

Chapter 4

The Power of FIDUROD

As more and more individuals around the planet are beginning to learn, dominant Western knowledges, epistemologies, and the actions they support are socially, culturally, politically and ecologically unsustainable. Many scholars and activists have understood this reality for quite a while, but with the power of corporate knowledge machines turning out untruthful rebuttals to attempts to inform the public of such problems many Westerners—Americans in particular—have rejected the warnings. Not only are such ways of seeing unsustainable, but they are also intellectually and ethically impoverished. Indeed, such perspectives are leading the West down a dangerous path that takes the people of the world and the planet itself to the precipice of a multidimensional catastrophe.

True Lies: The Emergence of Western Epistemological Supremacy

We must move beyond FIDUROD's belief that one true reality exists, beyond the one-dimensional view of a physical/social world driven by laws of cause and effect and discoverable by empirical testing of scientific hypotheses. If knowledge producers are objective, FIDUROD's story goes, if they suppress their values while conducting their inquiry, they can produce universal axioms that transcend time or place. This is the epistemological mythology that has unfortunately misled the people of the West and the world. When Auguste Comte in the second third of the nineteenth century argued for the application of the logic and methods of the physical sciences to the study of the human realm, a positivist human science was christened. To Comte, philosophical speculation about the social and cultural domains had been an unmitigated failure. Comte's positivist approach or as he labeled it, sociology, became the dominant M.O. for subsequent social science.

Armed with a rigorous scientific methodology in both the physical and social domains, many Western scholars proclaimed even more boldly than those who had preceded them the superiority of the West and the knowledge its sciences produced. In reference to other peoples of the world and the quality of their knowledges, Western European scholars wrote at length about their inferiority. Using our

scientific methods, they announced, we are unequalled in the quality of knowledge we produce. Most of the peoples of the world, Western scientists gloated, are “bestial” and are lucky if they learn to read and write. Indeed, this sense of Western scientific (and moral) superiority was the very basis of the curriculum taught to generations of European and North American students (Griffin, 1997; Fischer, 1998; Sardar, 1999; Bettis & Gregson, 2001).

As Western modernity emerged in the seventeenth, eighteenth, and nineteenth centuries the collective energies of the Renaissance, Reformation, and the Scientific Revolution helped construct a rationalist epistemology. Such a view of reason and validated knowledge was grounded on a debased view of the “irrational others” from Africa, Asia, South America, the Islamic world and indigenous cultures around the world. Thus, Europeans used colonized lands and peoples as part of a great laboratory to gain not only new knowledges but to assure themselves of their own superiority. As the colonizers conducted their “research” on the non-European lab, they transformed lands that were once prosperous and powerful into poverty, they repositioned peoples with learned traditions and great wisdom into what they perceived as incompetent primitives. Indeed, these European colonists/scientists constructed a power hierarchy of world cultures and knowledges that even with significant rebellions on the part of the colonized has lasted into the twenty-first century.

Any effort to understand contemporary politics, economics, social and cultural affairs, education, and epistemology can not be achieved outside of this five century colonial context. Yet, this is exactly what many peoples in Western—especially the twenty-first century U.S.—culture attempt to do: to understand the world, themselves, and the production of knowledge outside of this all important context. When I write here of FIDUROD’s tendency for decontextualization, this is a central dimension of that process. As we think about knowledge and critical pedagogy, overcoming the obscene distortions of this Eurocentric decontextualization is a key objective of a critical complex epistemology. Without such critical insight Western education will continue to produce a dangerous, ethnocentric, and distorted picture of self and world and the relationship between them.

When he published *The Wealth of Nations* in 1776, Adam Smith fused the cultural logic of economic self-interest with this emerging Western epistemology. What materialized in the smoke produced by this explosive cocktail was a mode of economic rationality that legitimated greed. Such greed was manifested in not only *homo economicus*—a being whose life purpose involved the accumulation of riches—but also in the legitimation of eternal economic expansionism in the name of divine destiny and the inevitable march of civilization. We are claiming Native peoples’ lands in the Americas, Australia, New Zealand, Asia, Africa, ad infinitum in order to save these heathens from eternal damnation and to bring them civilized culture, Europeans told themselves. We will *develop* the soil that these savages have left fallow, they asserted, and improve both their lives and our own.

In the spirit of the economics of self-interest the colonizers contended that what is good for us will be good for the savages. We hear the echoes of such hollow justifications across the centuries, as George W. Bush proclaimed in 2003 that he would

invade Iraq to liberate the Iraqi people, bring modern education to them, and help them develop their natural resources. As such noble rationalizations were being presented to the world, behind the scenes U.S. corporations such as Halliburton, Bechtel, Parson's, Fluor, Washington Group International, Shaw Group, Perini, and numerous others (not to mention oil companies such as Exxon and Chevron) were signing contracts worth hundreds of billions of dollars to further enrich the richest individuals in the world (Sardar, 1999; Smith, 2003; Juhasz, 2006). Ah, the spoils of war—excuse me, I mean the mutual benefits of philanthropy.

Resistance—Paradigmatic Questions

Appreciating these “benefits” of traditional and new forms of Western colonialism, we should not be surprised that opposition from many quarters has arisen to what we are calling here FIDUROD. Since the publication of Thomas Kuhn's *The Structure of Scientific Revolutions* in 1962, there has been non-stop conversations about paradigms of research and knowledge production. Defined as simply different ways of conceptualizing and conducting scientific research around a shared worldview, paradigms are central to the study of what is validated as knowledge in particular times and places. This is why I've made such a big deal about FIDUROD in this book, as it serves as the dominant paradigm operating in the Western world today. And though it is, of course, not without challenges from diverse quarters, it provides the legitimated knowledges used by dominant power wielders to create conditions that are in their best socio-cultural and political economic interests.

In the contemporary era scholars debate what paradigms exist, usually coming up with positivism, postpositivism, constructivism, interpretivism, critical theory, feminism, postcolonialism, and poststructuralism as possible candidates (Bettis & Gregson, 2001; Denzin & Lincoln, 2005). As I have referenced previously, I have employed the epistemological term, FIDUROD in order to be very precise about what the dominant contemporary epistemological paradigm looks like. Again, in previous scholarship I have used positivism as the dominant paradigm, but many philosophers of science maintain that positivism is dead. While I am not willing to sign positivism's death certificate, I will admit that positivism in the twenty-first century has had a makeover. Though it is well-coiffed, it still possesses many of the same qualities that granted it power and influence in the past. Indeed, the musty smell of reductionism and ethnocentrism lingers.

Obviously, I am not the first—nor are criticalists in general—to question and resist the power of dominant Western epistemologies and the power they produce. Critiques of positivism are found with the rise of Cartesian-Newtonian ways of seeing and continue until the present. We can find Western counter-positivist sentiments from as early as eighteenth century Italian philosopher Giambattista Vico and nineteenth century German philosopher Wilhelm Dilthey, late nineteenth and early twentieth century sociologist Max Weber to twentieth century scholars such as W.E.B. DuBois, critical theorists Theodor Adorno and Max Horkheimer, social

theorist Antonio Gramsci, sociologist C. Wright Mills, and hermeneutics scholar Hans-Georg Gadamer to name only a few. Around the world critics from Franz Fanon to contemporary non-Western scholars such as Gayatri Spivak, Vandana Shiva, Ngugi wa Thiong'o, Walter D. Mignolo, Trinh Minh-ha, Russell Bishop, Linda Tuhiwai Smith, and many, many others have challenged Eurocentric epistemology from so called "southern" perspectives. It is important for critical pedagogical advocates of a critical complex epistemology to draw upon both Western and non-Western critics and their unique insights into the issues of power and knowledge production.

