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Education for Meaning and Social Justice

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Building a New Vision of "Public Education"

Daniel Grego

When we really appreciate the fact that every child is unique, we will realize that schools are only *one* of the many tools that are available to educate our children.

I have never let my schooling interfere with my education. (Mark Twain)

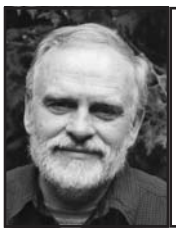
The schooling establishment has become a major threat to education. This is especially true when it comes to secondary education. Some critics argue all we have created is the world's most expensive baby-sitting service.[1] Others, who view schooling as less innocuous, describe it as a gigantic machine that sorts the strong from the weak, the more intelligent from the less gifted (Spring 1976). This machine allows us to separate those who will end up running the banks and insurance companies from the those who will mop the floors after all the important people have gone home.

In many large, urban school districts, for every ten bright, curious, enthusiastic children who enter the System, only five emerge with high school credentials. Many of those who do graduate leave with their heads asleep. Before and just after World War II, the labor market was able to absorb most of the dropouts, but the economy has changed and schools have not. Adolescents still leave in droves. Why is that?

Schooling fundamentalists and their apologists blame the students. While it is considered offensive and racist to suggest students fail in school because they are on the wrong end of "the Bell Curve," it is perfectly acceptable among the schooling establishment to attribute school failure to the economic circumstances of the students and their families. There is a correlation between economic status and school success, but no one has demonstrated a *causal* relationship. If poverty *caused* school failure, no poor person would ever graduate.

A story from Greek mythology suggests another explanation for the dropout problem. There was a gi-

Note: Two additional background papers by the author are also available to subscribers online at www.great-ideas.org /Encounter/GregoCall.pdf and www.great-ideas.org /Encounter/GregoChanging.pdf



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ant named Procrustes who made a habit of robbing travelers near Eleusis. He also insisted his victims sleep in an iron bed, which they had to fit exactly. Anyone too tall had his or her legs sawed off. Anyone too short was stretched on a contraption like a rack. Most high schools are Procrustean beds. Some students fit in and succeed. Many more, however, apparently do not appreciate having their legs sawed off.

Several years ago, a prominent politician, concerned about the large numbers failing in Milwaukee's high schools, asked a group of "at-risk" students, those most likely to quit school, why so many of their peers dropped out. There was a brief silence. Finally, one young man responded: "I think you're asking the wrong question. Given what high school is, the question you should ask is: Why anyone bothers to stay?" After further reflection, he added: "I guess some people just tolerate high school better than others."

Was this young man exaggerating? Are the students who survive high school just tolerating it? Consider the comments of social psychologist, Elliot Aronson (2000, 15), who studied American high school environments after the shootings at Columbine High School in Littleton, Colorado.

> From my classroom research, I have found that the social atmosphere in most schools is competitive, cliquish, and exclusionary. The majority of teenagers I have interviewed agonize over the fact that there is a general atmosphere of taunting and rejection among their peers that makes the high school experience an unpleasant one. For many, it is worse than unpleasant — they describe it as a living hell….

Young people are forced to endure this unpleasantness because schools are temples of learning, right? Roger Schank (2000, xiii-xiv), the director of the Institute for the Learning Sciences at Northwestern University, does not think so.

> From elementary school to college, educational systems drive the love of learning out of kids and replace it with the "skills" of following rules, working hard, and doing what is expected…. We all learn in a very specific way, and the method schools use is antithetical to this learning model.

Schank (2000, 21) goes on to say "Everyone knows that our schools don't work, though not everyone is willing to admit it."

Leon Botstein, the president of Bard College, is willing to admit it. In fact, he is rather blunt about it. "The American high school is obsolete," Botstein (1997, 79) writes,

> It can no longer fulfill the expectations we legitimately place on it. It offers an inadequate solution to the problem of how best to motivate and educate American adolescents.

Bill Gates echoed this sentiment during his keynote address at the National Education Summit on High Schools held in Washington, D.C. on February 26, 2005. "America's high schools are obsolete," Gates declared. "By obsolete I mean that our high schools — even when they're working exactly as designed — cannot teach our kids what they need to know today."

It is time to admit that the System is obsolete. Many of the current proposals for "education reform" are merely calls for more of the same: more standardized testing, longer school days, longer school years. The American Federation of Teachers has even proposed extending high school an additional year. Some people apparently think the way to solve the dropout problem is to sharpen the saws and grease the gears of the rack. It is time to stop the insanity. If public education is going to improve, it must change.

A New Vision Needed

We need a new vision of public education. For the new vision to emerge, we must understand, as the epigraph from Mark Twain makes clear, that "education" and "schooling" are not synonymous. So we need to define some terms.

Education is the process by which people become responsible mature members of their communities. Or put another way, *education* is the process by which a community points the learning of its members toward its conception of "the good." *Community* is a word that is often used without a precise definition. A *community* is a group of people who practice together the arts of living, suffering, and dying in a particular place. However, for communities to function well and remain healthy, they must be limited in

size. The concept is like a balloon: pump too much into it and it will burst.

The frequently invoked African proverb "It takes a village to raise a healthy child" speaks to the importance of communities as the proper context for the educational process. You will notice, however, the proverb does *not* say, "It takes a village to create a System to raise a healthy child."

Milan Kundera (1988, 163) claims that one of the greatest ills facing the contemporary world is what he calls "the modernization of stupidity." In premodern times, stupidity implied ignorance, "a simple absence of knowledge, a defect correctable by education." In its modern form, stupidity is something else. It is "not ignorance but *the nonthought of received ideas*." Ironically, the field of education is as rife with this "nonthought" as any other. One example of modern stupidity is the proposition that systems can replace communities.

This is where we took a wrong turn. Somehow, we convinced ourselves that the division of labor used to manufacture pins or widgets most efficiently could be applied to education. So, in our approach to schooling, we tried to create what historian, David Tyack (1974), called *The One Best System* and inserted it between our communities (the villages) and education (the raising of our children). But children are not pins or widgets. Systems cannot substitute for communities. When learning is separated from the life of a community, education becomes impossible. If communities are falling apart or nonexistent, then education becomes impossible.

The myth that must be debunked, therefore, is that schools educate children. They do not. Communities do. Schools are only tools that communities can use as part of the educational process. The responsibility for education belongs to the entire "village."

This is not a new idea. It used to be plain common sense. In 1839, Orestes Brownson wrote in the *Boston Quarterly Review* that

> Our children are educated in the streets, by the influence of their associates, in the fields and on the hillsides, by the influences of surrounding scenery and overshadowing skies … by the love and gentleness, or wrath and fretfulness of parents, by the passions or affections they see manifested, the conversations to which they listen, and above all by the general pursuits, habits, and moral tone of the community.

When we clearly distinguish *education* from *schooling*, when we understand that schools are only *one* of the tools communities use in the educational process, we can begin to ask ourselves new questions: What are we trying to do? Are we using the right tools for the task? Do we have enough different kinds of tools to get the job done well? Does everyone have equal access to all the tools? Have we kept our tools within appropriate limits? Has any tool become counterproductive? Are different tools needed for different students?

Wendell Berry (2003, 184) recounts a conversation between a well-known, highly respected horse trainer and someone curious about his methods. "How do you train horses?" the latter asks. The former replies, "Which one do you have in mind?" If such a response makes sense for horses, then surely, given the complexity of human development, the answer to the question "How do you educate children?" must be "Which one do you have in mind?"

Instead of beginning with the pernicious abstraction of the average child and sorting students into the "gifted and talented" at one end of the Bell Curve and those in need of "special education" at the other, we need a vision of education predicated on the belief that every person is special and has unique gifts and talents. Since no two children are identical, there cannot be *one best way* to educate all of them. Our new vision must include enough diverse learning environments so all students can choose the ones in which they will flourish.

"Learning environments" is the right phrase. Children learn all the time and, as Brownson noted, in many different places. People do not need schools in order to learn as hundreds of thousands of homeschooled children demonstrate every year. Among the many tools that contribute to education are libraries, museums, science and nature centers, zoos, parks, fairs, carnivals, the media, the internet, travel, summer camps, and swimming, dance, and music lessons. Apprenticeships and internships are at least as effective learning tools as classrooms.

Just to be clear, schools are not buildings. *Schools* are intentional gatherings of people to promote certain types of learning. A building could house more

than one school and a particular school could meet in more than one building, or on a beach, or on a bus.

Principles of a New Vision of Public Education

All Children (and their Families) Are Part of "The Public"

Adolescents who find large, comprehensive high schools intolerable and who drop out are still part of "the public." Children who attend private schools are still part of "the public." Families who decide not to subject their children to the System and whose children learn at home are still part of "the public." Keeping communities healthy and guiding young people on their way to responsible maturity are tasks for all of a community's members. We should dismantle the walls that are keeping us from working together.

"Public Education" is Any Learning Opportunity Funded by Tax Revenues

A young person who attends a seminary with support from a Pell grant is participating in "public education." A marine recruit learning to operate radar equipment is participating in "public education." Inner city adolescents engaging in "youth development" activities at a community-based organization are participating in "public education." A poor family using a voucher to send their children to a private school is participating in "public education."

The interests managing the System equate "public education" with an obsolete monoculture that, for too long, in most places has held a monopoly on public funds. These folks have spun any attempt to diversify educational opportunity as an attack on public education. This charge is nonsense. It would be like saying anyone advocating for anything other than a two-hand set shot was attacking basketball. Breaking up the monopoly will be absolutely necessary for a new vision of "public education" to emerge.

The Entire Community Must Acknowledge Responsibility for the Educational Process

For the entire community to contribute to the educational process, we need a diverse ecosystem, or what Paul Goodman called a "mixed economy," of learning environments. We should be educating all of our children using all of the tools at our disposal.

In Milwaukee, there are now various ways schools can be supported inside the traditional Milwaukee Public Schools district, in partnership with the district, and outside the district. Most of these new options must be considered "public schools" since they are either operated or authorized by public bodies: the school board, the city government, the state university system, and potentially the vocational/technical college. Even some private schools become part of "public education" when parents are able to access them with vouchers through the Milwaukee Parental Choice Program (Grego 2011a).

Every step in the process of building this new vision of public education has been viciously opposed by teachers unions and their supporters. They tried to block the new vision in the state legislature, stall the new vision in the courts, and continually attempt to confuse people with misinformation. They have made one false or misleading claim after another. They have used their political clout to impose caps and other impediments to the open, dynamic, flexible new vision we need.

There is an irony in this opposition because there is nothing inherently "anti-union" about the new vision and it may even provide opportunities for unions to increase their influence (Grego 2011b).

An enormous amount of time, energy, and money has been consumed defending the new vision from these attacks. The resources employed, both to attack and to defend the new vision, could have been devoted to improving it, to helping it grow, and to ensuring that every family could take full advantage of the new options.

Adequate Resources Should be Equitably Distributed to All Children

Public education should not be structured to increase private privilege. This principle has had no greater champion than Jonathan Kozol, most notably in *Savage Inequalities* (1991). However, Kozol relegated to his endnotes the serious discrepancy that exists in how resources are distributed to schools depending on the size of the district in which they are located. Some schools, in suburban and rural areas, are systems unto themselves. Nearly all of their resources directly support students and teachers. In large urban districts, half, and in some cases more than half, of all

resources are siphoned off to maintain mammoth bureaucracies that add little benefit to the educational process. Given the potential of modern information technologies, we have to consider the possibility that school districts are now obsolete.

All Families Must Have Equal Access to All of the Tools a Community Uses to Educate its Children and They Must be Able to Choose Among Them

School choice has been demonized by some people who think of themselves as "progressives." However, Herbert Gintis, who with Sam Bowles (1976) wrote *Schooling in Capitalist America*, is one leftist with impeccable credentials who has reconsidered his position on school choice. In his foreword to *The Emancipatory Promise of Charter Schools: Toward a Progressive Politics of School Choice*, Gintis (Rofes & Stulberg 2004, vii-viii) writes:

> Everyone knew that school choice was a conservative plot to finance the private education of the well-to-do, to bleed the public schools of needed revenue, and to add one more roadblock against the struggle for social equality. Indeed, when I started writing about education in the 1970s, I shared this view. Not that I had ever really thought about the matter. I just knew that if Milton Friedman (the conservative University of Chicago economist) was for it, and if the teachers unions were against it, I must be against it, too.
>
> Well, we were all very wrong.

Gintis is acknowledging he had succumbed to "modern stupidity" and also to what Wendell Berry (2003, 155) calls "the rules of political correctness":

> We must decide whether to deal with [an] issue according to the rules of political correctness or according to the rules of critical discourse. The enterprise of political correctness deals in the political merchandise of general categories, invoking judgment without trial, whereas critical discourse must try to deal intelligently with the fact that people who are wrong about one thing may be right about another.

Just because Milton Friedman is wrong about a number of issues does not mean he cannot be right about vouchers. In the end, Alan Wolfe's (Viteritti 1999) comments about school choice seem irrefutable:

> If middle class parents were unable to choose schools for their children, there would be no need for vouchers. But because they can, America, if it is to be a just society, has two alternatives: it can forbid the middle class to move to the suburbs or use private schools on the one hand, or it can allow poor and working-class parents school choice on the other. Since the former is impossible, the latter is inevitable.

It is time for people on the left to overcome "the nonthought of received ideas" and admit that giving poor families resources is a progressive public policy.

Schools Must be Small Enough so that Every Student's Gifts and Talents can be Recognized, Utilized, and Appreciated

As E. F. Schumacher (1973) observed, there are inherent thresholds in the scale of any human activity that, when surpassed, produce effects that undermine, if not destroy, the ends the activity was designed to achieve. Limiting the size of schools is critical, especially for adolescents. Ted Sizer (2004), the founder of the Coalition of Essential Schools, has repeatedly asserted that to teach adolescents well, adults must know them well. Past a certain threshold, it is impossible for schools to foster the close, personal relationships that help adolescents make the transition to adulthood.

Schools must be small enough so that everybody can be a somebody and nobody is a nobody (cf. Fuller 2003). We have to stop telling our teenagers that our children are our future. They are here, right now. If adults do not ask adolescents to use their energy to better their communities, they will often use it in other, less desirable ways. When young people are *treated* as if they matter, they will begin to *act* as if they matter: a crucial step in the process of reaching responsible maturity.

Schools Should be Held Accountable for the Outcomes They Achieve

The folly of judging schools by their adherence to prescriptions should be apparent to everyone by

now. Traditional inner city public schools are staffed by teachers with the required licenses and credentials, are accredited by the recognized authorities, comply with all local, state, and federal regulations, and yet still fail more than half their students. Relying on prescriptions is a bureaucratic strategy to promote standardization, which ironically undermines attempts to reach high standards. Standardization is antithetical to the new vision of diverse options we need.

If schools meet in buildings, the buildings should be safe. All public funds should be appropriately spent and accounted for properly. Beyond that, we have to keep coming back to the question: What are we trying to do?

We need learning environments that help young people reach responsible maturity, that offer real opportunities for adolescents to apply their knowledge and employ their energies and talents in the service of their communities, and that open the doors to real choices so young adults can continue to study at the post-secondary level, or, having discovered their vocations, can make a good living. Measuring these outcomes will require a new set of standards, which will grow out of each community's struggle to realize "the good." Our goal should be (to paraphrase a line from John Holt) to ensure that all young people find their way to lives worth living and work worth doing.

When an entire community accepts responsibility for education and no child is left unknown, it may be possible to ensure no child will be left behind.

Note

1. For example, James Howard Kunstler in *The Long Emergency* (New York: Atlantic Monthly Press, 2005, 271) claims, "High school in our time amounts to little more than day care for virtual adults in which some learning might incidentally take place, much of it of dubious value."

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Beliefs Systems, Metaphysical Paradigms, and Educational Practice

Andrew P. Johnson

Our belief systems and how we view reality profoundly affect how we learn and how we teach.

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Why does change in education occur so slowly? Why is it that educational institutions seem to be so resistant to innovative new ideas? Why does tradition seem to have more influence than research-based knowledge? This article examines the nature of belief systems related to our metaphysical perspectives, and explores how these contribute to views related to research, educational philosophy, teaching, and learning.

Belief Systems

Each of us has a vast network of belief systems that act as a scaffold to help us interpret and organize information and experiences. Our belief systems include what we think about the nature of reality. As we encounter new data we use this network to interpret, analyze, and organize this data. Our belief systems also act as filters to eliminate data that does not correlated with our constructs. In this sense, our beliefs can limit our perceptions and keep us trapped in our current ways of thinking (Harman & Rheingold 1984). Below are described three different levels of belief systems, each successively harder to access and more resistant to change (Sisk & Torrance 2001).

Level One: Knowledge

Level One contains our knowledge constructs. These are what is addressed in traditional education. Change here occurs through assimilation and accommodation and is relatively easy and data-friendly. Assimilation occurs when current schemata or mental constructs are used to interpret and process new data or experiences (Piaget 1983). When

these constructs are found to be inadequate, accommodation is used to revise or rebuild new ones. At this level there is little resistance to new data as long as they support Level Two beliefs (see Table 1).

Level Two: Personal and Cultural Paradigms

Level Two contains our personal and cultural paradigms. Included here might be our philosophical views; our cultural and religious values; and our deeper assumptions about the purposes of individuals, institutions, and society, all of which are used to help us interpret the world we experience and to prioritize our resources. We do not address these beliefs directly in our educational systems, however, they are clearly expressed in: (a) the kinds of things that are valued; (b) the allocation of resources; (c) curriculums and the type of information that is presented to students; (d) the type of data that are measured and reported in what we call assessment, (e) the accomplishments that are rewarded; (f) hierarchical structures and the amount of empowerment given to teachers and students; and (g) educational models and philosophies.

Change at this level is resisted; however, when it takes place, it begins with a state of dysynchrony. This is a perceived difference between ideal and real states (Silverman 1993). Here one receives new data in the form of experiences or insights only to discover that these data do not correspond with existing personal and cultural paradigms. To continue to receive this data while maintaining old structures creates disequilibrium and internal disorder or cognitive dissonance. For growth of any kind there must be a disintegration of the old belief systems so that new ones can be built to accommodate the new data. The time between structures is a time of disequilibrium often resulting in anxiety or depression. This resembles Dabrowski's (1964) theory of positive disintegration which states that advanced development requires a breakdown (or a disintegration) of existing psychological structures in order to form higher, more evolved structures.

Level Three: Metaphysical Paradigms

Level Three contains our basic paradigmatic structures related to the nature of reality or our metaphysical perspectives (described below). These include our fundamental assumptions about both the phenomenal reality of space, time and matter; as well as the transphenomenal or transcendental reality described by mystics, shamans, prophets, poets, and quantum physicists. Contained here also are our most essential religious or spiritual beliefs. One's metaphysical perspective greatly impacts the type of data that is perceived and processed and is extremely resistant to change.

When change does occur at this level it brings about a whole new way of seeing or visioning the world. In many cultural traditions people engage in a vision quest in order to have such a change. If successful, the quest causes them revise or re-vision their worldview. This revision seldom happens instantaneously; instead, it is a process that occurs after a series of successive stages which include preparation, incubation, insight, and verification. These are also the steps described in the Wallas model of creativity (Wallas 1926), a process similar to that of enlightenment.

