Beliefs Systems, Metaphysical Paradigms, and Educational Practice

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Our educational philosophies and assumptions about the nature of reality and the purpose of education form the basis for our educational practice.

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 correlate 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

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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) curricula 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 transcendent 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.
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 conveyor 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-
nominal 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 interconnec-
tedness 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-
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 practices. 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

| 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, positivist | Observational, objective, interpretative, contextual, subjective, ethnographic | Quantum physics, holomovement, transcendentalism |
the essential, the what is; and to awaken this capacity, in oneself and in others, is education.

References