Even the great champion of the scientific approach to education, John Dewey, was a critic of what he considered the formal, intractable, decontextualized, universalist, reductionistic, and one-dimensional aspects of science in the early twentieth century. Dewey's critique is invaluable in constructing a critical complex epistemology. Of course, as previously referenced, the Frankfurt School of Critical Theory including Adorno, Horkheimer, Herbert Marcuse, and Jurgen Habermas profoundly informed our reconstruction of epistemology and its relationship to education with the expose of the role of epistemology in oppression. As it produced particular ways of seeing the world that resonated with the interests of dominant power, epistemology from the Frankfurt scholars' perspective became a hegemonic force (Kincheloe, 1995; Bettis & Gregson, 2001; Kincheloe, 2003a).

Key to the development of an alternative, inclusive, rigorous, and justice-oriented epistemology were the anti-colonial rebellions of individuals around the world in the mid-twentieth century. Influencing what would come to be known as the Civil Rights Movement and the women's movement in North America, these anti-colonial insurrections uncovered the race, class, gender, cultural biases built into the allegedly neutral epistemology of Western science. In this context we began to witness the emergence of so-called standpoint epistemologies grounded on the insights one gained from his or her location in the social web of reality (Collins, 1991; Harding, 1998; Lomawaima, 2000; Kincheloe, 2005b). Such perspectives provided rich new insights into the failure of the epistemology on which social, political economic, psychological, and educational research was based. The ability of such research to solve problems in these domains, analysts pointed out, was profoundly limited (Fischer, 1998). It is in this context that a critical complex epistemology becomes committed to the notion of a rigorous but *practical* knowledge that can be used to solve problems, to help address human suffering.

We will discuss critical complex practical knowledge in more detail in Part 3 of this book. As critical knowledge producers, advocates/practitioners of critical pedagogy are not satisfied with generating information that languishes in the recesses of cyberspace or in its brick and mortar manifestation becomes a home for book mites in some library. We should not be surprised that a large portion of the data produced in the academic world collects dust. The knowledge produced under the epistemological auspices of FIDUROD too often offers merely a narrow view of a phenomenon grounded on a misguided notion of numerical measurement of some dimension of its existence. The idea that useful knowledge about a particular phenomenon might involve an understanding of its meaning within

a larger context or in relation to a broader picture of how various dynamics fit together is not a part of epistemology of FIDUROD. Thus, in such an epistemological context we are exposed to an immature view of the physical, social, psychological, and educational cosmos—a juvenile perspective that distorts our work in government, business, medicine, psychology or education.

As the scientific revolution took shape in the 1600s and the 1700s fueled by Descartes', Newton's, and Bacon's theories on method and the astronomical speculations of Copernicus and Galileo, historians discern the emergence of a dominant epistemological and ontological metaphor—the world as machine. Taking nothing away from the genius of their work, these scientists constructed a reductionistic metaphor that for centuries has undermined our capacity to move to a more mature appreciation of the nature of reality and our efforts to produce knowledge about it. The notion of world/person as machine fails to account for the interrelated, synergistic, self-creating, and contextually constructed nature of the physical, social, psychological, and pedagogical domains. The early successes of the mechanistic epistemology created the impression in the scientific community and the Western world in general that the science grounded on it was infallible.

Newton's theory of gravity, for example, seemed to work in every circumstance imaginable. Such triumphs moved scientists in the late eighteenth and nineteenth centuries to reduce all physical and social action to a set of Newtonian differential equations. These mathematical equations supported a cause-effect and deterministic universe bound intractably to Newtonian laws of motion. In such an epistemological context causality could always be discerned and thus the future actions of anything could be predicted. It would take Einstein's early twentieth century insights about gravity to undermine the universality of Newtonian physics. Under diverse conditions—black holes, as an extreme example—Newtonian principles just don't apply. By the last half of the twentieth century, the work of chaos theorists such as Ilya Prigogine was beginning to indicate that the machine metaphor was woefully inadequate. Aided by the insights of chaos and complexity theory, we are beginning to understand that the universe is more like the human mind—capricious, susceptible to the influence of its setting, and always in flux.

Much to the anguish of the devotees of FIDUROD, the social domain and even the physical universe is fickle. After gaining such understandings, research, knowledge production, and education can never be the same (Capra, 1996; Pickering, 1999). Indeed, it's as if the more we know, the more we come to understand that the universe has heart—it does not remain static in a fixed state of being, it is always in a process of becoming. If FIDUROD has it wrong, then so much of what we think we know is off base. With this critical complexity in mind, then all the problems we confront can be reconsidered in a different conceptual framework. In this context, possibilities open up in physics, mathematics, sociology, cultural studies, psychology, and education that were previously unimaginable. These possibilities of producing novel forms of knowledge, becoming new types of people, and engaging in innovative modes of action that leads to social justice, ecological sustainability, and peace are the central issues in *Knowledge and Critical Pedagogy: An Introduction*.

An Epistemological Loss of Purpose: Marooned on FIDUROD's Polluted Island

After all is said and done, FIDUROD's perspective on so-called "objective reality" is riddled by unexplained mysteries, contradictions, and suspect "certainties. Indeed, it has produced a view of the majestic cosmos we inhabit that is devoid of larger purpose and inspirational meaning. In this constructed universe the greatest expressions of our human capabilities—such as the power to love unconditionally—are viewed as relatively insignificant. The need to transcend this bizarrely profane epistemology pushes critical pedagogy to imagine systems of knowledge and curricula produced outside the hegemonic matrix of worldwide domination. Escaping from the handcuffs of profit making at any cost, race, class, and gender hierarchies, and one-truth epistemologies, the goal of synergistic interaction and solidarity among all human beings begins to take its rightful place at the center of educational purpose. With a new valuing of this camaraderie among diverse peoples, pedagogy throws off the mechanistic view of education as basically student absorption of power driven "truths" designed to help elicit modes of behavior and ways of being that lead to higher profits by those in control of existing corporations.

The violence daily perpetrated in all parts of the world is often propagated under the banner of FIDUROD's epistemological stance. As I study the environmental disasters perpetrated on poor peoples on every continent by "well-educated" corporate leaders, it is obvious that they have lost their way. The worldview into which they have been acculturated holds no transcendent purpose, the knowledge they value is that which holds instrumental value in the pursuit of profit and status. To allude to merely one of thousands of examples of the consequences of these ways of seeing that few individuals know about in North America, the story of the way Western oil companies (Shell and Chevron in particular) have polluted the environment of Nigeria is distressing. On the twelve percent of acreage that contains oil in Nigeria, inhabitants suffer from the loss of useable land, and good health as well as mandatory migrations, hunger, and unemployment. None of the immense profits—well over \$30 billion for Shell Oil alone—enjoyed by the oil companies has been shared by the residents of the region.

These residents—known as the Ogoni people—have protested the actions of the Western oil companies to little avail. Leaders of the Ogoni protests have been jailed, murdered, or silenced by a series of Nigerian regimes bought off by Western transnational corporate funds and Western governmental threats. Blinded by their FIDUROD logic, Western economic and political leaders can see Nigeria only in terms of short-term oil profits. The wellbeing of the Ogoni, respect for their social and political liberties, or their right to live in a healthy environment are not important in this context. Even operating on the basis of Western self-interest, the long term political effects of the anger of the Ogoni and their allies throughout the "undeveloped" world is irrelevant in relation to Shell's and Chevron's quarterly profits. Corporate leaders watch as human lives are destroyed, wildlife is wiped out, and oil spills and chemical dumping devastate ecosystems (ICE Case Studies, 2007).

This is just another case where the survival of millions of people—there are almost eight million Ogonis—takes a backseat to short-term oil profits. When such genocidal policies play out daily in thousands of different Western owned industries in thousands of different places, something is deeply amiss. These companies are run by highly educated people with expert knowledges in particular disciplines, not individuals ignorant of what is happening in the world. The epistemology of FIDUROD has supported a so-called instrumental reason. Here questions of “why,” (inquiries into the purpose, the ethics of the task at hand) are dismissed in favor of questions of “how to” (how best to accomplish unexamined objectives).