This movement from one perceived reality to another is similar to the shamanic death experience (Johnson 2002). A shaman is one who is able to transcend the human condition and move freely between dimensions, realities, or states of consciousness for the purpose of bringing back wisdom, insight, or healing (Harner 1996). A shamanistic state is usually preceded by a death experience in the form of great sickness, trauma, or by an initiatory experience created by the tribal elders (Eliade 1964). These experiences serve to break traditional perceptions of or assumption about reality and dissolve the existing personality structures so that a new one might be birthed (Ryan 1999).

Beliefs About Belief Systems

I have expanded on Harman's (1988) three levels of knowledge (Table 1) in order to show some of the possible variations in depth at each level. We all like to think that we are objective, rational beings who come to conclusions based solely on data, however, as we move higher in the levels of belief systems and deeper at each level, our beliefs become increasingly data-resistant. At these higher levels, our view of reality is more apt to define what is relevant and determine which data gets processed.

Table 1. Levels of Belief Systems	
Level One: Knowledge	*Assimilated Facts*: Basic knowledge about physical reality and the way things work. New knowledge fits within existing knowledge structures. *Accommodated Structures*: Knowledge structures based on general tendencies. New knowledge that does not fit is used to revise existing structures or create new ones.
Level Two: Personal and Cultural Paradigms	*Personal values and related organizing structures*: Beliefs based on a set of personal values. *Cultural values and related structures*: Beliefs based on culture-based values. *Psychological structures and sense of self*: Beliefs about and how we define ourselves. *Values-based intellectual paradigms*: Primary mode of thinking and organizing knowledge based on our values and perspectives. *Personal religious/philosophical values and organizing structures*: Religious or philosophical beliefs based on a set of personal worldviews. *Cultural or institutional religious/philosophical values and organizing structures*: Religious or philosophical beliefs based on a set of cultural or institutional worldviews.
Level Three: Metaphysical Paradigms	*Basic religious/philosophical assumptions*: Beliefs about humanity's purpose and place in the cosmos and the meaning of our existence. *Nature of reality*: What is real and possible.

An example one such data-resistant belief is reflected in the current overemphasis on testing (Popham 2001). The business community has given us a factory model of education where students are seen as standardized products moving down a K-12 conveyer belt. The same intellectual parts are attached to each student as they all move along at the same speed. In this model, standardized testing is seen as a form of quality control used to determine if the factory is productive and if the products are marketable or a defective. This is a Level Two values-based intellectual paradigm predicated on ideas that are successful in the business setting where profit is the bottom line. This belief system is then applied to an educational setting by non-educators and used to determine educational policy and procedures to devastating affect. Data related to best practices are ignored or discredited, millions of dollars are wasted buying testing materials, and countless learning hours are squandered teaching to tests that have little value (Sternberg 1996). And instead of being able to plan quality learning experiences and differentiate the curriculum to meet the needs of students, teachers are instead forced to implement CEO-mandated standards. The quality of education then decreases dramatically as students are not asked to learn, but to perform on standardized tests. Reasonable discourse using fairly solid research data seems not to be very effective here. This is because Level One knowledge is used to try to change deep Level Two belief systems.

Finally, the levels of beliefs described above illustrates why the section that follows may be difficult for many. Here I examine the deepest Level Three belief systems related to the nature of reality which are the most resistant to change. I would, however, encourage an objective examination of these ideas with the goal of expanding what you might consider to be possibilities. In order to see things as they really are one must be free of subjective perceptions. This reflects the Buddhist idea of the empty cup where one perceives reality apart from preconceived ideas, emotions, experiences, and expectations in order to separate what is from one's ego state.

Metaphysical Perspectives

In his book, *Global Mind Change* (1988), Willis Harman describes three views of reality which he calls metaphysical perspectives. Metaphysical here refers to ontology or the question of the origins of the universe and the nature of reality. These perspectives are materialistic monism, dualism, and transcendental monism.

Materialistic Monism

The materialist monism perspective views the universe as being made up only of matter and energy. Consciousness is something that arises out of matter. That is, our sense of self is solely an end product of neurological activity, which in turn is an end product of millions of years of evolution. All things in this purely materialistic universe consist of the sum of their parts and can be understood by breaking them down into their most basic components and measuring that which is observed and experienced. Newtonian law of cause and effect governs all events and can be used to know, predict, and ultimately control all things.

Positivism, a philosophy consistent with this view, states that knowledge exists outside the individual. Truth can only be derived through objective observations which are proven through reliable tests and predictions (Alkove & McCarty 1992). It is only by collecting empirical data, isolating variables, and testing and retesting that we obtain truth or say that a thing exists. Quantitative research methodologies are used to piece together small bits of knowledge in order to understand the world in which we live. The type of thinking valued here is deductive thinking or thinking in lines.

From this perspective, learning consists of receiving knowledge from outside the individual, which must then be demonstrated outwardly for it to have occurred. The purpose of schools is to supply students with a designated body of knowledge and skills in a predetermined order. Teaching is a matter of transmitting knowledge from a teacher's head to students' heads. Academic achievement is students' ability to demonstrate or re-transmit this designated body of knowledge back to the teacher, or some other measuring agency or entity. Quantitative psychometric methods are used exclusively to determine and describe intelligence and achievement.

Dualism

The dualistic perspective views the universe as comprising two distinctly different kinds of stuff: matter and energy, as well as consciousness. Here consciousness exists separately from matter. From this perspective, matter and energy are studied using the traditional tools of science described above. Consciousness (people's subjective interpretation of the outer phenomenal world), is studied using observations, descriptions, ethnographies, and interviews. Consciousness also pertains to the subjective interpretation of one's inner world of feelings, memories, and impressions. These are studied using interviews, Gestalt, inner exploration, dream analysis, and art. Some will posit that consciousness also includes super-consciousness or spirituality.

Constructivism is an educational philosophy consistent with this view. Here, true knowledge is seen as personally constructed by individuals as they interact with the environment. Truth requires a value judgment and is different for each individual. We construct our truths by observing and combining events in the objective outer world with images and impressions occurring in the subjective inner world. Both quantitative and qualitative research methodologies are used here, but qualitative research using inductive thinking is more reflective of this metaphysical perspective. Inductive thinking can be thought of as thinking in circles. It is the process of inducing order on a field.

From this perspective, learning is an inner activity that uses both objective and subjective knowledge to constantly build and revise our cognitive webs. Learning then becomes a transaction between the learner and what is to be learned. The purpose of schools is to help students construct knowledge and develop the skills they will need to successfully live in their worlds. Teaching is a matter of creating conditions whereby students are able to transact with knowledge. Academic achievement is seen as students' ability to use their knowledge and skills to solve real-world problems or to create products or performances that are valued in one or more cultural settings. This reflects Howard Gardner's (1983) definition of intelligence. It also complements Robert Sternberg's (1996) concept of intelligence as using creative, analytical, and pragmatic thinking to adapt to or shape the world in which we live.

Transcendental Monism

Transcendental monism describes a universe in which the basic essence is consciousness. Here consciousness is primary, and matter and energy materialize from this. From this perspective ultimate reality is not found solely in the physical or phenomenal world as we know it, rather, it lies in a dimension or dimensions beyond the physical which is holomovement or the ground of all that there is (Talbot 1991). Quantum physics describes such a reality in which all things in the physical universe are connected at the quantum level (Al-Khalili 1999; Talbot 1991). Physicist David Bohm said that the universe can be understood only if the unbroken wholeness is perceived in a way that does not reduce things to a series of individual entities (Nichol 2003). At the quantum level, there is no fragmentation, only parts that are interconnected with greater systems and greater wholes. The things that we encounter in our phe-

nomenal world (explicate reality), are merely an unfolding of a deeper reality (implicit reality), which is beyond our senses. It is consciousness, a very subtle form of energy, that creates movement from the implicate order to the explicate order of our physical world (Bohm 1980). Thus, consciousness is the cause and physical phenomena are the effect.

A helpful analogy can be found in music and the images created in the heads of listeners as they engage in the act of consciously attending to the music. The music can be thought of as holomovement or implicate reality. As the consciousness of the human listener interacts with the music, various mental images are created. These mental images, which do not exist in the absence of a conscious listener, are analogous to explicate reality. In this sense, phenomenal reality does not exist in the absence of an observer. This reflects the Copenhagen interpretation (Herbert 1985), which posits that if a tree falls in a forest and nobody is there to hear it, not only does it not make a sound, but the tree does not exist in the first place.

Holism, a thesis consistent with this perspective, states that the universe is made up of integrated wholes that cannot be reduced to the sum of their parts. We can never come to know the whole of reality by isolating variables in order to examine small parts. Instead, the whole is best understood by examining the principles that govern behavior within the system. Both quantitative and qualitative methodologies are used here; however, they must always be combined with a greater perspective in the form of transcendental methodology in order to approach truth.

Transcendental methodologies are those activities that allow an individual to move beyond personal consciousness (emotion, will, and logic), to approach universal consciousness and include meditation, systematic contemplation, vision questing, the arts, journal writing, poetry and creative writing, personal narratives, stories, religious traditions, spirituality, sacred writing, deep silence, sensory depravation, ritual, and chanting. These can all be used as a way of seeing and re-presenting reality. From this metaphysical perspective, all types of thinking are valued, although deep reflection, intuition, and associative thinking are used to provide the ultimate context.

Holistic education is based on theories of holism. It is constructed around the principle of interconnectedness and seeks to integrate multiple levels of meaning and experience (Miller 1996). Making connections is central to the curriculum process here. These connections occur between concepts, subject areas, communities, cultures, humanity, the arts, the sciences, mythology, religion, ecological systems, and history. True knowledge is seen as ultimately residing within each individual. Thus, teachers strive to create experiences whereby students are able to encounter phenomena, both internal and external, so that this knowledge can be realized. To learn, one must transcend one's culture, biases, values, ego, past experience, and sense of self in order to see things as they really are. Learning is said to have occurred when this view elicits a transformation of consciousness that leads to a greater nurturing of self, others, and the environment. From this perspective, a school's fundamental purpose is the creation of better human beings which occurs through self-actualization and self-transcendence (Maslow 1971).

Intelligence here consists of two parts: the ability to perceive the whole and the ability to think and act in ways that nurture the self, others, and the environment. Intelligence from this perspective cannot be separated from these nurturing values. Classes are small and curricula are flexible and multifaceted so that intelligence behaviors can be displayed and nurtured. Also, teachers are empowered and have the knowledge and skills to enable all students to develop their particular strengths, discover their passions, and engage in relevant, complex, real world activities.

Three Perspectives in Perspective

Table 2 provides a very general overview of how these metaphysical perspectives project into various areas. It is important to note that there are very few people who identify with or exist only in one column.

So What?

So what does it mean? Beliefs related to metaphysical assumptions are the hardest beliefs to change or modify. They are the most data-resistant, yet, these beliefs guide us into a set of assumptions that determine the type of questions that get asked, the research methodology, and the data that are seen as relevant. These assumptions also describe a particu-

Table 2. Metaphysical Perspectives

	Materialistic Monism	Dualism	Transcendental Monism
Worldview	Universe consists only of matter and energy	Universe consists of matter and energy, and mind-consciousness-spirit	The primary stuff of the universe is mind-consciousness-spirit
Consciousness	Consciousness arises from matter	Consciousness exists separate from matter	Matter arises from consciousness
Reality	Objective universe separate from the observer	A personal construction	A dream
Knowledge	*Positivist*: knowledge exists outside the self	*Constructivist*: Knowledge is constructed by individuals as they interact with the environment	*Holistic*: knowledge exists within each individual; knowledge has the ability to transform
Truth	Objective examination of knowledge	Truth requires a value judgment and is different for each individual	Truth requires reflection and examination, an inward journey
Learning	Demonstrably outwardly for it to exist	Learning is an inner state, constructing cognitive webs	Learning frees one from illusion, expands consciousness, transcendence
Intelligence	Ability to use linear thinking and deductive reasoning	Ability to solve problems, create products, and shape the environment	Ability to perceive wholes and nurture self, others, and the environment
Purpose, Teaching Style	Transmission	Transaction	Transformation
Educational Model	Factory model	Dewey, social constructivist	Waldorf, Montessori, holistic education
Primary Psychological Perspective	Behaviorism	Cognitive psychology	Transpersonal psychology
Primary Research Perspective	Quantitative methodology	Qualitative methodology	Transcendental methodology
Primary Mode of Thinking	Deductive, lines	Inductive, fields	Intuition, images, balls, B-cognition
Scientific Paradigm	Phenomenological, cause and effect, natural laws, causal reality, atomistic, reductionist, possitivistic	Observational, objective, interpretative, contextual, subjective, ethnographic	Quantum physics, holomovement, transcendentalism

lar type of reality that affects educational practices and the allocation of resources.

The purpose of this article is not to suggest that any one perspective should be adopted. Indeed, one of the current problems in education is that there is an over-reliance on materialistic monism and an overuse of quantitative research methodologies to define academic achievement and describe the quality of our learning experiences. Instead, I wish to make two points: First, we must recognize how our culture's predominant (some would say parochial), metaphysical perspective serves to shape the questions that get asked relative to education and educational practices. Recognizing this, the field of education needs to move toward a more expansive research agenda in terms of questions, methodology, and subject matter.

Second, we must continually reexamine and redefine our beliefs relative to the purpose of our schools. We do not ask the "why" questions often enough. It is our educational philosophies and assumptions about the nature of reality and the purpose of education that become the basis for our educational practice. I posit, as does Abraham Maslow (1971), that the fundamental purpose of education is self-actualization, which is to be fully human and to realize one's full potential. In this sense, our schools should be designed to help students identify and develop their abilities and discover their passions and interests. However, we cannot become fully human if we do not first recognize that which makes us so: our emotions, imagination, intuition, ideals, values, and creativity, none of which conveniently lend themselves to measurement. The Indian philosopher Jiddu Krishnamurti (1953, 14) said,

> The function of education is to create human beings who are integrated and therefore intelligent.… Intelligence is the capacity to perceive

the essential, the what is; and to awaken this capacity, in oneself and in others, is education.

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Linguistic Apartheid and the English-Only Movement

Pierre W. Orelus

When colonized or minority people's language and culture are suppressed, their ability to resist linguistic, cultural, and political domination is weakened.

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Language is perhaps the most common issue that surfaces in debates about school reform, human relations and development, as well as the history of colonialism. It plays a vital role in virtually everything in which we are involved. Besides shaping our identity and being a medium whereby we remain connected to our community and express our view of the world, language has historically been utilized as a tool of domination and conquest (Phillipson 1992; Thiong'o 1986). Hence, it is not surprising that the politics of language has been the center of the scholarly work of many linguists, sociolinguists, critical theorists, and educators (Canagarajah 1999; Darder 1991; Fairclough 1989, 1995, 2003; Gee 2011; Macedo et al. 2003; Pennycook 1998, 2007; Phillipson 1992, 2010; Schleppegrell 2004). Drawing on the work of those who have looked at language issues from a historical, political, and postcolonial perspective (Canagarajah 1999; Fairclough 2003; Fanon 1963; Macedo 1994; Pennycook 1998, 2007; Phillipson 2010; Thiong'o 1986), this paper examines the linguistic apartheid that occurred during the colonial era and continues today, for example, in the United States with the English-only movement. By linguistic apartheid, it is meant the subjugation of certain languages by dominant European and American groups who have, throughout history, tried to impose hegemonic languages, such as English, French, and Portuguese, on colonized and marginalized groups at the expense of the native languages of these groups.

An Historical Overview

Historically, a multitude of languages labeled as minority languages spoken in the world have been attacked and relegated to an inferior status by colo-

nization, slavery, and the English-only movement in the United States (Macedo et al. 2003; Pennycook 2007; Phillipson 2010; Thiong'o 1986). Consequently, people who by accident of birth happen to speak these languages have been marginalized, oppressed, and discriminated against in schools and society at large (Cummins 2000; Macedo et al. 2003; Phillipson 2010). For example, in the United States, Native American children, forcibly placed on reservations, were often reprimanded in government schools for speaking their native languages which were perceived by their teachers as "uncivilized" (Churchill 2004; Crawford 1991; Grande 2005; Spring 2009). Likewise, aboriginal children in Australia were taken from their families and placed in boarding schools where their names were changed to Anglo names and they were prohibited from speaking their native tongue (Olsen 2003).

In South America, particularly in Peru, the Spaniards attempted unsuccessfully to completely wipe out Quechua, the native language of the Andeans (Pratt 1999). Texts written in Quechua by the indigenous Andeans took centuries before they were finally allowed to be published. A 1200-page letter written by an indigenous Andean, Felipe Guaman de Ayala, is a case in point. Written in 1613 and found by a Peruvian, Richard Pietschmann, his letter was not made available to the general public until 1912 (Pratt 1999). Pratt maintains, "Quechua was not thought of as a written language in 1908, nor Andean culture as a literate culture" (p. 584).

Similarly, in his seminal book *How Europe Underdeveloped Africa*, Walter Rodney (1972) documented the way and the extent to which European colonizers imposed their languages on African children in order to maintain their linguistic, political, and socioeconomic domination. According to Rodney, to achieve this goal, the European colonizers hired submissive colonial teachers to teach African students in kindergarten and primary schools European culture and history. Through this colonial form of schooling, African students were taught to value and embrace the language and culture of their colonizers rather than their own. Rodney (1972, 249) stated:

> Schools of kindergarten and primary level for Africans in Portuguese colonies were nothing but agencies for the spread of the Portuguese language. Most schools were controlled by the Catholic Church, as a reflection of the unity of church and state in fascist Portugal. In the little-known Spanish colony of Guinea (Rio Muni), the small amount of education given to Africans was based on eliminating the use of local languages by the pupils and on instilling in their hearts the holy fear of God.

Colonial teachers never talked about their students' own language, culture, history, and geography. Rodney (1972, 247) points out that while these students learned in school about the Alps and the river Rhine, they were denied vital information about the Atlas Mountains of North Africa or the river Zambezi. Rodney further argued that colonized African students in kindergarten even knew more about Napoleon Bonaparte, who reestablished slavery in Guadeloupe and unsuccessfully attempted to do the same in Haiti, than their own ancestors. Indigenous and colonized people suffered this form of oppression and it has continued to impact them linguistically, culturally, educationally, and psychologically (Smith 1999; Wane 2006). As Wane (2006, 100) observed:

> The use of a foreign language as a medium of education makes a child foreign within her or his own culture, environment, etc. This creates a colonial alienation. What is worse, the neocolonized subject is made to see the world and where she or he stands in it as [it is] defined by or reflected in the culture of the language of imposition. This is made worse when the neocolonized subject is exposed to images of her or his world mirrored in the written language of her or his colonizer, where the natives' language, cultures, history, or people are associated with low status, slow intelligence, and barbarism.

What can be inferred from Rodney is that the goal of the European colonizers was to insure that the colonized African students did not have a good command of their own ancestral languages and a sound understanding of their culture and history. They were forced to learn French, Portuguese, and English languages and culture, so that they could be quickly assimilated into the European culture. Consequently, many may have grown to appreciate Euro-

pean languages and culture more than their own or, worse yet, they may have come to believe that their language and culture was barbarous and worthless. In his book, *Deculturalization and the Struggle for Equality*, Joel Spring (2009) maintains that through schooling Indigenous students were taught that their language, culture and indigenous knowledge were inferior, barbarous, uncivilized, and therefore worthless in comparison to the European-based culture and knowledge they received in schools. Likewise, in *Linguistic Imperialism Continued*, Robert Phillipson (2010) astutely documents how European countries, particularly the UK, and the United States have continued to impose English on the world as the *lingua franca*, that is *the* language that people around the globe should use to communicate — be it for personal, professional, and business purposes — and study at the expense of indigenous and native languages of billions of people, including bilingual students. Phillipson (2010, 27) warns us that "when analyzing English Worldwide the crux of the matter is whose interests English serves, and whose interests scholarship on English serves."

