

University Reform in an Era of Global Warming

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Chapter 1 Rethinking the Mission of the University

In order to address global warming and other environmental issues in higher education, there must be a change in the role of the university. Many of the cultural assumptions and patterns of thinking reinforced in universities have their roots in ideas generated at a deep cultural level hundreds and even thousands of years ago. The result is that many of the courses taught in universities perpetuate lifestyle expectations that are ecologically unsustainable. For example, the cultural assumptions that gave conceptual direction and moral legitimacy to the Industrial Revolution underlie today the widespread taken-for-granted attitude that turning knowledge, relationships, skills, and even the environment into commodities is the expression of progress. Other taken for granted cultural assumptions include the autonomous individual, the inherently progressive nature of change, and a human-centered relationship with nature. These deep historically rooted cultural assumptions are still taken-for-granted both among academics and policy makers who are attempting to resolve ecological issues. Instead of relying upon techno-scientific approaches to thinking about ecologically sustainable university reforms, and the well-intended idea that adding environmentally-oriented readings to courses in different disciplines, the argument that will be developed here is that reforms must be based on an understanding of how the language used in the different disciplines, including the environmental sciences, reproduces the misconceptions of the past. How the language also reproduces the silences and prejudices shared by thinkers in the past continue to prevent today's students from becoming aware of the cultural commons—that is, the community-centered alternatives to a consumer-dependent and ecologically destructive form of existence will also be a major theme explored in this book.

A related theme is how to introduce curricular reforms that enable students to understand the forces that are undermining the non-monetized intergenerational knowledge, skills, and activities that still exist in communities—and that have a smaller ecological footprint. Reducing the rate of environmental degradation will not come from the current over reliance on techno-scientific solutions which fail to address the problem of hyper-consumerism now being promoted on a world-wide basis. Rather, the drive to find less environmentally destructive technologies must be supplemented by a

revitalization of the local cultural commons as they exist around the world. This is now the unrecognized challenge facing the well-intentioned people who are urging that sustainability issues be introduced in courses in throughout the university.

.Clark Kerr, the former chancellor of the university of California, in his book, The Uses of the University, which was based on his 1963 Godkin Lecture at Harvard University, gives a brief overview of the changes that universities in the West have undergone. Kerr notes that at different times, and in different countries, the power elites' perceptions of what is high status knowledge, have influenced the missions of universities. The power elites, in turn, were being influenced by the taken-for-granted knowledge that co-evolved with the industrial revolution.

Kerr gives several examples of how universities have responded to the interests of these elite groups. For example, University of Salerno became noted for the study of medicine, Bologna for the study of law, and Paris for the study of theology and philosophy. In an effort to advance Germany as an industrial and military power, Wilhelm von Humboldt promoted the idea of the research-oriented university. That was in 1809. Earlier, Oxford and Cambridge universities had taken a different approach to conserving what was then regarded as high-status knowledge with their residential colleges.

During the same time in America, there was a steady stream of innovations in higher education that included the introduction of elective courses and the land grant colleges that addressed the needs of a largely rural and agrarian society. Class interests, shifts in ideologies, and the increasing influence of industries also were powerful shaping forces. What Kerr calls today's "multiversity" represents the American approach of responding to special interests: educating a larger percentage of the population, providing the scientific and technological knowledge for advancing the interests of an increasingly industrial/consumer oriented society, and furthering a wide range of intellectual pursuits are among the interests addressed. He further observed that one of the achievements of the American "multiversity" was that it has become a model for introducing changes in universities in other parts of the world—the effects of this influence, Kerr noted, were not entirely positive.

In many western countries, the corporate sub-culture has become the dominant culture, with its relentless pursuit of new markets and larger profits. The university, especially in the United States, has become increasingly oriented toward providing the knowledge for the development of new technologies as well as educating students to equate consumerism with personal success and happiness. The Technology Office has now become a standard feature on the campuses of many American universities. This trend is a sign that the idea that new knowledge should make a contribution to the common good of society has been displaced by the new ethos that holds that what is good for business is good for society.

David Noble's America by Design (1977) documents how the growing influence of corporate wealth, power, and political influence at the turn of the last century coincided with the merging of university and corporate interest. With computer mediated learning now a ubiquitous feature in classrooms and an essential tool of scholarly research, resistance to the merging of what had been dissimilar, or even hostile cultural orientations of corporations and universities, has been largely overcome. As will be explained later, computer mediated thinking and communication reinforce the deep cultural assumptions that underlie the industrial/consumer oriented culture. At the same time, computers marginalize the alternative, and more relational, patterns of communication and forms of knowledge that enable community members to be less reliant upon consumerism.

This symbiotic relationship between universities and the corporate culture in “growing the economy”, and in enabling countries to compete in the global economy, has been so successful that the future of the planet is at risk. However, while this symbiotic relationship has allowed the exploitation of natural systems to increase consumer goods, the impact on human standards of living has become increasingly uneven—especially for the several billions of people who live on a few dollars a day. Their misery is being compounded by media images of the wealth and conveniences available to the privileged social strata within Western cultures. At the same time, the globalizing effects of the consumer oriented culture are contributing to the loss of intergenerational knowledge in nearly all of the world's cultures. This loss is especially destructive for indigenous cultures attempting to maintain a subsistence level of existence within their local

ecosystems. This trend has created a growing gap between rich and poor, both within Western cultures and within the indigenous populations around the world, and represents a social justice issue that modern universities have failed to recognize or resolve.

However, an even greater challenge now faces both the rich and poor, the North and the South, and present and future generations—the crisis of climate change.

What is being learned in universities, from the elite to the mediocre, is not only failing to address these current ecological issues, but is at the very center of these interconnected crises. The thousands of chemicals that have been introduced into natural systems, including the human body, for the sake of increased profits are now changing weather patterns, diminishing the ability of the oceans to remain a reliable source of protein, affecting the fertility of the soil, the viability of aquifers, and other sources of potable water. One estimate of the use of fossil fuels suggests that since the start of the Industrial Revolution humans have burned enough coal, oil, and natural gas to put two hundred and fifty billion tons of carbon into the atmosphere. Nearly half of the carbon dioxide produced is being absorbed by the world's oceans.

Universities have played a key supporting role in developing new technologies and globalizing the Western systems of production and consumption. The impact of these activities have now reached, to use the metaphor introduced by climate scientists, the tipping point. This metaphor serves as a short-hand way of warning that the rate of growth in the emission of greenhouse gases into the atmosphere is reaching a point where human efforts to reverse the trend will become increasingly futile.

The estimates of when humankind will reach the tipping point range from ten to fifty years. Measured in human terms, the shortest prediction is the amount of time it takes a new assistant professor to be promoted to full professor. It is slightly longer than most modern marriages last, and about the amount of time it will take most university graduates to pay off their student loans. The longer time frame of fifty years will mean that our children and grandchildren will encounter a totally unpredictable future—with few of the possible scenarios leading to a better quality of life. The more likely scenarios may include economic dislocations accompanied by the spread of poverty, the loss of habitats and species that will diminish the non-economic quality of life, and food and water shortages. There will probably be the usual authoritarian response to the rise in

social chaos that we have witnessed in recent history. These predictions mean that to avoid the consequences described above, universities need to undertake radical reforms if they are to engage the ecological realities that environmental scientists are documenting.

In order to address this crisis, all academic disciplines and professional schools will need to undergo a fundamental re-orientation that will require a recognition of the cultural assumptions that were previously taken for granted, and a willingness to reexamine those assumptions. The tradition of academic freedom, supported by the evidence of the important achievements it has produced, is so deeply ingrained in the thinking of most faculty that there will be tremendous resistance to taking seriously any effort to engage in a discussion of how the different disciplines and professional schools have contributed to an environmentally destructive form of progress. Since most academics have devoted their careers to their discipline, they will be even more resistant to acknowledging the possibility that their dedication, effort, even sacrifice, has contributed to a myth of progress that has hidden until recently the degraded environmental realities that scientists are now documenting. Professors tend to conserve patterns of thinking, teaching, and research that have been widely acclaimed as contributing to social progress. But there is another problem that will make it difficult for faculty to engage in a critical and far-reaching discussion of what curricular reforms will be needed to address ecological issues.

The additional problem is related to the narrow specialization that has contributed to the advancement in knowledge in different fields of inquiry. This narrowing of knowledge makes it increasingly difficult for faculty from different disciplines to communicate with colleagues who may literally think and speak in the distinct vocabulary of their disciplines. An example of this occurred when an environmental scientist told me that cultural issues were not really important to understanding the nature of the ecological crises. Another example that easily come to mind is the failure of faculty to recognize how the layered nature of the metaphorical language they unconsciously rely upon carries forward the misconceptions of earlier thinkers who were unaware of environmental limits. And how many faculty are aware of the nature and ecological importance of the world's diversity of cultural commons? In addition, liberally-oriented political scientists have had, as I have learned, difficulty engaging in a

conversation about the possibility that environmentalists and people working to renew the cultural commons are the genuine conservatives. The main point is that the differences in traditions of thinking within the academic disciplines are an impediment to engaging in a university wide examination of what curricular reforms are now required. Robert Maynard Hutchins' observation that the only thing shared by faculty within the modern university is the central heating system may seem flippant, but it highlights the double bind created when specialization makes it difficult to recognize common interests—including common threats that will not disappear by virtue of being ignored.

Another issue that may strengthen faculty resistance to engaging in a discussion of curriculum reforms that address the ecological crises is the difference between the time frame that governs human action and the time frame within which many ecological systems operate. Green house gases stay in the atmosphere far beyond the time frame within which humans operate—especially humans who share the dominant Western cultural orientation with its daily pressures. Given these pressures, which are now being magnified by the increased reliance upon technologies, thinking and acting in ways that ensure the well being of future generations has low priority—especially in a culture that prizes the right of individuals to create their own identity and live on their own terms. One example of this difference in time frames is that coral reefs that are home to approximately twenty-five percent of the ocean's species are dying and will not recover within the time frame of many human generations—especially given that the level of acidification is increasing as a result of vastly increased levels of carbon dioxide being absorbed in the oceans. Another example is that changes in the permafrost in the northern latitudes, as well as in the glaciers that are the source of water for millions of people who live in adjacent valleys, will not be reversed in our generation or the many that follow. Faculty who still ignore the ecological crises, are likely to reinforce the idea that, if anything, today's problem of excessive consumerism is beyond their ability to influence. As the Earth's ecosystems move closer to the tipping point, even these faculty will be forced to recognize that the scientific and technological efforts to slow the rate of environmental degradation were not sufficient, and that the cultural patterns of thinking also should have been the focus of attention.

Change in the mission of today's universities will happen inevitably because the changes in the behavior of natural systems will force them to happen. Relevant examples of these pressing phenomena are increases in violent storms (which have already forced the insurance industry to change its policies), depleted aquifers and smaller snow packs, rising temperatures and increasing heat related deaths, and the higher cost of food which are now leading to riots in different parts of the world. The latter problem will accelerate as grain and other organic material are used as substitutes for the petroleum that comes from politically hostile countries. Petroleum supplies are being further jeopardized by insurgents who are resisting the West's economic and cultural domination of their increasingly fragile ecosystems and cultural traditions.

Hopefully, these changes, at some point in the near future, will cause more faculty to begin asking whether what they are teaching is part of the solution or part of the problem. Among the sub-cultures that represent the various academic disciplines and professional schools there will also be a tipping point where the defenders of the status quo will reluctantly yield to a new consensus, just as they did when gender discrimination was finally recognized. The real question, therefore, is not *whether* universities will cease to be major supporters of the corporate/consumer-oriented culture, but *when* this will occur. A second fundamental issue is whether the change will occur soon enough to reduce the rate of environmental degradation. It has taken many generations to recognize numerous forms of gender and racial discrimination. There are still inequities in hiring and salaries. These inequities were based on deeply held taken-for-granted cultural assumptions that were encoded in the language of the various academic disciplines. Two examples of these inequities are patriarchy and a Social Darwinian interpretation that divided the world into backward and advanced cultures. The cultural assumptions that are reinforced in most disciplines and professional schools and that underlie the Industrial Revolution that is now entering the digital phase of globalization will be even more difficult to recognize and change than racial and gender discrimination.

Due to the difficulties recited above, there are many faculty members who will be inclined to claim that any discussions that might lead to fundamental changes in their teaching and research would be a waste of time. They also may argue that if the natural systems that scientists claim are undergoing rapid degradation operate in a time frame

that is beyond human control then it would be pointless to devote the time and energy to initiate the curricular reforms that will only bring confusion and hostility to the prevailing university culture of live and let live. Even though they may be correct in their judgment that it is too late to reverse the impact of the last two hundred or so years of exploiting the environment as though it were an inexhaustible resource, we need to make the effort. We must forgo the convenience of the defeatist attitude and explore the opportunities we have for initiating reform.

Chapter 2 Slowing the Rate of Environmental Degradation

There are people in every community who engage in non-consumer related activities and are motivated by values that reconnect them with one of the most ancient of human traditions—the tradition Gary Snyder once referred to as the main pathway of human history before the emergence of the Industrial Revolution. The ancient pathway that represents a sustainable alternative to the consumer-dependent lifestyle has a name-- the “commons”. The forms of knowledge that underlie the commons include activities and relationships that are less dependent upon the money economy, and thus are less environmentally destructive. Since this word is too often associated with the enclosing of the commons that began at the end of the Middle Ages in England and culminated in the early nineteenth century under the increasing demand for cheap agricultural products and cheap labor, it is necessary to define the commons in a way that is both more inclusive of what this word encompasses in terms of different cultures and in terms of our own communities.

Garrett Hardin’s famous essay “The Tragedy of the Commons” and the thousands of abstracts on the commons that can be found at the Digital Library of the Commons, all focus on the environmental commons—with the cultural commons being largely ignored. The definition of commons, which I will use in my analysis, has two interrelated dimensions: the cultural commons and the environmental commons. Both have existed from the beginning of human history. Unfortunately, since most of the literature about the commons has focused on the environmental commons the effect has been to marginalize an awareness of the cultural commons. As environmental scientists

and other conservation groups are working to restore and protect natural systems from further exploitation by the industrial/consumer-oriented culture the focus here will be primarily on the ecological nature and importance of the cultural commons. However, the two must always be understood as interconnected and subject to the same economic forces. What remains of the world's diversity of the cultural and environmental commons can be protected only by resisting the many forms of enclosure--especially by the market system.

A shared characteristic of both the cultural and environmental commons is that they are freely available to all members of the community. That is, access and use are not dependent upon participating in the money economy of the industrial system of production and consumption. Services and skills may be exchanged, and the commons may include elements of a barter economy. For the most part, the uses of the cultural and environmental commons involve local decision-making, a system where labor is returned rather than dependent upon payment, and a moral framework that takes full account of the need to conserve the commons in ways that do not diminish the prospects of future generations. The environmental commons vary in terms of bioregions, but its essential elements include water, soil, forests, plants, animals, the air, climate, and oceans (with the latter two only recently becoming recognized as critical parts of the commons). The environmental commons were essential to the survival of the first humans living on the savannas of what is now called Africa. The daily life of these first humans was also dependent upon the accumulated intergenerational knowledge and skill that is now being referred to as the cultural commons.

The cultural commons then and now include the following: intergenerational knowledge and skills passed on through face-to-face interactions about how to prepare and share food (later how to grow and improve different sources of food), recognition and preparation of plants used for medicinal purposes, courageous and moral behavior presented in stories and ceremony (which also included stories of past moral mistakes), important symbolic information passed down in forms of aesthetic expression that we now call the expressive arts of music, dance, poetry, visual arts, and so forth. The information intergenerationally passed along also includes moral values and knowledge of how to engage in practices that do not diminish the sustainable characteristics of local

ecosystems. In mainstream American culture today the cultural commons are being renewed whenever people participate in any one of a wide range of activities where stories, skills, and mutual support are an integral part of the interaction. Some examples include activities ranging from weaving, writing for and producing local theatre, participating in various musical groups, working with wood, glass, clay in ways that produce something useful for the home and community—all of which contribute to the development of aesthetic judgment and a wide range of manual skills.

Today's cultural commons also include the centuries old traditions such as the civil rights which had their origins in the Magna Charta signed in 1215, and the more recent understanding of the checks and balances system of government, and the rule of law. The narratives of how gains were made in the area of social justice for workers and marginalized groups such as cultural minorities, women, and children are also part of the cultural commons. In effect, everything that goes on in daily life that only marginally involves reliance on the values and dependencies associated with a market economy is part of the cultural commons. To provide a full account of the cultural commons of different communities and cultural groups requires becoming aware of what most people participate in that is a part of their taken-for-granted daily life. Since most aspects of the cultural commons are taken-for-granted by people of different cultures, it is often difficult to be explicitly aware of the shared aspects of community life until a new technology or set of values disrupt the taken-for-granted patterns. For example, when a member of a Quechua community in the Peruvian Andes purchased a tractor, and when, as Chinua Achebe writes about in Things Fall Apart, literacy was introduced into an oral village culture, the taken-for-granted cultural commons becomes the focus of attention. That is, for those members of the culture who have not adopted the assumptions underlying modern development there is an awareness of what is being lost. But too often the ideology of modern development has placed a stigma on the non-monetized and intergenerationally connected patterns of community cooperation any serious discussion of what is being lost appears as a sign of backward thinking. Since the cultural commons encompasses shared areas of experience and context, there are also negative aspects involved.

In order to fully understand what is encompassed by the cultural commons we need to recognize that the narratives, patterns of moral reciprocity, access to various aspects of the cultural and environmental commons, and the protections and economic advantages enjoyed by the dominant group, may exclude others from participation. There are examples from our own recent history of prejudices and forms of economic and political discrimination that have been reinforced in the narratives and moral and legal codes that were part of the cultural commons. These aspects of the commons are encoded in the language of a cultural group that has carried forward centuries old prejudices and silences. The cultural commons must be understood from a critical perspective in terms of determining what needs to be conserved as contributing to a more morally coherent and ecologically sustainable community, and what needs to be changed.