And because the corporate-run media and the corporate friendly school curriculum are so well regulated, too few individuals know about these abuses in Western societies. Thus, they continue unabated, producing new generations of enemies for Western societies. When they inevitably strike out at Western interests or commit violent acts against Western people, many in North America, the English-speaking world, and Western Europe will ask “what did *we* ever do to deserve such ingratitude from people we’ve done so much to civilize?” The multilogicality, the disposition of critical complex activists to listen and learn from peoples around the world, becomes profoundly important in contexts such as this one. At this point such humble listening becomes an epistemological task central to human survival.

The West in its conceit cannot imagine the unsophisticated insularity of its truth claims. The narcissistic consumerism, the ethnocentrism, and the profit and status obsessions that ooze out of FIDUROD have worked to subvert interest and thoughtfulness about anything beyond the immediate needs of the self. Indeed, it is an epistemology without heart that grounds a social order and education without heart. Scientists often use the passive voice to explain the plundering of poor people’s land and lives: *the Ogoni land was polluted by development*. In such an articulation there are no executives and regional managers at Shell and Chevron making specific decisions that place profit over life. There are no neo-colonial pillagers who literally destroy the land and kill the people in order to fill the corporate coffers. There is no culpability. As many scholars have argued for decades, much of the knowledge produced by, for example, social scientists squeezes the life force, the living essence out of human existence.

The corporate knowledge produced about the Nigerian oil business certainly is bereft of concern for the human suffering that is occurring there. The fact that none of the major TV news networks in the U.S. have chosen to cover this story is also a profoundly important issue in our exploration of epistemology and the politics of knowledge. For many the realization that much Western knowledge is distorted in this and many other ways is a shattering insight. At this point of the twenty-first century, however, we must break the devastating news about knowledge to the people of the West and the world. In this context we must develop ways of dealing with the scarred epistemological landscape, modes of exposing the ways that official knowledge is constructed by dominant power, and new epistemological insights to make sure that the knowledge we produce is not distorted in the same way. Obviously, this is not to say that our knowledge will not be distorted, but we can work to ensure that we are more aware of our biases and limitations.

We can become better informed about the tendency for fragmentation of Western knowledge, as the multiple dimensions of any phenomenon are lost by its relegation to one discipline of study—for example, the view of Nigerian oil as simply an economic issue, not as a political, environmental, social, and cultural issue as well. In this context we begin to understand the inability of dominant Western epistemology to perceive the “complex whole” of a phenomenon (O’Sullivan, 1999). FIDUROD’s specialization pushes us away from the integration of a variety of information sources, perspectives, cultural vantage points, and research methodologies in our effort to produce both rigorous and transformative knowledges as well as a multidimensional education to accompany them. In this context we are left with a reductionistic body of knowledge that is inadequate for the demands of the contemporary era and the effort to move ethically and creatively into the future.

FIDUROD Protects Us From a “Descent Into Barbarism”: Hegemony and Knowledge Production

As a hegemonic epistemological force FIDUROD makes other knowledges produced by different peoples and different paradigms look weak and insignificant. Knowledge work in the social sciences and humanities is often portrayed as a frail imitation of “real” science. Of course, in this dominant epistemological context indigenous knowledges produced by colonized peoples in, for example, Africa or Asia don’t even merit the title of imitations of “proper” science. Here we zoom in on one of the most important yet concurrently most obscured aspects of Western knowledge in its FIDUROD incarnation. Western epistemology is profoundly disturbed by the existence of other modes of knowledge production that utilize different tenets of validity in the research act and draw upon cultural memories and experiences unfamiliar to the West. Thus, FIDUROD produces knowledge, while at the same time renouncing and erasing other epistemologies and the knowledges they produce.

I am immediately reminded of the previously mentioned web scrubbing of Educational Resources Information Center (ERIC) by leaders of the Bush Department of Education in the spring of 2002. This is a good example of FIDUROD’s policy of erasure in a domestic context. This colonial matrix of knowledge/power disallows particular vantage points of seeing the world. Almost any phenomenon looks different if we encounter it from diverse angles. We may argue over what kind of bird we saw if one of us sees it from the back and the other from the side.

“Look, Ms. Hathaway, a tufted titmouse.”

“You must be crazy, that’s a bohemian waxwing you red breasted nuthatch.”

The world looks very different depending on whether comes from a colonizer society or a colonized one. Indeed, from a traditional Western epistemological perspective the world became unimaginable except from the configuration of European-North American knowledge work (Bridges, 1997; Mignolo, 2001, 2005). The ways of

seeing of colonized people became known as magic, pantheism, and primitive folklore—knowledges to be ridiculed in a variety of epistemological minstrel shows sometimes known as anthropology or even a film on The Discovery Channel.

Thus, the knowledges of different cultures and different paradigms of Western epistemology profoundly differ from those produced by FIDUROD. Recall, for example, the discussion in Chapter 1 about the positivistic rules of educational practice emanating from FIDUROD as opposed to the more flexible, context-sensitive critical epistemology of practice. Knowledge in education, criticalists understand, is profoundly sensitive to the distortions of decontextualized and reductionistic epistemologies. It is fascinating that FIDUROD’s knowledge is far more concerned with the functions rather than the purpose of teachers and other practitioners (Shaker & Kridel, 1989). Functions, of course, lend themselves to precisely calibrated measurements; purposes do not. Yet, focusing on functions in this context tends to produce a recipe for the deskilling of teachers. The epistemological issues we are dealing with here illustrate the way the dominant Western epistemology views the bird. The Western teacher is a tufted titmouse—end of story. Here our epistemology crushes our imagination.

This damaging of the imagination is enforced by reference to the efforts of critics to explore the limitations of FIDUROD and dominant forms of Western rationality as an attack on reason. Indigenous and colonized epistemologies, of course, fall into this characterization. Western academics, right-wing analyst Roger Kimball (1996) writes “have reneged on their commitment to truth” in the process undermining “the integrity of many academic disciplines.” The attempt to critique Eurocentric knowledge, Kimball and his conservative allies argue, simply supplants one European viewpoint with another—cultural relativism. The point of the right-wing critiques is that a critical complex epistemology’s effort to decolonize knowledge, to respect and engage information produced by non-Western peoples around the planet is an affront to the West and its superior knowledges. It is a part of what they call a larger “return to tribalism,” that poses great danger to the existing world order.

The right wingers continue arguing that this so-called “descent into barbarism” threatens to undermine all the great achievements of Western civilization while leading the planet’s people into servitude. This promotion of neo-barbarianism, the argument continues, is championed the people who run the education establishment and as a result the conservatives—the defenders of our Western heritage—have a moral duty to take back the classroom (Kimball, 1996; Windschuttle, 1997). The condescending view of the non-Western “savage other” embedded in such perspectives is chilling. Here we view the contemporary arguments that rest at the heart of epistemological hegemony (Roberts, 1998). Once again those knowledges, those ways of seeing that fall outside the tenets laid out by Western science must be discredited and crushed. In these actions we discern a sense of vulnerability among the “defenders of the faith” that is fascinating, disturbing, and revealing.

To protect us from the barbarians, FIDUROD defines truth as either grounded on analytic or synthetic propositions. In the dominant epistemology an analytic truth is based on a proposition’s definition—for example, a pentagon has five sides.