The English-Only Movement: A Neocolonial Form of Linguistic Domination

Despite the widespread rhetoric that the U.S. is a melting pot, a multilingual and a democratic country, languages labeled as minority have been attacked, stigmatized, and relegated to an inferior position (Crawford 2008; Cummins 2000; Macedo et al. 2003). Proponents of the English-only movement want minority groups to embrace and only speak English rather than their native tongues. Consequently, students who have tried to resist this form of linguistic domination by sticking to their cultural heritage and mother tongue in various settings, such as in school and at work, have been severely castigated. In a study conducted with Latino students, Villegas (1988) reported that some white middle class teachers prohibited Latino students from speaking Spanish in class. Villegas stated that the teachers felt that speaking Spanish in school was a way of persisting in being foreign. She went on to say that, although 90% of the students were U.S. citizens, their teachers treated them as outsiders because they persisted in speaking Spanish.

Gloria Anzaldua's (1990) linguistic and xenophobic experience with an Anglo teacher exemplifies what Villegas reported in her study. Anzaldua (1990, 203) recounted her struggle with an Anglo teacher who forbade her from speaking Spanish in class.

> I remember being caught speaking Spanish at recess — that was good for three licks on the knuckles with a sharp ruler. I remember being sent to the corner of the classroom for "talking back" to the Anglo teacher when all I was trying to do was tell her how to pronounce my name. "If you want to be American, speak American." If you don't like it, go back to Mexico where you belong.

Anzaldua's experience with the Anglo teacher clearly illustrates how those who believe in and embrace the English-only movement have committed "symbolic violence" (Bourdieu 1999) against marginalized groups by trying to silence their voices. Anzaldua's experience also shows the struggle of minority students, including bilingual students and English language learners, whose home discourse and culture often does not fit into the mainstream discourse and culture (Cummins 2000; Darder 1991; Nieto 2009; Valdés 2001). Moreover, her experience illustrates that language is not simply about uttering words but is intrinsically linked to ideology, culture, and power relations (Darder 1991; Foucault 1980; Gramsci 1971).

Finally, the linguistic discrimination that Anzaldua faced in school puts into question the belief that the United States is a free and democratic country. In a free democratic and free country, people should not be threatened and punished for speaking their native tongues. Prohibiting one from speaking one's language suggests that one is free only as long as one does not speak Spanish, Creole, or any other subjugated language. Taking this analysis a step further, I argue that prohibiting people from speaking their native languages is a way to promote English as the *lingua franca*. This type of linguistic assault against minority languages appears intended to put English into a class of its own and "reinforce the dominant ideology, which presupposes that English is the most eligible language for virtually all significant purposes" (Phillipson 1992, 42).

Although Anzaldua's experience with her Anglo teacher occurred over two decades ago, it is still relevant, for minority students continue to experience linguistic discrimination in schools (Nieto 2009; Valdés et al. 2010).

Such attacks against minority native languages are not inconsequential. As Darder (1991, 38) argued,

> negating the native language and its potential benefits in the development of the student's voice constitutes a form of psychological violence and functions to perpetuate social control over subordinate language groups through various linguistic forms of cultural invasion.

Unveiling the fallacy about and the linguistic injustice embedded in the English only movement, Freire and Macedo (1987, 154) maintained:

> The English only movement in the United States … points to a xenophobic culture that blindly negates the pluralistic nature of U.S. society and falsifies the empirical evidence in support of bilingual education, as has been amply documented. These educators, including the present secretary of Education, William Bennett, fail to understand that it is through multiple discourses that students generate meaning in their everyday social context.

Freire and Macedo's argument demonstrates how the dominant class is determined to use English as the *lingua franca* to maintain the status quo (Phillipson 1992). Their argument also illustrates the hidden ideological battle over *which* language is superior or inferior. The social and historical construction of English as a "superior language" consequently leads to the marginalization of other languages. It seems that the English-only movement has been used as an ideological tool to legitimize the linguistic discrimination minority groups have experienced.

One of the arguments that proponents of the English-only movement, such as Hirsch (1987) and California businessman Ron Unz, have articulated to impose English on linguistically and culturally diverse groups is that speaking one language will strengthen and unify the nation and that bilingual education is detrimental to the learning of minority students, particularly bilingual students. Taken at face value, this argument might convince one to believe that bilingual students would be better off being placed in mainstream classrooms where English is the only language of instruction and that unity among people can *only* be achieved through one dominant officially recognized and established language like English. Hirsch, for example, believes that unity among culturally and linguistically diverse groups can only be achieved through what he called "common culture."

Hirsh argues that the achievement gap existing between underprivileged and privileged students is caused by students' lack of a particular and prescribed set of cultural knowledge, which, according to him, can be learned through direct instruction. However, Kamberelis and Dimitriadis (2005, 30) note that

> The cultural knowledge that Hirsh has in mind is presumed to be "common culture" and not elite culture, even though it derives primarily from canonical works within a white, European-American, middle-upper class, heterosexist tradition.

Similarly, Bhabha (1994, 24), demystifying and challenging the hidden ideology and agenda behind the "common culture," states that

> Like all the myths of the nation's "unity," the common culture is a profoundly conflicted ideological strategy. It is a declaration of democratic faith in a plural, diverse society and, at the same time, a defense against the real, subversive demands that the articulation of cultural difference — the empowering of minorities — makes upon democratic pluralism.

What Hirsch fails to understand is that individuals do not give up their native tongue even when they are forced to embrace the so-called common culture. The reason is that one's language shapes one's identity and life. Thus, needless to say, attacking one's language is a direct attack to one's culture and identity. As Anzaldua (1990, 473) puts it:

> If you want to really hurt me, talk badly about my language. Ethnic identity is twin skin to linguistic identity — I am my language. Until I can take pride in my language, I cannot take pride

> in myself. Until I can accept as legitimate Chicano Texas Spanish, Tex-Mex and all the other languages I speak, I cannot accept the legitimacy of myself.

Anzaldua's stance for her language and identity clearly indicates that language "plays a major role in the construction of human subjectivities and reflects their life histories and lived experiences" (Freire & Macedo 1987, 56). Her stance, most importantly, illustrates that

> Like desire, language disrupts, refuses to be contained within boundaries. It speaks itself against our will, in words and thoughts that intrude, even violate the most private spaces of mind and body (hooks 1994, 66).

Given the persistent linguistic discrimination that occurs in schools and society at large, the question then becomes, what needs to be done to overturn linguistic apartheid that continues to impact the learning and the mind of students?

Resisting Linguistic Domination: Toward a Just and Multilingual Society

Overcoming linguistic apartheid as well as other forms of oppression that marginalized groups have faced requires them to engage in cultural resistance (Cabral 1973) against their oppressor and the decolonization of their mind (Thiong'o 1986), among other things. How should this be done? There is not a single fixed answer to this question. A plausible answer can be sought through dialoguing with one another, critical reflection on, and the analysis of linguistic, political, and social problems that the legacy of colonialism has caused. The challenge, however, is that it is not only the mind of marginalized peoples that needs to be decolonized but also the imposed languages of the colonizers that they use every day. As Salman Rushdie (1982; in McLeod 2001, 67) pointed out:

> The language, like so much else in the colonies, needs to be decolonized, to be remade in other images, if those of us who use it from positions outside Anglo-Saxon culture are to be more than artistic Uncle Toms.

Along the same lines, McLeod (2001, 54) proposes that "in order to challenge the colonial order of things, some of us may need to re-examine our received assumptions of what we have been taught as 'natural' or 'true'."

Being able to achieve what both Rushdie and McLeod suggest would require what Freire (1970) called *conscientizao*, that is, critical consciousness of one's linguistic, socio-economic, and political realities. Such consciousness is necessary to deconstruct, challenge, and resist linguistic domination along with other forms of oppression perpetuated through teachers' biases and ideology, and the Western colonial values embedded in the canonical texts many teachers are expected to use in their classes (Canagarajah 1993, 1999). To put it simply, linguistic and cultural domination are reinforced through the way teachers use and engage students in these texts. As Luke (1996, 14) argued:

> For human subjects, texts are not just something that they, as "child," "student," and "parent," use as part of a stabilized or fixed role or identity; these texts are the actual media and instances through which their socially constructed and contested identity, or subjectivity, is made and remade.

Depending on how teachers approach and analyze canonical texts, including textbooks, with their students, their teaching practices can empower the latter to reproduce and/or contest cultural values embedded in those texts.

Canagarajah (1993), for example, described his experience using Western imported textbooks to teach English to 22 students coming from poorly educated rural families in Sri Lanka, whose primary language is Tamil. The key textbook selected for the freshman English course was *American Kernel Lessons.* According to Canagarajah (1993), textbooks used in the school were donated by Western cultural agencies. Students enrolled in the English course were required to pass a mandatory English placement test in order to be admitted to the university. Canagarajah reported that the content of these textbooks reflected the cultural, linguistic, and social class realities of white middle class Americans to which his Sri Lankan students could not relate. However, Canagarajah found ways to help students develop a counterdiscourse to resist these Western hegemonic texts.

> Through these counter-discourses, students could be [detach] themselves from the discourses inscribed in the textbook and [preserve] themselves from ideological reproduction. Furthermore, students are able to construct for themselves more favorable subjectivities and identities through their counter-discourses. While the discourses of the textbook put students at a disadvantage, making them appear alien, incompetent, inferior and powerless, students' own discourses provide them confidence, familiarity, respectability and greater power in their social milieu. (Canagarajah 1993, 151)

What Canagarajah is showing is how teachers can help students develop a language of critique to unveil the hidden ideology embedded in texts. Acknowledging the strong presence and important role of ideology in language issues, Fairclough (1995, 89) maintains that "a critical analysis of language is crucial for social change." In the same vein, Dei (2006, 11) noted that

> Language is a powerful tool for decolonization. The power to name issues for what they are demonstrates an ability to use language as resistance, and to claim cultural and political capital that is necessary to challenge domination. The power of anti-colonial thinking lies in its ability to name the domination and imposition of colonial relations. Language can be used to challenge the negations, omissions and devaluations of a peoples' social reality, experience and history.

Dei brilliantly captures "the significance of language in the production of power relations" (Willett et al. 1998) between marginalized and dominant groups. Marginalized groups have always had to fight against the linguistic and cultural domination of the ruling class. However, despite their resistance to linguistic domination, marginalized groups in the U.S. have experienced some losses. For example, many bilingual programs in the U.S., which had allowed linguistically and culturally diverse students to maintain and use their first language to learn and succeed in school, have been closed in California, Arizona, and Massachusetts. Consequently, school systems in these states are experiencing a shortage of certified and properly trained bilingual teachers as well as teachers professionally trained to work with bilingual students and English language learners (Crawford 2008). The elimination of the bilingual programs in these states and others is one of the negative consequences of the English-only movement.

To continue to counter this movement along other forms of linguistic and cultural domination in schools and beyond, it is critically important that educators help students develop critical and political consciousness about the "hegemony of the English" (Macedo et al. 2003). This consciousness would serve the following purposes:

- It would help subaltern groups better understand that, for example, being forced to speak the so-called language of opportunity, English, at the expense of their first languages is convincing evidence of the dominant class's linguistic domination.
- The subaltern groups would also come to fully realize that by embracing the language of the dominant class, they would automatically embrace the values, beliefs, and norms embedded in that language.
- Once these cultural elements are engrained in their linguistic repertoire and human consciousness, it would be easier for the dominant class to manipulate and control their minds.

Fanon (1967, 18) understood the ideological and cultural significance of possessing a language when he warned us that "a man who has a language consequently possesses the world expressed and implied by that language." Situating Fanon's argument in the U.S. context, it can be argued that once minority students, through ideological manipulation, are convinced of its value and embrace the English language at the expense of their own, the cultural world of their oppressor to a great extent will become theirs. As Thiong'o (1986, 16) states,

> Language carries culture, and culture carries, particularly through orature and literature, the entire body of values by which we come to perceive ourselves and our place in the world.

To build on Thiong'o's argument, it is worth referring here to the work of Amilcar Cabral (1973),

particularly his stance on culture. The Guinean and Cape Verdean leader, who fought rigorously against the Portuguese colonizers' cultural invasion in Cape Verde and Guinea Bissau, strongly urged people to heighten and defend their culture. Cabral dedicated most of his militant, political, and scholarly life to defending the culture of his country both nationally and internationally against foreign cultural invasion. In his classic book, *Return to the Source*, Cabral strongly encouraged his readers to strive to preserve their culture from the colonial and imperial influence of the West. Cabral used culture as a tool to resist foreign subjugation of colonized lands. He did not merely acknowledge the vital role of culture in the liberation movement, he also emphasized and advocated for its full integration in the historical and political life of these colonized society at the time. He did so because he understood that imperialist and colonial dominations of colonized subjects also entails the cultural domination of the latter. Thus, Cabral strove to help his people become aware of the importance of using their cultural resources and values as a weapon in their fight against imperial and colonial powers. Cabral (1973, 55) maintained that

> It is understood that imperialist domination, by denying the historical development of the dominated people, necessarily also denies their cultural development. It is also understood why imperialist domination, like all other foreign domination, for its own security, requires cultural oppression and the attempt at direct or indirect liquidation of the essential elements of the culture of the dominated people.

Drawing on Cabral's view on the political and historical importance of culture, I contend that culture and language are vital tools that colonizers and neocolonizers should never be allowed to influence or dominate, especially when a people engage in the struggle for self-affirmation, determination, and linguistic liberation. The reason is that if colonized or minority people's language and culture are under siege, this might weaken their resistance to linguistic, cultural, and political domination of the ruling class. Defense and preservation of one's culture and language is key to one's freedom, the survival of one's community, and the maintenance of one's identity. As Darder (1991, 37) eloquently put it,

> It is critical that educators recognize the role language plays as one of the most powerful transmitters of culture; as such, it is crucial to the survival of a cultural community.

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Is the Goal of Education the Development of Good People or International Competitors?

William J. Mathis

Parents and teachers stubbornly hold onto the quaint notion that the development of their children and students into good men and women is more important than grooming them as international marketplace competitors.

I begin to get nervous when I hear the President refer to education as the way to effectively "compete" in the global economy. When he describes the competition embedded in the Race to the Top as a major and successful reform, my nervousness begins to turn into nightmares.

This bad feeling comes from when I was a school superintendent. I was doing one of my obligatory "community forum" Powerpoint presentations about our standardized test scores when I found myself saying, "If we are to be economically competitive in the twenty-first century, we have to have high test scores."

A mother's hand shot up as she exclaimed, "But I don't want my son to be an international competitor in the twenty-first century global work force! I want him to be a good man!"

The room fell silent. She gathered herself, and pushed on, "I want him to hold a good job, carry his own weight, and to get along with others. I want him to give a little more to his community than what he got. I want him to love, be loved and be a good husband. I want him to be happy."

And, of course, she was right.

When we think about what we want for our children (or, for that matter, for our world), most of us would respond more like the mother than like an economist. Of course we want our children to find good jobs and be successful, but we also want something even more valuable: We want them to be thoughtful, caring, and accomplished because these are good in themselves, not because they will contribute to our nation's international competitiveness.

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Remedying the balance of trade is not a goal of child-rearing. Yet, in some strange way, international economic competition, translated as test score competition, has become the ascendant rationale for schooling in the United States.

In a recent edition of *Education Week*, Susanna Loeb, Dan Goldhaber and Michael Goldstein (2011) talk about the effects of outdated regulations, bureaucracies, and poor teaching skills. If these problems could be swept away and better "performance accountability measures" put in place, then the "engine" could drive toward improved learning outcomes. They see "differentiated opportunities and rewards, innovation, ambition and excellence" as the things that build an educator's spirit. They talk about efficiency.

On the same page, Alfie Kohn (2011) points to the underfunding and inferior learning resources we provide for our poor and our children of color. He points to our poverty gap, which is the largest and most resistant to cure among economically developed nations. The test-based "pedagogy of poverty" assures an inferior education for our neediest. He talks about denied opportunity.

Then, on the facing page, Angela Beeley (2011), a "Mad as Hell" teacher, vigorously describes the molested, beaten, neglected, hungry, and homeless children she is teaching. Accountability systems don't address these needs, and efficiency is simply not a relevant term in this context. Why do Wall Street crooks walk while teachers are being turned into test score manufacturers and blamed for the failings of society? She talks about caring, frustration, and pride.

The notion that education's main purpose is international economic competitiveness came to prominence with the 1983 *Nation at Risk* report. Starting in 1989, Goals 2000 symbolically ushered in the test-based accountability model, and No Child Left Behind subsequently created a uniform national approach. An array of major philanthropies dumped billions of strings-attached dollars to advance market-based and privatization reforms.

No reasonable observer would say these reforms have not had a substantial effect. NCLB is still the law of the land; schools are being publicly labeled as "failing"; and forty states have some form of charter school law. Voucher and neo-voucher policies, as well as merit-pay and union-bashing laws, are popping up like mushrooms.

Yet, the most puzzling question is why these policies continue to be promoted when market model reforms have shown such little success over the last 28 years. The achievement gap has stopped closing and, based on measures of higher-order skills at the eighth grade, the gap is actually getting wider. Charter schools, accountability mechanisms, takeover strategies, and privatization efforts have shown, at best, weak and mixed success.

Part of the answer is the cold fact, as Kohn points out, that needy schools have been systematically deprived compared to those with more affluent populations. About 70 state-based studies, which examined the cost of providing an adequate education, have documented this simple truth. Contrary to utopian claims that schools can do it all without additional resources, test scores and get-tough accountability schemes do not cure failing communities and broken homes.

Then, there's the core issue: Parents and citizens have a broader vision of schools. Parents stubbornly hold onto the quaint notion that the development of their children into good men and women is more important than being international marketplace competitors. We should take heed of the parent rebellions in such market-model, charter school strongholds as Newark (Siegal 2011), New Orleans (Waller 2011) and Harlem (Darville 2010). Gloucester, MA (Coughlan 2011), and Mission Viejo, CA (Chu 2011) also see parents taking to the streets to protest the stripping of resources and the seizing of control of their public schools.

In the real world, if an idea doesn't work very well after a bunch of tries, that's a good reason to stop doing it. In the ideological world, meagre results or outright failure does little to shake underlying beliefs. Instead, the ideologues say that failure is caused by not implementing their solution with enough fervor and force. Or maybe they cling to the one outlier study that supports their view while ignoring the larger overall body of quality research. Perhaps they rely on think tanks peddling pseudo-research to advance predetermined ends. In any case, they insist that success will come if we only bear down and beat the dead horse harder.

In this climate there is the real possibility that public education will become controlled by private oligarchs who hold a narrow view of its purposes. Yet, there are also glimmerings of a rebirth of the democratic ethos and a new commitment to all our children. The question is in the balance: will a phoenix rise from the ashes or we will just have ashes?

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Foreign Language Education and Environmental Consciousness

Ebrahim Zarin Shoja

A nature-friendly curriculum should sensitize our students to the natural world and encourage them to help solve the environmental crises around us.

One autumn, when I was in elementary school, I joined my friends in throwing stones at birds as moving targets. My mother tried to convince me to quit it by talking, but I couldn't understand her reasons. However, my grandmother simply kept silent.