Most of what today's society regards with indifference was codified in the Justinian code of the Roman Empire during its last days. While the Romans did not have an understanding of the cultural commons, they possessed a clear understanding of the nature and importance of the environmental commons. The code established the distinction between what was privately owned (res privatae), what was owned and thus the responsibility of the state (res publicae), and what represented the natural world common and thus available to all (res communes). The latter included the plants, animals, wood lots, water, and even the shorelines of oceans. Cultures throughout history have established either as part of an oral tradition or as part of a written code the nature of the moral norms governing human activities and relationships. These expressions of the cultural commons vary widely, from the place-based narratives of ancestors that carry forward the moral insights of the Western Apache to the American Constitution and narratives of the civil rights movement.

Professors and others concerned with social justice issues have given a great deal of attention to those aspects of the cultural commons that have denied community members basic human rights, and that have justified various forms of exclusion and economic exploitation. Addressing these issues becomes difficult because the language that provides the conceptual framework for understanding the cultural commons, which is also necessary for articulating the differences between the community enhancing as well as destructive expressions of the cultural commons, has been largely omitted from the

vocabulary of public school and university graduates. Aside from the recent increase in scholarly papers that address different ways in which the environmental commons are being enclosed, including the concern about the enclosure of the cyber-commons by corporate interests, the word “commons” is not widely known by university graduates. This loss of language can be attributed, in part to the way in which influential philosophers and social theorists have privileged the printed word, with its emphasis on abstract thinking, over the spoken word—which is the primary form of communication for renewing the cultural commons.

The cultural and environmental commons are like two sides of a coin. While the side we can call the cultural commons has not always been the expression of social justice and sound ecological practices, the other side of the metaphorical coin, which is called “enclosure” has been a constant threat to the cultural and environmental commons.. From the beginning of human history, free access to and participation in both the cultural and environmental commons was constantly being restricted as status and other differentiating social, economic, and political systems emerged. These forces, of course, varied from culture to culture. The emergence of class systems based on legitimating narratives, and well as the exercise of political and economic power, led to the enclosure of certain aspects of the cultural and environmental commons for social groups deemed to be less worthy--which may have included women, outsiders (who were called barbarians), and members of the culture’s under class. Enclosure has also resulted from the way different forms of knowledge have been defined as either low and high-status knowledge by such institutions as the church, public schools and universities, and by the government.

With the rise of experimentally based sciences and a market economy that followed the end of the Middle Ages, the enclosure of the cultural and environmental commons took on new forms. Practices such as excluding women’s knowledge and skills in the healing practices (by defining this as low-status knowledge), and excluding peasants from access to the environmental commons were accepted. The rise of universities in the West also led to new forms of enclosure resulting from the adoption of a number of conceptual root metaphors, such as individualism, progress, mechanism, that represented the intergenerational knowledge passed on in face-to-face relationships as the

source of backwardness and superstition. While it is impossible to identify here the diverse forms of enclosure that have undermined the self-sufficiency and practice of participatory democracy within the world's local cultural commons, the key issue is to understand the modern forms of enclosure, including how the academic disciplines need to be re-oriented in ways that enable students to understand how different forms of enclosure contribute to a less ecologically sustainable future—and to the loss of important civil liberties and traditions of community self sufficiency that are part of their cultural commons.

To reiterate: the main feature of enclosure in modern times is that it excludes people from what was previously available on a non-monetary basis. It may take the form of public lands becoming privately owned, and public services such the municipal water and transportation systems being sold off to corporations. The concept of private ownership, in effect, excludes the members of the larger community from the process of decision making about matters of common interests, and from safeguarding the interests of current and future generations. In other words, the many expressions of enclosure connected with recent legal decisions that extend what can be privately owned—such as the recent developments in science, technology, and corporate aggressiveness that now make it possible for corporations to own the gene lines that are the basis of organic life—undermine the cultural and environmental commons by bringing them under the control of the market economy. Enclosure has the effect of subordinating common interests, which includes protecting the prospects of future generations, to the incessant drive to achieve greater profits. The irony is that while we are rapidly moving toward the tipping point in terms of being able to reduce the rate of environmental degradation, the moral and social justice limits that previously restrained what could be enclosed by corporations are being removed—and this removal is being justified on the basis of the market liberal ideology that had its thinking in a partial reading, and thus distorted understanding, of classical liberals such as Adam Smith. Currently, there are few moral restraints on what can be enclosed—and on the amount of profits that corporations can earn from exploiting the natural systems we and future generations depend upon.

Enclosure takes other forms as well, such as the silences and prejudices reinforced in the educational process. This may include omitting the narratives that would otherwise

connect the current generation with the social justice struggles and achievements of previous generations. It may include eliminating from the vocabulary the words necessary for making explicit certain relationships and traditions—which can cut both ways, where the enclosure of certain words previously used to stigmatize certain groups may represent a gain in achieving a more inclusive form of social justice. Enclosure of language may also take the form whereby metaphors such as “conserving” and “tradition” are framed in terms of the long-held misconceptions that serve the interests of the industrial/consumer-oriented culture which manipulates consumers to want the latest new product by reinforcing the idea that all traditions except for holidays are as source of backwardness and a limitation on individual freedom. Holidays, of course, require more consumerism.

There are two aspects of the modern forms of enclosure that are especially noteworthy for contributing to the spread of global poverty and to greater reliance on the industrial consumer-oriented culture that is a major contributor to global warming. The first is that the modern forms of enclosure, whether in the areas of food, healing practices, entertainment, games, creative arts, manual skills and craft knowledge, moral norms governing human/nature relationships, civil liberties, language competency necessary for democratic participation, and so forth, force people to become more dependent upon a money economy. This places more people in a double bind where the loss of intergenerational knowledge that previously sustained the different expressions of the local cultural commons forces them to become dependent upon what is industrially produced—often in the lowest wage regions of the world. Automation, outsourcing of work, and the breakdown of the social contract that the previously powerful labor movement was able to force corporations to live by, is now making it increasingly difficult for a large segment of the population in America to pay for basic needs such as health care, shelter, and a proper diet.

The second implication of enclosing the non-monetized forms of intergenerational knowledge, relationships, and skills is that it leads to a more ecologically destructive lifestyle. Examples of the various expressions of the local cultural commons that have a small ecological footprint include the temple ceremonies in Bali (that involve the community centered arts as well as a system for regulating the distribution of water to the

rice paddies), and the multi-crop system of agriculture of the Quechua culture of the Peruvian Andes that still rely upon human and animal power rather than modern environmentally destructive machinery that would force them to be dependent upon the uncertainties of a market economy. Other examples of participating in the local cultural commons include the local craftsman who is building a cabinet or musical instrument rather than working at a non-fulfilling job in order to purchase what has been made by a machine for a mass market, and the person who is working to extend civil liberties shared by members of the community to previously discriminated groups. Participation in the cultural commons involves community strengthening relationships, the development of personal interests and skills, and involvement over a length of time that has an environmentally beneficial effect. That is, if the person is involved in cultural commons activities or in working to conserve the environmental commons she/he is less likely to have the free time, and sense of boredom that too often leads many people to compensate for their own sense of emptiness by going to the shopping mall.

The connection between a consumer-dependent lifestyle and global warming is the elephant in the room that so few media pundits, scientists, and other academics are willing to recognize. There are critics who are writing about the excesses of consumerism, and the many ways that the industrial growth and profit-oriented culture are accelerating the rate at which we will reach the tipping point. Unfortunately, the rate of change and the amount of distracting information now being produced as we move into the digital phase of the industrial revolution has meant that these critics are read mostly by other critics who share the same concerns—with the majority of the public demanding increasingly shorter bits of information that do not take time away from their sources of entertainment. The fast pace and pressures of everyday life prevent most people from reading books and thoughtful articles warning of the many dangers that lie ahead if we continue on our current consumer-dependent path is seen as an unnecessary distraction.

Even for the minority of citizens, including the minority of university students, who are concerned with changing their lifestyles in ways that are more ecologically sustainable, the silences and prejudices that were reinforced in their public school and university education too often has limited their ability to become an effective political

force for resisting the further expansion of markets and new forms of dependency upon the money economy. People who are pursuing lives of voluntary simplicity and patterns of mutual support through volunteerism and the sharing of skills represent the models of citizenship that need to be adopted more widely. They report that these activities give their lives a sense of meaning that they found missing in the life-style of hyper-consumerism. The majority of Americans, however, still pursue the new Eldorado of success and happiness being promoted by the industrial culture. That their level of consumerism (which is dependent upon using credit cards that increase their economic risk) too often involves a growing impoverishment in developing social relationships and personal skills that are the true source of a non-environmentally destructive form of wealth goes largely unrecognized.

Most universities now offer a wide variety of courses in the earth, life, and physical sciences—with many of the science faculty now collaborating with colleagues in engineering and other technologically oriented departments in developing more energy efficient and less carbon emitting sources of energy. Similarly, departments ranging from history, philosophy, political science, and economics to architecture, law, business, religion, and education offer courses that address environmental issues. In most instances, the traditional conceptual framework of the discipline, with its silences and prejudices, continue to frame how the environmental issues are presented to students. For example, at a medium size university in the Pacific Northwest, there are some 113 faculty spread throughout many departments that are focusing on environmental issues. The number of faculty and the range of environmentally oriented courses offered at larger universities are even greater. To an observer of how the environmental crises has altered what students are learning about the changes the Earth's ecosystems are now undergoing, as well as the cultural influences that have put the world's cultures on this slippery slope, it would seem that the suggestion that faculty need to address the question of how to reform the curriculum in ways that will enable the current and future generations to live in more ecologically sustainable ways would be more readily accepted.

The key issue that is not being addressed in the many non-science and non-technologically oriented courses is how to live in ways that are more intergenerationally connected, community-centered, and less dependent upon the industrial/consumer culture

that is now being globalized. To make the point more directly, courses in ecocriticism, eco-phenomenology, environmental politics, land use and management, history of environmental thought, law and the environment, human ecology, and so forth, do not provide students with an understanding of how to live less consumer dependent lives. The university in the Pacific Northwest that I am using as a reference point for making this important distinction between learning about ecological systems, including the cultural influences that have contributed to their misuse, and learning how participating in the local cultural commons reduces dependence consumer-driven lifestyle, has been a leader for years in promoting an understanding of environmental issues. Yet, if one observes the lifestyle of recent graduates of this university (or any other university in America) particularly the huge SUVs and oversized pickups that overflow the parking lots when they return to support their athletic teams, or what the current students drive, it becomes apparent that learning about the nature and sources of environmental degradation, as well as the past cultural misconceptions and practices, has not altered how they are still being controlled by the values of the industrial consumer dependent culture. The current student population is nearly as addicted to computers and cell phones as the non-environmentally informed public. And they are just as style conscious and oriented toward being able to participate as fully as possible within the money economy. It needs to be recognized that this generalization even applies to the majority of university graduates who have taken environmentally oriented courses. There is, however, a minority of students who are pursuing a more ecologically informed lifestyle as a result of taking various environmental studies courses. But even they end up without knowledge of how the cultural commons are being enclosed by ideological, economic, and technological forces—and by long-standing prejudices.

The basis for the claim that curriculum reform must go beyond exposing students to the environmental sciences, and to an examination of environmental issues from the perspective of various disciplines, is that students now need to learn how to become less dependent upon the products and expert services of the market economy that is overshooting the sustaining capacity of natural systems. Environmental science and engineering faculty are addressing how to reduce the adverse impact of energy-inefficient technologies on natural systems; but they do not frame what the students are learning

within the broader and historically informed understanding of the cultural and environmental commons. This silence is important as the commons, whether we are referring to the cultural or environmental commons, have always been under threat of enclosure. And in neglecting to introduce students in the sciences and in other technologically related studies to the many modern forms of enclosure that are transforming the cultural and environmental commons into new market opportunities students are being left without the language and conceptual understandings necessary for developing the communicative competence required for challenging these environmentally destructive forms of enclosure. They will even lack an understanding of how the cultural assumptions that many scientists take-for-granted too often result in scientific discoveries playing a key role in transforming different aspects of the cultural and environmental commons into products and technologies that are environmentally destructive.

While the media continues to represent advances in the development and use of more energy efficient technologies as the best hope for slowing the rate of environmental degradation, the connections between global warming and the hyper-consumerism promoted by the industrial system, with its emphasis on continued growth and profits, go largely unmentioned. The public, including university students and faculty, are bombarded with two contradictory messages: that the scientists who are collaborating with engineers are working on technological solutions that will reduce the release of greenhouse gases, and that increasing the rate of consumerism is essential to the continued growth of the economy. That the current reliance on technologies responsible for the release of the climate changing green house gases is connected with the expansion of consumerism should be obvious to anyone who has followed recent developments in China where the rise in the level of consumerism has required a rapid expansion in the number of coal burning electrical power stations.

Al Gore's film and book, both with the title of An Inconvenient Truth, reinforces the orthodox way of thinking that the development of new energy efficient technologies represents our best chance of slowing the rate of global warming. At the same time, he ignores the cultural values and behaviors that require the use of vast amounts of environmentally polluting energy. His brief reference to consumerism, which appears in

the last chapter of his book (almost as an after thought) includes the following suggestions that are supposed to contribute to slowing the rate of global warming: “consume less”, “buy things that last”, “compost”, “bag your groceries and other purchases in a reusable tote bag”, “carry your own refillable bottle for water and other beverages”, and so forth. No one can deny that these suggestions have merit, but to suggest that the problem of hyper-consumerism that is now being globalized can be solved by these common sense behaviors indicates a major failure in Gore’s education—which he shares with most Americans who have gone through our public schools and universities. This failure, it can be argued, can be traced back to the silences and prejudices that frame what is being learned even in university courses that are addressing environmental issues.

This is especially unfortunate as the alternatives to the consumer dependent lifestyle that requires the use of global warming technologies do not have to be derived from academic theories or religiously inspired scenarios of how the end of the world will come about. Rather, the alternatives that a small segment of the population have been keeping alive through their daily practices need to be brought to the attention of the larger population. This is one of the missions that universities need to undertake, especially since this task is especially suited to the historical knowledge that faculty in different disciplines possess and could bring to bear on an aspect of the cultural and environmental commons that can also be traced back to the beginnings of human history.

Enclosure of family gatherings around the dinner table may result from the more widespread use of electronic technologies that range from television, computers, cell phones, video games, and so forth, that demand the full attention of the individual. It may take the form of replacing (enclosing) the culturally influenced intergenerational knowledge of how to prepare a meal according to traditional recipes and skills with industrially prepared meals, as well as enclosing the mentoring relationships that carry forward different traditions of creative performance with what is commercially produced and represented as part of the culture of “celebrity” created by the corporate controlled entertainment industry. Ideologies and the different expressions of religious fundamentalism may lead to other forms of enclosure that range from undermining traditions of civil liberties guaranteed in the Constitution, the moral norms that previously

safeguarded people's right to privacy, to threatening the very basis of a democratic society.

The loss of intergenerational knowledge within other cultures that are being colonized to adopt the consumer dependent lifestyle where access to money is limited to a few dollars a day is having an even more devastating effect. The globalization of Western technologies, as well as the global media representations of how consumerism leads to happiness and evidence of an enhanced social status, is contributing to the alienation between youth and the intergenerational knowledge that previously could be relied upon to provide not only the basic physical needs, but also the basis for a rich symbolic and mutually supportive life. For the reader who thinks of rural communities as sources of narrow thinking and excessive pride in the importance of high school athletics, I invite them to read Kathleen Norris' account of returning from New York City where she was engaged in an artistic and intellectual life to a small town in South Dakota. The subtitle of her book Dakota: A Spiritual Geography, highlights the vitality of the cultural commons she discovered—which is unlikely to be recognized by tourists who bring pre-conceived assumptions about small towns being cultural deserts. The depth of character and clear focus on nurturing community relations essential to living lightly on the land and in mutually supportive relationships also can be seen in the main character of Wendell Berry's book, Hannah Coulter, which is also set in a similar small town and rural setting. The cultural commons in urban settings are even more complex, given the mix of ethnic traditions relating to food, ceremonies, narratives, creative arts, and patterns of moral reciprocity—which also includes aspects of the cultural commons they share with the dominant culture such as the rule of law and the traditions of civil rights.

The connections between the degree that most Americans are dependent upon consumerism, and the degree of dependence upon drugs that supposedly help to relieve the stresses and ailments induced by the hyper-consumer lifestyle (and the level of indebtedness it requires) suggests that the consumer dependent lifestyle does not always lead to a happy and tranquil existence. There is also a parallel between the many forms of enclosure that contribute to this level of consumerism and the global environmental crises that are impacting different regions of the world. One of the destructive consequences of economic globalization is that the hyper-consumerism in the West has a

direct effect on the level of energy produced by the coal fired utility plants in China that are needed to produce the products shipped to Wal-Mart and the other international chain stores. Thus, globalization not only accounts for the flow of manufactured goods coming to America and Canada, but also the mercury and other toxic chemicals that are carried west by the prevailing winds. As people participate in their local cultural commons by developing their personal skills and talents that strengthen relationships within the community, they will be less inclined to spend their time in shopping malls and in supporting the further expansion of economic globalization.

Chapter 3 Conceptual Double Binds that Must Be Addressed in Reforming Higher Education

Although universities and the corporate world are linked together in a way that matches how Kafka's K was locked arm in arm with the system that was out to destroy him, it may be difficult for many professors to acknowledge that cultural traditions are an inescapable aspect of daily life—including how unexamined traditions underlie the assumption that their teaching and scholarly writings are on the cutting edge of progress. The gains in wisdom, as well as the misconceptions and silences that dominated past ways of thinking are very much present in every university classroom and scholarly publication. And it is these largely taken-for-granted traditions that are the source of the conceptual double binds that must be made explicit and overcome before professors can play the role of mediator in helping students to become explicitly aware of the difference between their experiences as they participate on a daily basis in the sub-cultures of the commons and that of the market place. As I will later explain more fully, mediating is different from reinforcing the silences carried forward from the past as well as the taken-for-granted assumptions that gave conceptual direction and moral legitimacy to the industrial culture that has been aggressively enclosing the cultural commons in the name of progress. Mediating between the two sub-cultures requires entirely different priorities, background knowledge, and an ability to recognize double bind thinking—attributes now missing among most professors.

There are conceptual and moral double binds that are present even in environmentally oriented courses that ignore the nature and ecological importance of the cultural commons. Faculty who are making an attempt to incorporate environmental issues into their courses will likely be more receptive to recognizing the necessity of understanding the nature of these double binds, while the faculty who continue to be in denial about the environmental crises will likely resist recognizing how they are perpetuating the mind-set that, like the mind-set of the men who steered the Titanic into its fatal collision, is also on a collision course with the social chaos that will follow the further decline in the ability of natural systems to support human life.

