understanding of the process and politics of school change. Lipkin's work can be conceptually divided into two sections. The first seven chapters provide a foundational understanding of homosexuality. Here various genetic and psychological theories of the etiology of homosexuality, sexual identity formation and the origin/impact of homophobia and heterosexism, competing schools of academic discourse within gay studies, and gay history are presented in a refreshingly lucid style.

In addressing the simply stated yet complex question: "What makes people gay?" Lipkin spends little time with psychological theories that in the hands of psychoanalysts, like Irving Bieber and Charles Socarides (whose homophobia may be a projection of guilt associated with having his own gay child), dominated popular understanding and public policy about homosexuality well into the early seventies when the American Psychiatric Association finally removed homosexuality from its list of abnormalities. More emphasis is properly placed on the emergence of genetic and hormonal research into the origins of homosexuality. However, Lipkin wisely cautions the reader that these studies, too, are conducted within political, personal, and ideological contexts:

[C]ultural and political orthodoxy infects the pursuit of scientific knowledge. Individual prejudices and neuroses play a role as well…. If a group observes something atypical and, for its own socially dictated reasons, labels it repulsive, an intense interest in its cause is likely to evolve. (p. 43)

Thus, the preoccupation for a scientific explanation (justification?) for homosexuality parallels the political emergence of other marginal groups such as African Americans who have suffered at the hands of scientific objectivism (e.g., *The Bell Curve*) or who have had to provide counter scientific research to legitimize their argument for equal treatment before

the law (e.g., *Brown v. Board of Education*). Lipkin asserts that "the chief concern for educators, however, is not the source of the inclination, but rather what allows it to be expressed…. [while] experts should be investigating the etiology of the fear and repression of homosexuality" (pp. 44-45).

This sweeping review of research and scholarship in the first seven chapters, of course, results in areas that suffer from Lipkin's light brush—although most chapters, like gay history, offer an extensive reference list that should satisfy most educators. Notable, however, is the near absent perspective of "queer" theory and scholarship which reshaped scholarly thinking during the nineties and promises to inform educational practice during this decade.

Queer theory is not, as implied in fleeting phrases in *Understanding Homosexuality, Changing Schools* (e.g., pp. 14 and 29), a linguistic substitute for gay and lesbian studies. While the latter uses traditional academic disciplines to inquire into lesbian and gay issues, the former is interdisciplinary, investigating the intersections of gender, sexualities, and identities in relationship to culture and cultural studies. In short, queer studies is to gay studies as hip-hop is to disco. Gay studies rose out of Stonewall resistance to the hegemony of heterosexual scholarship, much like disco rose out of New York City culture against the prominence of FM rock. Hip-hop, on the other hand, is a post-modern pastiche, samples and images ripped out of their social context and put into a new context.

Thus, rather than talking about gays and lesbians (Lipkin's discussion of transgender persons is limited), one thinks in terms of the (re/de)construction of these identities within cultural context objectified by language and made meaningful by human narrative. From this perspective, the semiotics of sexualities is a more critical inquiry than the etiology of [homo]sexuality.

Queer theory is more than a mere intellectual exercise among academics engaged in a modern version of Hesse's "glass bead game." There are curricular and pedagogical implications for those who apply queer theory into practice. Compare, for example, Lipkin's broad-ranging discussion of "multiple identities" (in this example, gay and Asian American)

via-à-vis Kevin Kumashiro's analysis of Asian queerness.

"Being ignored or disgraced in one's native community and racially oppressed in the white gay world," writes Lipkin, "make it hard for a gay or lesbian Asian American to develop an integrated sense of self" (p. 134). Kumashiro offers a "critical reading strategy" that goes beyond this "additive model of oppression," arguing that the experiences of queer Asian American boys cannot by captured by, and are more complex than, the sum of Asian American and queer experiences."[2] He advocates that educators do more than simply read queer Asian American masculinities and sexualities through a "cultural lens (which gazes outwardly), but a critical lens (which critiques within). This criticalness requires that educators bracket the "common sense" understanding of "naturalized" racial and sexual identities that racializes Asian or Asian American queer sexualities as White and essentializes queer or Asian identities as Western.

Although Lipkin offers a more traditional reading of the relationship among sexual orientation, race, social class, and ethnicity, their inclusion is praiseworthy as is his acknowledgment of their problematic status:

Individuals with same-gender desires from various racial, ethnic, religious, and class groups may find it problematical to adopt a modern Western gay, lesbian, or bisexual identity. And if they do embrace it, they face the prospect of forging their multiple identities into a new coherent self…. If coming out means leaving their familiar minority community, they grieve the loss of a habitual refuge from bigotry and dehumanization, along with heterosexual privilege and predictability. (pp. 117-118)

The most significant contribution of *Understanding Homosexuality, Changing Schools* is the second seven chapters. Here Lipkin poses and addresses critical educational questions, such as: How can school personnel ease the psychological growth and adjustment of queer youth? What is the legal status of lesbian and gay teachers? How do homosexual teachers manage their identity and at what personal/professional costs? What do we know about gay/lesbian families and what can schools do to "make school life joyful" for them? What types of

school-based reforms are needed (or have been implemented) and how can such transformation occur? In what ways can the scope and sequence of the school curriculum be modified so that it is inclusive of sexual minorities?