Another time I ambushed a group of sparrows in our yard. One of them was badly injured and the others flew away. My heart was beating quickly. My grandma's pale face in a window caught my attention. Tears were rolling down her cheeks. She pointed to a sparrow that appeared to be more agitated than others on the wall: "Look! Do you see the bird that is most restless?" she said with a trembling voice. "She is the writhing sparrow's mother." She shook my whole world view: Mother? Child? For a week I stayed at home, full of sorrow over my crime.

My grandma helped me appreciate the life, feeling, emotions, and love in the animal world. She told me stories about animals and how kind the prophets were towards animals. I watched her talking and cooing to animals as if she was cooing to a cute child. One day after school I saw a lot of chickens in our yard. Grandma had bought them for me. I walked them every day. A sense of responsibility for their protection grew in me. The animals' cute, innocent, impartial, and nonjudgmental moods stimulated me to also begin cooing over them, and this was very soothing. Little by little, my friends who used to hunt birds and mock me for becoming so sensitive about them joined me in thinking about, watching, and even walking the cute chickens. It did not take much time before taking care of chickens became a way of life in our neighborhood.

However, time, vehicles, and cats ambushed my little friends one by one. One day a motorbike ran

Note: The author wishes to acknowledge the ongoing influence on his work of his teacher, Dr. Mehdi Mahdavinia, who "rekindled the fire" in his heart.

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over my loveliest rooster and my uncle had to put an end to his pain. That was a very painful day for me, not only because I lost a friend but also because I realized where one of our most common foods came from. Bill Crain (2009, 2) points out that "for most children, the first and most upsetting confrontation with adult views seems to occur when children discover the source of the meat they eat." When I realized this, despite my parents' attempts, I couldn't eat meat for several years.

I did everything to help animals — from nursing a shot eagle to drying off waterlogged sparrows with hairdryer. I didn't have the heart to ride a donkey in our village and I even carried some of his load to make his burden lighter. I was careful about ants and other tiny animals. Although I was careful not to harm them myself, I still didn't like predators like cats that killed my chickens; or wolves, sharks, snakes, crocodiles that were (unfairly) cast as relentless murderers in the movies.

Once I found a wounded dove on our roof. I took care of her for a while, but one day, when I was at school, a cat pounced on her. When I saw her bloody feathers I was filled with sorrow and anger. That afternoon, my siblings showed me the cat in our yard and, filled with revenge, I threw a stick at her. She fell down on the ground. My world turned dark and I burst into tears when I saw her unconscious. Fortunately the cat stood up in a minute. I ran to the kitchen to fetch her a little meat. She sniffed at it but she didn't touch it, and with a sad look in her eyes that I will never forget, she left. She was a predator by nature and her own life depended on her prey.

I firmly believed that I didn't have the right to let my selfish ego meddle in nature's lifecycle. I wish the science books I had read had cultivated this sense of holistic reverence in me before had witnessed these events; instead, they encouraged me and my friends to dissect animals and plants. I understood in the depth of my soul that "life is as dear to the mute animal as it is to any human being; even the simplest insect strives for protection from dangers that threaten its life"(Dalai Lama 2006, 5); and that the balance of "existence and non-existence gives birth to (the idea of) the other" (Lao-Tzu 2008, 10).

These experiences also helped shape a subconscious decision in me to refrain from controlling animals as my possessions. I preferred to watch and care for them from afar while I had my inner discourse of love with them. I think it's time for us to re-conceptualize our epistemology of love towards nature. This love should be more of a love for *being* rather than a desire for *having*. Much of the harm done to nature results from the epistemology of *having*, because it takes the form of keeping animals in cages in zoos, circuses, aquariums, and even our homes. It takes the form of enjoying, owning, and displaying animal skin, heads, and tusks; it takes the form of enjoying animals as food. Human beings occupy and destroy nature and animal habitats because they think they love nature, but we should know that love is the opposite of possessiveness and greed.

Until last year I really was personally not very ecologically sensitive. When I saw the amount of pollution in the swamps, coastlines, and rivers of the northern parts of my country, I began to reexamine my role as an educator: "What is the point of teaching/learning English or any other subject when we are oblivious to safekeeping the beautiful natural world that God has entrusted us? What is the point of teaching foreign languages when we are still foreigners to the language of our hearts and of Mother Nature?" As I learned more about a holistic way of life and education through my professor, Dr. Mahdavinia, I decided to set my class objectives beyond the subject matter alone and on more important issues: protecting nature and encouraging others, especially my students, to do it as well.

Context

When I first visited a new school in Tehran province where I was about to start teaching, I noticed that flowers and natural scenes were painted on its walls. As I entered the school building, the sight of three stuffed animals — a seagull, a weasel, and a woodpecker — on three shelves in the corridor caught my attention. On those shelves there were many alcohol jars containing small animals and embryos. It was a school for talented students and each year hundreds of students compete for admission. It was a highly disciplined test-driven school in which students were pushed to get high scores on their tests. They were so stressed out about trivial things like grades, rankings, and tests that they could hardly think of anything that

was really important. The atmosphere was so limiting to me, but I had a newborn dream: to help my students become more ecologically sensitive.

Preliminary Steps

I think the first step in educating a child to befriend Nature is befriending his/her own nature. How can we expect a child who constantly experiences insults to respect nature or others? The elementary school years were the scariest years of my life because children were insulted and punished for their childish mistakes. I was punished on the very first day of school because I didn't know how to hold a pencil. I held it in my fist and hoed the first page of my notebook by pressing it down too much. Perhaps one of the main reasons why we are animal hunters was the treatment we got in school. Children who are mistreated show aggressive behavior (Webb 2007, 48; Cattanach 2002, 64), especially in their play, to master their traumatic experiences. Victims of this aggression could be their toys, others, themselves, and nature. To a generation brought up with an aggressive traditional education nature may be nothing more than an "aggression-release toy."

Traditional education attacks the heart of a child's nature and soul by limiting his playtime, overloading him with stressful tests and homework, suppressing his creativity and imagination, and ignoring his unique voice in a strict disciplined environment.

More humane educational approaches, however, value the child's nature; in them his uniqueness and polarities are acknowledged; he is the subject of his own learning; imagination and creativity are seen as means of contributing to his personal development (Dufeu 1994, 12-22); and the relationships between self and Soul, self and community, linear thinking and intuition, mind and body, and one's relationship to nature (Miller 2008, 13-14) are all strengthened.

In my class, student portfolios largely replaced tests and textbooks. We would communicate our feelings through reflective essays and journaling. Art was encouraged because it helps develop feeling (Miller 1983, 167), creativity and connection to creatures, creation, and Creator; and "enable[s] us to see beyond the 'purposive consciousness' which has led us into ecological peril"(Reason 2007, 35). My students were especially pleased with my caring for their feelings and the respect and trust I showed to them.

Advanced Steps

I believe that ecological sensitivity is nurtured through our sense of wonder, our appreciation of our interconnection and oneness with the universe, global responsibility, and a vision of hope.

A Sense of Wonder

Wonder appeals to our nature because it is a "part of our response to the real and is present from birth" (Miller et al. 2005, 70). Education should promote wonder by connecting the child to the whole of the natural world. Unfortunately, as Njus (2010, 11) puts it "in traditional, government-mandated, test-driven education we insist so much on performing up to someone else's expectations that children soon lose their sense of wonder."

Reflecting on a Powerpoint presentation on the vastness of the universe, the students commented that

> We have an endless life.
>
> God has created the world beautiful and harmonic.
>
> In comparison to the world we're both too small and too big.
>
> Creation is so great and we are so tiny. Thank God because I'm not too big to become supercilious and not too little to not exist.

A Sense of Interconnection and Oneness

Causality "has been observed in infants as young as 4 months" (Matsumoto 2009, 61). It becomes more sophisticated as they grow, but, because of our dominant compartmentalized modern world view, most of us focus on daily life and stop exploring the causes and effects of many important issues in the world. On the other hand, there are men who can see invisible webs of unity in the universe to the point of oneness. They suffer from the suffering of others because they are a part of the living and conscious body of the universe. Education should help the child perceive more and more interconnections to achieve the level of oneness with the whole of creation.

In class we devoted a session to the "butterfly effect." After some students expressed their thoughts about it, we collaboratively wrote about the effects of an act of kindness: "I help a poor man. He becomes happy and he buys food for his family. They become happy and [and] they pray for me." We talked about this and drew, with our non-dominant hands, similar interconnections between natural forces and elements. We even wrote dialogues among the forces and elements, which I call "divine discourse" because students presented a conversation of love between mountains, plants, and animals.

With a different group of students I tried free drama, to help them put themselves in nature's shoes. After a ten-minute group discussion, each group began to improvise what was happening around them in the natural world and what humans are doing to her. Students played the roles of trees, rabbits, horses, rivers, birds, monkeys, fire, hunters, woodmen, and those who pollute nature.

When their plays were over, I asked them reflect on their experiences for a few minutes and write down their feelings. They wrote:

> I felt bad when I was cutting the tree.
>
> When people watered me I felt good but when they cut me I felt angry.
>
> As an inoffensive hare I felt bad when hunters attacked me.
>
> I played the role of a tree. Two hunters came and broke my branches. One of them shot the hare and he shot me in the eye, too.
>
> I was the woodman. When I cut the tree I felt pity for it, but I had to cut it down to make money for my family.

Global Responsibility

Becoming more aware of and understanding the interconnections and awareness of global issues better often leads to greater global responsibility. We decided to write a letter to God about human behavior towards nature:

> Dear God, we killed the fish; we burned the trees … and we polluted your sky. I don't know why we … destroy the Earth.

A dominant mechanistic, ego-centered, consumerist, and compartmentalized mentality has numbed modern man. Under the influence of this perspective we run the risk of stagnation and death for humanity and Nature. We begin to believe that an animal or any other being is beautiful when it is tamed, imprisoned, frozen, or stuffed. This is the same mentality that believes that an ideal student is obedient and willing to be passively stuffed with force-fed information. It is the mentality that sees nothing wrong with destroying forests and plant diversity, while beguiling people with green parks and streets lined with homogenized trees. It is the same mentality that tries to homogenize people in and by politics, education, research.

Envisioning Hope

Despite the dominance of this mentality, we should never surrender to disappointment. Paulo Ferier (in Miller et al. 2005, 72) says:

> I do not understand human existence and the struggle needed to improve it, apart from hope and dream. Hope is an ontological need. Hopelessness is but hope that has lost its bearing, and become a distortion of the ontological need…. When it becomes a program, hopelessness paralyzes us, immobilizes us. We succumb to fatalism, and then it becomes impossible to muster the strength we absolutely need for the fierce struggle that will re-create the world.

The class visualized a hopeful future for the Earth and humanity. The results of the students' reflections often surprised me. One group conceived of the Earth as a living being with a face. Every element of nature was represented as a part of this face, including human beings. All the limbs were interconnected and an ailment in one limb could affect the whole body.

Another student drew Earth as a sacred mother who held in her arms all her children and wrote:

> I close my eyes: I see the forest. There are animals in it. Lions play with each other. Animals are happy. I see a beautiful dog. It has a baby. Mother Earth is clean and happy. I see tall trees. The birds sing. I am happy for Earth. It isn't dirty. It isn't polluted. It is green and beautiful. I love earth.

Reflections: From Words to Deeds

When man's spiritual, mental, physical, and linguistic contact with nature is minimized, he will start to take for granted the modern mechanistic lifestyle. It starts with diverting thought and discourse from important global issues to trivial matters and whatever engages him in the relentless competition of consumption and exploitation of nature.

Mechanistic and positivist education has deprived students of even linguistic contact with nature. Among the 448 words in the first two books of junior high school English used in Iran the only nature-related words I found were cat, fish, dog, hen, bird, park, and trees. In the level three book, I found only the words lion and tiger as wild animals, and they were illustrated in the cages of a zoo. In those three books, only one reading was about animals, and that was in the zoo. Iranian students have to study these books over and over and they seldom get the chance to go beyond them. I devoted most the activities of my class to imaginative arts-based language learning. It was interesting that nature, over time, became my students' favorite theme, especially for drawing.

> The thought manifests as the word,
> The word manifests as the deed,
> The deed develops into habit,
> And the habit hardens into character.
> So watch the thought
> And its ways with care,
> And let it spring from love
> Born out of respect for all beings.

In my students' descriptions of their artworks, metaphoric language and personification increasingly emerged, something that they rarely encountered in their English textbooks and standardized tests. For example, students may not use personal pronouns "he," "she," "I," "you,"and "we" for non-humans. Instead, educators should encourage this perspective to nurture man's holistic and spiritual character for building a better world.

In my classes I have done my best to transcend a teacher's limitations in a test-driven structure-based language curriculum. My language class objectives extended well beyond grammatical structures and vocabulary words. I had my students learn the past tense through critical reflection on the past; practice and learn connectors while discovering the interconnections among all things; learn imperatives through a rally for protection of nature; and learn the future tense by hoping and envisioning a brighter future for humanity and Mother Earth.

The results were positive: There were intimations of ecological sensitivity in students' artwork and writings, and even some changes in their behavior towards nature were reported by some parents. One mother wrote to me that her son "doesn't leave rubbish in nature anymore…." One student confessed that "animals have feelings, too. They have their own sweet life. I wonder how we can kill them. I decided not to eat meat anymore, but my dad doesn't allow me." I appreciated these changes but a dream warned me not to stop here.

One night I dreamt of a crying tree on fire. In my dream I thought it was unusual and that I should record that moment. As I was taking pictures, I asked myself why I didn't extinguish the fire. I dropped the camera and fetched a bucket of water, but it was too late. The tree was already lying in his ashes, breathing his last breath. I woke up with sadness. Nature was trying to warn me not to live only in a world of theory. Nature taught me that environmental education should be *for* nature, not merely *about* nature. The objectives of a nature-friendly curriculum should highlight the environmental crises around us and solve them with the help of children who are encouraged to hope, dream, and act for a better world.

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Concepts as Organizing Frameworks

Edward T. Clark, Jr.

Concepts provide powerful frameworks that ultimately encompass all disciplines and knowledge.

The mind thinks with ideas, not with information…. The principal task of education, therefore, is to teach young minds how to deal with ideas: how to evaluate them, extend them, adapt them to new uses. This can be done with the use of very little information, perhaps none at all…. An excess of information may actually crowd out ideas, leaving the mind (young minds especially) distracted by sterile, disconnected facts, lost among shapeless heaps of data. (Roszak 1994)

The learning process requires that new information become part of a coherent conceptual structure, yet no systematic attempt is being made to create a curriculum which reflects that requirement. (Marion Brady 1989)

In previous articles I have discussed the relationship between systems thinking, the structure of knowledge, and the fact that humans construct rather than discover knowledge. In this article I want to explore in greater detail the central function that concepts play in understanding and constructing knowledge. Although I have been using the terms "principle" and "concept" interchangeably, here I will use the term "concepts," since this is a term used extensively in education. Although there are many broad concepts that are discipline-specific, the concepts to which I will be referring are those universal, systemic principles that are implicit if not explicit in every academic discipline: interdependence, diversity, structure/function. Because these concepts can be applied in meaningful ways to every field of study, they suggest the interdependent nature of all forms of knowledge and provide powerful cognitive tools with which to bridge the chasms that exist between the various disciplines.

My working definition of "concept" is a big idea that helps us makes sense of, or connect, lots of little ideas. Concepts are like cognitive file folders. They provide us with a framework or structure within which we can file an almost limitless amount of in-

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Ed passed away in the summer of 2010, and as a tribute to him and his unique contributions to this Journal over the years, Encounter is proud to republish, in quarterly chapter-length installments, his entire book, *Designing and Implementing an Integrated Curriculum: A Student-Centered Approach.*

formation. One of the unique features of these conceptual files is their capacity for cross-referencing. Because concepts focus on similarities and homologies, they provide powerful linkages between what would otherwise be considered disparate and seemingly incompatible information. For example, think of how many "little ideas" from almost every field of knowledge can be linked together under the concept, "hot." Once a child learns experientially what "hot" means, she can make an almost infinite number of connections and associations without having to be burned again.

Because of their amazing capacities of association, concepts are the primary cognitive information organizing strategies, and, as such, are the most powerful and therefore most useful cognitive tools available to us. Most of us are completely unaware of how we use concepts. Symington and Novak (1982) remind us, "It is through the concepts we form, and the linkages we make between them, that we make sense of the world around us." Theodore Roszak (1994) echoes this when he writes, "The mind thinks with ideas [or concepts], not with information [or facts]."

Bruner (1960) was referring to concepts when he discussed the role of structure in thinking and learning. He identified four essential functions that concepts perform in helping us organize our perceptions and understanding of the world.

1. *Concepts provide structure for a discipline.* In every academic discipline there are a set of fundamental concepts and principles that constitute the conceptual structure of the discipline. Earlier I compared such concepts to the studs that frame a house. While studs do not provide detailed information about either the rooms or the house, they do furnish an overview of the shape, size, and layout of the rooms and a structural schema of the entire house. In like manner, while concepts don't provide information about the details of a subject, they do make it possible to understand the relationships that exist within that discipline and how it functions as an integrated knowledge system. Based on the importance of understanding this structure, the National Center for Improving Science Education has proposed a set of conceptual themes for organizing science curriculum: "cause and effect, change and conservation, diversity and variation, energy and matter, evolution and equilibrium, models and theories, probability and prediction, structure and function, systems and interaction, and time and scale" (Brooks and Brooks 1993). Although these concepts represent fundamental scientific processes, from a systems perspective, they can be applied to other subjects as well.

Once a learner has grasped these relationships, she has a context for asking appropriate questions to find whatever information is required for a given task. In an age where we are swamped by information overload, to understand the conceptual structure of a subject is to literally know more with less information. This is why, to paraphrase the Chinese proverb, "a concept is worth a thousand — or perhaps ten thousand — facts." What an energy and time saver!

2. *Concepts provide a framework within which details can be more readily understood and remembered*. The conceptual framework of a subject is a natural, built-in mnemonic. Once grasped, this structure provides a context-of-meaning for learning detailed information in the form of facts and data. Because what is being learned can be associated with what is already known, it becomes meaningful (i.e., "full of meaning") and can be remembered with relative ease. Gurley (1982) has demonstrated the degree to which concepts aid learning. In a ninth grade introductory biology class, concepts and concept mapping were introduced as a structure for learning more detailed information (Figure 6-1). On a test administered *a year later*, the retention rate of the experimental group was 80% higher than the control group, which had been taught using the conventional method — beginning with facts independent of any conceptual framework.

3. *Concepts are the primary bridges which make transfer of learning possible.* The transfer of learning is one of the most misunderstood concepts in education. Far from being a "science" that can be taught, as David Perkins and Gavriel Salomon (1992) suggest, the transfer of learning is an innate, intuitive capacity that is as natural as thinking and learning. Indeed, from what we now know about how thinking and learning take place, it seems clear that transfer is an integral feature of the cognitive process I have called intelligence/thinking/learning. The primary reason that so many adults are unable to transfer what has

been learned in one situation to a different situation is because they have been programmed to think linearly, inductively, and in little boxes.