A synthetic truth in this epistemological context is true on the basis of its status as an empirical fact—after the passage of NCLB more teachers teach to standardized tests than before. All worthwhile knowledge in a FIDUROD-based epistemology is either of the analytic or synthetic variety. This restriction effectively eliminates much of the knowledge produced by different paradigms or by many non-Western colonized peoples. This epistemological policing shelters Westerners from the degradation of indigenous and subjugated knowledges and the hollow “jibber jabber” of critical analysis, hermeneutics, and aesthetics (Stanford Encyclopedia of Philosophy, 2007).

In such an epistemological context the critical concepts of historical consciousness and socio-political contextualization are irrelevant and treacherous distractions. Devoid of a critical theoretical foundation such an exclusionary epistemology is disdainful of questions of power, values, and cultural context and the way they shape the consciousness of the knowledge producer. In this process researchers, educators, psychologists and other professionals are rendered oblivious to the ideological/cultural implications of their unexamined epistemological assumptions. As long as the correct methods are followed and particular definitions—for example, analytic and synthetic formulations of truth—are left unchallenged then “universal truth” becomes a reductionistic and potentially oppressive notion.

A critical complex epistemology rejects FIDUROD’s proposition that methodological fidelity ensures truth, concurrently contending that social/cultural/political/educational actions will serve different interests in different moments of history. Bereft of this critical contextualization, the epistemology and thus the knowledge produced by FIDUROD is flawed by an absence of self-reflection, by a lack of understanding of how the ideological construction of the researcher or educator shapes the information he or she produces and transmits. FIDUROD’s rigor is macho bluster—“our knowledge is hard, rigid, marked by stiffness.” Indeed, it is an epistemology on Viagra—even Cialis has too much flexibility with its contextualized notion of “when the time is right.” “Our knowledge is hard,” advocates of FIDUROD tell us, “and it is hard right now.” No ED here—epistemological dysfunction. A critical complex epistemology is not fearful of softness, subtlety, soulfulness, or sensitivity as it makes multilogical connections to diverse dimensions of the world. Indeed, a critical complex epistemology engages in dialogue with the barbarians at the gate, in the process gaining new insights that lead to wisdom and, my god, even peace (Van Manen, 1991; Giroux, 1997; Gabay, 2007).

Naïve Realism and Rationalism: No Escape from the Island

In the epistemological lexicon a naïve realism presumes a singular, stable, external reality that can be perceived by one’s senses; rationalism argues that thought is superior to sense and is most important in shaping experience. Our notion of critical constructivism and a critical complex epistemology contends that reality, contrary to the arguments made by proponents of FIDUROD’s realism, is not external and

unchanging. In contrast to rationalism, the epistemology offered here maintains that human thought cannot be meaningfully separated from human feeling and action. Knowledge, criticalists assert, is constrained by the structure and function of the mind and can thus be known only indirectly. The knower and the known are conjoined twins connected at the point of perception. To delve into dangerous territory, naïve realism and rationalism, as previously referenced, both exclude the reality not to mention the usefulness of different levels of human consciousness.

The fact that FIDUROD's rationalism and naïve realism can't cope with complexity is a central notion in the critical critique of the dominant epistemological position. Rationality in the naïve realist and rationalistic sense is an abstract system that operates in a transcultural and transhistorical manner unaffected by the discourses and the contexts that created it in the first place. The purpose of textual analysis and research in the formalist regime of truth is to determine what, for example, a text or an interviewee *really* means so it can be passed along to those residing outside the gated communities of the experts. Critical analysts point out such reductionism and elitism when they see it and devise modes of analysis and inquiry that are more attuned to contingency and multiple possibilities in the Dismal Swamp of meaning making. The multilogicality that such criticalists bring to such analysis helps undermine FIDUROD's tendency for reductionism, while concurrently revealing the implicit.

Naïve realist and rationalistic data are as ideologically inscribed and contextually grounded as any other modes of knowledge. For all the effort we spend on teaching realist and rationalistic and methods of knowledge production, it is ironic that we live in a social cosmos understood through the filter of narrative devices and strategies. We inhabit a socio-cultural cosmos that is never transparent, never willing to reveal all of the multidimensional dynamics that are constantly taking place. It is profoundly ironic that Rene Descartes' book, *Discourse on Method*—a work that laid the foundation for Western epistemology, knowledge work, and science—came to Descartes in three dreams, including what he called a dream within a dream. In this dream within a dream, the key was provided for making sense of the larger dreams. Of course, this is nothing unusual, as indigenous peoples for thousands of years have sought insight and knowledge in dream states. One of the ways barbarians storm the epistemological gates is by bringing up “embarrassing” dynamics such as Descartes' dreams. Indeed, one of the important functions of FIDUROD is to quash any idea that there are diverse dimensions of physical, social, and psychological reality that we do not yet understand (Grof, 1993; Griffin, 1997).

Despite all of the attributes of wisdom, skill, insight, and awareness that human beings have demonstrated in diverse cultural and historical settings, naïve realism and rationalism have determined that we must remove humanness from knowledge production as much as possible. Research and knowledge production in this reductionistic context are rigorous to the extent that follow the proscribed steps of the process while concurrently making sure that the researcher/knowledge producer is as far removed from the procedure as possible. The idea that a researcher might be committed to addressing particular social problems in an activist not just contemplative manner is a frightening intention. Devoted to science but uncomfortable

with the direction science was heading, John Dewey criticized the intellectuals of the first half of the twentieth century for chasing decontextualized certainties in lieu of attacking the problems facing everyday people (Hyttén, 2004).

Rationalism erases forces such as caring, desire, and fear in the effort to “be rational.” Affective motivations for knowledge work are inappropriate in the rationalistic context. In a rationalist epistemology there is only one form of rationality, yet in the pluralistic critical epistemology promoted here there are many rationalities. Moreover, one of the central tasks of criticalists in this context is to study diverse forms of rationality—from both a cultural and historical perspective—for the purpose of cognitive growth and empathetic understanding that leads to justice. The construction of selfhood and the unexplored possibilities of selfhood are not relevant in FIDUROD. Those of us who study them are deemed to be wasting the world’s time.

Thus, FIDUROD’s knower is the “boy in the bubble”—an individual who is working best when he is the most isolated from himself and the world that has shaped him. Here, knowledge workers often unconsciously produce information that often leads to the degradation of various peoples around the world. Once critical epistemologists induce knowledge workers to examine the invisible forces that shape their employers’ needs and their own consciousnesses, such researchers begin to interrogate the purposes of their work. At this point they may begin to ask themselves: am I here to increase the profits of corporate executives by making their businesses, factories, and offices more cost-effective? Do I contribute to the process of colonization and the consequent dehumanization of the majority of people on the earth? Once such questions are asked about uses of knowledge and knowledge producers, dramatic changes begin to take place (Allen, 2000; Thayer-Bacon, 2000, 2003; Fernandez-Balboa, 2004).

This brings us back once again to a golden conceptual thread that runs through this book. Our ticket off the FIDUROD island (run by the Dharma Project?) involves our critical multilogicality—gaining the ability and disposition to look at the world not from the perspective of the U.S./Western empire but through the senses of the colonized molded by pain and devaluation. The neo-liberal justification of a global empire run by the U.S. and its Western allies is profoundly disturbing to contemporary peoples around the planet. More and more non-Westerners are coming to see the grotesque disparity and oppression that such a geo-political economic policy is producing. Neo-liberalism’s worship at the alter of the free market grounds its approach to modes of social organization and education that regulate and adapt young people to their functional role as human capital and soldiers in the wars demanded by imperial needs.

In such an epistemological/imperial global society rationalistic and naïve realist knowledge production and transmission take an ugly turn. In a truth-is-lies mode of operating, agents of empire such as the operatives in the presidential administration of George W. Bush pass *The Clear Skies Act* to allow corporations to pollute the air in the quest for higher profit margins, *The Healthy Forests Act* to sanction more clear cutting of forests by the lumber industry—even on previously protected National Park land—and, of course, *The No Child Left Behind Act* to justify cutting

funds and resources to the most marginalized students in U.S. schools (Mignolo, 2005; Orłowski, 2006; Steinberg & Kincheloe, 2006). Thus, naïve realism and rationalism with their refusal to examine the ideological dimensions of contemporary life leave the inhabitants of the earth open to a media/school pedagogy of lies. The empire could not operate without such a public educational plan.