The nature of a double bind was first explained by Gregory Bateson (1904-1980) who made original and lasting contributions to the fields of anthropology, psychology (especially in the area of understanding the nature of schizophrenia), linguistics, and epistemology. The double bind, as he explained it, is different from the nature of a dilemma in that it involves a contradiction between ideas and values that are explicitly held. A dilemma involves an awareness of being caught between two opposing and equally appealing or unsatisfactory options. Double bind thinking involves a lack of awareness that the taken-for-granted assumptions and values may be the real source of the problem. Individuals who engage in double bind thinking will continue to base behaviors on ideas and values that are assumed to lead to desired outcomes. However, what individuals conceptually take to be real, objective, progressive, etc. will be contradicted by the unconscious assumptions and values that actually guide behaviors and policies in ways that perpetuate rather than resolve problems and difficulties. Bateson's explanation of double bind thinking takes account of the multi-levels of symbolic representation that are part of the cultural matrix in which the individual is embedded, with one of the levels being how previous patterns of thinking and cultural assumptions are encoded at both the explicit and implicit level. Double bind thinking occurs when there is a lack of awareness of the implicit, and thus taken-for-granted assumptions –and how these assumptions carry forward over many generations the historically layered nature of earlier misconceptions. In his writings, he refers to the “unacknowledged contradiction between messages at different logical levels” (1979, Bateson and Bateson, Angels Fear, p. 207).

Current examples of double bind thinking include equating economic growth with progress, when consumer-oriented economic growth actually undermines the natural systems we depend upon. The behaviors and policies that are justified as leading to progress too often do not take account of the destructive changes occurring in natural systems that can be observed and scientifically documented. Double bind thinking also occurs when we think of the individual as the source of ideas and values, when the reality obscured by this unexamined assumption is that the individual, in learning to think and communicate in the metaphorically layered language of the culture she/he is born into, does not originate her/his pattern of thinking. Rather, if this false assumption were not accepted as true, the individual's pattern of thinking could be more easily recognized as being heavily influenced by the historically rooted analogs encoded in the metaphorical patterns of thinking that are taken for granted. The assumption that the individual is an autonomous thinker, is itself, an example of taking for granted the idea of the individual that has its origins in the thinking of philosopher such as Rene Descartes and John Locke—both of whom argued that traditions have no influence of thinking.

To reiterate a key characteristic of double bind thinking: the contradiction is between what the individual takes to be explicit, objective, factual, and even the outcome of one's own thinking, and the unrecognized assumptions that were constituted in the distant past and encode the assumptions of an even more distant past. The following discussion will address the need for university reforms to be based on an awareness of the many expressions of double bind thinking that are being reinforced by professors (even professors addressing environmental issues)—and, by extension, public school teachers. If the sources of double bind thinking are not incorporated as part of the university reforms that must be undertaken, students will continue to perpetuate double bind thinking when they become policy makers, political pundits, and general advocates of the modernizing project that was based on the long-held assumption that there are no limits to continuing to “grow” the economy.

The point I made in [The Culture of Denial: Why the Environmental Movement Needs a Strategy for Reforming Universities and Public Schools](#) (1997) is that universities play the dominant role in establishing what constitutes high-status knowledge. By virtue of what is largely omitted from the students' education, the

university also establishes what constitutes low-status knowledge. When writing this book I did not have a clear understanding of the nature of the cultural and environmental commons—partly because my earlier reading of Garrett Hardin’s “The Tragedy of the Commons” as well as the silences in my own graduate education at the University of California. The silences in the education of my professors put me on the slippery slope of double bind thinking. That is, the concept of the commons that Hardin described had no relationship to the matrix of cultural patterns and relationships that were part of my daily experience-- which I took for granted. Later, I was able to identify and describe the knowledge being marginalized as low status was what I now understand to be the intergenerational knowledge that sustains the cultural commons.

If students take a course in folklore or in cultural anthropology they will likely study the face-to-face, intergenerationally connected forms of knowledge, relationships, and skills that exist largely outside the industrial economy. Even in these courses, the key issues related to an understanding of the cultural and environmental commons—namely their ecological importance and the market forces that equate enclosure with progress and modern development—are unlikely to be considered. And the cultural anthropology courses, while focusing on the daily patterns and activities of indigenous cultures, perpetuate with few exceptions the double bind thinking that is based on the Western cultural assumption that these cultures represent an earlier stage in a linear process of human development—and thus there is little we can learn from them about how to pursue non-economic and non-environmentally destructive forms of cultural development. The meaning that the word “subsistence” has for most Western anthropologists is yet another example of how their ethnocentric thinking influences how these cultures are viewed as backward and undeveloped.

As Derek Rasmussen observed after talking with a Dene elder, the members of the indigenous culture resist the Western habit of referring to them as living a subsistence existence. This word, as the elder pointed out, carries forward the assumption that economic and technological development are the primary criteria for determining whether a culture is to be classified as leading a subsistence existence. For the elder, the community’s wealth is in the knowledge of the local ecosystems and of how to live within their seasonal cycles, the knowledge of ceremonies, traditions for resolving inter-

personal conflicts, the patterns mutual support—in short, the complexity of their cultural commons. Western thinkers are too often unable to recognize this non-monetary form of wealth because of their fixation on equating subsistence with not living high on the pyramid of consumerism. Recent anthropologists, such as Keith Basso and Guillermo Bonfil Batalla who are more in the tradition pioneered by Marshall Sahlins' Stone Age Economics (1972), are illuminating the tensions between the life sustaining cultural commons of indigenous groups and the economic pressures of modern development—even though they still avoid referring to these non-monetized traditions as the cultural commons.

The forms of knowledge that universities represent as high-status, and thus the outcome of rational thought and as the basis of progress, involve a modicum of face-to-face exchanges between professors and students. But this is incidental to what really separates high-status knowledge from the low-status knowledge of the cultural commons. High-status knowledge is in the tradition that has its roots in the thinking of Plato and other Western philosophers who insisted that abstract knowledge more accurately represents reality than the knowledge derived from oral traditions, from the place-based experience of different cultures, and from embodied experience—with its multiple dimensions of feelings, moods, meanings, memories, self-consciousness, and ongoing negotiations of power relationships. Print became the chief mode of encoding abstract knowledge, thus separating knowledge from contexts, tacit understandings, the immediacy of life experiences. Adding to the growing influence of decontextualized representations of everyday reality were the other modes of abstract representations being developed by scientists and mathematicians. While books are now being replaced by computer data bases, digital libraries, online documents and articles, print continues to be one of the chief hallmarks of high-status knowledge. As I will explain later, this characteristic of high-status knowledge reinforces a natural attitude that ignores the importance of context and tacit understandings. In addition, the increased reliance upon computer mediated thinking and communication further undermines the diversity of the cultural commons by virtue of the fact that the tacit and context specific nature of face-to-face communication cannot be digitized without turning it into an abstract text. This, in turn, reinforces the high-status tradition of thinking of the individual as an objective

observer of an external world, and as relying upon print-based representations of a supposedly objective world.

There are other characteristics of high-status knowledge that set it apart from the forms of knowledge and relationships that are central to the various cultural expressions of low-status knowledge. These include the cultural assumptions that are seldom made explicit; and, in being taken-for-granted, are the source of the double binds that result in many of the scientific and scholarly achievements becoming major contributors to the continued process of Western colonization and environmental destruction. These cultural assumptions represent individuals as potentially autonomous thinkers (that is, if they acquire the abstract knowledge required by the supposedly free rational process). As their professors, by virtue of their advanced degrees, possess a body of abstract knowledge and theory, they serve as models of the autonomous thinker that students should aspire to emulate.

Another critically important assumption not found in the various expressions of low-status knowledge is that change is inherently progressive in nature. This contrasts with the academic disciplines, which reinforces in the thinking of students the implicit cultural message that constant change is a sign of progress, and that a primary value is discovering new ideas, paradigms, interpretations, technologies, scientific discoveries—and of being recognized as an original thinker. The double bind inherent in the assumption that equates change with progress is that little attention is given to the merit of the traditions that are being overturned by this constant quest for the new and innovative. This relentless pursuit of new ideas, values, technologies, and markets in a world where we are fast exceeding what natural systems can sustain, and where fewer people have the means to participate in this false sense of plenitude, is especially problematic.

High-status knowledge is also based on the long-held cultural assumption that this is an anthropocentric world, where only humans possess intelligence and where human progress requires bringing the natural environment under the rational control of technology, economic forces, and the liberal ideology that justifies the enclosure of the environmental commons by private and corporate ownership. This assumption about an anthropocentric world, which can be traced back to the Book of Genesis and beyond, has

become a consciously-embraced (indeed, celebrated) hubris that has contributed to ignoring, until very recently, how high-status knowledge contributes to undermining the self-sustaining ability of many non-Western cultures --as well as the self-renewing capacity of natural systems. The other characteristics of high-status knowledge promoted by Western universities are intertwined with the anthropocentric view of human/nature relationships. These include the assumption that cultures have developed in a linear pathway from primitive to civilized, modern, and progressive. The other assumption being that the scientific method provides the most accurate and useful form of knowledge—and that other disciplines should rely more heavily on objective data, measurement, and the use of a mechanistic explanatory model. This view of science allows humans to measure, analyze, manage and generally give us a false sense of control over the natural systems upon which we depend. It follows then that, we should look to the scientific realm to solve the social and ecological challenges that we face today.

The re-emergence of evolution as an explanatory model for understanding how natural selection is leading to the replacement of humans by computers (as argued by Hans Moravec, Ray Kurzweil, Gregory Stock, and George Dyson), and for understanding how cultural memes (which supposedly play the same role in the process of natural selection of genes) demonstrate, according to its proponents, that in the economic world as well as in the organic world, the survival of the fittest is nature's way of bringing all aspects of life under its control. That the extension of the theory of evolution beyond what it can legitimately demonstrate reinforces the older cultural assumptions that represented the more advanced cultures as Christian and the less advanced as pagan is lost on most students—and I suspect on most scientists who are unaware of how the theory of memes and the idea that Western cultures are the most evolved supports the market liberal ideology that is based on the assumption that there is an “invisible hand”, as Adam Smith put it, that ensures the survival of the fittest and most competitive. If this claim seems unjustified I suggest that potential critics read E. O. Wilson's highly acclaimed book, Consilience: The Unity of Knowledge (1998) and Carl Sagan's The Demon-Haunted World: A Candle in the Dark (1997)—or any number of books by scientists who claim that moral values are the outcome of nature's process of natural selection.

The way these cultural assumptions are reinforced as the tacit understandings that underlie the knowledge acquired in the various disciplines has another effect that is not being addressed by today's emphasis on developing multicultural awareness. That is, the assumptions about individualism, progress, abstract knowledge and other systems of representation, a conduit view of language, the rigors of the scientific method that represent all religious-based epistemologies and moral systems as based on superstition, all contribute to the age-old problem of ethnocentrism. Collectively these assumptions are the source of the double bind that leads to conferring high-status on those forms of knowledge that have made a virtue of ignoring the differences in cultural contexts, knowledge systems, and how other cultures developed in less environmentally destructive ways.

The seldom recognized double bind connected with the assumptions that underlie the various high-status forms of knowledge, including what Wendell Berry referred to as the growing cultural imperialism of modern science, is that these are the same assumptions that underlie the industrial/consumer-oriented culture that is now being globalized. Unless the university graduate has been influenced by an environmental course of study or by professors who are in the social justice tradition of liberalism, she/he will find that the transition from the classroom to working in the market-oriented sub-culture confirms the deep cultural patterns of thinking reinforced in most university classes. To make these points more directly, the same deep cultural assumptions that are reinforced in most academic disciplines are same ones, as I pointed out earlier, that gave conceptual direction and moral legitimacy to the early stages and now current digital stage of the industrial culture that was based on the assumption that there are no limits to and thus no dangers in equating progress with the exploitation of natural systems. And just as the market-oriented sub-culture leads to viewing what remains of the local cultural commons as potential markets yet to be developed, the majority of university graduates take-for-granted that there are few traditions that are at the center of the local cultural commons that should be conserved.

A summary of the characteristics shared by the world's diversity of cultural commons include the following: a more balanced understanding of the complex nature of traditions that everyday life depends upon, an awareness that intergenerational

knowledge has been refined over generations of place-based experience, that the patterns of moral reciprocity are rooted in the mythopoetic narratives of cultures—and that they are not the outcome of natural selection and the mechanistic electro-chemical processes in the brain that can be re-engineered, that sustainable forms of knowledge and values are best derived from giving careful attention to interdependent relationships between the members of the human and biotic communities, and that intergenerational responsibility should take precedence over the self-interests of the mythical autonomous individual. But the key issue that needs to be reiterated again as it is so easily forgotten, even right after it is mentioned, is that the industrial consumer oriented culture that is strengthened by what is learned in a university education has an ecological footprint that far exceeds the footprint of cultural commons activities where reliance on the market economy is kept as minimal as possible.

Chapter 4 The Slippery Slope of Double-Bind Thinking

Deep cultural assumptions are not the only source of the double-bind thinking promoted in most university classes. They also are responsible for the extreme expression of hubris where there are no limits on human progress and, correspondingly, no limits on the enclosure of the cultural and environmental commons. The range of commons experiences that most university graduates participate on a daily basis might have led to a more grounded and complex understanding of the key metaphors that are largely taken-for-granted in most university classes. These metaphors are seldom questioned by the promoters of the industrial/consumer lifestyle, and therefore are also unquestioned by most university graduates, as well as most of their professors. As a result they are unable to identify (that is, name) the different cultural commons activities and relationships they participate in on a daily basis. These metaphors, unchallenged at every level, make deep discussions of change extremely difficult.

One reason that people have difficulty in being explicitly aware of the cultural and environmental commons is that the word “commons”, especially in Great Britain and in parts of the world that were colonized by the British, is understood in terms of variations on 17th and 18th century analogs. Then the commons meant the natural environment (woodlots, streams, pasture, etc.) that was freely shared. Over time this

analog became modified with the commons becoming understood as the shared public space within colonized areas. People living today in the New England states, for example, now associate the commons with the public space at the center of the village and the older part of the city—such as the Boston Commons.

There is another reason that daily participation, especially in the local cultural commons, goes unrecognized by most university graduates (and by nearly all of the general public who may never have heard the word before) is that intergenerational connected activities, relationships, and skills that are carried on largely outside of the money economy are too often taken-for-granted. For example, speaking English, with its conceptual pattern of organizing reality in the way dictated by the logic of how the subject, verb, object are ordered, the pattern of using the personal pronoun “I” to signal the primacy of the individual’s perspective, as well as the vocabulary that reproduces the moral norms that govern relationships, are just three of the cultural commons that are an inescapable aspect of daily life. Other aspects include: food preparation according to traditional recipes, mentoring relationships in a wide range of skills and creative arts, performing with a local group of musicians, playing chess and other games by traditional rules, getting involved in recreational activities with a group of friends and family, assuming that the parameters of the yard and at least the front door separates one’s private life from what is considered public space that is open to scrutiny, the assumption that one’s private life is not under government surveillance, that the exercise of governmental power is constrained by the rule of law, that family and friends have knowledge of how to deal with certain illnesses, and so forth. This list, of course, will vary from culture to culture. Some aspects of the cultural commons are sources of injustice, such as the narratives and stereotyped language that carry forward the intergenerational prejudices of the group, as well as such horrendous examples of the “honor” killings that are practiced in some cultures.

Two important questions raised by the taken-for-granted nature of most people’s experience of participating in the local cultural commons are: Is there a connection between people’s inability to be explicitly aware of when they are participating in the cultural commons and when they are participating in the monetized/consumer oriented sub-culture and their inability to develop the communicative competence necessary for

resisting the further enclosure of the local cultural commons? Secondly, does the double-bind thinking reinforced in most university classes, as well as in public schools, contribute to the inability to resist the various forms of enclosure that, in turn, allow for the further expansion of the consumer culture that is having such an adverse impact on the viability of natural systems? Later, I will suggest educational reforms that will contribute to the student's awareness both of the nature and ecological importance of the cultural commons, as well as the cultural forces that are enclosing them. However, it is first necessary to examine more closely why so little attention is being given to the metaphors that encode the double-bind thinking that, in the name of progress, lead to new technologies, and expansion of the global economy and the narrowing of the diversity of the world's cultural commons.

As George Lakoff and Mark Johnson point out in Metaphors We Live By (1980) all language, and thus all thought, rely upon the use of metaphors. In the 1880s, Friedrich Nietzsche made the same point, but it was largely ignored because Aristotle's mistaken understanding of metaphorical thinking had not yet been recognized. John Locke had earlier established the analog that became the basis of thinking of language as a conduit in a sender/receiver model of communication. This understanding fit better with the ascendancy of modern science with its reliance on objective data that could be shared in this sender/receiver model of communication. It also fit better with the emphasis on rationally-based inquiry that excluded the possibility that the rational process itself was rooted in taken-for-granted and thus unrecognized culturally specific assumptions.

As Alvin Gouldner observed in The Future of Intellectuals and the Rise of a New Class (1979) "The culture of critical discourse (meaning academics and the people they train in how to think rationally) is characterized by speech (and writing) that is *relatively* more *situation-free*, more context and field 'independent.' This speech (and writing-based) culture thus values expressly legislated meanings and devalues tacit, context-limited meanings. Its ideal is 'one word, one meaning,' for everyone and forever." (p. 28) The conduit view of language is particularly well-suited to supporting the idea that words have one meaning and that the meaning is assumed to be universally valid.

The conduit view of language is also particularly well suited to justifying the colonization of other cultures, as we have seen recently in President George W. Bush's

attempt to hide the real motive for invading Iraq with his claim that he wanted to spread democracy throughout the Middle East. He assumed, as do most Americans that democracy has a universal meaning, even though the American understanding is based on assumptions about the individual as the basic political unit and the need to separate politics and religion — both of these assumptions are not held in Islamic cultures. There are many other examples of assuming that words have a universal meaning--words such as development, modernization, individualism, progress, freedom, sustainability, tradition, and so on.