Hilda Taba points out that each academic discipline has its own array of distinctive facts that have little or no meaning within other fields of study. As long as learning focuses on these "facts as building blocks," no transfer of learning is possible because

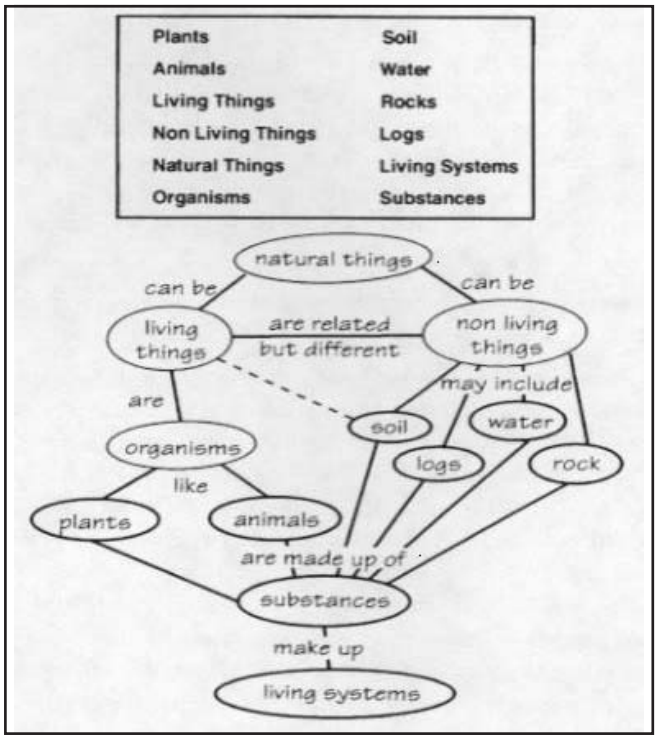

Figure 6-1
Concept Map for a Biology Chapter

there are no natural bridges between the disciplines. As Taba's taxonomy of knowledge makes clear, the key to the transfer of learning is a conceptual framework that bridges the various disciplines and shows how things are related to each other. Since there are a number of fundamental concepts that all disciplines share, these concepts can provide the necessary nexus between disciplines. For example, once a student learns the intrinsic relationship between *structure* and *function*, that insight can be applied in any arena, e.g., art, music, math, science, social studies, and language. In the same way, the other concepts identified by the National Center for Improving Science Education for organizing science curriculum — e.g., cause and effect, change and conservation, diversity and variation, energy and matter — are universally relevant. Once they are learned in science, they can be applied with meaning in virtually any subject.

Thompson School eighth grade team leader Doug Thompson notes that although members of the team were still teaching their own individual subjects, "The major strength for kids this year is that we are all talking about the same questions and concepts."

A second grade teacher found that her students quickly understood, with no more than two or three examples, the ecological concept, *adaptation*. Once they learned this, there were able to make intuitive leaps — what educators call the transfer of learning — to discover examples of adaptation in other areas, e.g., humans adapt to cold weather by building houses. To return to an illustration used earlier, consider the transfer of learning implicit in the many ways we use a term like "hot." Although few adults understand the physics of heat, we all know what is meant by "hot pants," "hot stock," "hot number," "hot tip," and "hot idea." Even children — who presumably aren't capable of abstract thinking — can generate a list of things that are or can be "hot." In addition to the more obvious things, "hot stove," "hot sun," "hot water," kids who have been raised on MTV may also talk about a "hot band" or a "hot song." This is because children naturally see relationships and make connections, often far beyond the capacities of adults who have been programmed to think in little boxes.

Kathy Krug's face glowed as she told us about how learning transfer occurred for one of her students. Warren had just finished reading a column from the *Chicago Tribune* in which columnist Bob Greene wrote about Michael Jordan's daily early morning drives to the Chicago White Sox training facility. Talking about his father who had been murdered the previous year, Jordan told Greene, "I'm alone in the car, but my father is with me…. I remember why I'm doing this. I remember why I'm here. I'm here for him." Jeremy's eyes sparkled. "Ms. Krug, Michael Jordan was just like Rudy Matt in the

The Thompson Middle School, located in St. Charles, IL, was the site of one of the most ambitious applications of Clark's Integrated Curriculum. Many of the commentaries appearing in this article are from teachers and administrators at the school.

story, *Banner In The Sky* by Ramsey Ullman, we read last month, wasn't he!"

4. *Concepts provide the framework for lifelong learning.* Twenty-five years ago Bruner suggested that concepts were the foundation for lifelong learning. With the focus today on preparing students to be lifelong learners, it is crucial for teachers to understand that one of the first steps toward achieving this outcome must be a recognition of the fundamental role that concepts play in thinking and learning. *Concepts help us make sense of our world precisely because they are the vehicles that carry most of the information necessary for thinking and learning*. To attempt to teach someone to think or learn without using concepts as a framework is like trying to teach them how to paddle without providing them with a canoe. Another, perhaps more accurate analogy is that concepts are like railroad tracks. Teaching facts without first understanding concepts is like trying to drive a locomotive without first laying out the tracks.

5. *Concepts provide the cognitive framework that makes it possible for us to construct our own understandings of the world in which we live* (Brooks and Brooks 1993). As has already been noted, whenever we learn something we place it into some framework that we already understand. In so doing, we create our own interpretation and meaning. Indeed, learning is the act of interpretation that emerges from the interaction between the learner and the object of learning. As C. T. Fosnot notes, "Learning is not discovering more, but interpreting through a different scheme or structure" (Brooks and Brooks 1993). In short, learning is "meaning-making" and requires a context (a cognitive structure) to occur. In order to aid and abet our natural capacity for constructing knowledge, the Brookses propose that teachers structure curriculum around primary concepts and "conceptual clusters of problems, questions, and discrepant situations."

Concepts and the Theory of Living Systems

Of immense importance in becoming a lifelong learner is an understanding of what are generally known as systems principles — broad concepts that, according to the theory of living systems, are universally applicable. Because these concepts apply to all fields of knowledge, they provide us with a single conceptual framework for thinking and learning and with a virtually unlimited number of cognitive bridges for the transfer of learning. To return to the railroad analogy, one set of tracks can carry trains of belonging to any railroad company.

According to physicist Fritjof Capra (1994),

> The theory of living systems looks at the world in terms of relationships and integration. It recognizes that all life on earth is organized in an intricate web of inter-relationships. Far from being random, these relationships seem to be arranged in a series of complex, interconnecting patterns which we call living systems. *Whether we are describing individual organisms, social systems or ecological systems, these patterns are consistent, reflecting at all levels common properties and similar principles of organization.* (emphasis added)

These principles of organization are the principles of ecology. Although we tend to think of ecology as the study of nature's systems, the fact that human cultures are inextricably embedded in the these natural ecological systems, suggests that at some fundamental level, cultural systems are homologous — that is, "similar in structure and evolutionary origin" with natural systems. In short, cultural systems are ecological systems. As such, they may be considered subsystems of the planetary ecological system much the same way that the heart and lungs are subsystems of the human body. From this perspective, every academic discipline and professional field of work is ecological in character. For example,

- Sociology is the ecology of social groups.
- Political science is the ecology of collective decision-making.
- Economics is the ecology of finance and exchange.
- Anthropology is the ecology of culture.
- Business management is concerned with the ecology of organizations.
- Physics, chemistry, and geology are studies of the ecology of physical matter.
- Mathematics is the ecology of numbers and their relationship to physical matter.

- Reading and writing are fundamental expressions of the ecology of language and communication while art, music, drama, and dance reflect other, more subtle forms of the ecology of communication.

According to the theory of living systems, these academic disciplines share common properties and certain principles of organization with all other living systems from the simplest cell or organism to the global village. These are the principles and properties found in ecological systems.

Operating Principles for Living Systems

While there are hundreds of principles and concepts that characterize ecological systems, the primary ones include interdependence, sustainability, diversity, partnership, coevolution, fluctuating cycles, and energy flow. (Parts of the following descriptions are taken from Capra, Clark, and Cooper [1994].)

Interdependence

Interdependence is the unifying principle operative in all systems. As the first principle of ecology, it defines the nature of the complex web of relationships that exist among the individual parts of a system and between those parts and the system as a whole. Substantively, it is a relationship in which the success of the system as a whole depends upon the success of each individual member, just as the success of each member depends upon the success of the whole system. In ecology, this relationship is illustrated best by the relationship that exists between an ecological community and the individual niches which make up that community. Each niche represents a functional slot in the ecology of a community. In a food chain, for example, each species often has a highly specialized function: providing food for a predator species and at the same time acting as predator for the species on which it feeds. If a particular species is wiped out by disease, the stability of the entire ecological community is, to some degree, diminished. In the same way, each business in a small town community fills a unique niche. Anytime one of these businesses fails and is not replaced, the stability of the community is, to some extent, diminished. In both ecological and human communities, the success of these niches — whether species or business — depends upon the success of the community as a whole, while the success of the entire community depends upon the success of each niche.

Interdependence is a universal characteristic recognized as being fundamental to the success of all social, economic, and political systems. As an integrative concept, it can be applied with equal appropriateness to a work of art and the study of a galaxy; to writing a sentence and learning a language; to computer science and the engineering of a spaceship; to the sociology of a family or of a multinational corporation; to economics, political science, or ecology. Because of its comprehensive relevance, interdependence can become a powerful unifying strand in the broad tapestry of thinking and learning. Once a child understands what interdependence means, he or she is able, through the transfer of learning, to operationalize the concept in a virtually limitless number of applications.

Sustainability

Every system requires a resource base to provide the raw materials upon which the system depends for survival. Because every system is finite, its resource base is necessarily limited. The long-term survival (sustainability) of any system depends on its ability to live within these limits. While there are tolerances, there is always a point of no return beyond which a system cannot extend itself and recover. For example, in a severe drought an ecological community may be pushed beyond its capacity to restore itself.

These limited resources define the system's carrying capacity, i.e., its ability to sustain itself indefinitely on the given resources. A garden has a carrying capacity. So does a home, an office, a schoolroom, a business, a nation, and the planet. When the limits prescribed by available resources are exceeded, there is trouble. For example, just as an overcrowded garden is less productive, so crowding in an office inevitably cuts down on productivity. Crowding in a classroom always has negative consequences on learning. Crowding in our cities produces physical hazards — ranging from joblessness, homelessness, disease, and crime to more subtle psychological hazards, such as loneliness, stress,

depression, anger, frustration, and powerlessness. These conditions are symptomatic of system disequilibrium — "dis-ease." While initially the symptoms may not be obvious, once they reach a critical mass, the result can be total systemic collapse, e.g., revolution.

Diversity

The successful maintenance and stability of any system depends substantially on the degree of complexity and diversity of its network of relationships. In general, greater diversity results in greater stability. For example, an oak forest with its rich diversity of life is far more stable than a cornfield, which is essentially a monoculture. A natural forest is more stable than a man-made forest of Douglas firs planted by a lumber company. Stability in cultural systems also requires diversity. The diversity of ethnic and cultural backgrounds is one of the strengths of our nation. In spite of our envy of Japan's success, her major weakness is the lack of ethnic diversity. What appears to be strength may in time prove to be a fundamental weakness. It is ironic that both Japan and Germany, the two aggressor nations in World War II, were both in essence ethnic monocultures and highly susceptible to ideologies based on ethnic superiority. Such ideologies would have a harder time in the United States because if they appealed to one group (such as white supremacists), at the same time they would be rejected by many other groups. In all human organizations, diversity is necessary to maintain stability. This is especially important in our age of narrow specialization.

Partnership

All members of any living system are engaged in a subtle and dynamic interplay of competition and cooperation, involving countless forms of partnership strategies. These two powerful drives ideally function in a unique reciprocal relationship much like centrifugal and centripetal forces. When a dynamic balance between the two is achieved, the power and thrust of adaptive change results in both stability and creativity, each of which is crucial to the success of all living systems. When this balance is lost, the stability of the system is endangered. Too much competition leads to burnout and self-destruction. Too much cooperation leads to passivity, inertia, and apathy. The dynamic quality of this partnership principle is highlighted by the insight from chaos theory that creativity and novelty emerge at that elusive boundary between chaos and order (Briggs and Peat 1989).

Competition is one of the most misunderstood of all ecological concepts. It is a dogma of capitalistic society that unbridled competition is the fundamental driving principle in the natural world. Extrapolating from this interpretation of natural principles, there is a powerful bias in our country toward unrestrained competition in human economies, i.e., social Darwinism. The irony is that there is no such thing as unrestrained competition in nature, and no one believes in unrestrained economic competition. In natural systems, competition within species is always constrained by cooperative strategies such as territoriality and dominance hierarchy. Competition between species is controlled by factors such as adaptive modifications, which often result in two similar species utilizing entirely different food sources. In cultural systems, the most vocal defenders of unrestrained economic competition are often the first to exploit political means to protect themselves from the very competition that they defend.

In short, competition apart from cooperation is essentially a meaningless concept. Even in so-called competitive sports, successful competition requires some form of cooperative behavior. Indeed, one cannot conceive of a game without rules, whether it be the "game of life" as played in nature or the economic game as played in both capitalist democracies and communist dictatorships.

Co-Evolution

Change is a universal principle that reflects the impact of time on all systems. Systemic change occurs as species and groups coevolve through an interplay of creation and mutual adaptation. Ecosystems also coevolve with the larger systems of which they are a part. In each case, the *creative selection of novelty* in response to the changes in its environment is a fundamental property of life. This response is manifest in the process of change, growth, development, and learning and results in both creativity and increased diversity. The inability of a system to co-evolve eventually results in extinction — for a plant or animal species, for an indigenous

culture, for a business, for a national government, for the human species.

Fluctuating Cycles

The interdependencies among the members of a system involve the exchange of information, i.e., matter and energy, in continuous cycles. These cycles act as feedback loops that make possible the healthy, dynamic balance required by the system. These cycles have the tendency to maintain themselves in a flexible, fluctuating state as they provide various levels of tolerance in the dynamic interplay between stability and change.

There are two kinds of cycles in natural and cultural systems. One is the rhythmic fluctuations that occur over time, such as the seasons, life cycles, and economic cycles. The other refers to the physical recycling of materials — the flow and exchange of atoms and molecules of matter through physical systems, such as the planetary ecological system and the human body, and the flow of money as a symbolic substitute for materials that flow through cultural systems. Cycles in living systems are never static. Rather, as rhythms of change, they reflect the ongoing adaptive processes of a system. Because of their dynamic nature, their function in living systems can be described best in cybernetic terms as information feedback loops. Just as urinalysis provides information/feedback about the health of the human body, the quality of our planetary water supply provides us with information/feedback about the health of our ecological systems. Historian Arthur M. Schlesinger, Jr. (1986), has identified a cyclical rhythm in our national life that oscillates between public purpose and private interest. He suggests that true cycles are self-generating, driven by their own internal rhythms. Each phase flows naturally from the conditions of the previous phase, and in turn, creates the conditions that call forth the next recurrence. In a similar manner, cycles are relevant to every subject studied in school and every arena in life. For example, power utility companies design their systems to account for peak and nonpeak loads. In the same way, we can apply our knowledge of how growth/rest cycles shape ecological systems to cultural systems such as economic or organizational systems, to make them more efficient. For example, burnout reflects a failure to apply what we know about growth/rest cycles to human and organizational systems.

Energy Flow

All living systems are open systems and as such are dependent upon an external energy source for survival. Just as our planetary ecology is dependent upon the energy from the sun, all plants and animals are dependent upon an external energy source in the form of food. If we were able to think of food as energy, we would learn to be as careful about the food we take into our bodies as we are about the quality of gasoline we use in our automobiles. Cultural systems depend for their survival upon an external form of energy called *information*. Money, knowledge, and data are all forms of energy transformed into information — energy in-formation — by the human mind. Just as the health of natural systems depends upon a free flow of solar energy throughout the system, so the health of cultural systems requires a free flow of information, e.g., money, knowledge, and data, throughout the system. System imbalance occurs whenever there is a glut of energy/information, e.g., money, in one part of a system at the expense of the rest of the system. If this becomes too pronounced, a systemic embolism may result.

Table 6-1. Ecological Principles and Concepts

Ecological Principles	Related Concepts
Interdependence	Community/Niche, Network, System Models
Sustainability	Carrying Capacity, Habitat, Limits
Diversity	Similarities and Difference, Stability
Partnership	Cooperation/Competition, Structure/Function, Cause/Effect
Coevolution	Change, Adaptation, Succession, Values, Choice, Creativity
Energy Flow	Energy Exchange, Information Flow, Power
Fluctuating Cycles	Feedback, Cycles, Patterns, Balance, Permeable Boundaries, Tolerances

While these are the major organizing principles that characterize living systems, there are a number of related concepts such as those recommended for science education, which are also universally applicable. Table 6-1 identifies some that are particularly useful in educational settings.

How Concepts Frame an Integrated Curriculum

Since all academic disciplines are in some elemental way ecological systems, these principles/concepts can be powerful cognitive organizers for framing an integrated curriculum that bridge all of the disciplines. Because, as Bruner notes, these concepts can be taught in some way to children of all ages, they can be used to integrate a curriculum vertically, that is across grade levels. This is what Bruner meant by a "spiral curriculum" — one in which certain basic concepts are revisited year after year, each time with new information and insight. This is a far more powerful and natural means of articulation than that found in conventional curricula with its linear, often arbitrary progression of ideas, subjects, and themes from the simplest to the more sophisticated. Figure 6-2 shows how the K–8 grade level curricula discussed earlier could be integrated vertically using the ecological concepts.

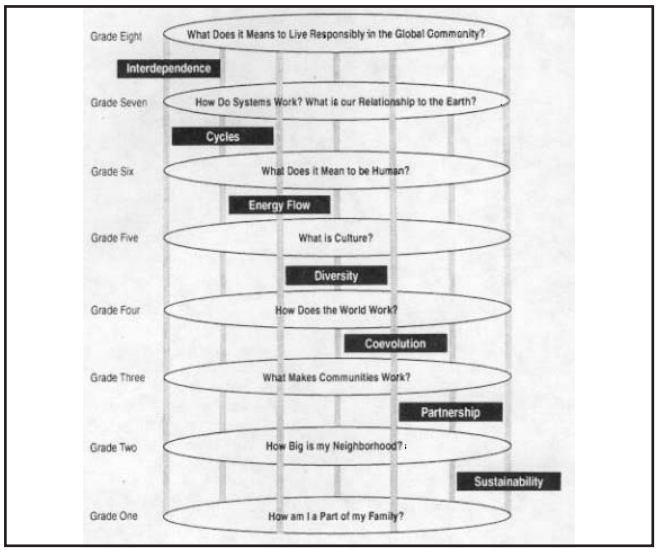

Figure 6-2
A K-12 Curriculum Framed by Seven Concepts

I will illustrate how some of these concepts might be used with the Focus or Contextual Questions in Chapter Five. Because of their ability to facilitate inquiry and learning, questions are useful for directing attention to specific concepts and their relevance to Focus or Contextual Questions. As might be expected, many of the questions apply equally well to several Focus Questions, e.g., families, neighborhoods, and communities.

Focus Question:
How Am I a Member of Many Families?

- What are the similarities and differences among the members of your family? What would it be like to live in a house where everyone was exactly alike? (Diversity, Tolerance, Variety) What are the different kinds of chores that the various members of your family perform? What happens when one of you doesn't do his or her job? (Interdependence, Partnership, Niche)
- Draw a diagram or picture that shows how each member of your family depends on the others family members. (Interdependence, Patterns, Models)
- In what ways do you compete with others in your family? How do you cooperate with them? Which do you do most? What happens when you become too competitive? (Partnership, Diversity, Cause/Effect)
- What happens when a new baby is born into a family? (Co-creation, Diversity, Interdependence, Partnership).
- How many ways do you use to communicate with others? (Energy Flow, Information Flow, Feedback Cycles)
- How is your family different now than it was a year ago? Five years ago? What do you think it will be like when you are 10? Why? (Change, Diversity, Adaptation)
- What are the rules that determine how you spend your money? What would your family do with more money? With less money? (Sustainability, Limits)
- How would your life be different if you lived in your neighbor's house instead of your own? If you lived in the next block, or a different city. (Habitat) How do you get along with your neighbors? How are your neighbors like you, and how are they different from you? (Community, Diversity)

Focus Question: What Is Culture?