Thus, in our study of knowledge and critical pedagogy, we come to understand that Western thinking since the Greeks has tended to assume that the world is based on reason and is explainable by rational or scientific investigation. The propositions such investigations produced would be deemed true or false to the degree they corresponded to “actual reality”—the basis of a correspondence epistemology. The critical complex epistemology promoted here questions the simplicity and rationality of physical, social, and psychological domains and the scientific reductionism on which they are grounded. In this reductionistic epistemology physicists argue that heat is just molecular motion, biochemists maintain that life is merely a metabolic process, geneticists assert that evolution involves simply changing the genome, psychologists contend that love involves only a measurable increase in heart rate and hormonal flow in the presence of the object of affection, and educational researchers posit that teaching and learning is merely the transfer of data from practitioner to student, etc. Here rests the dark core of FIDUROD’s reductionism.

A critical complex epistemology with its focus on power, colonialism, and justice shifts from FIDUROD’s linear reductionistic to non-linear complexity. The idea that there are universal laws of social arrangements, history, cognition, and pedagogy that operate completely outside of dynamic processes and contexts has collapsed under its own historical weight. Such a critical complex epistemology provides physical, social, psychological, and pedagogical scholars powerful new tools with which to make sense of the world while enhancing human possibility. With this critical intervention the knowledge work of contemporary science, especially in the social, psychological, and educational domains, becomes a caricature of the lived world. A lesson from **historiography** (the study of the study of history) is valuable in this context.

Critical historians employing a critical complex epistemology understand that the past can never be understood and experienced “as it really was.” Historians of the thirteenth century Native American history do not possess a phenomenological “feel” for what life was like in that circumstance. Historians, whether or not they want to admit it, are limited by their own phenomenological encounters with documents, artifacts, and in more recent history, peoples’ memories. Even the historical sources they select are shaped by their ideological, cultural, theoretical, and, of course, epistemological perspectives. The linear reductionism of FIDUROD even in historical research fails to account for the subjective complexity of the process of historical knowledge production.

To proclaim one’s work in history—as in any other disciplinary domain—as some form of universal truth is a profoundly misleading act of epistemological reductionism. Historical research and the historical narratives it produces are subjective, contingent, ambiguous, and always open to multiple interpretations. Those historians unaware of this complexity tend to harbor an ignorance of epistemology, adopt naïve research

methods, and produce antiquarian accounts of the past. A critical complex epistemology helps historians and other knowledge producers avoid reductionistic, “infallible,” and universal accounts of human experience (Bruner, 1996; Parker, 1997; Pickering, 2000; Burns, 2002; Alridge, 2003; Villaverde et al., 2006).

FIDUROD and the World “Out There”

This modernist Western view of knowledge, this one-truth epistemology, affected all aspects of Western life, all institutions. Knowledge is out there, quantifiable, measurable, and capable of being purchased, distributed, and acquired. Since knowledge is predefined, waiting to be discovered like a Hollywood starlet, what use is it to teach speculative and interpretative strategies? Why study epistemology at all when we already know our role as professionals who work with knowledge: find it and document the process. This realist/rationalistic dynamic penetrates all aspects of FIDUROD’s knowledge production. We witness this dynamic at work from physical science to fields such as textual analysis in literature. For more realist literary critics, meaning resides in a piece of literature and the reader’s task is to dig it out (Thayer-Bacon, 2000). Thus, meaning here—as in most contemporary, standardized schools—is to be transmitted from a knowledge producer to a passive consumer. The idea of the transaction, the negotiation of meaning between producer and consumer is negated in realist reductionism. The role of the literature teacher in FIDUROD’s epistemological framework is reduced from a meaning making interpreter to an intellectually disengaged transmitter of the “actual meaning” of a poem or novel.

As I was taught as a child in the schools of Tennessee: “What Robert Frost’s poem, ‘The road not taken,’ means is that we have to make hard choices on the ‘road of life.’ We don’t know what would have happened had we made one choice and not another. Write that down, it’ll be on the test.” The idea that literature could possess diverse personal meanings that differed in relation to the experiences and background of the reader did not serve me well as a literature student in this educational context. In fact, I kept getting the meaning “wrong” with bad grades as my “reward.” In this pedagogy we can easily see the consequences of the tradition Western epistemological separation of the knower and the known. The only thing that matters in such a context is the known—and there is only one true version of it. Such reductionism constitutes a form of stupification, as it shapes the public’s perception of the nature of knowledge. With dominant power’s domination of schooling and corporations’ control of the media in the contemporary era, the influence of this self-interested reductionism is greater than ever before.

As we discussed in Chapter 1 in relation to the epistemology of practice, teachers in this reductionistic configuration are deskilled, molded into functionaries who simply pass the truth that is “out there” to passive student receptacles. There is only one truth in the FIDUROD cosmos, truth for everyone, at every time, in every place. No viable alternative, advocates maintain, exists to this construction, because without this

universalist epistemology no distinctions can ever be made between what's right and what's wrong. In such a situation employing the lexicon of George W. Bush, the terrorists have won. More literally stated, the foundations of Western society will crumble under the weight of such relativism. Our ability to understand the world around us, defenders of the faith conclude, has been destroyed. Over the last 60 years the rapid growth of technology, the revolt of the world's oppressed, the diasporic redistribution of the world's peoples, the emergence of a media-oriented culture, and the reconfiguration of colonialism into a new, more powerful form has motivated many to seek the comfort of the familiar (Bin Sayeed, 1995; Allen, 2000; Thayer-Bacon, 2000).

In this context we have witnessed the rise of fundamentalist religion and its strange conceptual bedmate, traditional Western science. Often seen as diametrically opposed nemeses, fundamentalist religion and traditional Western science play to similar social concerns—a loss of certainty in a rapidly changing imperial hyperreality. Both offer solace to the perplexed—a sense of what is universally true and the key to how such truth might be found. “Whether through prayer or the scientific method, my friend, you can find the truth. And the truth must be found, ambiguity must be eliminated—whether it be in the name of Jesus or of science.” Take your pick—fundamentalism or FIDUROD will save us, will by and by provide answers to all our questions, will ease our pain, and will solve all our problems. And take your pick, both FIDUROD and fundamentalism will rid us of the infidels who challenge the faith. A quick twenty-first century Petit Inquisition can identify the non-believers and purge their nonsense from the record. I'm feeling better already. No more complexity, no more uncertainty—may I bear my testimony and give you these little pamphlets about the “End of Days,” the “End of History,” the “End of Epistemology?” Do you mind if I come in and talk to you, my beloved brothers and sisters, about how you can find the truth, how you can bring the out there in here?

Ecstatic Certainty: Don't Ya Smell That Smell?

In their state of ecstatic certainty the missionaries of FIDUROD forget that it's much harder to discern what we don't know than to document what we think we do know. The thick phlegm of epistemological assurance washes away our awareness of the obvious things we don't know—for example, the way consciousness emerges and the origins of anything at all, not to mention the universe, just for starters. Any epistemology that certifies knowledge and reason in terms of the techniques applied in their construction is too limited to appreciate the diverse dimensions of the attempt to understand and act ethically in a world that exists on so many levels. Emerging from the Western Enlightenment—also characterized as the birth of the Age of Reason and the Scientific Revolution—from the middle of the seventeenth century to the early nineteenth century, this ecstatic certainty led to a widespread confidence in the ability of science to liberate humans from medieval norms and ways of seeing

the world. Rene Descartes was adamant in his faith that the emerging epistemology of Western science would solve human problems once and for all.