While there is now a significant body of literature on the nature of metaphorical thinking, most professors and nearly all public school teachers still perpetuate the conduit view of language. To acknowledge its metaphorical nature and the double-bind characteristics of using metaphors that encode analogs that were based on the misconceptions of earlier times, and that were in turn framed by earlier root metaphors that were taken-for-granted, would give professors a framework within which to engage students in a discussion of the connections between words (iconic metaphors) and their cultural origins. This discussion would allow further analysis of whether the analog that gives the metaphor its explanatory power takes into account local contexts and tacit understandings. The conduit view of language avoids the problems with these misconceptions while at the same time supporting the myths that rational thought is not influenced by the assumptions of the culture, that there is such a think as objective data, information, and interpretations--and that individuals are autonomous thinkers who must acknowledge the ownership of ideas—particularly the ideas of others.

A possible answer to the question of why so many people, especially people with a university education, are unable to name the different aspects of the cultural commons they participate in on a daily basis, can be found in the tradition that can be traced back to Plato, and reinforced by subsequent generations of philosophers. Namely, the tradition of assuming that words (iconic or image metaphors) have a universal meaning that transcends cultural contexts and tacit understandings. When words are assumed to have a universal meaning, as in the case of words such as individualism, freedom, democracy, tradition, technology, progress, and so forth, they contribute to a mind-set that ignores the cultural and environmental contexts of embodied experiences. The use of these

abstractions thus marginalizes any sense of accountability, with the result that the discourse and the policies that are the outcome of this Babel of context-free metaphors becomes more Orwellian. A concrete example of how abstractions become more real than the complexity of everyday relationships can be seen how men, including university professors, interacted with women in a wide variety of relationship yet continued to think of them as lacking an equal degree of intelligence, physical strength, and a desire to fulfill capacities that did not fit the stereotype—which is always based on analogies derived from the past and thus are abstractions that dictate the nature of the relationship. Similarly, the idea of technology as being a culturally neutral tool, which is another abstraction that has its origins in the past, has led generations of highly intelligence people to ignore the aspects of experience that are amplified and reduced by different technologies. Thinking of the environment as an economic resource is yet another example of how an abstract word framed relationships and marginalized an awareness of the complexity of the embodied experiences in natural setting to such a degree that the environment continued to have only this limited meaning. The holding power of abstract ideas also prevented generations from realizing that the destruction of the environment would mean putting the well-being of humans in jeopardy.

An obvious example that seems to escape the attention of politicians, media pundits, and professors educated in the most prestigious universities is the use of the word conservative as the label for think tanks such as the CATO, American Enterprise, and the Hoover Institutes. These institutes post on their websites that their main political agenda is the expansion of the free-market system, individual freedom (that ensures that they will be so lacking in skills and community mutual support systems that they will be totally dependent upon consumerism), and a strong military establishment—which is necessary to protect the foreign interests of American corporations. Why the educated elites continue to refer to these think tanks as conservative, when their websites explicitly state their commitment to a market liberal agenda, is really quite amazing.

Unfortunately, assessing whether the abstract political labels accurately represent the policies of the group that the educated elite want to stigmatize by labeling them as conservatives has come to be viewed as an impediment to the formulaic use of political labels that carry forward the misconceptions formed at an earlier time.

The proponents of free markets and privatizing activities previously performed by government gain in two ways by being identified as conservatives. Labeling themselves as conservatives and as neo-conservatives has the effect of reassuring the segment of society that assumes their civil liberties and the long-standing governmental functions will be conserved. However, when the self-identified liberal pundits and professors associate conservatism with the policies that undermine habeas corpus, privacy rights, and the belief that government will not use lies to justify going to war, and that national security will be enhanced by diverting government resources away from anti-poverty programs in order to provide huge profits for Halliburton, Blackwater, and other corporations that increasingly operate without being held accountable, they provide further cover for these extremist proponents of market liberalism. The unfortunate effect is that the formulaic use of “conservative” eliminates asking the question of what it is that these self-proclaimed conservatives and neo-conservatives want to conserve.

This misuse of the word is also an example of double-bind thinking as the metaphor “conservative” carries forward the historical misconceptions that led to identifying as conservatives the landed aristocracy and other economic and power-oriented interest groups. People who first associated conservatism with protecting privilege, wealth and the authority of the church, did not understand the intergenerational nature of their cultural commons. Therefore, they established the analog that framed conservatism as protecting economic and political interests—an understanding that is still taken for granted. A more accurate use of the word would take account of the recipes, healing practices, narratives, social justice achievement, creative arts, etc., handed down and improved upon by each generation.

During the time that the analogs of the landed aristocracy and the tradition-bound church gave the word “conservative” its special meaning, there were powerful reformist movements in the areas of education, politics, and health care. These reformist groups were justifying their efforts to alleviate social injustices, as they understood them, by appealing to traditions of thinking found in the New Testament’s social gospel and in the ongoing efforts to improve the lives of the working poor and disenfranchised. The landed aristocracy and other powerful groups who were resisting the efforts to introduce these social reforms should have been labeled as reactionary and as traditionlists. The gains in

social justice, including the earlier developments in the areas of representative government and civil rights, are now examples of traditions that needed to be conserved and expanded upon along with the other aspects of the cultural commons.

Later the word conservative became associated with the entrepreneurial class that relied upon the abstract theories that justified how free markets should be allowed to determine the winners and loser in society. This misconception of associating the word conservative with the aristocracy who resisted the efforts to introduce social reforms, is a classic example of the double bind. What continues to be ignored by relying upon these early examples of double-bind thinking is that today the label of conservative is being given to economic and technological forces that can only expand by destroying what we desperately need to conserve: the traditions of self-sufficiency within communities, cultural diversity, and the self-renewing capacity of natural systems.

At least Louis Hartz got it right. In *The Liberal Tradition in America* (1955), he wrote that the early twentieth century manufacturers in America made every effort to avoid being identified as conservatives as they wanted the public to view them as the source of innovation and material progress. Indeed, progress was the mantra of industrial America, as anyone who recalls how the television program sponsored by General Electric began with the statement that “progress is our most important product” can attest. But the power of abstract labels that are the source of formulaic thinking, then and now, deflected attention from how the proponents of the industrial culture described themselves as sources of innovation and change—which the media continues to announce on a daily basis.

There are two processes that need to be clarified if we are to have a more adequate understanding of how double-bind thinking is putting us on the slippery slope that scientists are warning us about as well as the other slippery slope leading to an authoritarian future that alert civil libertarians are deeply concerned about. The first has to do with how the metaphors that frame our interpretations as well as what we are aware of-- and what we ignore--carry forward the double-bind thinking that Gregory Bateson has written about. The second relates to how double-bind thinking contributes to the inability of many university educated people to recognize the cultural commons they participate in on a daily basis. The process that needs to be fully understood is how our

use of metaphors reproduces the double-bind thinking that leads to a destructive rather than positive outcome for the environment. We need to start with a clear understanding of the chief characteristics of metaphorical thinking. First, as Nietzsche pointed out, understanding something that is new in experience or in the realm of abstract ideas requires relying upon what is already familiar as the initial basis of understanding. In effect, the already familiar provides the initial conceptual scaffolding for understanding--or misunderstanding when the familiar is derived from a totally different category of experience. An example of the latter occurred when President Reagan was criticized for his theory of supply-side economics and replied to his critics by saying (and here is the analog) that like in a football game the coach should not change the game plan in the last quarter. In this case, comparing a failed economic policy with a game plan is fundamentally wrong. One can walk away from a game without experiencing the long term social consequences of a failed economic policy.

Another example is using a machine as the source of the vocabulary for identifying the “components” of a plant cell reproduces a basic misconception that has ecologically problematic consequences when carried into such areas of human activities as agriculture, health care, education, and so forth. This metaphor can be seen in how college textbooks refer to a plant cell as having a “powerhouse,” “production centers,” a “solar station,” and a “recycling center”. This shift to a mechanistic analysis makes it easier for students to understand, given our other mechanistic metaphors, than if the scientific vocabulary of “lysosome”, “mitochondrion”, and “chloroplast” were used. However when this basic misrepresentation is duplicated, such as when agriculture, health care, and education are thought of “as like” an industrial process, the results can be disastrous—as we are now witnessing. Relying upon the vocabulary derived from a machine introduces a basic misunderstanding that fits Bateson’s definition of double-bind thinking. This misunderstanding is then reproduced repeatedly even by some of our most acclaimed thinkers when they forget that organic processes and machines are fundamentally different.

Before considering other implications of Bateson’s theory of double-bind thinking, it is first necessary to identify several other characteristics of metaphorical thinking that are ignored when classroom teachers and professors reinforce the conduit

view of language that makes it possible to sustain other myths such as objective knowledge and data, the individual as the source of ideas and moral judgments, and rational thought as independent of cultural influences. The processes of analogic thinking, that is, understanding the new in terms of the familiar (thinking of something “as like” something already familiar) is influenced by the root metaphors that largely operate at a pre-conscious (this is, taken-for-granted) level of awareness. For example, mechanism is the root metaphor that is taken-for-granted when E. O. Wilson explains that the brain is a machine and thus only a problem in engineering, when Francis Crick describes the “intricate machine—the brain,” when Richard Dawkins refers to the body as a “survival machine,” when William Harvey referred to the heart as a “pump,” and when Thomas Hobbes identified the “nerves and joints as so many strings and wheels giving motion to the whole body,” and so on.

Other root metaphors that have influenced cultural developments in the West, and that have their origins either in the culture’s mythopoetic narratives or in powerful evocative experiences, include patriarchy, anthropocentrism, progress, individualism, economism, and now evolution. Ecology is beginning to take on the status of a root metaphor among the more environmentally conscious segment of society. Root metaphors, in addition to being largely taken-for-granted, influence which analog will be used as the basis for new understandings—such as current efforts to understand the brain as like a computer. Root metaphors also exclude the use of analogs that do not fit with the conceptual (or interpretative) framework dictated by the root metaphor. Thus, it was impossible for hundreds of years to identify women as successful painters, historians, scientists, and mathematicians. Marie Curie, for example, was marginalized in the awards ceremonies even though she was the principal researcher that led to two Nobel Prizes.

In effect, root metaphors frame current ways of understanding across a wide range of cultural activities over a time frame of hundreds, even thousands of years. Unless the root metaphors are made explicit they may become a source of linguistic determinism where the past continues to influence current ways of understanding problems and solutions—as well as preserving the silences of the past. The root metaphors of other cultures are derived from their mythopoetic narratives and from the powerful evocative

experiences of the past—which can be seen in the reaction in the Islamic world to President George W. Bush’s reference to his war on terrorism as a “crusade”. To reiterate two characteristics of root metaphors that need to be kept in mind: they are both culturally specific and they often carry forward the misconceptions (that may have represented an advance in thinking at an earlier time) of the past that go unnoticed when they are relied upon as part of a taken-for-granted pattern of thinking.

Another characteristic of root metaphors is how they influence the moral values of a cultural group. As Gregory Bateson pointed out, language is used to communicate about relationships. This can be more easily recognized in what is popularly known as non-verbal communication. One aspect of communicating about relationships is that the words used in this process reproduce the culture’s understanding of the attributes of the participants in the relationship-- and thus what moral behaviors are appropriate to the culturally prescribed attributes. For example, the moral behavior considered appropriate when a plant is called a “weed” is to exterminate it—without considering how it fits into the larger ecological system of which it is a participant. The moral behavior expressed toward natural systems that are called natural resources is to economically exploit them. People resisting Western cultural colonization, if they are labeled as “terrorists” (which is itself a context-free metaphor), can be killed on moral grounds. And if marginalized social groups are viewed as having the attributes of being primitive and economically undeveloped, the moral response in order to “help” them rise above their condition is to educate their children to become Western thinkers and consumers.

When a conduit or sender/receiver process of communication is used that represents words (iconic or image metaphors) as a symbolic way of representing real things, relationships, and ideas, the role that language plays in establishing hegemonic relationships is often overlooked. For example, many people may think that the phrases Near, Middle, and Far East are objective references to different regions of the world, but the reality is that London is the reference point that gives these geographical designations their conceptual coherence. That is, these phrases carry forward the British way of thinking when it was at the zenith of its global hegemony.

Words have a history that influences what we are able to recognize, as well as ignore. The result is that our understanding of a word is largely framed by the deep

taken-for-granted explanatory framework dictated by the root metaphor. This explanation provides a basis for understanding what Bateson referred to as double-bind thinking. By taking into account the history of words, particularly the root metaphors that framed the process of analogical thinking that iconic (image) metaphors carry forward, it is possible to recognize the many sources of double-bind thinking.

But two sources of double-bind thinking stand out as especially relevant to understanding why so many conceptually and morally powerful metaphors are contributing to the silences about the ecological importance of the cultural commons. One source is the misconceptions of the past that are encoded in such iconic metaphors as individualism, technology, progress, democracy, freedom, tradition, sustainability, conservatism, liberalism, and evolution. The analogs that earlier thinkers succeeded in associating with these words were often taken to be intelligent responses to the political, economic, and social issues of their day. Unfortunately, as many of these earlier constituted analogs have not been examined and changed by later generations, the effect is that the earlier ways of thinking continue to influence thinking in an era that is fundamentally different--especially when we take into consideration the rate at which market forces are shortening the time we will reach critical ecological tipping points.

The other source of the double-bind thinking that is passed on from earlier generations by educated elites who are dedicated to expanding the frontiers of the culture's symbolic universe is that these elites have continued in the linguistic tradition that was influenced by the writings of Plato and other Western philosophers such as Descartes, Locke, and Mill. The same thought patterns are clearly present in the writings of more recent philosophers such as John Dewey and Richard Rorty. As this is a generalization that many will want to challenge, I will explain in the following chapter both the basis for making it, as well as why this linguistic tradition has been a major reason that so many people, especially people educated in universities where this linguistic tradition is continually reinforced, are unable to recognize the nature and importance of their embodied experiences in the local cultural commons. In the same way they unconsciously use body language to communicate about their relations with others, they possess tacit knowledge of how to engage in various cultural commons activities. But when people are asked about the nature of the cultural commons they are

unable to identify any of its characteristics—and equally unable to identify the many ways in which the cultural commons is being incorporated into the market economy that is exacerbating global warming.

The more culturally and experientially grounded (what Gouldner refers to as contextual and tacit understandings) meaning of conserving the intergenerational traditions of the community that Edmund Burke articulates in his book, Reflections on the Revolution in France has largely been ignored, just as the ideas and values of Wendell Berry are not widely recognized as examples of conservative thinking. These brief examples are not irrelevant to the larger question of why professors need to rectifying their use of political metaphors in ways that will enable people to recognize the double binds inherent in mislabeling market liberal as conservatives--which has now reached the point where the further expansion of markets and profits requires the dismantling of our traditions of democracy and civil liberties.

Chapter 5 The Platonic Roots of the Conceptual Double Binds that are Contributing to the Deepening Ecological Crises

Double-bind thinking needs to be addressed if our approach to reforming the mission of the university is to avoid reproducing the patterns of thinking (the conceptual and moral schemata) responsible for ignoring the long-standing evidence that natural systems have limits beyond which they cease to renew themselves. As pointed out earlier, the widely held assumptions about the progressive and culture-free nature of the rational process that many professors reinforce, which includes the idea that thinking is an individualized activity and that language serves as a neutral conduit in a sender/receiver process of communication, have marginalized an awareness of how complex ideas from the past that have been reduced to image words that perpetuate the process of double-bind thinking that further exacerbates our relationships with each other and with the environment. These assumptions can be traced back to the earliest creation stories in the West, and to the earliest beginnings of Western philosophy. Thus, the need to examine the historical roots of today's double bind thinking that continues to reduce the misconceptions of the past to a series of abstract slogans that are used to justify the

further expansion of the industrial/consumer dependent lifestyle while, at the same time, impeding awareness of the cultural and environmental commons.

The practice of treating abstract representations as more accurate than what can be learned from embodied/culturally mediated experience is the problem that Gouldner was referring to when he wrote that “culture of critical discourse values speech (the printed word) that is *relatively* more *situation-free*, more context or field independent”. This issue was also addressed by Mark Johnson in his book, *The Body in the Mind* (1987) where he argues that bodily experiences are the source of many of the analogs encoded in the metaphors we use to understand the world. Like Gouldner, he is challenging the dominant linguistic tradition that holds that the meaning of words derived from abstract thought and linked together in propositional sentences provide a more accurate understanding of experience than words that are informed by actual embodied experience. It would not be too simplistic to say that both Gouldner and Johnson are arguing against the top-down tradition of linguistic imperialism, and for the need for language to be informed by actual experience—or what Johnson refers to as a “geography of human experience”.

This may all sound abstract and unrelated to the question previously raised about why highly educated people are unable to name the different activities and traditions of their local cultural commons. This would be the wrong place to put this book down, as there are numerous social and eco-injustices that continue to be perpetuated because professors and classroom teachers, as well as the elite symbol manipulators they educate to think in this double bind tradition, continue to perpetuate the top-down tradition of linguistic imperialism.

The following are just a few of the examples of how abstract words that still encode the misconceptions and prejudices of the past prevent professors from recognizing that many of the abstract words and phrases used in the classroom and in their scholarly publications, such as equality, individualism, freedom of opportunity, could not be reconciled with the many forms of gender bias being perpetuated in their courses and in the department’s hiring practices. Examples easily come to mind about how the non-white segment of society was similarly marginalized because of how these abstract words, which still reproduce the earlier analogs based on prejudicial thinking,

which represented them as not being intelligent, morally responsible, or hard working. Again, educators at all levels of the system rely upon abstract representations rather than local contexts, as well as the actual behaviors and achievements of individuals as the analogs for what words should mean.

The use of abstract words, with their largely hidden history of analogical thinking that represented responses to earlier and entirely different cultural contexts, is invariably the source of double-bind thinking that perpetuates the cultural patterns that underlie our inability to address both the sources of injustices and the even more daunting problem of overshooting what can be sustained by the Earth's natural systems. Gregory Bateson borrowed from Alfred Korzybski two metaphors for explaining how abstract words, whose meanings were constituted in the distant past, are getting us into trouble with the natural systems on which we depend. By combining the metaphors of "map" and "territory" Bateson brings out that the map is not the territory—and may only help us to recognize certain aspects of the territory. But this metaphor also helps us to recognize more problematic implications, such as when we consider that the map (the metaphorically layered schema) may have been created by a person in the distant past who was totally unfamiliar with the cultural territory within which today's users of the map (schema) are trying to find their way. The maps, to stay with Bateson's metaphor, are likely to encode the misconceptions and prejudices of the symbolic cartographers—just as early maps misrepresented California as an island just off the coast of the mainland.