- What kinds of resources does a neighborhood, town, city, and country need? How does its resources influence a town or a nation? What happens when a neighborhood, town, city, or country uses up all its resources? What can you know about a culture from its location? (Sustainability, Carrying Capacity, Habitat, Niche)
- How do people in a culture communicate with each other? (Energy Flow, Feedback Cycles, Information Flow, Patterns)
- How do cultures change over time? (Change, Stability, Diversity)
- Why are cultures different from each other? (Diversity, Adaptation, Change, Choice, Values) How do people in a culture compete with each other? How do they cooperate? (Partnership) Suppose all cultures were exactly alike? (Diversity, Partnership, Tolerance)
- How do the forms of transportation (or tools or food or shelter or technology) in a culture reflect the needs of the people? (Adaptation, Structure/Function, Creativity, Cause/Effect, Probability/Prediction)
- What kinds of rules do cultures need? (Limits) How are decisions made concerning rules? (Choice, Diversity, Cooperation/Competition)

Focus Question: What Does It Mean to be Human?

- In what ways is diversity built into our bodies? How are our bodies like systems? How are our minds like systems? How do the cells in our bodies compete/cooperate?
- How is my body like the Earth, like the Milky Way Galaxy, like a pond, like an earthworm?
- In what ways is my body a community or neighborhood?
- What kinds of energy does my body require to be healthy? What kinds of energy do I put into my body?
- How is language a feedback loop? How are my emotions a feedback loop? What kind of feedback do my various emotions give me? How are my thoughts a feedback loop? How can I learn from these feedback loops?
- How many different roles do I play each day? In what ways are these roles similar or different? Which is the real "me"?
- What kinds of limits/rules do I live by? What happens when I ignore these limits or break these rules? Which ones can I ignore without negative consequences?
- What cycles and patterns shape my life? What can I learn about myself from them?
- In what kinds of situations am I most creative, least creative?

Focus Question:
How Does One Live Responsibly in the Global Community?

- What is the relationship between global resource distribution and national stability and global stability? What is meant by "bio-regionalism"? What would bio-regionalism do to local economies, to national economies, to global economies?
- What forms of communication are best suited to enhance global cooperation?
- What features do all cultures share? Which are distinctively different? What have we to learn from other cultures? What does our culture have to teach other cultures? Who decides which things are good and which things are bad about another culture? about your own culture? What is meant by "cultural hypnosis"?
- What is a reasonable standard of living for all humans based on the available resources? What changes would have to occur if everyone was to have "enough"?
- What is the carrying capacity of Planet Earth? How does technology affect the carrying capacity? What determines the carrying capacity of the planet, or a nation, or a region?

- How has technology decreased sustainability? How can technology improve sustainability?
- How can we learn from "patterns of change"?
- In what areas is it healthy to compete and in what areas is it more healthy to cooperate?
- How can we increase the number of self-governing communities without causing anarchy?
- What are the macro-constraints within which human societies must learn to live?
- What kinds of rules would be necessary to live cooperatively in the global village? What kinds of rules govern other villages?

Introducing Concepts in the Classroom

I have found that one of the best ways to introduce concepts is "clustering," a form of concept mapping that Gabrielle Rico uses as a brainstorming strategy for creative writing. It is a simple and extremely useful technique for creating a collective cognitive map, sometimes called a mind map or a concept map. The process is simple: The teacher puts the concept on the board or on a sheet of newsprint, draws a circle around it, and invites students to brainstorm any words that come into their minds. The words are added to the map either arbitrarily or by connecting each new word to one already on the board. The only rule is that *anything goes.* The teacher must avoid the temptation to edit the contributions of the students. Comments like, "How does that fit?" or "Are you sure that's what you mean?" send messages that soon discourage anyone from participating. This is not the time for discussion or detailed explanations. These can come later. It is appropriate and often helpful for the teacher to add words that he or she thinks might help students understand or use the concept. Figure 6-3 is a clustered concept map created by a sixth grade class as an introduction to a discussion about global cooperation.

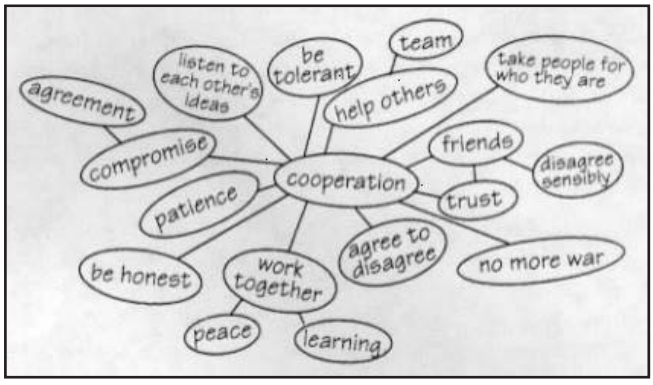

Figure 6-3
Clustering the Concept "Cooperatiion"

In addition to introducing new ideas and concepts to students, clustering provides the teacher with useful information. For example, it is a great way to discover misconceptions or lack of understanding such as those that often occur in math. For example, a second grade teacher whose children were having difficulty with simple addition and subtraction problems decided to cluster the two concepts, *addition and subtraction.* She found, to her surprise, that more than half her students didn't understand what the concepts meant. When she acknowledged in my workshop that "of course, they understand 'more than' and 'less than,'" I suggested that the problem was a language problem not a conceptual problem. Once her students understood that addition always meant "more than," and subtraction always meant "less than," their math scores improved almost overnight. A fifth grade teacher couldn't seem to make her students learn about fractions until she first associated "fraction" with "a part of." I would venture to suggest most of the difficulty students have with math would be eliminated if teachers learned ways to introduce math principles and concepts in simple, understandable ways before moving on to "math facts."

In another workshop, I suggested to a high school math teacher whose inner-city students couldn't understand how to find the area of a triangle, that he try clustering the concept of *area.* He found that while all of his student understood what the concept, *area,* meant, e.g., *turf*, only a few had associated *what they already knew* with the formal mathematical definition that he had been using in class. Thereafter, when he asked students to determine the "turf of a triangle," almost everyone got it right. They knew the correct formula. They just couldn't conceptualize what he was asking them to do. Once he was certain they understood the concept, he reintroduced the formal definition and demonstrated how it was related to their own experience of "area."

Clustering also helps teachers find out what students already know. I have had many teachers share their surprise to find that almost without exception, whenever they introduced a new concept one or more of the students *already understood it*. Based on the clues that other students gain from those who already know it, the students often learn the concept without additional help from the teacher. Following a clustering session, I have found it useful to have the class, either collectively or in cooperative teams, create their own shared definition of the concept. If these definitions need expanding, as with a more formal definition, the teacher can add whatever is necessary to insure that students have fully grasped the relevant implications of the concept.

Since math is often the most difficult subject to incorporate into an integrated curriculum, Donna Stockman's seventh grade team decided to design an integrated unit around three concepts that were being taught in math — reasoning, problem-solving, and communication. In the process, students learned that these concepts are relevant to more than just math and that different subjects — science, social studies, literature, and art — provide a different perspective on each of the concepts. In addition, students learned that not only is the content of the various subjects different, but the processes, while similar, are also distinctive in each discipline.

Concept mapping is also a powerful strategy for helping students understand the relationships that exist among concepts. Joseph Novak and D. Bob Gowin (1984) provide an excellent discussion of concepts and their role in learning as well as a series of suggestions about how to introduce concept mapping at the various grade levels. As with clustering, concept maps help teachers see how students conceptualize the relationships among the various concepts being studied. Seldom, if ever, are two concept maps exactly alike, and students can learn from each other by comparing and contrasting their mental models. While there is no such thing as a "wrong" concept map, teachers can often tell when a student is confused about the meaning of a particular concept. Concept maps become marvelous crib sheets for remembering detailed information. After one high school biology teacher taught his students how to make concept maps, they created a huge room-length concept map on a chalkboard. Throughout the year, as new concepts were introduced, they were added to the map. This map became a powerful shared cognitive organizer for everyone in the class and often engendered in-depth discussions about the relationships among the concepts. Figure 6-4 is a concept map for the integrated unit "What does it mean to be human?"

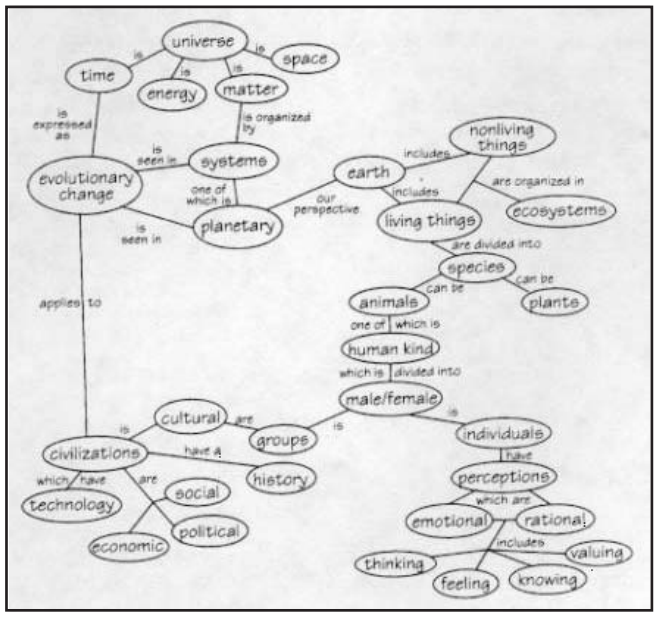

Figure 6-4
Concept Map for Unit on
"What Does It Mean to be Human?"

Perhaps the most effective way to introduce these concepts is to have students "discover" them by studying natural communities. There are a variety of very powerful hands-on activities that provide an experiential introduction to some of these ecological principles. One of the best resources for such activities is Steve Van Matre (1972, 1974). His Institute for Earth Education has developed a series of highly imaginative experiential activities and programs designed to teach many of the same concepts discussed here. At Thompson, teams have often begun the year with field trips to a nearby prairie, a farm, or to the Fox River, which runs through St. Charles. The sixth grade students also participate in outdoor education programs, which are ideal opportunities for students to gain some in-depth understanding of these concepts. For example, Ruth Ann Dunton's team designed a program where students explored five different ecosystems — prairie, pond, marsh, decidu-

ous forest, and pine forest — using the same systems concepts discussed above. Because these principles had been used to frame their studies since the beginning of the semester, students were familiar with them and were able to apply them in a natural setting with ease. Later, in the spring, the students conducted a river study, which allowed them to explore the Fox River from the same perspectives.

Two of the eighth grade teams used a visit to the restored prairie at nearby Fermilab as the basis for an integrated science unit using the concepts of diversity, change, and structure/function. The purpose of the trip was

> NOT for students to memorize specific facts but instead to internalize the "feel," the "look," the "smell," and the "sounds," of the prairie…. It was exciting to see students of all ability levels apply knowledge and skills learned in the science classroom to the activities they participated in on the field trip — and then to see them bring their field trip experiences into other academic classrooms, e.g., using a prairie background for a play being performed in Language Arts. It was obvious that they had experienced the real thing. The questions generated by our study of the prairie ecosystem were investigated throughout the year and served as sources of additional questions on many different topics.

Conclusion

Given the centrality of concepts in thinking and learning, it is surprising to find that few teachers have any idea of how knowledge is structured or the role that concepts play in thinking and learning as we interpret and make meaning from our experiences of the world. Their ignorance is illustrated by the sixth grade teacher who, in a workshop, shared her concern that students couldn't remember how to do math word problems from one day to the next. They could do them on Friday, but by Monday had apparently forgotten the process. I suggested that they had a problem with concept development. Obviously surprised at my suggestion, after giving it some thought, she agreed. Her response was: What can I do about it?

I have found that once teachers understand how concepts can be used in curriculum design and are then introduced to the ecological concepts, they have no difficulty in identifying relevant applications in their own subject areas. For example, when I first introduced the ecological concepts discussed above to the Thompson teachers, I assigned each faculty team one of the concepts that was written on a sheet of newsprint. Then, with a teacher on each side using a different color magic marker, they brainstormed all of the connections they could think of in their particular subject. After a few minutes, they rotated and, after reading what had been written by the other teacher, repeated the process. They continued the process until everyone had written on all four sides. The result was a colorful collage of ideas all of which, in one way or another, related to the original concept. Not only had each team created a resource for curriculum planning that could be used in the coming months, they had also learned a strategy that could be used in the future both among themselves and with students.

On another occasion, I had the opportunity to work with the St. Charles High School department chairpersons to identify a short list of concepts that could be used as a "vertical framework" by teachers in all disciplines at all grade levels. I asked each participant to list the five concepts they considered to be essential to an understanding of their disciplines. The three that appeared most often were *interdependence, diversity*, and *structure/function. Systems* and *change* were also included in several lists. The process that I began with the department chairs was later expanded to involve other members of the district-wide curriculum committee, which included teachers and administrators from the various levels. A few months later the committee finalized a list of eight concepts that could be used as integrative principles both horizontally across disciplinary boundaries and vertically across grade levels. The eight concepts are: systems, diversity, structure/function, change, balance, sustainability, interdependence, and valuing.

While these concepts have no formal status within the district, they are being used informally. For example, seventh grade social studies teacher Dan Kroll decided to design an entire unit around the

concept of *values* and *valuing*. One of the unique features of this unit was the flexible schedule agreed upon by the team. Dan had the students for five consecutive periods a day for a full week. This provides an exciting opportunity for continuity and intensive participation, with some team work and some individual work. When the week was over, students expressed appreciation for the opportunity to study something without the normal interruption that meant starting all over again each day.

Dan first had students brainstorm a list of current social problems, e.g., environmental damage, homelessness, hunger, crime, violence, and intolerance. This was followed by a discussion of the values that seemed to control the thinking and action which led to these problems, e.g., right and wrong, responsibility, power, greed, sportsmanship, and innocent until proven guilty. Each day students clipped articles from the *Chicago Tribune* and placed them in personal portfolios along with a brief written summary of each issue and related values. The final product was a poster collage reflecting a value message that the student wished to convey with the poster. One girl created a poster on political leadership. She collected pictures of all the world's political leaders she could find and identified them by name and country. Across the poster in bold letters was the slogan, "Would you buy a used car from these guys?" The poster's effectiveness was demonstrated by a lengthy all-class discussion about political leadership in general and some of the world's leaders in particular. In a roundtable discussion at the end of the unit, Kroll found that "students could not believe they talked at home during dinner about the daily news. Even parents were surprised at their comments and maturity on these social issues." Needless to say, students have a much more complete understanding of *values* and *valuing* as a result of the unit.

Whether discussed individually or as a group, because of their universal relevance, these ecological concepts provide a powerful conceptual framework that encompasses all disciplines and all knowledge. Whether one is learning previously constructed knowledge or constructing new knowledge from bits of information, this framework can become an indispensable aid for lifelong learning.

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Unschooling and the Willed Curriculum

Carlo Ricci

The willed curriculum nurtures body, mind, spirit, and emotions in authentic, organic, and genuine ways, as it prepares learners for a full and rich life.

One of the things that attracts me most to unschooling is my interest in child advocacy. In fact, I primarily see myself as a child advocate. Unfortunately, we can do things to young people that we would never dream of doing to adults. In part, I believe that because we have so little trust in youngsters. Fortunately, there are people who are setting up spaces and places where young people can be raised and learn with love, respect, trust, care, and compassion. I believe that we can learn a lot from the learner-centered democratic worldview and that we should look to them as powerful examples of how to treat young people and have them learn in gentler ways.

To illustrate how disrespectfully we treat our young, Epstein (2007, 11) concludes his study of adolescence with the following:

> One would think that military personnel — obligated to follow orders without question — and prisoners — stripped of most of their rights by the criminal justice system — would be far more encumbered than noninstitutionalized teens. But that's not what I found…. Teens appear to be subjected to about twice as many restrictions as are prisoners and soldiers and to more than ten times as many restrictions as everyday adults.

Although Epstein's study focused on teens, the same disrespect applies to those even younger.

Unschooling is not a recipe, but a worldview. At its simplest, unschooling is a learner-centered democratic approach to education. Unschooling understands that young people are not lazy, but rather are very eager and capable of learning. Unschooling is based on the idea that all learners should be empowered and have a

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substantive say in what, when, where, and how they learn. Unschoolers should not have to give up control over their own learning simply because they decide to enter a school, but unfortunately that is often the case. In addition, unschoolers should decide whether they would like to remain in a formal school or whether they would prefer to opt out. To clarify, I am using the terms "learner-centered" and "democratic" in the way that Jerry Mintz (2004) does. He defines learner-centered education as "an approach that is based on the interest of the student rather than curriculum driven, where someone else has the idea of what you ought to be learning," and he defines democratic education as "education where students are actually empowered to make decisions about their own education and, if they are in a school, their own school."

I have two daughters. My eldest decided to attend school largely, I believe, because her good friend did, while the younger has currently decided not to attend school. Although, I would prefer that my daughters not attend mainstream schooling, ultimately the decision is theirs. I may disagree with their decision, but as a believer in the right for children to make substantive decisions about their lives, I consent and do whatever I can to support them. My schooled daughter and I have deep conversations and I try to mitigate the damage and wounds that I see that the mainstream schooling system inflicts on her — as I believe it does to all of us who walk through its doors, young and old, employees and employers, and volunteers.

However, people are doing schooling in learner-centered democratic ways without bells, assignments, tests, age segregation, report cards, competition; without an externally imposed curriculum, without rules that are created in a top-down fashion, and without punishments. In short, there are schools that are much more democratic than mainstream schools.

I have been fortunate enough to visit a number of these free schools and I can honestly say that of the many schools I have visited in my life, I have never seen more learning and a more positive ambience than when I enter these learner-centered democratic spaces. It is difficult to walk even a few steps without being intrigued at what activities people are engaged in. Some students are inside and some are outside. Some are working alone, others in groups. The activities that they engage in range from playing cards to using cell phones, computers, musical instruments, writing, reading, other traditional school subjects, and athletics. One powerful learning strategy they use that is often ignored in mainstream schooling is conversation. They talk with each other, and in doing so, learn a lot and become very skilled in the art of conversation. To see people of all ages freely interacting with each other, rather than being segregated by age, is simply magical.

This is not to say that problems never arise in such schools, but when they do they are dealt with in a very gentle, fair, and democratic manner. And most important of all, the rules are created by the community and can be changed by the community. Unlike mainstream schools where the rules are created and enforced only by those in positions of power, learner-centered schools ensure that those within their community are empowered in real and substantive ways.

As an unschooling family my children have never been punished. They have never experienced time-outs or any other form of externally imposed directive. They are treated with love, trust, respect, care, and compassion. This does not mean that we never disagree, but when we disagree we deal with it in democratic ways usually through dialogue and conversation. This has given me tremendous respect for how capable young people are. Often, because of these conversations, although I initially believed that I was correct, I later realized that I was wrong. This happens often and it is not a weakness, but a strength. We are not in competition with each other, but we should be working together to solve real-life problems. Often, when solutions cannot be reached, someone agrees to stand aside, knowing that we were all working together to try and find a solution and could not. If someone later comes up with a solution, we can always revisit the situation. This leaves little room for conflict because if we cannot collectively find a solution, we simply cannot. Of course, this is very rare and usually we can come up with something. Since, we can usually come up with solutions, the times we cannot are easier to stomach because we have shown over and over how committed we are to meeting all of our needs, and so when we can't, doing something you would rather not is easier to accept.