It would undermine the tyranny of the divinely sanctioned monarchies that oppressed the peoples of Europe. The promoters of the Enlightenment believed that with the power of science to guide their thinking, common people would move toward democratic forms of government. Scientific thinking would unleash human reason to arrange the best way to manage social and political affairs. There was no limit to the power of scientific rationality, despite the emergence of tyrants such as Napoleon in 1799 after the Enlightenment inspired French Revolution. Nonetheless, the ecstatic certainty of scientific rationality grounded most of the new European societies emerging in the nineteenth century.

In addition, scientific rationality provided Europeans of the era a sense of grounding to their human existence. Descartes' "I think, therefore I am" proclaimed to the world that he and other humans existed as discrete, individual bearers of consciousness. Such an individual existed above history, society, and culture and, thus, was in control of *his*—men were believed to be the rational gender—own destiny. This rational and abstracted (taken out of social context) self was central to the ecstatic certainty of Western epistemology in that neutral, disinterested men could now produce positive knowledge about the world. In this ontological and epistemological framework individuals could know who they were without reference to culture or other human beings. With such knowledge they could remove the distortions caused by various dimensions of selfhood, ushering in an era of scientific objectivity and a *true* view of the world. Subjectivity would now be relegated to other irrational cultures and past historical moments.

But even with the Enlightenment's gift of valid knowledge and the claimed removal of human subjectivity, the utopian dreams of the Enlightenment's ecstatic certainty were left to wither on the epistemological vine. From the vantage point of those who bore the physical and psychological scars of European Enlightenment's colonialism, Western science's supplications at the altar of reason generated disdain and far-reaching distrust. The colonized were the victims of epistemological certainty and the research it sanctioned—research that produced "indisputable" proof that African and non-Western culture's brain size was smaller than European grey matter. Such research could only be interpreted in one way, the European scientists maintained, "*we* are smarter than *them*." Thus, we are entitled to do with them what we want—we can enslave the child-like beasts, rule them, make them our servants, force them to speak our language, and simply take their land and resources without a thought of compensation (L. Smith, 1999; Allen, 2000).

David Geoffrey Smith (2003) refers to this conception of the Western abstract individual producing certainties around which the rest of the world would be classified and regulated as the narcissistic self-enclosure of Western epistemology. Such self-enclosure with its assumption of European superiority leads to violence because ultimately it is ill equipped to appreciate or understand the experience of those who come from other places and possess different ways of making sense of the world. Such self-enclosed ignorance of the "other," holds especially vicious consequences around the suffering of those subjugated by the Eurosystem. As a college student in

the late 1960s who studied the Virginia history textbook used in eight grade social studies classes of the time, I was amazed at the author's description of slavery as a benevolent institution where African American slaves were well treated and happy. When one of my black classmates told our college history class that he found such a characterization offensive, he was shunned and labeled as a dangerous radical. Not only were the slaveholders of the South incapable or at least unwilling to understand the suffering of their slaves, but also their Virginia progeny of a century later still had difficulties with the concept.

Over and over I have witnessed such inability to understand and/or the denial of the suffering of African Americans at the hands of white European oppression. As a professor at Pennsylvania State University in the 1990s, I watched as many racially uncomfortable whites treated African American students in bizarre and degrading ways. As I and a few of my colleagues attempted to bring such treatment to the faculty and administration's consciousness, we were told over and over that "this is not a racial issue." Even after African American students occupied the student union building for ten days in April of 2001 and were assured that "things would change" at Penn State in regard to race, many faculty members and a large segment of the student body rejected any notion that the black students had any legitimate grievances. Situations such as the one at Penn State occur daily garnering little press coverage or interest in the white community. The rational irrationality of Western epistemology is alive and well in the twenty-first century, as many researchers report white reluctance to even entertain the possibility that Western ways of seeing possess at the least an insensitive and at the most a violent underside (D. Smith, 2003; Gresson, 2004).

With FIDUROD's tendency to reduce social research to forms of measurement, understanding the phenomenological, lived, emotional dimensions of, for example, African American student life is rendered irrelevant. Yet these are the dimensions that are so central to appreciating the racial pain many students of color experience in their formal education. These are the very dynamics that teachers and professors need to appreciate in order to provide a more sensitive and meaningful education to this student population. I have watched far too often as the technical and procedural information derived from reductionistic research leads educators in the wrong direction. When it comes to African American—and, of course, Latino, many Asian, and Native American/First Nations students—such modes of research will inform university administrators, for example, that their university has a higher percentage minority enrollment making higher grades than ever before. While such data is obviously not irrelevant, it fails to address the underlying racial problems that may be afflicting an institution. In the case of many universities such as Penn State in the aforementioned example administrators armed with such evidence simply denied the existence of any other racial problem on campus. The data speaks for itself, they told us.

Western epistemology's ecstatic certainty that white researchers possessed both the truth and the proper means of obtaining the truth has plagued European researchers of non-European cultures for centuries. When Western researchers in the universalistic, reductionistic tradition take the time to ask indigenous peoples

around the world how they feel about such inquiry, such researchers are often shocked at the fervor of the responses they get. From an indigenous standpoint such Western research is viewed as an act of exploitation. Such oppression results from the epistemological and cultural constructs of the researchers, their different values and ways of seeing, the power asymmetries that hierarchize the relation between European researcher and indigenous object of research. Such hierarchies place the white researcher above the indigene, as researchers work to categorize and classify the individuals they are studying. Far too often such research places non-white peoples in humiliating locales on the ladder of human development. Of course, indigenous peoples for this and many other reasons view such research as a form of subjugation (L. Smith, 1999).

Numerous other negative consequences surface as we study FIDUROD based research. For example, many individuals who are evaluated on the basis of what Paul Thomas (Thomas & Kincheloe, 2006) calls the surface features of writing—grammar, mechanics, and word usage—come to believe that they can't write. Even though they may write wonderfully and in a conceptually sophisticated manner, the reductionistic research method of counting the number of surface feature mistakes on which evaluation systems are based indicates their failure with language use. Most of the help such writers receive involves little more than efforts to help them conform to these surface features. Here is an excellent example of how epistemology via the research methods it supports ultimately shapes the nature of education and the success or failure of particular students. Instead of devoting more attention to what students have to say and their conceptual facility, such technicist pedagogies attend to the least significant dimensions of the writing process. So often students who have trouble with such surface features are those who come from marginalized backgrounds. Thus, epistemology serves as a form of oppression, as it penalizes those who fall outside the white, upper-middle class, English-as-first-language community.

Historically there are unlimited examples of the way this Western epistemology oppression operates. In the nineteenth century Herbert Spencer and Auguste Comte produced a “neutral” scientific matrix for judging the developmental stages of social progress that was given its highest expression by German philosopher G.W.F. Hegel. In Hegel's detailed delineation of the stages the civilization at the lowest level of social progress was the “Oriental world” and the highest was, no surprise, his own Germany of the early nineteenth century. It was obvious to Hegel that Germany was the most socially evolved nation in the world because it was the most reasonable. All other cultures were merely outposts on the flank of the struggle to socially evolve into Germany. Because of their social backwardness, these lower cultures would soon die off.