These earlier metaphorically based schemata or conceptual maps may continually misrepresent how to "read" today's territory, including the tensions between the cultural and environmental commons and the forces bent on integrating them into the culture of hyper-consumerism and industrial production that is relentless in finding ways to replace workers with computer driven machines. But unlike real maps that can be examined in terms of what they help us to recognize and what they cause us to ignore, the conceptual maps formed in the distant past are largely taken-for-granted by virtue of the fact that they are part of the linguistically-based conceptual schemata acquired as the individual learns initially to think in the metaphorically encoded language of her/his primary linguistic community.

We now turn to the question of how the writings of Plato and other Western philosophers and theorists have influenced many Western academics to rely upon a form of rationalism that privileges the use of abstract words that misrepresent the cultural roots of the ecological crises—and the cultural changes that must be undertaken. The question can also be framed in terms of how the linguistic tradition that Plato helped to originate and legitimate has contributed to the lack of communicative competence that university graduates will need if they are to participate in the intergenerational renewal of their local cultural and environmental commons.

According to Eric Havelock, the author of Preface to Plato (1963) and The Literate Revolution in Greece and Its Cultural Consequences (1982), Plato played a pivotal role in the transition from the oral traditions of Homeric Greece to the print-based form of consciousness that is now being carried to an even greater extreme by the widespread reliance upon computer mediated thinking and communication. The contribution that Plato made to this transition must be understood in terms of how his ideas have been represented over the centuries by Western philosophers. Thus, Plato did not cause this transformation to occur—nor was he responsible for how subsequent generations of Western philosophers and social theories have reified the power and authority of abstract reasoning and the other misconceptions found in the Republic. Plato was simply at the leading edge of a tradition of thinking that other key Western thinkers failed to question. By failing to question this thinking, they have contributed to the current double bind where the current economic system threatens to overpower the embodied experiences in the world's diverse cultural and environmental commons. This current threat is based on many of the theory-based assumptions and silences found in Plato's Republic.

So what are the key contributions that Plato made to this tradition of privileging rationally based abstractions over the embodied experiences framed by the different cultural ways of knowing that are being referred to here as the cultural and environmental commons? Plato's reflections on the socially just ordering of society starts not with a careful examination of the diverse traditions of the cultural commons that were carried on in his region of the world and in his time, but rather with a rational explanation for a hierarchical ordering of society. Thus, rational thought leads Plato to argue that only the

philosopher king has the ability to “contemplate the realities themselves as they are forever in the same unchanging state, and because the ruler *knows*, as a result of his vision of the Good, he has the right to rule the people”. Only rational thought, rather than experience, as Plato argues in the parable of the cave, is the source of knowledge of the eternal forms.

In effect, Plato laid the basis for other misconceptions that have been carried forward by philosophers and theorists who shared his rejection of the possibility that other cultural ways of knowing could lead to socially just practices. His core ideas can still be seen in the current idea that abstract ideas are the only reliable guide to living in a culturally diverse and environmentally changing world. Plato’s arguments about what he regarded as the mis-educational nature of poetry and narratives have now become the conventional wisdom of many of today’s educational elites who regard oral traditions, and thus orally-based cultures as backward and in need of “modern development.” “Modern development” has become the code phrase for what happens when members of a community acquire the ability to rely upon abstract thinking that encodes the analogs that emerged from earlier politically contested processes of analogical thinking.

Another current expression of double-bind thinking can be traced back to the importance that Plato gave to the idea that the individual has a psyche—an idea that may have originated with Socrates. The Homeric mind, which Plato opposed, was shaped through identification with the exemplary figures passed on through the epic narratives. These narratives were a storehouse of what was expected of a citizen, of knowledge about the nature and proper use of technologies, and of the moral imperatives of the group. In short, the narratives were a storehouse of knowledge essential to sustaining the cultural commons. The Homeric mind, according to Havelock, did not reinforce the idea that individuals should have their own convictions and be self-guiding through the exercise of rational thought.

Plato’s introduction of the idea of what Havelock calls “sheer thinking” required a redefinition of “self” where memory and identification with the exemplary acts of Homeric culture (and of the exemplary acts passed on through the narratives of today’s cultures) had to give way to the idea of the individual as an autonomous thinker—a capacity Plato argued was possessed by a special few. Rational thought as “sheer

thinking” also required the idea of an external world that is separate from the knower. In spite of Plato’s warnings, and Leo Strauss’s efforts to base today’s system of governance on Plato’s ideal authoritarian state, Plato’s idea of unchanging truths has given way to today’s acceptance of the relativity of individual interpretation. But what still survives is the idea that there is an inner space within the head of the individual where thinking occurs. This idea is further buttressed by the Judeo-Christian idea of an individual soul that she/he is accountable for.

Plato was not responsible for the tradition of cultural imperialism that depends upon privileging abstract thinking over the embodied and linguistically influenced ways of knowing that characterize the diversity of the world’s cultural commons. Rather, the responsibility lies with the generations of philosophers, political, and social theorists who failed to question the double binds in Plato’s thinking where his interpretation of a just society possesses many of the characteristics of today’s fascism and the religious fundamentalist’s vision of a theocracy. There are other aspects of Plato’s thinking that, over the centuries, have been made into a tradition by his followers.

These include the silences and prejudices that are found in the Republic, such as his extreme ethnocentrism, his indifference toward learning how to adapt cultural practices to the changes occurring in the natural systems within which the culture is embedded, and his wholesale rejection that traditions tested and refined over many generations of experience can be reliable sources of knowledge. While Plato recognized the importance of the crafts practiced by the lowest class, he did not recognize that their level of craft knowledge and skill was the result of traditions developed over many generations. In effect, his silence about the importance of the traditions that were the basis of the cultural commons he took-for-granted in the areas of food, fiber, shelter -- including the architecture and engineering of his day-- as well as his explicit rejection of oral traditions that were to be replaced by the rationally based wisdom of the philosopher king, began a tradition of thinking that subsequent theorists and educators continue to perpetuate.

Traditions are seldom started and sustained by the efforts of a single individual. Others must repeat the patterns, often over many generations, for traditions to become a taken-for-granted part of everyday life. Rene Descartes was an especially influential

contributor to the history of Western philosophy-- especially for strengthening the double-bind thinking of today that assumes that we can live without traditions. Like Plato, he was adamant that nothing could be learned from the past. He further rejected all cultural knowledge systems that did not fit his mechanistic model of the universe, and he restated the Platonic separation of the knower from the known. Aside from his certainty about the existence of God, his only other certainty was summed up in his famous phrase “cogito, ergo sum” (I think, therefore I am). By rejecting previous knowledge, and by arguing that deductive reasoning is the only reliable approach to knowledge, Descartes gave further support to the twin misconceptions that the individual is an autonomous thinker (except for the influence of God), and that individuals are universally the same. The latter assumption can also be found in Plato’s theory of human nature.

Descartes also restated an assumption that was central to Plato’s theory of knowledge, which was that knowledge (truths) revealed through the ruler’s reliance upon rational thought is universally the same. The logic of this view of knowledge led Descartes to hold that if all individuals relied upon the same approach to rationality they would arrive at the same conclusions.

Just as few contemporary professors of philosophy are likely to bring to the attention of students the ethnocentrism and anthropocentrism in the thinking of Plato and Descartes, most students will encounter the same silences when they are introduced to the core ideas of John Locke.

These silences, based on the cultural prejudices that most classical and contemporary philosophers failed to examine, were given a modern form of legitimizing by the ideas of Locke. Although most of today’s politicians and citizens will not have read and discussed Locke’s Essay on Human Understanding, as well as his Two Treaties on Government, they nevertheless take-for-granted a simplified interpretation of several of his key ideas. It is a mystery how some metaphors capture the attention of the general population and serve as the “master templates” that guide the organization of society and that drive individuals to amass as much material wealth as possible. The mystery deepens when we realize that the ideas and assumptions are being intergenerationally passed along by people who are unaware of their source, or the social context, which Locke was trying to rectify.

The ignorance about the original social context to which the ideas were a response makes them the source of double-bind thinking for later generations, and for people living in non-Western cultures. Locke was writing during a transition from royal absolutism to the Glorious Revolution that established a constitutional monarchy. This period was also characterized by advances in science and a growing awareness of human freedom. Most relevant to understanding how the ideas of Locke contributed to accelerating the enclosure of the environmental commons, as well as how he further strengthened the idea that traditions are either irrelevant or a misleading source of knowledge, are his ideas about the nature and source of private property, the empirical basis of ideas, and a limited view of language. His view of language was especially influential as it led to today's misconception of language as a sender/receiver form of communication.

Identifying the nature of the person, including the rights they possess as individuals, was a primary concern of Locke. In addition to arguing that only individuals have rights (including the right to overturn the government when it becomes too oppressive), he went on to argue that the labor of the individual is the basis of private property. He also held that one of the primary purposes of government is to protect the individual's property. Locke even articulated what has become a truism for today's market liberals when he wrote that the state "cannot take from any man his property without his consent". The individual's absolute sovereignty in the use and abuse of property along with the belief that the labor of the individual or inventiveness of a corporation (which is now assumed to have the legal rights of an individual) are the basis for transforming the commons into private property.

Locke's other contributions to today's market liberal way of thinking include his argument that the individual's direct experience, and not traditions, is the source of ideas—which he divided into simple and complex ideas. His view of language as a conduit further strengthened the tradition of ignoring the basic reality that language, as a complex mix of historical and current analogical thinking, frames thinking in accordance with the prevailing root metaphors. His misconception about the nature of language must be taken into account when considering why the ethnocentrism in the thinking of Western philosophers has spread to other disciplines and continues today to be such a dominant characteristic of university educated politicians and citizens.

Today's market liberals give special importance to individual freedom, the sanctity of private property, and the progressive nature of rational thought—particularly when these metaphors are used to create new technologies and to exploit new markets. They also give special standing to key ideas of Adam Smith that have become today's political clichés. As a pale echo of Plato's timeless Ideas, these clichés have also been given the status of timeless and universal truths. Unfortunately, they further marginalize the possibility of recognizing the non-monetized relationships and activities that are central features of the world's diverse cultural commons. In short the extrapolations from Smith's writings have been turned into universal truths that continue the tradition of ethnocentric and anthropocentric thinking that goes back at least to Plato.

Adam Smith's two major works, Theory of Moral Sentiments (1759) and The Wealth of Nations (1776) are complex and, given the nearly half million words it took to lay out his economic theory, are too dense to hold the attention of most readers. Yet a few words and phrases from The Wealth of Nations have survived in a way that has altered modern consciousness, and now serve to justify the process of economic globalization that threatens what remains of the world's cultural and environmental commons. The power of these words and phrases, “free trade,” “laissez-faire,” “the invisible hand,” to “truck, barter, and trade,” serve today to give further legitimacy to the ideas that the sanctity of private property, free competition, and the unrelenting pursuit of self-interest, contribute to the overall well-being of society. That Smith's economic theory has been taken out of its historical context of how the local economy of Scotland was being limited by the mercantile policies of the king of England is yet another example of how ideas become problematic when used as a guide in cultural contexts than the culture within which they originate.

While Smith's idea that the prosperity of all is advanced as individuals pursue their individual interests has become a truism for today's market liberal politicians, the selective memory of today's university educated economists and politicians can be seen in how the other half of Smith's theory has been ignored. In the Theory of Moral Sentiments, Smith introduced a more complex view of human nature, one that represents human life as responsive to social needs other than the freedom to pursue wealth at the cost of everything else. For Smith, the innate need of humans that serves as a check on unrestrained competition in the market place is the desire to take the responses of others into account. That is, to be sensitive to the impact of

one's behavior on others. What Smith viewed as an innate human characteristic was summed up in the following way:

Nature, when she formed man for society, endowed him with an original desire to please, and an original aversion to offend his brethren...She rendered their approbation most flattering and most agreeable to him for their own sake; and their disapprobation most mortifying and most offensive (p. 199).

This insight, as ethnocentric as it is, might have provided a way of recognizing the importance of mutual support and moral reciprocity that are core features of most cultural commons. It would have also provided an awareness that Smith understood the moral limits of the individual's pursuit of self-interest and an unrestrained form of capitalism. Unfortunately, this part of Smith's legacy has been largely overlooked with the result that it has been reduced to a series of slogans that are now used to justify the further exploitation of the cultural and environmental commons. Not only has Smith's legacy become frozen in the slogans now used to justify economic globalization, it has, at the same time, become the linchpin in the market liberal ideology that is accelerating the rate of environmental degradation.

A comparison between the values of the commons that meets Gregory Bateson's definition of a healthy cultural and environmental ecology and the values underlying the reductionist, out-of-context slogans derived from a partial reading of Smith's writings on free markets brings out the following. A sustainable cultural commons, as Bateson understood it, is governed by moral values that exclude the exploitation and marginalization of any of its members. Thus, to be sustained it must be characterized by cooperation, mutually supportive and largely non-monetized relationships and activities, renewing of intergenerational knowledge and skills, mutual trust, mentoring relationships, face-to-face accountability, use of local materials, markets that are local and that meet community needs, an awareness of environmental limits, and conservation of traditions proven to contribute to the well-being of future generations. As many academics have only experienced the false plenitude of the market system, and been socialized to the ideology of possessive individualism, they are unlikely to recognize the qualities that Bateson associates with the cultural commons that still exist among different groups within our community—and within other cultures. The deeply engrained ethnocentrism that was part of their own education will lead most of them to reject the suggestion that there are cultures in the world where the cultural and environmental

commons are the dominant feature, with markets being a limited aspect of community life that is relegated to a particular location and held only on specific days of the week.

By way of contrast, the daily practices given legitimacy by the slogans derived from Smith's writings are driven by the life-long individual quest for material wealth, competition at all levels of social life, an emphasis on progress that fails to take account of what is being lost or the dangers that lie ahead, the need to expand markets and profits regardless of the adverse impact on local communities, a view of the environment and other people as exploitable resources, and the continual quest for new technologies that will increase efficiencies and profits. As the deep cultural assumptions that underlie the free-market system of unlimited production, consumption and exploitation are reinforced at all levels of the educational system, as well as by the media, shopping malls, and the ever-present displays of personal wealth, the relationships and values that sustain the local cultural commons recede more into the background of community life. For the youth already addicted to the latest technologies and consumer fads, and the people of middle age still attempting to climb higher on the consumer pyramid, the local cultural commons are largely invisible. However, the commons are often not invisible to the older members of the community who seek the forms of supportive relationships and skill development missing in their years of working within the market-dominated system.

Just as the key ideas of Plato, Descartes, Locke, and Smith are part of today's taken-for-granted mentality, several of John Stuart Mill's ideas have also attained special status as unquestioned truths. Like the others, his ideas were a response to the circumstances of his time—which was governmental abuse. Unfortunately, they have been taken out of context and now stand as universal "Truths" that all cultures should adopt in their march to becoming modern and economically developed. Mill's famous book, On Liberty (1859), was an eloquent defense of the importance of free speech and intellectual freedom, as well as a carefully crafted argument against governments that attempt to silence ideas that threatened their power. As he wrote in On Liberty, "if all mankind minus one, were of one opinion, and only one person were of the contrary opinion, mankind would be no more justified in silencing that one person, than he, if he had the power, would be justified in silencing mankind."

Mill understood that free expression is essential element in a world where there are no absolute truths. For him, free expression, critical inquiry, and even misleading ideas are all

part of the process of achieving a better understanding. As he put it, the first duty of the thinker “is to follow his intellect to whatever conclusion it may lead.” This dictum, which has been given greater authority by the largely unquestioned assumption that change is inherently progressive in nature, has been translated by today’s market and social justice liberals to mean that freedom of speech and critical inquiry should lead to change—with the market liberals equating change with new technologies and markets. That these qualities of mind should also lead to understanding which traditions need to be conserved has largely been overlooked—or ridiculed as the expression of a reactionary way of thinking. This tendency prevails even though traditions are central features of the cultural commons and of the values that govern human activities within the environmental commons. The way in which Mill’s defense of free inquiry has been framed by the assumption that it should always lead to change rather than, in warranted situations, to conserving the intergenerational knowledge (even wisdom) of the community is one of the reasons that his ideas undermine the community enhancing traditions of the commons. From the perspective of people who understand the cultural and environmental commons as essential to their cultural identity and relative self-sufficiency (and thus as sites of resistance to the unrelenting spread of market forces) Mill’s defense of free speech could also be used to challenge the agenda of the market liberals who seek to replace the commons with consumer goods and services. Unfortunately, the failure of most public school teachers and university professors to be aware of the commons, as well as their view of conserving traditions as reactionary, has led to interpreting Mill’s defense of freedom of inquiry as a cause for questioning everything, and for living as though history has no influence.

There is another aspect of Mill’s legacy that perpetuates the ethnocentrism found in the thinking of Plato, Descartes, Locke, and Smith—and that still can be found most contemporary courses in philosophy, economics and political theory. Mill’s arguments for freedom of inquiry, like the arguments of the other philosophers discussed here, failed to take account of the many approaches for renewing the knowledge, skills, and patterns of mutual support that can be found in different cultures—including the culture in which Mill was embedded and also took for granted. His ethnocentrism can also be seen in his argument that the individual is the source of ideas, and that individuals should follow where critical reflection leads—even when critical reflection is based on the incorrect assumption that change is always progressive in nature. That is, Mill’s defense of freedom of inquiry, which is undeniably important in certain

contexts, also leads to misrepresenting individuals as autonomous and self-creating. This idea of individual autonomy is a core idea of today's market liberals who understand that the individual, in lacking the skills and membership in the mutual support systems of the local commons, will be dependent upon consumerism to meet needs for food, health care, entertainment, sports, **built environments**, and group identity.

What Mill did not understand, and is still not understood by people indoctrinated today by the media and by educators who share the same cultural assumptions that underlie the myth of unending progress, is that the idea of self-creating individuals is part of the West's mythic thinking. The idea of autonomy, at least for individuals who meet the conditions specific to what each philosopher took to be the nature and source of knowledge, was not based on an awareness of the complex interactions with other people and with the natural systems within which daily life is embedded, especially the following. These interactions just in the area of the language/thought connection, which is about as formative as interactions get, include the mythopoetic narratives of one's cultures and how they are encoded in the processes of analogic thinking, and the in the image metaphors that reflect which analogies and their underlying root metaphors prevailed over competing analogies. If the reader doubts this claim, then she/he should consider the connections between the mythopoetic narratives in the Book of Genesis and how the language/thought patterns of many of today's supposedly autonomous individuals continue to reproduce the myths of patriarchy and a human-centered universe that have been taken-for-granted for several thousand years.