We are modeling what it means to be accommodating by being accommodating. As Noddings (2003, 80) suggests about care, "I have a picture of those moments in which I was cared for and in which I cared, and I may reach toward this memory and guide my conduct by it if I wish to do so." The more moments we have that we can picture, the better prepared we are to care or love or trust or respect. If we want a world with better adults, we have to provide better moments for young people to picture.

Love, Trust, Respect, Care and Compassion, and the "Willed Curriculum"

Love, trust, respect, care, and compassion for me are the cornerstones of unschooling. I have recently finished writing a book, in which I flesh out these terms and their connection to unschooling. My book is tentatively titled *The willed curriculum: What love, trust, care and compassion have to do with learning*. These four qualities are not linear or hierarchical in any way; in fact, they are holistic and are separated only for the purposes of discussion.

Love

I believe that love is critical to learning. If we have love we no longer need manipulation, coercion, and violence. Learning can happen in very gentle and powerful ways if learners love what they are learning, are in a loving place, and if they love themselves, the world, and all beings and things within it. The problem is that learners are often forced to learn things that are externally imposed, that they have no interest in or motivation to learn about. We create these artificial hierarchies and what really amounts to an arbitrary curriculum, and then force people to drink from a pool that ends up being a mirage. Instead, with love as the guide and the learner in charge of their own education — whether it be piano, or physics, or hockey — we will nurture body, mind, spirit, and emotions in authentic, organic, and genuine ways, and prepare learners for a full and rich life. We need to remove obstacles, not create them. We need to understand that every human is a gift, and has gifts to offer and we need to allow them to explore their gifts and not try to fit them into a standard mold.

Trust

We need to trust that young people can decide what they want to learn. In fact, they are the only ones who know best what their inner being craves, desires, and what within them is waiting to unfold. Not only must we trust the learner, but the learner needs to trust us and most importantly her/himself. Unfortunately, far too many adults believe that young people cannot be trusted to make these substantive decisions, using the poor choices made by some youngsters as proof. They forget that such behavior often reflects the negative effects of their mainstream educational experiences. Ultimately, as Holt (1989, 157) writes, "Living is learning. It is impossible to be alive and conscious (and some would even say unconscious) without constantly learning things."

Respect

We have to respect learners enough to understand that they can determine what they need to learn and how and when and where and whether. In fact, they are the only ones who can make this decision. This does not mean that they can never learn anything from others or should not want to; what it means is that they should always have ultimate control over their own learning. Respect needs to be mutual and tone must respect oneself.

Care and Compassion

Care and compassion lead us away from focusing only on ourselves. Thinking about others and the community is critical and I believe that unschooling is the best way to prepare people to understand the importance of care and compassion and the global "us." We need to provide moments of kindness for them to picture when it comes time for them to act and make decisions.

The Willed Curriculum

These four qualities bring us to the "willed curriculum." The most powerful way to learn is to be interested in and internally motivated to learn something; the willed curriculum ensures that this can happen. Learners need to learn what they will and however they will. Learning happens all of the time. Just imagine if we took this seriously and lived as if we understood that learning happens naturally, as

Holt suggests, all throughout our lives. Many believe the myth that there are critical periods of learning, but as Worden, Hinton, & Fischer (2011, 11) explain,

> While there is evidence for limited critical periods in brain development in limited domains (such as the strength of vision in the two eyes), no evidence supports a critical period for academic skills.

When learners are ready and motivated to learn something is the best time for them to learn. There is no point even learning to read if there is nothing you want to read. Reading should happen when you want to read. Of course, unschoolers know that reading in a print culture happens naturally, seamlessly, and holistically, not because of regimented externally imposed formulas. The result is that when people have a reason to read, they enjoy it. It is not a chore, but a willed activity. Kate Hammer (2011) recently wrote,

> The reason the American approach doesn't work? If children are pushed to read, for example, they might learn at an earlier age but research suggests they are also more likely to become disinterested in reading by the age of eight.

Hammer quotes Marilyn Chapman, an early learning expert at the University of British Columbia: "At the end of the day they don't like reading and writing and then they don't want to do it unless they're forced to; what's the point?" Indeed, what's the point?

The term "unschooling" is perhaps not the best one to use when explaining what this worldview entails. Others have coined different terms that essentially get at the same thing: "life learning," "natural learning," "organic learning," "open source learning," and "holistic education." However, the what terms are used are not as important as the positive lived experience that results from learner-centered democratic worldviews.

Unschooling, I believe, is the most powerful example of how authentic, genuine, and organic learning can happen. Unschooling is not new; it is, in fact, older that mainstream schooling; it is not something that we have to learn to do, but something that we naturally do all the time. We simply need to be more mindful of how we have been making use of this powerful learning philosophy and increase its use and value within our lives. The more my personal experience, research, and contacts with other unschoolers increases, the more convinced I am that this is a valuable and worthwhile worldview. I have met unschoolers from various demographic, financial and family backgrounds, including single parents, and they all find imaginative and creative ways to make it work, and work it does. One of the frustrating things I have to contend with is people, even academics, who have never heard of unschooling or met unschoolers, but who think they know one thing about it and that is that it cannot work. Rest assured that it can and does work and that it is working for many families. Perhaps John Holt (1999, 121) has provided one of the clearest examples of what unschooling means:

> Almost a century later John Dewey was to talk about "learning by doing." The way for students to learn (for example) how pottery is made is not to read about it in a book but to make pots. Well, OK, no doubt about its being better. But making pots just to learn how it is done still doesn't seem to me anywhere near as good as making pots (and learning from it) because *someone needs pots*. The incentive to learn how to do good work, and to do it, is surely much greater when you know that the work has to be done, that it is going to be of real use to someone.

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Holistic Education and Vedic Spirituality

Kumar Laxman and Aristotle Motii Nandy

Viewed through the lens of Vedic epistemology, learning involves not only paying attention to greater knowledge of the physical, temporal world but also to facilitating the development of all of the dimensions of human nature, particularly the inner spirit.

The Bhaktivedanta Dharma School (BDS) was founded by T. D. Singh (1937–2006), the International Director of the Bhaktivedanta Institute and a pioneer in interfacing the fields of science and spirituality. His intention was to provide a world-class holistic education that the local Indonesian community in Bali could afford. The educational philosophy of the school lies in the fundamental principle that life comes from life. A corollary principle of the school's philosophy is the fostering of an understanding of the common principles of the major faiths in Indonesia, which is reflected in its religion curriculum.

As the word "Bhaktivedanta" suggests, the BDS curriculum combines the fruition of knowledge (Vedanta or the essence of Vedic scriptures) and devotion (Bhakti) to God (Krishna). The word *dharma* indicates the importance of developing the natural propensities of each child in line with the principles of spirituality, the beginning of which is a basic understanding of the difference between life and matter: that matter comes from life, not life from matter. The motto of the school *janmady asya yatah* epitomizes the spirit of its curriculum: to inquire into the source of everything, and to glimpse the unseen hand of the Supreme Living Being or God behind nature and everything that exists. *Janmady asya yatah* translated from its original Sanskrit means that from which everything emanates.

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BDS started as a preschool offering a dynamic early childhood curriculum that integrated the best of both the eastern and western approaches to enriching young minds. The strengths of both the value systems and the approaches to education were regarded as extremely important in the development of children. For instance, free expression of one's feelings and emotions and the ability to be spontaneous and creative are seen as hallmarks of western education, while strong mental and intellectual discipline in terms of academic rigor and following of rules are normally the focus in the schools in the east.

The role of the teacher in modeling "expert" or "expected" behavior is extended beyond the formal curriculum; the teacher plays a vital role in the character development of the child through his or her personal example and character. Teachers and other adults working with the school must embody the high standards of personal discipline and character that reflect the core values of the school: trust and integrity, compassion and objectivity, cleanliness and safety, and excellence and humility.

The holistic approach of the school is not only represented by the spiritual and character development of the children or the adoption of the best eastern and western worldviews, but also its inclusion of art, science, language, music, physical education, and mathematics in all subject areas, during and outside formal curriculum time. For instance, the presence of the divine can be found in observing the intricacies of flowers and insects: The creation of a beautiful work of art bears testimony of the artist, and this can be related to the beauty of the natural landscape and the hidden intelligence of a Superior Being.

A vital element in the holistic approach of BDS is the adoption of a purely vegetarian diet to elevate the level of consciousness. Students are served free vegetarian meals cooked in-house. According to Vedantic understanding, such vegetarian foods bring about a change of heart in the individual, relieving him or her of the lower modes of nature: qualities such as anger, greed, and envy. Such a diet helps children develop compassion in their hearts and reduces the level of violence in their play and other activities.

Also pivotal in the curriculum design is the understanding that because every child is different each needs to experience success at the very start of their learning. Hence, there is an emphasis on an individual approach to teaching that allows the child to develop according to his or her ability. In preschool this takes place during learning center time, during which the teacher works with small groups of students according to their ability, while a co-teacher interacts with the rest of the class at different learning centers. In primary school the teacher prepares more difficult worksheets for students who are of more advanced ability. Students who are developing at a slower pace have additional classes after school to help them in their development. BDS also adopts a novel approach to assessment in which there are two sets of tests: basic and advanced. All students sit for the basic paper, while only those selected by the teacher will sit for the advanced paper. As for non-academic subjects such as art, physical education, and music, students are assessed by cycles of feedback on their progress by their respective teachers that highlight areas which they have excelled as well as those they need to work on.

Prominent in the mission statements of BDS is the importance of helping children understand their emotions and express them in an appropriate manner. The school believes that learning cannot begin until emotional stability is achieved. A frightened child or one who is depressed or overly excited will find it difficult to be a constructor of knowledge. Hence, the paramount role of the teacher is to help children to be in the right frame of mind to learn. The administration of rules and regulations by force undermines the education process, which leads to an emphasis on allowing children to question in a respectful and gracious manner, thus developing an inquiring mind. During lessons questions by children are acknowledged and addressed. Blind acceptance by students does not help in their progressive development and search for the ultimate truth. This approach also fosters the value of objectivity in being open to learning and asking questions. This also means that teachers must exercise humility and acknowledge that there are questions to which he or she does not have the answers.

BDS provides children with the opportunity to explore a subject area from many different angles. Teachers are encouraged to prepare lessons using a variety of tools that cater to different learning abili-

ties; by exposing children to new learning methods they may use them when they are playing with their peers. A relaxed environment with music and humor also facilitates creativity in the classroom. A caring approach where children develop empathy for others and reflect on the consequences of their own actions is seen as crucial in the child's social-emotional development. Situations where children end up fighting or in tears are looked upon as opportunities for learning to take place. A safe and caring learning environment includes attention to children's physical, mental, emotional, and spiritual safety. While care for the physical well-being of children is obvious, it is important to note that BDS protects the mental and emotional well-being of children through the words that are used and the ways in which inappropriate behavior is addressed. The use of threats, sarcasm, and demeaning language that causes embarrassment, fear, or humiliation to the child is not allowed.

A substantial body literature exists on the distinctive attributes of a wholesome educational system, one that places emphasis on the uniqueness of every person, promotes the importance of developing both body and spirit, provides students with a wide spread of opportunities to grow as learners according to their individual capacities, and encourages learning that promotes both the acquisition of knowledge and the ethical application of that knowledge. Such literature deals with such topics as character/moral education (Nucci 1997), authentic education (Larimer 2008), spirituality in education (Zohar & Marshall 2000), and holistic/humanistic education (Martin 2003). The school is focused on designing a pedagogy that is delivered in a nurturing learning environment meant to educate the whole person.

This paper contributes to this growing corpus of literature by providing its own take on holistic education from the unique perspective of Vedic spirituality. Viewed through the lens of Vedic epistemology, learning involves not only paying attention to greater knowledge of the physical, temporal world but also to facilitating the development of all dimensions of human nature, particularly the inner spirit. Walsh (1999) argues that attention can then be focused on harmonizing the symbiotic interaction of the domain of the spirit with the physical realm to foster optimal learning. This paper attempts to operationalize the different aspects of holistic education through the application of a hermeneutic framework rooted to Vedic principles of authentic education. The contextual experiences of teachers at BDS in enacting a holistic curriculum on a day-to-day basis in their classrooms sheds light on how instructional practices that integrate intellectual, altruistic, ethical, creative, and spiritual elements of learning can be modeled.

Most of the teachers at BDS whom the authors interviewed for this study agreed that character building was an essential component of any form of holistic education. Unlike traditional mainstream schools where grade-based learning predominates, the teachers found the educational approach adopted by BDS to be personally enlightening. All of the teachers were fully committed to upholding and promulgating universal principles of morality and proper behavior. Their goal is the *optimal development* or "maximization of each student's unique potential within an ethical/moral framework oriented towards service" and not merely an obsession with grades as the cornerstone of academic accomplishments (Larimer 2008). Optimal learning is a dynamic process that involves progressive change in thought and behavior which results in a positive impact on the socio-moral character of an individual. The attempt is not to develop one dimension of a student at the expense of others but to empower the student to become a responsible citizen who is able to function intelligently, effectively, and morally.

Hansen (2007) has pointed out that the main defect of the traditional educational system has been that it is morally and ethically deficient since it encourages teachers to pour material into students' brains as if though they are empty vessels. No opportunities are provided to actively engage the mind. The mind as the operating system is the interface between the body-spirit nexus. So the emphasis is not only on knowledge but also on wisdom, which is viewed as the ethical application of knowledge. A permanent positive change in the moral thought patterns of students can best be effected when they are encouraged to engage in self-introspection and reflection on their own concrete experiences. Hence, teachers at BDS use a range of instructional strategies

in their classrooms (such as story-telling, dramas, use of arts and crafts to teach core disciplinary subjects) to foster experiential learning environments to bolster the educational potential of their students. There is greater opportunity for these teachers to flexibly experiment with innovative teaching methods and express their own teaching styles due to the absence of an overzealous focus on learning outcomes tied to grades.

Another common theme that nearly all interview participants spoke about at length was on the centrality of spirituality to the processes of curriculum design and implementation at BDS. Conscious awareness of the presence of God (Krishna) in every sphere of life and acknowledgment of His grace was a fundamental precept that is the cornerstone of the educational approach adopted by the management of BDS. Teachers were quick to point out that though spiritual inspiration is drawn from Vedic scriptural sources, spiritual practices at BDS were not sectarian but were conducted in a more syncretic way that reflects the pluralistic character of Indonesian society. The basic doctrinal tenets of other major religions and the historical narratives of the lives of key personalities who are prominent in these religions are discussed in an open spirit of sharing and learning. In addition, the strict policy of a purely vegetarian diet in school is an important part of spirituality, in the form of abstinence of violence to animals. This spiritual dimension to education merits emphasis since Larimer (2008) notes that there does not appear to be a methodical approach to developing the qualities of the spirit, qualities that are directly related to behaviors optimizing human development and educational outcomes dealing with the problems of society.

BDS has attempted to address this issue by systematically engaging teachers and students in contemplative inquiry and reflection on the higher purposes of life with a view to moving away from stereotypic biases and becoming more open-minded in their outlook. Laying such a spiritual foundation to educational practices is well-supported in empirical research literature. Zullig, Ward, and Horn (2007) found that there exists a connection between spirituality and life satisfaction. Muller and Dennis (2007) concluded in their study that educators should help students increase their spirituality for learning development to occur more effectively. Lindholm and Astin (2008) found that student-centric learning pedagogy was more common among spiritually inclined teachers.

On the problematic areas faced in the implementation of a holistic curriculum at BDS, most teachers cited having to shoulder greater responsibilities and meeting a different set of expectations as their greatest challenge. Unlike other schools where academic excellence is the highest priority, here at BDS teachers have to go beyond the normal scope of teaching duties and foster necessary support systems for the optimal intellectual, cognitive, moral, and spiritual development of students. Some of the teachers felt that they were not well-equipped with the proper pedagogical skills to be able to accomplish these objectives and felt they needed more training to become more competent teachers.

Conclusion

The main strengths of Bhaktivedanta Dharma School as reflected by the teachers interviewed for this study were the approach to implementing a holistic pedagogy based upon the Vedantic perspective of education, emphasis on character development together with academic excellence, the curricular focus on developing a scientific mindset alongside spiritual wisdom, adoption of English language as a practical working language in day-to-day communications, and an interdisciplinary approach to teaching and learning. Since the worldviews underpinning holistic education are spiritual in nature, the delivery of subject matter is interspersed with narrations from the lives of saints and other personalities found in Vedic canonical texts such as *The Mahabharata*, *Ramayana*, and *Srimad Bhagavatam*. The school also attempts to function not only as a center for learning for the children enrolled, but also for their parents and all teachers, staff, and the community at large.

Some of the main challenges faced by teachers at Bhaktivedanta Dharma School included adjusting to a new mode of curricular structure and delivery, lack of teacher training to be prepared for working in a holistic education environment, absence of pre-existing sample templates of lesson plans for reference, and orientating to the new role of a teacher who goes

beyond the normal teaching responsibilities in moulding wholesomeness in kids.

Overall, the teachers felt that despite the challenges faced in working in a start-up school like BDS which is anchored to a Vedic model of education with no precedent exemplars to refer to, the school was progressing in the right direction by guiding children to fully develop their intellectual capabilities in tandem with growing their spiritual potential through inquiry. In summary, the curriculum of BDS supports, fosters, and promotes children's physical, social, emotional, and spiritual well-being; positive attitudes and dispositions towards learning; social skills to cooperate and work harmoniously with one another; and communication, creative, and logical thinking skills and ecological awareness of the world.

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Book Review

Wild Play: Parenting Adventures In the Great Outdoors

By David Sobel

Published by Sierra Club Books
(San Francisco, 2011)

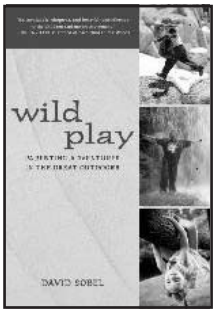
Reviewed by William Crain

David Sobel is a prominent child advocate who believes children need more opportunities to explore nature. His writings have ranged from the study of children's shelter building to practical recommendations for bringing children into contact with natural surroundings. He urges us to give children *direct experience* with water, rocks, soil, and plants — the kinds of experiences from which they can develop a love for natural places. Instead, children are often subjected to school lessons about global warming, rain forests, and other distant issues that rely on books and abstract concepts. Sobel has suggested that these school lessons can actually create fear in children, instead of the love of nature that will lead them to protect it.

In the present book Sobel becomes very personal. He describes the stories and adventures he shared with his own children that enriched their feeling for nature. Sobel writes very forthrightly, even discussing his divorce and how the family's relationship with nature helped it deal with the separations.

Early on, Sobel tells how his son Eli, then two years old, became afraid of a deer. Seeing this, Sobel told his son a story about a deer who befriends a young child and the exciting adventures they have together. Through this story, Eli overcame his fear. I think Sobel's wonderful stories will inspire readers to tell more stories to the children in their lives.

Sobel also possesses a deep understanding of child and adolescent development, and he indicates how adults can come up with stories and adventures that correspond to children's developmental status. He observes that young children, compared to older ones, appear to accept fantasy more readily, and he uses this knowledge in weaving his stories. As children get older, adventures that are more real-life are more appropriate, and Sobel suggests how outdoor adventures are especially helpful to children and adolescents. In his outdoor activities with his own kids, he wasn't afraid to allow for elements of risk, and as his youngsters met the challenges they gained confidence.