This, Hegel posited, was an inevitable consequence of their inferiority, a necessary part of the progress of civilization. These ethnocentric, rationalistic, decontextualized concepts lead directly to **social Darwinism**—a grotesque cultural, racial, and socio-economic class theory that continues to make a strong resurgence in the twenty-first century. Neo-social Darwinism's impact on the formulation of social, political, cultural, and educational policies in contemporary Western nations is

both astonishing and profoundly disturbing. The caricatures of different cultures provided by these perspectives testify to the European lack of understanding of cultures other than their own. The notion that their epistemology was moving them to produce universally valid knowledge comes into sharp focus here. One gets a sense of the ethnocentrism in Charles Doughty's *Travels in Arabia Deserta* written in 1888:

The most venerable image in their minds is the personage of Mohammed... [nothing can] amend our opinion of the Arabian man's barbaric ignorance, his sleight and murderous cruelty in the institution of his religious faction: or sweeten our contempt of an hysterical prophetism and polygamous living—Mohammad who persuaded others, lived confident in himself; and died persuaded by the good success of his own doctrine (quoted in Sardar, 1999, pp. 44–45).

Didn't I hear the Revs. Pat Robertson and Jerry Falwell (from beyond the grave) say something very similar to this last week?

Doughty's work was viewed as a paragon of objective Western scholarship. In this epistemological frame T.E. Lawrence wrote that Doughty "went among these people dispassionately" to provide the reader with "complete realism" (Sarder, 1999, p. 45). So inspired was Lawrence by Doughty's realistic cultural insights that he let the readers know exactly what he thought they would get from the author's writings:

Semites are black and white and not only in vision, with their inner furnishing; black and white not merely in clarity, but in apposition. Their thoughts live easiest among extremes. They inhabit superlatives by choice... They are limited narrow-minded people whose inert intellects lie incuriously fallow... They show no longing for great industry, no organization of mind or body anywhere. They invent no system of philosophy or mythologies (quoted in Sardar, 1999, p. 45).

The message was unambiguous and boldly put forth as a universal truth. All this from Lawrence of Arabia?

In the contemporary American quest for a new type of political economic empire enforced by military muscle if needed, we are not far from Spencer's, Hegel's, Doughty's and Lawrence's socio-cultural perspectives. In the Thomas B. Fordham Foundation's (2002) *September 11: What Our Children Need to Know* edited by Chester Finn, William Galston speculates why there is so much resentment of the U.S. throughout the world. With Galston, as with so many other right wing and "centrist" U.S. scholars in the contemporary era, the nineteenth century blindness to what it feels like to be subjugated by a dominant world power is simply ignored. Galston (2002) writes:

Whether we like it or not, the United States is enmeshed in the world beyond our shores and, as the most powerful nation our actions inevitably affect everyone else. We are disliked in some quarters because of the principles we espouse, the policies we pursue and the friends we support. While conducting ourselves with candor and honor on the world stage, we must accept the burden of protecting ourselves against the enemies we cannot help making.

In Galston's perspective we (the U.S.) have done nothing but be good global citizens and because of our virtue we will be attacked. The continuing impact of our historical and contemporary colonial exploitation of other nations is irrelevant. The fact that the U.S. is overseeing the economic transfer of monies from the poorest

peoples to the wealthiest peoples on the planet is beside the point. The West—especially the U.S. Right—has its head buried in the epistemological sand.

In the same volume Victor Davis Hanson (2002) continues Galston's theme, asserting that one of the larger goals of Islamic fundamentalism is to destroy the great benefits betroted by the West's Age of Reason.

Islamic fundamentalism is a great plague upon the world that would destroy the rights of women, the very notion of religious tolerance, and all the gifts of the Enlightenment.

This is the epistemological continuation to the (il)logic of George W. Bush's "they hate our freedom" as an explanation of why the "hostile" nations of the world and the terrorists want to do the U.S. harm. Such peoples in both the historical and contemporary dominant Western cultural worldview are incapable of changing their primitive ways. Such inferior peoples do not have the cognitive/cultural ability to engage in rational operations. History proves, such scholars argue, that such peoples had produced no original science or innovative thinking. Thus, the contemporary practitioners of FIDUROD are reclaiming the right, nay the calling, to produce and deliver the objective truth to the world. Such epistemological arrogance exerts profound effects on the interrelationships among the peoples of the planet. Unless, such conceit is addressed and countered, the future does not look so bright. Unfortunately, at this point I need no sunglasses.

FIDUROD's Proclivity to Claim Objectivity

Despite the strident pronouncements of dominant Western epistemology that its research is objective when it follows the proper steps of scientific investigation, contextual studies (Harding, 1998) indicate that FIDUROD's knowledge production has always been shaped by the social, cultural, political, and economic assumptions of the *Zeitgeist* in which it was produced. The claim to objectivity is bogus and falls apart when we conduct a modicum of research in the history of science. One can discern this subjective dimension of what is called objectivity in a legal context. When we examine the history of disputes between mining companies and indigenous groups over, for example, companies' rights to mine what is deemed by the indigene as their sacred land, the notion of the trouble with objectivity claims is highlighted. The legal strategy of mining companies around the world is to cite Western scientific judgment concerning the indigenous claim to a land's sacredness. Not surprisingly, the courts as Western institutions are not inclined to recognize indigenous claims of sacredness. Thus, rulings are made overwhelmingly in favor of the corporations with the result of wholesale mining of indigenous land. All the while the objectivity of the legal decision making process is asserted (Allen, 2000; Mychalejko, 2005).

Thus, the socio-cultural and political economic structure of the epistemology grounding the Western legal system is powerful beyond challenge. The socio-cultural and political economic dynamics shaping the courts' rulings are deemed by the decontextualization of FIDUROD to be *external* to the scientific process

employed. At the risk of redundancy, science is the unquestionable grounding of such affairs. The social domain, dominant Western epistemology asserts, has absolutely nothing to do with objectivity and science. European scholars of the Enlightenment were insistent that the human mind was absolutely distinct from the physical world of events and matter, the social world of conventions and traditions, and the body. The consequence of this epistemological division was the belief that knowledge production was designed to produce precise pictures of the phenomenon in question, focusing again on the overt—that capable of being seen. Those unseen structures and processes that shape a critical understanding of an event are irrelevant in these dominant Western epistemological contexts.

Such social dynamics, such cultural biases permeate all dimensions of Western interpretive activities and knowledge production. It is obvious that racial biases against African Americans and Latinos and class biases against the poor have dramatically destroyed any claim to objectivity in legal proceedings over the course of North American history. *Historiographical* depictions of other cultures revealed monstrous prejudices toward a variety of non-white, non-Western peoples. For example, both the European Renaissance (c.1300–late 1600s) and the Enlightenment (c.1650–1800) were profoundly influenced by Islamic scholarship, an understanding that has been conveniently underplayed in the grand narrative of European history. Indeed, the epistemological notion of objectivity has often been used as a smoke screen in the West to disguise a litany of preconceived notions about self and other. A critical complex epistemology moves us to ask why do so many Western scholars and educational leaders fight so hard to defend particular historical interpretations from student questioning.

In such a critical epistemological context we are moved to ask what are the forces that have shaped us and why do we hold certain myths as objective truth. We can never view knowledge in the same way once we understand that traditional dominant Western epistemology sees no interaction between power and objective knowledge. In this epistemological configuration objective knowledge tells us how things really are. Here, knowledge production is not a political function. Such insight brings us to the notion that different cultural groups can often better identify the epistemological constructs that shape what we “know” and believe better than we can ourselves. As previously mentioned, a key goal of a critical pedagogy and critical complex epistemology is to understand as much as possible the forces that shape us in order to help us overcome the dangers of ethnocentrism. As we understand these forces, we gain a better view of the limitations of an uncritical acceptance of objective knowledge (May, 1993; Harding, 1998; Sardar, 1999; Allen, 2000).