Mill's theory of the individual's need for free inquiry also reflected the silences and prejudices of his era. To reproduce those silences and prejudices today, as though they represent unqualified truths about the human condition and possibilities, puts us on a collision course with other cultures that have a tradition of adapting their cultural practices to what can be sustained by the bioregion they depend upon. His ideas, as they are promoted today, contribute to the sense of hubris that characterizes today's efforts to impose our individualistic-centered and critical thinking lifestyle on the rest of the world. That even our most acclaimed intellectuals too often are unable to change their deepest cultural assumptions even after the assumptions have been exposed as based on mythic thinking has not deterred them from wanting to impose their ideas on other cultures. What Mill's approach to knowledge demonstrates, and which can be seen in the thinking of Plato and the other philosophers

discussed here, is that he was unable to recognize the silences, prejudices, and taken-for-granted assumptions of his era—most of which centered on the inability to recognize the everyday patterns of the culture he was embedded in. Nor was he able to recognize that other cultures have different approaches to knowledge that should not have been interpreted as evidence of a more primitive level of development.

The relevance of Gouldner's comment about how the culture of critical discourse relies upon the use of words (metaphors whose meanings are assumed to be free of their originating cultural context) can be seen in each of the Western philosophers discussed above. This tradition of taking-for granted the culturally influenced schemata of an earlier time, where words carry forward the misconceptions and silences of influential thinkers who lacked an understanding of today's issues (such as the environmental and social justice crises) and today's more complex ways of understanding (such as the metaphorical nature of language and thought, the differences in cultural ways of knowing, and so forth) is still being carried forward by philosophers such as John Dewey, Richard Rorty, and by scientists such as E. O. Wilson and Richard Dawkins who have strayed onto the slippery slope of scientism.

The misconceptions, silences, and prejudices found in the writings of Plato and the other philosophers and theorists discussed above are also the source of the double-bind thinking found in the writings of John Dewey and Richard Rorty. This may sound like a totally irresponsible claim, as both Dewey and Rorty are widely known as philosophers who have nothing in common with the tradition of thinking that relies upon abstract words as guides to what will be given attention and understood. Dewey's many writings on the need to rely upon experimental inquiry, to reject the quest for certainty, and to develop greater efficiency in the process of reconstructing experience that would replace what he viewed as the failure of the spectator approach to knowledge, might lead to the conclusion that he, more than any other philosopher, best understood the nature and importance of the cultural commons. However, the following statement that appeared in The Quest for Certainty (1960 edition) strongly suggests this conclusion is incorrect.

As Dewey puts it, "knowledge which is merely a reduplication of ideas of what exists already in the world may afford us the satisfaction of a photograph, but that is all" (p. 137). In order to avoid misinterpreting this as one of Dewey's less well thought out statements, we need to recognize that he makes other similar statements. For example, in Democracy and Education

(1916) he states that “routine habits are unthinking habits” and elsewhere he observes that habits (by which he means traditions) enslave us “in the degree in which intelligence is disconnected from them”. Dewey’s view of habits (traditions) was influenced by his understanding that change is the one constant in life, and that the exercise of experimental intelligence is the only approach that will ensure that change becomes a progressive force (as he told his Japanese tradition-oriented audience attending his lecture at the Imperial University in 1919).

The questions that contemporary philosophers and educational reformers have not asked are: What are the double binds in Dewey’s thinking—and how will adopting his core ideas about the experimental method of inquiry, as well as his emphasis on the need to continually reconstruct experience, further undermine the cultural and environmental commons? How can he be both a victim and a perpetuator of the linguistic imperialism that prevents people from being able to be explicitly aware of the different aspects of the cultural commons in which they participate? Dewey was much like the classroom teachers and professors of today who engage in double-bind thinking where the analogs constituted in the past serve as the conceptual maps that put out of focus the patterns of everyday experience that are part of the cultural commons. That is, he allowed many of the taken-for-granted analogs of his day to dictate what he was aware of. What he ignored makes an impressive list of shortcomings that have a direct connection to why he, and his many followers, reinforce the deep cultural assumptions that underlie the industrial culture that is enclosing the diversity of the world’s cultural commons.

In spite of all his writings on the importance of participatory democracy, the evidence that Dewey was a proponent of the industrial culture can be found in what he writes in Reconstruction of Philosophy (1957 edition). For example, he follows the statement that “the needs of modern industry have been a tremendous stimuli to scientific investigation” with the more general conclusion that “natural science, experimentation, control and progress have been inextricably bound together” (p.42). This is a clear example of double-bind thinking. His use of a vocabulary where the positive analogs include a world of constant change, ongoing reconstruction of experience, and problem-solving through experimental inquiry, led him to praise modern industry because it relied upon the same experimental method of inquiry that he championed. He also recognized that modern industry was also based on the assumption that

change is a progressive force, and that its modernizing agenda was not compromised by concerns about colonizing non-Western cultures. While he believed participatory democracy would bring modern industry more under democratic control, recent history has proven the opposite. Within different cultural commons, the face-to-face relationships and patterns of moral reciprocity are often examples of participatory democracy, while the industrial culture Dewey praised as promoting experimental inquiry has been aggressively undermining them.

The list of double binds inherent in his language includes: exhibiting the same ethnocentrism found in the writings of Plato, Descartes and the other Western philosophers who assumed the universal validity of their ideas, insisting that there is only one valid approach to knowledge and to the determination of values; believing that people who did not base their lives on the experimental method of inquiry were either savages (a word he uses frequently) or locked into the spectator approach to knowledge (and by implication that there is nothing we can learn from them); understanding that traditions with their multiple forms of knowledge must be viewed as impediments to the ongoing process of reconstructing experience. The silences in his thinking can also be attributed to what his favored metaphors framed as being worthy of his attention and what they marginalized—indeed, put entirely out of focus.

For example, Dewey lived through several periods of severe environmental degradation, starting with the killing of millions of bison, clear cutting of the primal forests spread across the country, and the destruction of the tall grass prairies that resulted in the dust storms that stripped the land and plunged a generation of people into extreme poverty. In addition to his silence about these abuses of the environment, he was also silent about the continuing genocide of the indigenous cultures—even though the most systematic efforts to destroy these cultures occurred when he was between twenty and forty years old. His most productive period of writing also took place at the same time that Edward Sapir was publishing articles on how language reproduces the episteme of a culture, and how these epistemes differed from culture to culture. Dewey failed to consider both the cultural evidence relating to these different patterns of thinking (which were all around him as he walked the streets of Chicago and New York City) and the deeper implications that might have led him to rethink his argument that experimental inquiry provides the only valid approach to problem solving.

Again the main characteristics of double-bind thinking can be found in the analogs from the past that were encoded in the language that framed what he was aware of, and what he ignored.

The double-bind thinking that is such a prominent part of Richard Rorty's thinking, as it appears in *Contingency, Irony, and Solidarity* (1989), leads to a long list of silences, misconceptions, and prejudices that are also found in the thinking of Plato and the other Western philosophers discussed earlier. This might be surprising as Rorty made the acceptance of conceptual and moral relativism the primary attributes of the ironist individual whom he upholds as the ideal citizen in a liberal society, while the Western philosophers who relied upon radically different forms of rationalism left a different legacy of context-free analogs. Rorty's emphasis on the contingency of thought in a contingent world makes it irrelevant to be aware of the intergenerational traditions and activities that represent community-centered alternatives to the growing dependency upon the industrial/consumer culture of which he must have been aware. His statement that "the ironist spends her time worrying about the possibility that she has been initiated into the wrong tribe, taught to play the wrong language game," and so forth, indicates his basic misconceptions are not too different from those of Plato. That is, both were extreme ethnocentric thinkers, with Rorty's ethnocentrism being the most egregious as anthropologists and cultural linguists had produced a huge literature on cultural differences that was not available to Plato and the other Western philosophers discussed earlier. His favorite metaphors also contribute to his double-bind thinking where his arguments for solidarity are undermined by his failure to do the cultural mapping of the multiple expressions of traditions that are, in both his own and other cultures, the source of moral reciprocity and patterns of interdependencies that include the natural environment—which Rorty's anthropocentric language totally marginalizes. It is also important to note that Rorty's philosophy, which he intends as a guide for ironist individuals living in a liberal democracy, reproduces the idea of the autonomous individual that various philosophers, in spite of their epistemological differences, made the center-piece of their theories.

Part of the answer to why most students graduate from universities without a knowledge of the varied history of the cultural commons, of how the scientific/industrial culture is finding new ways of enclosing them, and why what remains of the world's diverse cultural commons need to be strengthened if we are to slow the rate of environmental

degradation, is that double-bind thinking is central to most academic disciplines—including the sciences. Walter Ong’s arguments that literacy alters consciousness in ways profoundly different from orality may be part of the answer. His main insight is that literacy contributes to a greater reliance on rational thought that involves a separation between the knower and the known that is not found in the more participatory nature of oral cultures. The printed word, as he also notes, contributes to a de-emphasis on context, tacit understanding, and the importance of memory. In effect, assuming that literacy is simply a more efficient way of encoding knowledge than oral traditions leads to yet another expression of double-bind thinking. That is, the analogs derived from both modes of thinking and communication are profoundly different.

Other changes in the root metaphors that influential Western thinkers took-for-granted, such as the idea that change is an inherently progressive force, has surely contributed to the widespread indifference to recognizing that words have a history, and that they carry forward over many hundreds of years the analogs that were settled upon after even earlier analogs were successfully challenged. An example of this process of replacing one root metaphor with a new one more conceptually consistent can be seen in the following statement by Johannes Kepler (1571-1630) who said “my aim is to show the celestial machine is to be likened not to a divine organism but to a clockwork”. The root metaphor of underlying scholastic philosophy, which Kepler referred to as the ‘divine organism’ was to be replaced by the root metaphor that represented all life forming processes as machine-like, which can be observed, measured, experimented with. This example, which has been repeated over the centuries by other leading scientists and social theorists (including Richard Dawkins’ contemporary references to the body as a “survival machine”) demonstrates again how words (image or iconic metaphors) reproduce today the analogs established at an earlier time. And as professors and their students in various disciplines take-for-granted the same analogs, including the conduit view of language which is essential to maintaining the myth of objective data and information, there is little awareness that the earlier established root metaphors and their conceptually consistent analogies that followed (in the name of progress) needed to be critically examined—unless you were a member of a group being marginalized by the policies and uses of technology that the root metaphor legitimized.

This combination of factors helps to clarify a possible source of misunderstanding that might arise from the emphasis I have given to how Western philosophers and social theorists remain caught in the double-bind thinking that Bateson warns us about. Scientists are also caught in double-bind thinking when they ignore that the language used to name the phenomena they are investigating is a metaphorical language that carries forward the analogs that were established at an earlier time. Often these analogs got in the way of recognizing the causal relationships, and that a more accurate understanding of the phenomena required a new language and even a shift in paradigms (root metaphors). But the concern here is with how many scientists rely upon the unexamined analogs encoded in the language they take-for-granted when making statements outside their fields of research—and even in the case of scientists such as Francis Crick who made extrapolations from within his field of research, such as his claim that the consciousness of musicians, mathematicians, and others will soon be explained by scientists. Unless consciousness is reduced to the electro-chemical processes occurring in different regions of the brain, which can be measured, its complexity and depth cannot be empirically observed—and thus cannot be scientifically explained as Crick promises.

Other examples of double bind thinking on the part of scientists include E. O. Wilson's claim that the great divide between humanity is between pre-scientific and scientific cultures, and his further claim that pre-scientific cultures were "trapped in a cognitive prison." His suggestions that all the world's religions should be replaced by the epic narrative of natural selection, and that scientists are the best qualified to judge which cultural traditions and values should be retained, are yet other examples of double-bind thinking. His hubris leads him to ignore the role of scientists in the eugenics movement, in experimenting on prisoners and African Americans (such as the well-documented syphilis experiment), and in developing the technologies that now serve as the infrastructure of a near total surveillance society. A long list of other scientists, including Carl Sagan, Hans Moravec, Richard Dawkins, and Stephen Hawking engage in double-bind thinking when they make pronouncements that do not take account of the achievements of other cultures, that imposing their vision of a scientifically/technologically driven future on them is a continuation of the tradition of Western colonization, and do not recognize the limits of scientific knowledge. An extreme example of this colonizing mentality can be seen in Hawking's claim that when the "theory of

everything” is finally settled upon by scientists and mathematicians everyone, including members of other cultures, will understand their purpose in life.

To reiterate a key point: all words (metaphors) have a history, and they encode and thus reproduce in courses that range from sociology, business, education, history, philosophy, and so forth, the analogs formed at an earlier time. When these analogs are taken-for-granted, the words and their arrangement into explanatory theories will influence which aspects of the embodied, place-based experiences will be recognized. Double-bind thinking occurs when the taken-for-granted analogs dictate the interpretation that will be imposed on the embodied experience, which includes the subject’s perspective, mood, memory, intentionality, and culturally influenced interpretative framework. The analogs derived by past theorists may dictate that the cultural context, tacit understandings, and the subjective (which is actually a culturally inter-subjective) perspective be entirely ignored—which is a phenomenon experienced by many students who often do not recognize any connection between what their professors are presenting and their own lives. As the analogs derived from the everyday practices that are being referred to here as the cultural commons have been relegated to low-status, which goes back to Plato, they are seldom introduced in university classes—even environmentally-oriented classes. And they are almost never introduced in public schools where environmental issues are too often reduced to a matter of recycling (which does not lead to reducing consumerism) and to an introduction to the scientific study of various local ecosystems.

The history of silences, prejudices, ethnocentrism, misconceptions, and hubris that now underlies the market liberal’s efforts to globalize the industrial/consumer-oriented lifestyle that requires the further enclosure of local cultural commons now raises the question of whether professors and administrators will be able to establish as high-status the forms of knowledge, skills, community-strengthening relationships that will contribute to slowing the rate of global warming, as well as the decline in the viability of other natural systems we depend upon.

Chapter 6 University Reforms that Address Our Ecological Interconnections and Dependencies

In the preceding chapters the argument was made that overcoming double bind thinking in universities is one of the biggest challenges to addressing the enclosure of the cultural and environmental commons-- thus to reducing the further degradation of the Earth's natural systems. To reiterate the key point Bateson makes about double-bind thinking: it frames current ways of thinking in terms of the analogs that were constituted in the past. In Being and Time (1962), Martin Heidegger, using a different vocabulary, summed up the essential characteristics of double-bind thinking in the following way: "When an assertion is made, some foreconception is always implied: but it remains for the most part inconspicuous, because the language already hides within itself a developed way of conceiving" (p. 199). Differences in cultural ways of knowing that reflected the root metaphors influenced by the mythopoetic narratives taken-for-granted at the time, as well as the powerful evocative experience and general ignorance of environmental limits, are encoded in the analogs that many current ways of thinking are based upon. This process of reproducing earlier and even different cultural ways of thinking even occurs in environmentally oriented courses.

The major concern here, however, is with the more general problem of how the analogs derived from the past contribute to the double-bind thinking that makes it so difficult, if not nearly impossible, to introduce students to the connections between revitalizing the local cultural and environmental commons and enhancing the prospects of a sustainable future. Students have had years of schooling where the analogs from the past have prejudiced them against the patterns of thinking that characterize the local cultural commons, as well as against taking seriously the world's diversity of cultural commons. But this issue is only part of the problem. The analogs from the past that have become part of the students' taken-for-granted way of thinking are further reinforced by their increased immersion in the electronic culture of cell phones, iPods, cyberspace, self-disclosures and voyeurism, computers connected communities, video games, and the expectation of even newer technologies.

If there is going to be any possibility that today's youth, who are now captives of the media and image-driven culture of consumerism, will wake up to the reality that the current state of hyper-consumerism is a major cause of global warming and the other forms of environmental degradation, public school teachers and university professors will need to play

the role of mediators between the misconceptions of the past and the realities of global environmental changes that are accelerating, especially as more countries rely upon coal-fired sources of electricity. While professor may think that their first priorities are to publish in order to ensure their academic promotion, to add to the knowledge in their field, and to pursue their special intellectual interests, they need to wake up to the reality that changes in the rate of global warming (including the accompanying changes in other ecosystems) should now frame how they understand their first priority.

As a reminder of the accelerating crises which is hidden behind the market system's ability to create the illusion of plenitude (indeed, over-abundance), nearly one-third of the carbon dioxide released into the atmosphere comes from coal-fired power plants. World-wide two new plants are being built every week, with the United States having on the drawing board plans for 150 new plants. Over the next five years, over 37 nations plan to build additional coal-fire plants, with Iran, India, and China sharing if not exceeding the lead now held by the United States. According to current estimates, the world faces the prospect that over the next five years there will be a total of 7,474 coal-fired plants in 79 countries releasing an additional 9 billion tons of carbon dioxide into the atmosphere. There is the possibility that new technologies will be able to sequester carbon dioxide underground, but there is little certainty that countries, including the United States, will require the adoption of this technology. The prospects of global warming accelerating even if this technology is adopted is being enhanced by the release of methane as the permafrost regions of the northern hemisphere heat up. Unfortunately, there is no known technology that can address this problem.

According to Bateson, we remain caught in double-bind thinking as long as we fail to reflect on the origins of the analogs (cognitive and moral schemata derived from analogic thinking) that we associate with the today's meaning of such words as individualism, freedom, tradition, intelligence, science, and so forth. If professors are going to avoid perpetuating the current silences and prejudices toward learning about the less environmentally destructive activities and relationships of the cultural and environmental commons, which will provide students an understanding of community-centered alternatives that are largely missing from the critiques and theories of radical reforms they encounter from their social justice oriented liberal professors, they will need to replace the analogs from the past with new ones that are derived from place-based embodied experiences in commons related activities. To recall Mark

Johnson's phrase, the analogs that frame how to understand what something is like, especially words such as individualism, tradition, ecology, conservatism, freedom, progress, and so forth, must be derived from what he referred to as "a descriptive or empirical phenomenology" which is close to what the anthropologist, Clifford Geertz, called "thick description". For Geertz, this means describing as much as possible of the cultural and environmental context surrounding what the word refers to—whether it is an idea, behavior, or relationship. Thick description will become more understandable when we later consider Bateson's explanation of how life-sustaining processes involve the patterns that connect, and how these patterns represent the information pathways that sustain the local cultural and environmental ecologies..