Although I loved almost everything in this book, I had a reservation about one conversation Sobel had with one of his daughters. When she was 3 years old, she became quite upset at the sight of dead fish in a market. "Why are they in there?" she asked. "Why are they dead? They want to be swimming around in the water" (p. 69). A few months later, she brought up the topic again. Sobel's response was that it sometimes makes him sad, too, but he likes to eat fish, and when we eat them, they become part of us, our skin and our hands. His daughter smiled and felt better (p. 70). But I wondered, Might he have considered the possibility that his daughter was right about the fish? Instead of trying to make her feel better about eating them, might he have reconsidered his own attitude? Perhaps he could have said, "You know, you're right. I'm going to think about whether we should kill and eat fish." Sobel points out that young children's empathy for nature is often greater than that of adults; we can learn from children.

This single episode aside, I think this is a terrific book. It reminds me a lot of Bettelheim's book on fairy tales (*The Uses of Enchantment*). Like Bettelheim, Sobel shows how helpful stories can be for children. And even more than Bettelheim, Sobel describes how deeply children appreciate it when adults share their interest in the natural world.

William Crain is a professor of psychology at The City College of New York and a senior editor of *Encounter*.

Book Review

Rethinking Popular Culture And Media

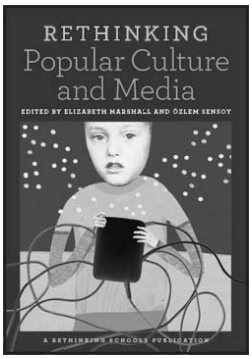
Edited by Elizabeth Marshall and Özlem Sensoy

Published by Rethinking Schools (Milwaukee, 2011)

Reviewed by Mary Anne Trasciatti

In their introduction to *Rethinking Popular Culture*, editors Elizabeth Marshall and Özlem Sensoy observe that good teachers "ground curriculum in the lives of their students" (p. 1). Popular culture, they note, is one of the most pervasive and influential aspects of students' lives: it provides information, teaches values, and models behavior. That popular culture is all around us explains why we need to examine it critically, and why we tend to do just the opposite, ignoring and thus facilitating its power to shape what we know about social relations rooted in hierarchies of class, race, and gender. Marshall and Sensoy insist that teachers have a responsibility to be aware of and fluent in the myriad pop culture artifacts and media to which their students are exposed, including video games, toys, books, movies, television, social media, and the like. They have culled 48 essays from the archives of *Rethinking Schools*, an activist magazine that engages educational theory and policy issues and explores challenges confronting urban public schools, in an effort to illuminate the workings of popular culture and provide examples for reflection on this taken-for-granted part of life.

The collection, written primarily by and for teachers, begins with a primer on popular culture. Marshall and Sensoy resist defining their subject, "given that *culture* is constantly changing and renders what was once *popular* soon to be outdated and perhaps quaint" (p. 3). Instead, they offer an *approach* to popular culture that includes a variety of forms and functions, including widely liked texts, so-called low culture, consumer culture, and space for cultural creation and critique. An explanation of the relationship between popular culture and media follows, including a brief discussion of cross-promotional marketing, a strategy deployed to maximum profitable effect by Disney and McDonald's until the former pulled out of the alliance in 2006, presumably to distance itself from accusations that fast food causes obesity. Marshall and Sensoy do not mention Disney-McDonald's, though they do cite other noteworthy examples, like the placement of Reese's Pieces in the 1982 film *ET* and Coca-Cola's ongoing sponsorship of the Olympic Games.



Against claims that popular culture is mere fluff and, as such, undeserving of serious study in the classroom or elsewhere, Marshall and Sensoy pose several questions to structure critical inquiry and discussion, including:

- How are youth making meaning of popular phenomena?
- What economic and political forces have helped make a particular text, toy, film, or game popular?
- How are youth using popular culture and media?
- How might teachers work with, and simultaneously critique, the texts that youth find pleasurable?
- How are youth and adults using popular culture and media to transgress or rethink their environments?

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These questions reflect the editors' position that any critique of popular culture is an inherently political endeavor. Indeed, Marshall and Sensoy explicitly advocate a critical media perspective that interrogates texts to uncover power and commercialism and illuminate hidden messages, though they warn readers that educators who choose to critique what is popular "enter into a high stakes game in which power, privilege, and corporate interests are the rule" (p. 6).

Consistent with the practical, activist orientation of *Rethinking Schools*, the bulk of the collection presents articles of varying lengths grouped around different approaches to critical media literacy. Every educational level is included. This organizational scheme allows educators to select essays that speak to their particular interests, pedagogical approaches, and political aims, as well as the needs and interests of their students. As they peruse different sections of the book educators can explore ways to study the relationship among corporations, youth and schooling; critique how popular culture and media frame historical events and actors; examine race, class, gender, sexuality and social histories in popular culture and media; view and analyze representations of teachers, youth, and schools; take action for a just society; and use popular culture and media to transgress.

Many of the essays are written in the first-person by educators who share innovative approaches and offer personal insights, including both frustrations and successes. Bob Peterson's "Math and media: Students use math to track media bias," Lisa Espinosa's "Seventh graders and sexism: A new teacher helps her students analyze media stereotypes," Ann Pelo and Kendra Pelojoaquin's "Why we banned Legos: Exploring power, ownership, and equity in the classroom," and Andrew Reed's "Stenciling dissent: Political graffiti engages students in the history of protest for social justice," are illustrative examples.

In Part 2, however, which concerns media framing of historical events and actors, all of the essays offer critical analysis of texts, which might guide teachers in their own approaches to these works, or provide examples for how to critique other bodies of literature. Herbert Kohl, for example, explores the Rosa Parks myth as represented in children's literature, arguing that racism is routinely described not as a social issue, but "as a problem between individuals that can be worked out on a personal basis" (p. 68). Ruth Shagouri, in "The Truth about Helen Keller," exposes how children's books present a bland portrait that fails to acknowledge Keller's work for political change, such as her birth control advocacy and anti-war activism and her criticism of the excesses of capitalism. Included elsewhere in the book are essays by noted writers Barbara Ehrenreich and Ellen Goodman, whose "Bonfire of the Disney Princesses" and "Kid Nation" appear in parts 1 and 4, respectively.

The book concludes with a bibliography of print and electronic resources that more deeply address popular culture theory and media criticism, as well as a list of organizations and websites, all of which have been recommended by the contributors. (A number of the articles contain recommended resources as well.) The academic studies, which are both important and accessible, will undoubtedly be helpful for teachers who wish to devise their own approaches and materials for exploring popular culture.

Recent critiques of higher education have pointed to the proliferation of classes about supposedly trivial matters (read: popular culture) as evidence of the moral and intellectual bankruptcy of American universities. Elementary, middle, and high school teachers who choose to incorporate a critical media approach to popular culture into their curricula open themselves — and their schools — to the same allegation. Should they be intrepid enough to go this route, Marshall and Sensoy's *Rethinking Popular Culture and Media* will prove an indispensible guide.

Book Review

The American Crucible: Slavery, Emancipation and Human Rights

By Robin Blackburn

Published by Verso (New York, 2011)

Reviewed by Alan Singer

In April 2011, I was fortunate to participate in an Underground Railroad Conference in Troy, New York, with Robin Blackburn. Blackburn, now seventy, is a British historian specializing in the study of new world slavery, both its institutionalization and its eventual abolition, and is one of the preeminent historians writing in English of his generation. Blackburn is a Professor of Sociology at Essex University in the United Kingdom and a Distinguished Visiting Professor of Historical Studies at the New School in New York City. He has been an editor and regular contributor to the British journal *New Left Review* since 1962.

Blackburn is a Marxist, but he examines and integrates sources from across the spectrum of historical approaches and argues at the end of this book that "the history of slavery and abolition does not recommend either fatalistic or facile conclusions" (p. 487). He believes that "Atlantic capitalism gained global momentum partly by seizing young Africans and fertile acres in the New World" (p. 488), but that is only part of the explanation. Blackburn rejects what he calls "church histories" that set out to identify saints and sinners because they ignore the complexity of historical development.

I purchased a copy of *The American Crucible* at the conference and it has not been a disappointment. It is a book written for historians rather than casual readers, but educated people trying to come to grips with the origins of racism in the western world and its continuing impact on American society will find Blackburn's latest book an invaluable resource.

Alan Singer is a professor of secondary education at Hofstra University, Hempstead NY 11549. He is the author of *Social Studies for Secondary School* (Routledge, 2008) and *New York and Slavery, Time to Teach the Truth* (SUNY Press, 2008). He writes blogs on educational issues for the Daily Kos and the Huffington Post.

One measure I use for evaluating a book, speech, or article is, "Did it teach me something, or get me to think about something I did not already know?" I have been reading and writing about slavery and the trans-Atlantic slave trade for forty years, but Blackburn made me pause and reconsider something I had always assumed to be true. In 1800, Thomas Jefferson defeated John Adams for the U.S. Presidency in an election that marked a shift in power from the Federalists to the Democratic Republicans. In standard historical narratives, including my own high school lessons for two decades, this election is described as a move away from elite rule and toward expanding democracy in the new nation. However, Blackburn points out that despite some democratic inclinations, Jefferson and his immediate successors, Madison and Monroe, represented the slaveholders of the South and they probably would not have been elected, especially Jefferson, if the Constitution, in what is commonly known as the 3/5 Compromise, had not given slaveholding states extra voting strength in national elections (pp. 142, 240). The ascendency of the Democratic Republicans, according to Blackburn, "offered enhanced rights and status to white citizens" that solidified the United States as a "White Man's Republic" (p. 234).

It was the Federalists who "tilted to Toussaint" during the Haitian Revolution while Jefferson's party defended French efforts to regain control over the colony, efforts that would have restored slavery (p. 241). In his letters, Jefferson described Toussaint and his followers as "cannibals of the terrible republic" (p. 242). These sentiments take on major historical import as the eventual abolition of slavery failed

to address underlying racism in the United States and western civilization (p. 277). In both the British and French colonial empires, slaveholders were compensated for the loss of slave labor but Africans were never paid for their work or recompensed for imprisonment (p. 281).

The American Crucible, which is almost 500 pages long, has an extended introduction on slavery and the west that everyone should read, four parts (Empires and Plantations, The Subversive Boom, The Haitian Pivot, and The Age of Abolition), and fourteen chapters. It looks at slavery in the United States, the Caribbean, and Latin America, anti-slavery movements in the old and new worlds, and the impact of slavery, the slave trade, and the trade in slave-produced commodities on the development of commercial and industrial capitalism.

Blackburn describes and stakes a position on a number of the most contested issues in the history of slavery. These include the similarities and differences between slavery in the ancient world, slavery in pre-Columbian Africa, and slavery in the post-Columbian Americas; the role of post-Columbian chattel slavery in the development of industrial capitalism; and the importance of New World African resistance movements, especially the rebellions in Haiti and on other Caribbean Islands, in precipitating an end to slavery and extending concepts of human rights. A great strength of the book is Blackburn's pan-Atlantic perspective as he compares the institution of slavery, its impact, its demise, and its continuing influence, across national boundaries in the Western Hemisphere, as well as on Europe, Africa, and Asia.

Old World Slavery

As a social studies teacher and teacher educator, I have regularly had to deal with teachers, generally white teachers working with primarily African American students, who use the existence of slavery in pre-Columbian West Africa to excuse the trans-Atlantic slave trade and the enslavement of Africans by Europeans in the Americas. Blackburn offers powerful rejoinders. While acknowledging that "slavery has been ubiquitous in human history" (p. 8), Blackburn distinguishes between societies where slavery existed but was peripheral to the production of goods and social organization, and slave societies where "individually owned slaves were the labour force responsible for producing the bulk of marketed surplus" (p. 8). Essentially, according to Blackburn and the historians he cites favorably, there have been only a handful of major slave societies in human history: "classical Greece, Ancient Rome, and the slave regimes of the colonial Caribbean, Brazil, and the US South" (p. 8).

Blackburn concludes that, while New World slave systems drew on traditional ingredients, they were radically new in scale, destructiveness, businesslike methods, and in their thoroughly commercial character. In contrast to the varied pattern of traditional slavery, American slaves were concentrated in plantations (p. 7). American slavery also had a much stronger racial character than did ancient or medieval systems of bonded labor (p. 7). Among other things, prior to 1820, enslaved Africans outnumber European migrants to the New World by four to one (p. 1). New World slavery was a modern enterprise recognizable for its market entrepreneurs and captains of industry, part of an emerging capitalist economic system within an increasingly European-dominated world. Although there was slavery in Africa prior to the arrival of Europeans, traditional African slavery did not strip people of their humanity and turn them into commodities to be shipped halfway around the world.

Capitalism

Blackburn builds on the work of Trinidadian historian Eric Williams and argues that "the emergence and growth of capitalism was very much part of the problem, and not, as some recent accounts would have it, part of the solution" and "abolitionist movements were intimately linked to the stresses and strains of the industrial revolution" (p. 3). He describes a dynamic relationship between capitalism and slavery (p. 100) where each one stimulated the growth of the other. Slavery was not the cause of industrial capitalism but an important stimulant.

> [Commercial] capitalism and [European] consumer appetites drove enslavement and the invention of a new type of plantation. These processes also gave momentum in Britain to a dual process of "primitive accumulation," on the one

> hand separating labourers from the land (by enclosure and "improvement") and on the other using the super-profits of slavery to finance the expansion of industry and credit.

Profits from slavery, the slave trade, and the trade in slave-produced commodities made possible the development of the industrial capitalist infrastructure in Great Britain, including the banking system, construction of canals, roads, wharves, and factories, draining swampland, irrigation, and purchase of raw materials and new equipment (p. 104). Blackburn avoids oversimplification and does not believe slavery's demise was because it eventually became incompatible with industrial capitalism. Sugar and cotton plantations remained profitable in the mid-nineteenth century as evidenced by high prices for enslaved Africans (p. 309). Karl Marx, writing at that time, recognized the fairly comfortable relationship between the slave systems of the New World and the emerging industrial capitalist order in Europe (p. 315).

Blackburn is exceedingly generous in acknowledging the intellectual contributions of historians with whom he sharply disagrees, which makes it easier for readers to follow debates about the nature of slavery and reach their own conclusions. He cites Seymour Drescher (2009), who argues that revolutionary excesses led anti-slavery astray and emphasizes the reformist and parliamentary path to emancipation. Drescher resists economic interpretations of both the growth and decline of slavery in the Americas, as does David Brion Davis (1975, 2007), who argues that while

> the expansion of the slave plantation system … contributed significantly to Europe's, and also America's economic growth … economic historians have wholly disproved the narrower proposition that the slave trade or even the plantation system as a whole created a major share of the capital that financed the Industrial Revolution. (p. 3)

Saint-Domingue / Haiti

Blackburn believes that historians have "failed properly to register the contributions of Haiti and Spanish America in extending and re-working the doctrine of the rights of man and of citizens" (p. 4) and finds it ironic that societies "claiming to embody a new spirit of virtue and liberty" such as the young United States "became the most successful practitioners of plantation slavery" (p. 6). The impact of the Haitian Revolution can be seen in the United States where approximately 6,000 white émigrés from the French colony spread "stories of atrocities and of narrow escapes from rampaging blacks" (p. 237). These tales of horror influenced Southern sentiments about both slavery and Africans, including Thomas Jefferson, who in 1793, wrote James Monroe

> (I)t is high time we should foresee the bloody scenes which our children, certainly, and possibly ourselves (south of the Patomac [*sic*] have to wade through, and try to avert them" (p. 237).

As President, Jefferson later pressed the British ambassador to organize a commercial boycott of West Indian states dominated by former slaves and promoted a "quarantine" of Haiti (p. 244).

While "social forces" in the antebellum South did not favor a slave uprising on the scale of the one that liberated Haiti, the Haitian Revolution contributed "the idea of a revolutionary overthrow of the slave order" and became an element of the "political drama that led to the Civil War" (p. 248). The legacy of Haiti meant that minor revolts such as Gabriel Prosser's in Richmond, Virginia in 1800, Denmark Vesey in Charleston, South Carolina in 1822, and Nat Turner in Virginia in 1831 were signals for "alarmist scaremongering," greater repression, and demands for reinforcing the racial order (p. 286). It led to Southern planters and political leaders misreading the Underground Railroad as a threat to the institution of slavery rather than as just a mild annoyance.

Abolition

Blackburn details the complex coalition of forces and circumstances that made possible the abolition of the slave trade by Great Britain and the abolition of slavery in the British colonies and the United States (pp. 225-226). As with all social and political movements, the groups that opposed slavery represented a diverse coalition, with different motives, that coalesced at an opportune moment when change was possible. The elimination of Haiti as a

major sugar producer meant British planters had a competitive advantage even without access to new slaves, while outlawing the slave trade inhibited the development of new producers in the Spanish colonies of Cuba, Puerto Rico, and Santo Domingo. It also gave Great Britain a moral advantage in its struggles against France at a difficult juncture during the Napoleonic wars when the British needed to rally the country in order to pursue military objectives.

Blackburn even sees British abolition of the slave trade bringing it closer with its former North American colonies. Influential Virginian planters prospered from the internal slave trade and did not welcome foreign imports that would lower prices and increase the possibility of rebellion (p. 228). Factors that later led to the abolition of slavery itself in the British colonies in the 1830s included slave revolts in Barbados (1816), British Guiana (1823), and Jamaica (1831-1832); British working class demands for electoral reform and expansion of the right to vote; the availability of contract indentured servants from the Indian sub-continent; the free trade ideology of the British Liberal Party; and the fact that emancipation with recompense meant that the British creditors of slaveholders would be repaid.

Blackburn believes American abolitionists made a crucial contribution to the end of slavery in the United States and the rest of the Americas, but that by themselves they could not end the practice (p. 329). Slavery was too entrenched because of the capitalist commitment to private property, the racist social order, and concerns about protecting national interests (p. 311). It was the South's own perceived political vulnerability and its insistence on the right to recover escaped slave "property" that precipitated the American Civil War.

Essential Questions

As a social studies teacher, I try to engage students in identifying crucial questions about the world in the past and present and organize lessons that provide them with the opportunity to answer their own questions. In *The American Crucible*, Blackburn identifies a series of questions that provide students with the basis for an examination of a broader history and historical explanation (p. 7). They include: How did Old World consumer demand contribute to the construction of thousands of slave plantations? How could slaveholders be so passionate about their own "natural rights" while totally denying the rights of the enslaved? What was the relationship between colonial rebellion and abolition? Is the historical emphasis on slave resistance and revolt an exaggeration? What conditions contributed to the success of anti-slavery movements? Why was plantation slavery vulnerable in the new industrial social order? Why did racism continue to thrive in the epoch of emancipation? Why did "societies and polities claiming to embody a new spirit of virtue and liberty become the most successful practitioners of plantation slavery" (pp. 6-7)?

The American Crucible is a very good work of history that is accessible to teachers and teacher educators who are willing to put in the intellectual effort to learn more about slavery and the struggle to end it, as well as the origins of the modern capitalist world. As teachers, we struggle with students to extend themselves because the knowledge and skills acquired through learning are empowering. This book, by challenging us as both teachers and learners, involves us in the process of intellectual growth. It is a dynamic and transformative process we need to model for our students by sharing with them what we learned from this book.

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