Lipkin's discussion of school change is illuminative of the skillful blending of theory and practice found in these chapters. Recognizing that change must include the individual, strategies for altering prejudicial beliefs include appealing to reason and encouraging *effective* contact. At the school level, he contends "antiprejudice interventions have the greatest chance of success in classroom with an ethos of justice, caring, and mutual endeavor" (p. 240). Educational institutions that model cooperating and democratic learning, for example, develop a threshold of skills and traits among students conducive to empathetic understanding and social equity. More direct strategies such as imposing expectations for fairness or enforcing rules that forbid and punish homophobic harassment are also critical. "Effeminate males and butch females," argues Lipkin, are a "litmus test of a school's acceptance of diversity" (p. 241). He is aware, however, that such pronouncements are easier made than accomplished:

Transforming beliefs is not a short-term project. Nor is it achieved without sparking antagonisms, but schools must not retreat when the process becomes difficult. (p. 244)

Lipkin provides a variety of school-based examples of how educators, parents, and students variously have resolved such issues while addressing critical issues such as power inequities, public expression of personal convictions, and the desirability of presenting "both sides." He ends this chapter by providing a useful checklist of "What One Teacher Can Do" that include low risk, some risk and greater risk activities:

*Inform Yourself About Gay/Lesbian People and About Homophobia*

- Low Risk: Learn about gay/lesbian history, culture and current concerns by reading
- Some Risk: Have conversations with openly gay/lesbian people
- Greater Risk: Engage heterosexual people, including your family and friends, in discussions of homosexuality/homophobia

*Create a Safe and Equitable Classroom*

- Low Risk: Use inclusive language (for example, "parent" rather than "mother;" "date" rather than "boyfriend" or "girlfriend"
- Some Risk: Challenge homophobic language and name-calling
- Greater Risk: Use gay/lesbian curriculum

*Create a Safe and Equitable School*

- Low Risk: Be a role model of acceptance
- Some Risk: Work to form a gay/straight alliance and/or support group for gay/lesbian students
- Greater Risk: If you are gay/lesbian/bisexual, come out to the school community (pp. 260-262)

*Understanding Homosexuality, Changing Schools* provides a wealth of resources and practical insight for educators who seek to foster students' sense of personal meaning and social justice. Engaging in style and substantive in detail, Lipkin has produced a work that deserves to be studied and shared (not simply placed prominently on a bookshelf). And, it is a book he hopes "will one day be read as curious historical artifacts of an unenlightened age," (p. 367) as we progress into this new century.

### Notes

1. Some excellent edited anthologies include: Fuss, D. (1991). *Inside/out: Lesbian Theories, Gay Theories.* New York: Routledge; Morton, D. (1992). *The Material Queer.* Boulder, CO: Westview; Pinar, W. (1998). *Queer Theory in Education.* Mahwah, NJ: Lawrence Erlbaum; Warner, M. (1993). *Fear of a Queer Planet.* Minneapolis: University of Minnesota Press.

2. Kumashiro, K. (1999). Reading Queer Asian American Masculinities. In W. Letts and J. Sears (eds). *Queering Elementary Education,* p. 67. Lanham, MD: Rowman & Littlefield.

# Response to Joseph Pearl's Review of *Education and the Soul*

## John Miller

In the Summer 2000 issue of *Encounter* Joseph Pearl has reviewed my book *Education and the Soul*. Since he is critical of the book, I feel the need to respond to his comments. The first criticism that he makes concerns my overview of the religious and philosophic concepts of the soul. He suggests that these summaries are of not much use to the reader because of their brevity. *Education and the Soul* is primarily intended for practitioners so the purpose of this section is to provide background and context for the more practical material to come. It is clearly beyond the scope and objectives of the book to provide more detailed descriptions of the various conceptions of soul.

A more serious criticism comes when he states that my definition of soul is "hopelessly vague." Pearl just cites my introductory one sentence definition in Chapter One and ignores the more comprehensive definition which comprises six pages of text (pp. 23-29) in Chapter Two. This section also includes a definition of spirit and soul as I outline four main aspects of soul. Pearl makes no reference to this more detailed conception.

Pearl then goes on to state:

> Miller offers as examples of the growing influence of soul in the modern world "certain political leaders who are infusing spirituality in their approach to politics" (p. 7). To take a few of Miller's examples, it does certainly seem to be the case that the Buddhist political leaders Aung San Suu Kyi, of Burma, and the Dalai Lama do not separate their political lives from their spiritual lives, but I doubt that he'd look with equal favor on the Islamic theocracy of the Taliban in Afghanistan. (p. 59)

Pearl ignores the distinction that I make about religion and spirituality (p. 142). The Islamic theocracy is clearly an example of a religious-based approach rather than a spiritual perspective so again his point is off the mark.

Perhaps Pearl's biggest confusion arises concerning his understanding of holistic education. First, he asserts that *Education and the Soul* represents a broadening of perspective beyond my previous work in holistic education. He then cites just one quote from

Chapter Seven and asserts that my work comes from a "humanistic/holistic" perspective that dismisses spirituality. To take one quote and then make a sweeping generalization about the book I believe is problematic in itself. By inference he is also implying that holistic education does not address or include spirituality. I agree that humanistic approaches generally ignore spirituality but perhaps the *defining* aspect of holistic education is the focus on spirituality. For example, Ron Miller in *What are Schools For?* notes that "A basic premise of holistic education is the belief that our lives have meaning and purpose greater than the mechanistic laws described by science.... This transcendent purpose is creative, self-guiding energy which we ought not attempt to suppress"(p. 154). Because holistic education by its very definition focuses on the whole including the spiritual, *Education and the Soul* is not really a broadening of perspective. Instead, in the *Education and the Soul* I am attempting to elaborate on this crucial aspect of holistic education through the concept of soul.