I would like to suggest how key words in today's modernizing vocabulary carry forward the largely taken-for-granted schemata that underlies and thus frames what students learn in most of their courses—and thus have a continuing impact on students' thinking and values long after they have forgotten the facts and information they learned in their courses. The challenge will be to identify analogs that no longer carry forward the prejudices of the past toward the cultural and environmental commons. Analogs derived from embodied/place based experiences within the culturally diverse commons, and that largely eliminate the conceptual and moral double binds carried forward from the past, should not be transferred to other cultures that may be based on different mythopoetic narratives and traditions of intergenerational knowledge and values.

This message on non-transferability is being communicated to us by Third World writers who contributed essays on how the West's high-status vocabulary is understood in their cultures as the language of colonization. Their writings on the meaning from a Third World perspective of such words as "development", "environment", "equality", "market", "progress", "needs", "poverty," and so forth, are contained in Wolfgang Sachs's edited book, The Development Dictionary: A Guide to Knowledge as Power (1992). And it should be seen as an example of challenging the basis of double bind thinking in Third World cultures where the analogs underlying the Western model of development were promoting, in the name of progress, the loss of their cultural and environmental commons. The double bind, for these Third World writers, could not be clearer, as they understood that the Western approach to development would mean the further loss of their culture's traditions of how to live within the sustainable limits of their local ecosystems. As they point out, the analogs associated with the

Western idea of development leads, in effect, to further dependence on outside forces over which they have no control, and a further decline into poverty and helplessness.

The following may be useful for professors who recognize the importance of rectifying double-bind thinking in their courses. The effort to identify analogs that enable students to recognize more ecologically sustainable patterns of living should be understood as a starting point—but not as the final set of analogs that will guide people in future years. The following iconic/image words have been selected because of the role they have played in carrying forward past prejudices toward the cultural and environmental commons. They have also been selected as examples of double-bind thinking, or Orwellian thinking, where words are now used in ways that obfuscate any sense of conceptual and moral accountability for the policies carried out in their name.

The process of identifying both the analogs that are the source of today's double-bind thinking as well as the analogs that more accurately take account of how humans are nested in interdependent networks that make up the cultural and natural ecologies that are now at risk needs to be based on an understanding of the key feature of metaphorical thinking. As Nietzsche put it years ago, metaphorical thinking involves understanding the new in terms of the already familiar. That is, it involves thinking of something “as like” or similar to something else. Differences may at times be greater than similarity between the new and already familiar, but it's the similarities that provide the initial scaffolding for understanding. The “as if” and “as like” aspect of metaphorical thinking is what will be the focus here, as well as way that the analog that provides the basis of today's understanding abstract words such as individualism, progress, and so on, were constituted in the distant past. As in today's world, the analog that prevailed over competing analogs was the outcome of a political process that reflected the existing power relationships of the times. The two political metaphors that will be given special attention, namely, liberal and conservative, also have special implications for how the cultural and environmental commons are understood. The other metaphors that will also be given attention carry forward analogs from the past that support the current misuse of these two political metaphors, which has the effect of further marginalizing awareness of the nature and ecological importance of the world's diverse cultural and environmental commons. The key to determining whether the analogs contribute to double bind thinking is to engage in thick description of today's experiences in an ecologically connected world--which will

provide the basis for using language that relies upon current and thus more accurate analogs than those that can be traced back to Plato and the more Enlightenment thinkers.

Analog from the past that are still the basis for how “individualism” is understood:

Current ways of thinking of individualism include analogs derived from early political theorists who wrote about the oppression of the individual and how individuals need to revolt in order to participate in the democratic political process. Other historically rooted analogs have been derived from theory that represented the individual as engaged in “pure thinking” (Plato), being rational and thus self-directing (Enlightenment thinkers and today’s academics who view rationality and thus autonomy as a potential of individuals), and owning property and thus being free of the community’s moral norms and environmental restraints (Locke, Ayn Rand, and other contemporary libertarian thinkers). Another powerful analog derived from the German Enlightenment thinkers and today’s artists is that the individual is self-creating. There are many other historical influences that have contributed to the Western idea of individual autonomy, such as the Biblical idea that each individual possesses a soul for which she/he is accountable, the introduction of individually-centered perspective in the visual arts and the widespread use of the personal pronoun that continually reinforces the idea of being an autonomous individual observing and making choices about an external world. The current idea promoted by teacher educators that students should be encouraged to construct their own knowledge further socializes them to think of themselves as autonomous individuals. That they are not given the language that names the many ways they are influenced by the languaging processes of their culture, and their many dependencies on the natural systems they are embedded in, further strengthens the idea of being an autonomous individual. In effect, this sense of being an individual is based on different historically derived analogs that marginalized the importance of engaging in a thick description of daily relationships.

Analog for understanding individualism in a commons and ecologically informed world:

The analogs that should be relied upon today need to be derived from everyday experiences of being embedded in the networks of embodied, languaging, and place-based relationships. Other relevant analogs include patterns of personal behavioral and conceptual changes that occur from being participants in the ongoing ecologies of information exchanges—ranging from changes in the weather, what animals are communicating through their behavior, the non-verbal behavior of the Other, the flavor of food, dissonant sounds and

changes in visual surroundings, and so forth. As Bateson put it, the individual is always a participant in a network of patterns that connect with other patterns, and that are part of a larger ecology of Mind. Also relevant are the embodied experiences of being either victimized or empowered by intergenerational traditions that are learned and reproduced at a taken-for-granted level of understanding.

Analogues from the past that are still the basis for how “freedom” is understood:

These include: theologically based analogues that represent the individual as free to choose good and evil, salvation or a life in purgatory; analogues derived from political theorists such as John Locke and Tom Paine who represented the individual as free to overturn oppressive political regimes; analogues derived from artists who claimed that modernism allows complete artistic freedom—even to the point of profaning the most sacred symbols of other cultures; analogues influenced by the current double bind idea that one is an autonomous individual and thus free of the influence of all traditions.

Analogues for understanding freedom in a commons and ecologically informed world:

Analogues from embodied experiences more accurately represent freedom as limited in positive and negative ways by cultural (including linguistic) and environmental influences. A thick description that compares the individualized expression of the artist, craft-person, mentor, community elder, civil libertarian, environmentalist, and so on, with those from other cultures will clarify the cultural differences in how freedom is understood and the range of behaviors that are taken-for-granted expressions of freedom. William Morris, Susan B. Anthony, Gandhi, Rachel Carson, Martin Luther King, Jr., Gary Snyder, and Wendell Berry serve as modern analogues of how to use freedom in morally, politically, and environmentally responsible ways. For these people freedom was not based on the assumption of being an autonomous, self-centered individual who presumes that values and what constitutes knowledge must be subjectively determined—as though this could be done entirely free of cultural and environmental influences. Rather, as analogues they represent the engaged expression of freedom where their intelligence, courage, personal commitment to social and eco-justice, and aesthetic judgments separated their achievements from those of others whose expression of personal freedom is largely limited to making choices dictated by the prevailing assumptions and practices that underlie the consume-oriented culture.

Analogues from the past that are still the basis for how “liberalism” is understood:

The widespread use of the word liberalism reflects how a number of other analogues and root metaphors from the past are still taken for granted. These include the idea of the autonomous individual, an anthropocentric view of human/nature relationships, the Cartesian way of privileging the individual’s perspective, the assumption about the linear nature of progress. The emergence from a feudal, hierarchical, and exploitive period in Western history provides the framework for understanding the many early expressions of liberalism. Thus, the early analogues were derived most notably from the writings of Locke, Voltaire, Rousseau, Smith, and John Stuart Mill. The analogues of early liberalism also were derived from a variety of social reform movements, and from the expansion of markets and the growing influence of science and democratic values. Liberalism during this pre-ecological period of awareness in the West stood for whatever over turned the oppressive authority of tradition in people’s lives. To recall Gouldner’s observation about one of the characteristics of the culture of critical discourse, liberalism was assumed to be the basis of a universal social and economic agenda.

Analogues for understanding liberalism in a commons and ecologically informed world:

The historically derived analogues that are still the basis for understanding and using the word liberalism were based on a number of misconceptions that can be traced back to the tradition of thinking that Plato helped to initiate. That is, the early theorists and social reformers who identified themselves as liberals were ethnocentric thinkers, they carried forward the anthropocentrism of earlier Western philosophers and social theorists, they lacked a deep knowledge of culture (their own as well as that of other cultures), they were unaware of environmental limits, they took-for-granted a theory-based view of human nature as essentially positive—which prevented them from recognizing the importance of a checks and balance system of government, and they ignored that free markets and the incessant drive for greater profits would both colonize the world’s diversity of cultural and environmental commons and degrade ecosystems to the point where the future is very much in doubt. The analogues that serve as examples of liberalism today—such as the American Civil Liberty Union, the civil rights movements, environmentalists, critics of America’s growing authoritarian and imperialistic policies, the diverse groups that George Lakoff refers to as “spiritual progressives”—represent yet another example of double-bind thinking where the silences and

prejudices of past liberal thinkers continue to frame how the word is currently used. These groups more clearly meet the definition of conservatism that will be discussed later.

Today's mislabeled conservatives who carry forward the taken-for-granted assumptions of liberal theorists of the last two centuries include the libertarians and their CATO Institute, market liberal think tanks such as the American Enterprise and Hoover Institutes, the advocates of the doctrine of "Original Intent" of the men who wrote the Constitution, the Federalist Society that promotes reducing government regulation of all kinds—especially of corporations, the educational reformers who advocate that students should construct their own knowledge (a theory of learning that is also used to justify computer-mediated learning), the scientists and engineers who assume that their discoveries and inventions are progressive in nature and who remain indifferent to what is now referred to as the "precautionary principal". What is especially amazing is how political pundits and social justice liberals fail to consider the implications of continuing to identify individuals and groups as conservatives when their websites clearly state that their main political agenda is to promote free markets, individual freedom, and a strong military establishment. Most of the religious groups and politicians who identify themselves either as conservatives or neo-conservatives, and that support President George W. Bush's domestic and foreign agenda take-for-granted the need to colonize the other cultures of the world for the benefit of capitalism and for converting the world's non-Christians, more accurately should be labeled as liberals in that they carry forward the ideas and values that are the hallmarks of classical liberal thinking. To reiterate, they continue the classical and current liberal's penchant for universalizing the Western vision of how people should lead their lives, the values they should adopt, and the global economic system they should support.

Analogs from the past that are still the basis for how "tradition" is understood:

The analogs that still frame how tradition is understood today, especially by most professors and their students, carry forward the selective interpretation of what traditions are like. The selective interpretation was very much influenced by genuinely oppressive traditions, such as the authority of the Medieval church, the feudal system that kept people in servitude and limited their opportunities for personal development, various superstitions and use of torture for determining guilt or innocence (which our military has now rediscovered), class interests in resisting educational reforms, the factory system that exploited workers, resistance

to scientific discoveries such as the evolution of species, and so forth. This history of selective interpretation of what constitutes a tradition carries forward the double-bind thinking that still represents tradition as whatever stands in the way of progress, new technologies, the spread of markets, new ideas and values, and so forth. Indeed, the general analog that is taken-for-granted and leads to viewing all traditions (except for holidays) as expressions of backwardness, ignorance, and ways of maintaining special privileges and power is so widespread that few professors and university graduates are able to say anything positive about the complex nature of traditions. This pattern of thinking is part of what Edward Shils refers to as “an anti-tradition tradition” that extends back to the time of the Enlightenment. This example of double-bind thinking is particularly ironic as most of the professor’s everyday experiences involve re-enacting traditions—some of which extend back for centuries.

Analogues for understanding traditions in a commons and ecologically informed world:

As the metaphor “tradition” is the word that foregrounds the historical dimension of culture, and is as broad and complex as what is meant by the word “culture”. The analogues that are examples of tradition are equally varied and problematic. There are traditions in every culture that may inhibit adopting new ideas and technologies that would be an improvement over previous practices. Some of these traditions may be as horrific as the traditions that have given this metaphor such a bad image in today’s social justice, progressive, and market oriented world. The traditions that supported slavery in America, that justified the appropriation of the land of indigenous cultures, and the “honor killings” still practiced in some areas of the Middle East, come easily to mind. The problem with the double-bind thinking today, where the selective interpretation of the past connects the metaphor with genuinely oppressive practices, is that continuing to associate traditions with these earlier examples prevents people from recognizing that the cultural commons as well as the values and community-centered practices that have a small adverse impact on the environmental commons, are also examples of traditions. Even the new technologies that are contributing to our slippery slide toward a full-blown police state, as well as the modes of inquiry in the various disciplines, are examples of traditions. According to Edward Shils who wrote a lengthy book on the complexity of traditions—including how some traditions change too slowly while others should not have been constituted in the first place, how some traditions disappear before we are aware of how important they were, and how people often confuse

traditions with traditionalism which is the mistaken idea that traditions should not or do not change—makes the point that every aspect of culture that is passed on over four generations should be understood as a tradition. The four generation or cohort criterion is the length of time it takes for people to forget the origins of an innovation and thus to adopt it as a taken-for-granted tradition.

If there is any hope of resisting the further enclosure of the cultural and environmental commons (with enclosure being a tradition of capitalism that undermines the traditions of self-sufficiency and mutual support within communities) it will be necessary for classroom teachers and university professors to present a more complex and balanced understanding of traditions. And this will require examples (analog) of traditions that are core features of the cultural commons, such as mentoring, sharing of knowledge and skills that represent alternative to consumerism, as well as examples of conservation practices in the natural world. As it will be explained in the following chapter, classroom teachers and professors need to be viewed as analogs that model the process of critical inquiry as having two agendas: that of introducing needed reforms and innovations and that of clarifying what needs to be conserved and intergenerationally renewed.

When professors are inadequately informed, students are encountering a living analog of double-bind thinking when they hear their teacher or professor comment on the dangers of Monsanto's new genetically engineered seeds that can no longer reproduce the next generation of seeds or the dangers of losing habeas corpus, and then hear positive expressions from the same person about technological progress and the incessant quest for the new and innovative. Progress through technological innovation is Monsanto's primary concern. But its highest priority is to make a profit rather than to conserve agricultural traditions that have a less adverse impact on the land, and that enable the small farmer to survive economically. In Bateson's analysis this sort of change that reduces ecological viability over the generations is "a difference that makes a difference."

Introducing students to abstract and thus context free analogs, and to the prejudicial thinking that equates traditions only with examples of unjust and ignorant practices, needs to be balanced with analogs derived from the student's own embodied experiences as a participant in the larger ecology of cultural and natural systems. Part of the classroom teacher's and professor's role as mediators is to help students become explicitly aware of the

differences between their experiences in the cultural commons and in the market/consumer culture. This understanding, which must include the range of embodied and place-based experiences that can serve as analogs of empowering and mutually supportive traditions, is as broad and complex as the nature of the local cultural commons—and will differ from culture to culture.

Analog from the past that are still the basis for how “conserving” and “conservatism” are understood:

The analogs that still serve as the conceptual schema for today’s social justice liberals as well as the market-liberal think tanks such as the CATO and American Enterprise Institutes, as just pointed out, were derived from the Enlightenment period when it was assumed that there should be no limits on human freedom, the potential of rational thought, the free-enterprise system, ownership of private property, scientific research and technological developments—and, generally, progress itself. The analogs for understanding conservatism today were derived from this Enlightenment period of optimism and genuine political achievements. That the Enlightenment thinkers, as well as those who followed in this tradition, did not understand how everyday practices that ranged from the spoken language to mentoring in craft knowledge and the creative arts were expressions of traditions, was important to the selective perception that equates conservatism, not with these everyday practices and forms of knowledge that sustain the cultural commons, but with groups attempting to resist progress and to protect their economic advantages.

If the Enlightenment thinkers had understood the complex nature of the knowledge systems of other cultures, perhaps the analogs associated then and now with conservatism would not have been the reactionary institutions such as the church, the aristocracy, the new class of capitalists who wanted to “conserve” their right to exploit workers and the resources of other cultures. The church and the aristocracy should have been labeled as traditionalists and reactionary, but that is another story—just as today’s Christian fundamentalists should not be labeled as social conservatives (as though they wanted to defend the Constitution and the separation of powers) but as traditionalists—and, more accurately, as reactionary extremists. The analogs for understanding what conservatism represents were also derived from the British tradition of using the term as a label for a political party. I recall when I was on the faculty of a Canadian university that there was a “progressive conservative” party. The key point about

this history of indifference to the multiple historical continuities that the word culture encompasses, as well as the indifference toward other cultural ways of knowing which had its roots in the tradition of thinking of them as either backward or advanced, is that the analogs associated with conservatism reproduced this same pattern of dichotomous thinking—which is another long standing tradition in the West.

Thus, conservatism easily became associated with resisting progress, conserving special privileges, authoritarian regimes that resist change, blindly embracing the idea that traditions do not and should not change. Today, past misconceptions, ethnocentrism, anthropocentrism, hubris, and the failure to be aware of double-bind thinking have resulted in identifying the following practices and groups as conservative: politicians who are attempting to dismantle the Constitution (including denying people the right to habeas corpus), corporations whose main agenda is to increase people's dependency upon consumerism and to turn the toxic effects on people's health into another major growth industry, Christian fundamentalists who want to turn America into a theocracy based on their literal interpretation of selected Biblical texts, the large number of Americans who support the government's policy of rendition, electronic surveillance, and close ties to corporations. The word has become a context free metaphor that carries forward most of the misconceptions of the past, and little if any of the wisdom of genuine conservative thinkers and activists. The failure of universities to clarify the double bind (Orwellian) use of this term is a major contributor to why it continues to be used in such a formulaic and mindless way in today's political discourse.