The focus on the rationalistic dimension of our intellectual ability points to the power of patriarchy to shape the nature of what we call objective knowledge. Cold reason in Western patriarchy always has trumped what is culturally framed as softer, more feminine abilities associated with intuition, imagination, creativity, and affective insight. Indeed, many of the modes of analysis promoted by a critical complex epistemology come from the insights and theoretical advances of feminist theory. These same “feminine” abilities are often associated with African peoples and indigenous groups all around the world. Indeed, Cartesianism's embrace of

objectivity can be viewed as an escape from the feminine. Boys in the contemporary West still are raised as Cartesians, while girls are provided a more connected, less rationalistic view of self and world. These epistemological factors are profoundly important in shaping masculine ways of being that are more disconnected, separate, emotionally distanced, and objective than their feminine counterparts. In a contemporary imperial world gone mad, a critical complex epistemology is drawn to more feminine modes of connectedness, caring, hope, and the subjective.

The objectivity of the dominant Western epistemology has undoubtedly led to modes of racism, **misogyny**, class bias, and homophobia. The epistemological assumptions that identify white, male, upper middle class, men as the most rational and successful beings on the planet construct Western knowledges as the most objective and valuable information ever produced. While obviously there is much Western knowledge of great worth, there is much that is simply untrue because of egregious epistemological mistakes. In the process of producing such data the dominant Western epistemology has simply dismissed the alternative realities produced by other cultural epistemological frameworks as primitive and irrational superstition. Thus, Western knowledge is always defined as the preferable objective alternative to the constructed other (Gresson, 1995; Harding, 1998; Thayer-Bacon, 2000, 2003).

“Objective” Portrayals of Islam and the Trouble They Generate

Epistemology and ontology can never be kept entirely separate. What we know and what we think we know are inseparable from whom we think we are. In the case of knowledge production and the learning that emerges from this epistemological dimension, Westerners when they confront peoples from other cultures have tended to have a rather strong sense of themselves—i.e., a sensation of superiority. Several scholars from non-Western cultures have referred to this dynamic as the white-man-as-god syndrome (Obeyesekere, 1992; Sarder, 1999). Such a figure plays a prominent role in the history of Western interaction with non-Western cultures as well as lore about such encounters. The white man is the adored teacher to the lovable (in a cute and cuddly sense) but ignorant child of color. Such a child provides unreserved affection for the teacher, thus, fortifying his sense of worth. A theme running through Western literature/cinema involves the white man being mistaken for a god—for example, in Rudyard Kipling’s story transformed into film by John Huston in *The Man Who Would Be King*, T.E. Lawrence’s *Seven Pillars of Wisdom: A Triumph* that was used as a conceptual foundation for the movie, *Lawrence of Arabia*, as well as the more recent Indiana Jones films.

As with popular culture in all eras these creative products reveal a culture’s subconscious and can be read as a psychiatrist interprets a dream. Books and movies either consciously or unconsciously portray dominant epistemologies and ideologies that in this case explain and advance the inherent supremacy of the West. In his best selling book, *What Went Wrong: Western Impact and Middle Eastern Response*,

Bernard Lewis (2002) provides a contemporary twist to knowledge designed to promote Western supremacy. Lewis’s highly influential work “documents” Islamic inferiority, barbarism, and failure as a culture. Having first coined the term “clash of civilizations”—a phrase used by the neo-conservatives in the George W. Bush administration to justify preemptive wars against Islamic countries—in a 1990 article in *Atlantic Monthly*, Lewis argues that contemporary Muslims want someone to blame for their failures and have irrationally chosen the guiltless U.S. America, according to Lewis, has never done anything to harm the Islamic world. We now have no alternative to war, Lewis concludes.

The evidence pointing to this inevitable conflict with the barbaric Muslims demands that the U.S. must fight the Islamic world and establish control over it—a central argument Lewis made in his successful effort to promote the U.S. invasion of Iraq in 2003. From Lewis’s perspective Islamic inferiority to the West reveals itself in diverse circumstances such as Muslims inability to “dine” as opposed to merely “eating.” According to the prominent Professor Emeritus of Near Eastern Studies at Princeton University and trusted adviser to Dick Cheney, such inferior beings do not possess the intellectual and aesthetic capacity to understand the genius of Western music (Lewis, 2002; Shivani, 2002).

Where is the disinterested objectivity in this geo-political and epistemological context? Is it possible that Lewis’s location in an ideologically conservative Western context has had an impact on the knowledge he produces about the Islamic world? Such misinformation and ideological distortion of knowledge hold profound consequences, as the U.S., Great Britain, and the “coalition of the willing” have subsequently learned in the horror, lunacy, and slaughter of the Iraqi War. The white-man-as-god portrayed in Western literary and film history has changed from the explorer-teacher into the FIDUROD-based knowledge producer who provides the objective insights of physical and social science, technological wonder, and ways for the non-Westerners to escape their depravity. The crude Muslim, the unenlightened African, and unrefined indigenous peoples from around the world are simply unable to generate their own enlightenment.

Obviously, my point here as it relates to knowledge and critical pedagogy is rather obvious: dominant epistemological perspectives when synergized by domineering ideological and cultural biases undermine any claim to objectivity. Subjugated groups are viewed through power-saturated filters and are judged and categorized via the categories of the ascendant. Lewis, for example, never deals with the impact of Western colonialism/neo-colonialism on the relationship between the Islamic world and the West. How can one examine such a relationship outside the boundaries of the Western control of almost all Islamic peoples in the late eighteenth, nineteenth, and first half of the twentieth centuries and the “artificial” carving out of nations that accompanied such political domination? (Coffee et al., 1996; Shivani, 1999). The answer is simple: if Western researchers want to gain any just and ethically useful insight into the relationship between the West and the Islamic world, they can’t. I look simply to Iraq, Iran, Palestine, Afghanistan, Pakistan, Lebanon, Somalia, and many other Muslim states to see the trouble with Western knowledge production.

Indeed, the outrage of the victims of objective Western knowledge production can be seen in the Islamic and many, many other parts of the world and groups of people. As norms of “proper” behavior and deportment are discerned via FIDUROD’s data bank, subjugated peoples are “normalized” and controlled. In the twenty-first century scientists of all stripes and disciplines who follow the rules become part of a larger process of neo-colonial hegemony. The objections of scholars such as myself and the victims of such normalizing of Western standards are dismissed as the protestations of special interest groups and enemies of human progress. One is objective as long as she serves the interests of dominant power. One is subjective when her work does not fit its immediate purposes. Dominant power’s irrational need to regulate and classify everything and everyone it encounters cannot be explained by objective modes of measurement. Such explanations are the province of critical hermeneutics and critical **phenomenology** with their interest in affect, pain, feeling, and many other forms of subjective experience (Harding, 1998; Kincheloe & Berry, 2004; Tobin & Kincheloe, 2006).

Yet, those with a fidelity to the epistemology of FIDUROD who often call themselves scientific skeptics—doubters of everything but the faith in objectivity on which Western science has been grounded—reject the knowledge produced by such research methodologies. Such skeptics are dubious about everything but those concepts that are validated by dominant power. When it comes to the tenets of FIDUROD they are “people of faith.” Such profession of credence and actions based on blind faith in FIDUROD will continue to produce dire consequences for the West in the coming years and decades. The world outside of the West—as well as those cultural groups, women, and poor people living within Western societies—have had enough of the arrogance emanating from such power-soaked constructs. Increasing numbers of peoples in all of these different groups believe they can discern their own paths without the dictates of the West and its objective truths about the cosmos and the people living in it. Until Western peoples understand this, 9/11 and the “insurgency” in Iraq will represent only the beginning of long term, worldwide mayhem.

Glossary

- Historiography** the study of the study of history, including historical research methods, epistemological and ontological issues, and schools of historical interpretation.
- Misogyny** the hatred of women.
- Social Darwinism** a social theory that connects the natural selection principles of Charles Darwin’s Theory of Evolution to the social order. Such an adaptation has produced a social way of making meaning that promotes the “survival of the fittest.” Such a theoretical concept is used to justify the existence of social inequality and is grounded on a distortion of Darwin’s ideas.