Analog for understanding conserving and conservatism in a commons and ecologically informed world:

There are several characteristics shared by different ecosystems that are in decline. Whether it is the amount of carbon dioxide being released into the atmosphere and the oceans, or the pesticides and other toxic chemicals polluting ground water and altering the chemistry of our bodies, the destruction of grasslands and forest cover, or the killing off of 75 million sharks so their fins can be turned into soup for the wealthy, the problem has its roots in the idea that there are no limits on the ability of humans, corporations, and governments to exploit natural systems. The root metaphor of progress, whose analogs are derived from the Enlightenment period where ideas and technologies were automatically assumed to be expressions of progress, still dominates the thinking of groups that are putting our future most at risk. The most

important point about the values, assumptions, and historically derived analogs underlying liberalism, is that *this tradition has no self-limiting principal*.

This shortcoming is compounded by the way that individuals and groups working to conserve habitats and species, the rights guaranteed in the Constitution, the social gospel-based traditions of social reform, the gains made by feminists and workers, the cultural commons of different ethnic groups—including indigenous cultures, are labeled as liberals. In this era of making a virtue of “growing the economy” by overshooting the sustaining capacity of nature systems, of a third of Americans who continue to support the market-liberal’s efforts to reduce the government’s responsibility of providing for a more socially and economically just society as well as supporting the dismantling of our democratic traditions, it would seem that we need to make yet another shift where the political metaphors more accurately reflect the challenges we now face.

Liberalism provided the conceptual, moral, and technological developments that freed people from many forms of oppression and authoritarian imposed limitations that were the legacy of the Middle Ages. Today, the problem is to learn how to live in ways that can be sustained by the self-renewing capacity of natural systems—and to ensure that our patterns of living do not jeopardize the self-sustaining capacity of other cultures, including the prospects of future generations. This goal should be part of the ecojustice agenda of our times. The analogs that should now inform our use of the word conservatism, if we are to avoid the problem of double-bind thinking where we repeat the misconceptions of the past, should include the practices, values, and policies of such groups such as the Conservation Land Trust (and many others like it), environmentalists, people working intergenerationally to renew the local cultural commons as alternatives to the hyper-consumerism that is spreading like a cancer through our commons as well as those of other cultures. We find models of conservative thinking in the writings of Wendell Berry, Vandana Shiva, and Helena Norberg-Hodge. Life sustaining expressions of conservatism can be found in indigenous cultures that are renewing what remains of their cultural commons and the natural systems they have a spiritual relationship with, farmers and ranchers who are reducing their dependence upon toxic chemicals and adapting their practices to what is being communicated by the environment, and so on.

Current analogs for understanding other expressions of conservatism should include the work of the American Civil Liberties Union, and the bloggers who are watching the market liberal extremists in government and in the corporate world that are attempting to represent the environmental crises as a huge fabrication (such as the American Enterprise Institute's practice of paying a large sum of money to scientists who will question the evidence on global warming). The social justice agenda of religious leaders such as Walter Wink, Rabbi Michael Lerner, and Jim Wallace who, in the Orwellian political vocabulary of today are labeled as progressive liberal theologians, is based on the social gospel and the idea of stewardship of the land found in both the Old and New Testament. Could there be anything more conservative than basing social reforms on the social gospel of the New Testament?

Martin Luther King, Jr., for example, was very clear in making the connections between treating all humans as equal and the Biblical sources of this idea. He was also carrying forward (conserving) Gandhi's tradition of non-violent resistance which, in turn, has its roots in Hindu and Christian traditions. It is also important to note that Gandhi made the renewal of the local cultural commons a key part of the strategy for resisting British imperialism that was based on exploiting local resources and undermining local economies. Other analogs of contemporary conservatives include the Third World activists who are resisting economic globalization by working to revitalize what remains of the cultural commons' traditions of community self-sufficiency and interdependency. Vandana Shiva is a leading spokesperson for this movement, as are such other writers and activists as Guillermo Bonfil Batalla, Gustavo Esteva, Grimaldo Rengifo Vasquez, Jorge Ishizawa, and Loyda Sanchez. We should not overlook how the average person, including the people who are the chief promoters of the high-status knowledge that leads to more of the cultural commons being integrated into the market economy, unconsciously re-enacts many of the traditions of the cultural commons even though she/he lacks the language necessary for articulating why the cultural commons are important.,

Analogues from the past that are still the basis for how “intelligence” is understood:

Intelligence is an image metaphor whose meaning can be traced back to Plato's misconception that there is a rational process with the characteristic of “pure thinking”, and that the thinker is separate from the object of thought. Other early Enlightenment analogs can be traced to Locke's assumption that at birth the human mind is a blank slate, and that reason

organizes and turns simple ideas derived from sensory experiences into complex ideas. Descartes, as pointed out earlier, represents the rational process as being free of the influence of traditions. But the main point is that the analog for understanding intelligence required the assumption that it was both an attribute and an activity of the autonomous individual. Later there was an attempt to establish that intelligence (that is, the degree of intelligence) was determined by the size of the individual's cranium. This analog was dropped when it was discovered that Europeans did not always have the largest skulls.

More recently, the analog for understanding intelligence was the ability to score well on a test written in the English language, with the results supposedly representing a scientifically determined intelligence score. Today, the analog is that intelligence functions much like a computer—with the emphasis being placed on how the electrical/chemical processes activated in different regions of the brain replicate the microprocessors in a computer. The analog that connects Plato's rationalism as "pure thinking" to the individually centered rationalism of later epistemologists, and to today's proponents of the idea that reading the great Western thinkers will enhance the individual rational capacity, is visually represented in Auguste Rodin's famous sculpture of "The Thinker". The Thinker sits on a pedestal and is positioned in what has become the visual cliché for representing the person who is deep in thought—and essentially unaware of what is going on in the physical and cultural surroundings. Today, the analog of intelligence in action is the isolated individual who sits in front of the computer and relies upon the abstract representations that appear on the screen as the source of data needed for thinking.

Analogues for understanding intelligence in a commons and ecologically informed world:

Just as it makes more sense to think of language as a verb (that is, as languaging), it also makes more sense to understand intelligence as a verb. Previously I discussed how earlier analogues were constituted during the process of trying to gain a new understanding that was conceptually coherent with the emergence of a new root metaphor (or interpretative schema). Johannes Kepler's suggestion that thinking of the world as a "divine organism" should be replaced by thinking of it as a machine is an example of how the metaphorical nature of words carry forward over many hundreds, even thousands of years, what was taken by earlier thinkers to be a breakthrough in achieving a higher level intelligence. The languaging processes that reproduced the conceptual/moral schema we know as patriarchy is also an example of the

earlier expressions of intelligence (or what was thought as intelligent at the time—and for thousands of following years) that influenced how people thought about a whole ranges of cultural activities and relations—from who could own property, write history, be a theologian, be chiefly responsible for doing housework and raising the children.

Today’s analogs for understanding the nature and processes of thinking and acting intelligently, or unintelligently, need to be derived from actual examples of how the languaging processes carry forward what Heidegger referred to as the “developed way of conceiving” hidden in the language that is part of the individual’s taken-for-granted way of thinking and communicating. Instead of focusing on the intelligence of the individual, we should have been examining the intelligence, or lack of it, reproduced in the languaging processes that play such a powerful role in how the individual initially learns to think and communicate. This shift in focus might have led educational reformers to identify the double-bind thinking in different university courses that are contributing, in the name of progress, to the thousands of chemicals that are still being introduced into the environment without an understanding of how they interact with other chemicals and the reproductive systems of organism. Recently, double-bind thinking that supported in the name of democracy and freedom the unequal treatment of women and non-whites was found throughout the curriculum, and in the classroom teacher’s and professor’s pattern of thinking and communicating. This too is an analog that demonstrates that it is possible to make the patterns of double-bind thinking explicit, and to introduce analogs that are more in line with the often overlooked and mislabeled traditions of social justice.

There is a more ecologically important way of demonstrating that intelligence is not the activity of an autonomous individual who looks out on an unintelligent world. This separation, which Bateson considered a basic epistemological error, does not take account of how all ecological systems, from the most microscopic levels of life to global weather patterns, are information-exchange systems. Bateson often used the phrase the “patterns that connect” as another way of expressing how self-perpetuating patterns, as well as changes within them (mutations), are a result of the information being passed within the total system. To put it another way, the basic characteristic of all living systems is what he refers to as a “difference which makes a difference” ; and the difference which leads to a difference in some other part of the ecological system is, according to Bateson, “ an *idea* or unit of information” (1982, p.

319). By identifying ecosystems as complex interactive information exchange systems, of which the role of DNA is a prime example, he is laying the basis for understanding how human intelligence is not an autonomous activity. The following is the analog he uses to make the point that the differences circulating throughout the larger system of which the individual is a participant must also be considered at part of self-correcting process which he identifies with intelligence. As he put it:

Consider a man felling a tree with an axe. Each stroke of the axe is modified or corrected, according to the shape of the cut face of the tree left by the previous stroke. This self-correcting (i.e., mental) process is brought about by the total system, tree-eyes-brain-muscles-axe-stroke-tree; and it is this total system that has the characteristics of immanent mind. P. 317

He could have used the example of how a change in the tone of voice, the glance at the watch, the change in body posture, is a difference which makes a difference—that is, the difference in the behavior of the Other leads to a change in the mood, duration, and content of the conversation. The relations that connect are the pathways through which information (difference) is passed that make a difference in our behavioral and conceptual responses. And this is where Bateson's distinction between map and territory becomes important—as well as his theory of double-bind thinking. The maps, which he understood as the metaphors that carry forward past analogs that made sense in the past, may not be appropriate for recognizing the information that is being passed through the multiple pathways of the ecosystem of which we are a participant.

The patterns of thinking from the past that assumed that the individual is an autonomous thinker, that language is a conduit through which rationally based ideas are passed to others, and that ideas and values have a universal status, are all challenged in the following summary statement by Bateson.

The total self-correcting unit which processes information, or as I say, 'thinks' and 'acts' and 'decides' is a system whose boundaries do not at all coincide with the boundaries either of the body or of what is popularly called the 'self' or 'consciousness'; and it is important to notice that there are *multiple* differences between the thinking system and the 'self' as popularly understood. P. 319

Bateson even suggests that we should recognize that “in no system which shows mental characteristics can any part have unilateral control over the whole. In other words”, he concludes, “*the mental characteristics of the system are immanent, not in some part, but in the system as a whole*” (italics in the original), p. 316. Thus, the double-bind thinking which carries forward the idea that humans can rationally control a river by building a dam, use the ocean as a toxic waste site, and dispose of carbon dioxide into the atmosphere, does not understand that the effects of these examples of double-bind thinking will continue to circulate through the information pathways that constitute an ecological system, such as how the change in the level of acidification or the change in water temperature will affect the coral reefs and so on. Taking-for-granted the conceptual schemas constituted in the past as a response to a different set of circumstances is now resulting in these earlier patterns of thinking being immanent in the total self-correcting information system we call an ecology—but immanent in a way that contributes to the downward spiral in the viability of the total system.

This way of understanding intelligence as relational, and as based on a complex set of relationships where past ways of thinking become encoded in the material culture that alters the behavior of the ecosystems within which it is situated, has profound implications for the reforms that need to be made in public schools and universities—which will be discussed in the next chapter.

Summary:

It is fairly easy to show how the old analogs that are reproduced in university classrooms carry forward the silences and prejudices that continue to marginalize the importance of the cultural commons, while at the same time reinforcing the deep cultural assumptions that were and continue to be the basis of the industrial culture. There is no resistance from my pencil and the computer keyboard to my suggestions for reforming universities. Unfortunately, getting faculty to recognize how the misconceptions, ethnic prejudices, and silences encoded in the language are “immanent” in the practices that are undermining the cultural and environmental commons is a monumental challenge—and it is not the result of a lack of intelligence on the part of faculty. Rather, the resistance comes from the fact that professors in various disciplines are part of a conceptual/symbolic ecology that reinforces the same root metaphors that the discipline has been based upon for decades—and, in some disciplines, for several thousands of years. The earlier explanation of how the analogs

derived from the Enlightenment continue to be taken-for-granted in much of today's academic discourse brought out the need to reframe our political language, how language itself is understood, and what is being represented as low status forms of knowledge. Such words and phrases as conservatism, cultural commons, enclosure, intergenerational knowledge, traditions, and so forth already carry negative connotations because of past misconceptions and ideologically motivated judgments about what these key words should mean. In some instances, faculty resistance to taking the ecological crises seriously enough to ask whether the cultural assumptions that underlie their teaching and scholarly writings might be part of the problem reflects a deep seated hubris that comes from the sense of having contributed to important advances in bringing nature under human control, and from the acclaim of colleagues. In terms of these faculty, one can only hope they will recognize their role in the downward slide that is leading to the collapse of critical ecosystems.

There are other faculty who can be reached. Unfortunately, their growing concern about how to address the different dimensions of the ecological crisis within their disciplines is often not shared by colleagues. The result is that discussing how to make the substantive changes in their courses and in teaching style often does not take place to the degree that is needed. In the next chapter I will identify changes that can be easily understood and implemented. That is, I will suggest the practical classroom implications of the ecojustice/commons-oriented vocabulary that has been introduced in earlier chapters. This vocabulary will serve as a map that is more relevant for recognizing the territory we are now in, and for making explicit aspects of the territory (relationships within the cultural/natural systems) that previously were not recognized.

Chapter 7 The Cultural Mediating Role of the Professor—Across the Disciplines

Many professors take pride in the fact that they have not taken a course in pedagogy. In most instances they lack an understanding of what is learned in such courses, which are usually housed in a college of education. And in this case ignorance is bliss, as most courses on pedagogy are based on the double-bind thinking discussed in the previous chapter. That is, most such courses reinforce the idea that language is a conduit, that change (emancipation is the teacher educator's code word) should be constantly promoted, that students should learn to construct their own knowledge, that technology is both culturally neutral yet essential to participating in the global economy, that teachers should help students understand the issues of race, class, and gender—thus contributing to the ability of marginalized groups to take their place as equals in a consumer-oriented society, and that traditions are impediments to progress. While some of these concerns are valid, most courses that address how teachers should understand their pedagogical responsibilities reproduce the silences and misconceptions that have been a hallmark of the field for generations.

Professors may be correct in their judgments about courses in pedagogy, but they are incorrect in thinking that successful teaching and learning is simply dependent upon well-thought out and well-presented lectures, reliance on the Socratic method, an increased use of computers and power-point presentations, and on the use of smaller discussion groups. There are some fundamental characteristics of learning that professors, regardless of their discipline, need to understand—including how to take these characteristics into account when mediating between what the students bring to the teacher/student relationship and the new understandings that the professor hopes to introduce. Most of these characteristics were discussed in earlier chapters, but they need to be reiterated in order to clarify more fully what is meant by referring to the professor's role as that of a mediator.

A universal characteristic of teaching/learning relationships is that both the student and professor take-for-granted a large body of beliefs and culturally specific assumptions that influence how new ways of understanding are presented and learned. That is, the largely taken-for-granted interpretative frameworks of both the professor and student will influence what is heard, seen, and how it is understood. In other words, the professor and student do not stand in a relationship involving autonomous individuals. Rather, they represent culturally and biographically distinct traditions of thinking and embodied experiences. What the professor

takes-for-granted will frame both the language that is used to communicate with the student, as well as the silences that are due to her/his restrictive vocabulary. And if the student is encountering something that has not been learned before, she/he will not be aware of how the silences in the professor's course undermine the ability to address future problems.

Another characteristic of the professor/student relationship, regardless of whether it is in the sciences, social sciences, humanities, or one of the professional programs, is that few professors and even fewer students will be aware that the conduit view of language that is such a common feature of most classroom discourse, including what is read in books and on the computer screen, reproduces the metaphorically layered patterns of thinking that, as Nietzsche put it, fit “new material into old schemas”. How the conduit view of language contributes to misunderstanding, like the ever-present fog of taken-for-granted beliefs and assumptions, is a constant of which professors need to be aware. It takes a special effort to become aware of what the student takes-for-granted, and it is even more difficult for the professor to become explicitly aware of her/his own taken-for-granted cultural assumptions.

Other characteristics of the languaging processes that are at the center of teaching and learning include the likelihood of ethnocentric thinking, and the combination of silences and prejudices that have relegated the intergenerational knowledge that sustains the local cultural commons to low status. As pointed out earlier, both professor and student too often frame what is being learned as the expression of progress, and to view non-Western traditions and knowledge as less advanced—and thus not worthy of learning from. Most of the root metaphors (meta-cognitive schemata) discussed earlier come into play as the student is socialized to think within the professor's discipline. There will be times when these root metaphors contribute to new understandings, and many more times when they perpetuate the cultural patterns that are major contributors to the current acceleration of the environmental crises. Context, tacit understandings, cultural differences, and, now, what contributes to an ecologically sustainable future and what undermines this possibility, are all considerations that need to be taken into account by the professor.

Perhaps the most important challenge professors face is recognizing how their own socialization within their discipline may continue to be the basis of double-bind thinking, where the assumptions passed on as part of their own graduate studies were constituted before there was no awareness of environmental limits—and before there was an awareness of the low

environmental impact of most activities that are part of the cultural commons. As mentioned before, the nature of the prior socialization that the professor has undergone may be so out of touch with today's rapidly changing environmental realities that she/he may not be able to recognize the implications of ecological collapse. There are accounts that when the indigenous people first encountered the tall-mast ships of the European adventurers in the local harbor, they initially had no way of understanding what they were—and how the arrival of these ships would change their taken-for-granted world. This may be the same problem that is faced by professors who continue to take-for-granted the assumptions that are still shared by the cohort of colleagues who were mentored by professors who did their graduate work decades ago.

Before suggesting that professors need to take on an additional responsibility that will make their task even more complicated, I want to identify another problem that at least needs to be recognized—even if it remains intractable. It's the problem that Carl Schmitt used as justification for an authoritarian system of government that classified liberals as the enemy of the state. His basic argument was that when the state faces a serious external threat (and here he was referring to Nazi Germany's need for national unity in supporting its planned wars of aggression) the liberals became an internal threat because of their tendency to argue over every issue, to pursue their own agendas, and to be unable to agree on what constitutes a common external threat. Schmitt's arguments are now being illustrated by today's market liberal politicians who view the terrorism stirred up by their agenda of economic globalization as a threat to the stability of the United States. However, Schmitt's point is more relevant to what is now a genuine external threat: the rate and scope of the ecological crises.

Given the double-bind thinking discussed in the previous chapter where one of the analogs for understanding what it means to be a liberal thinker is that she/he is guided by an autonomous process of critical rationality, the question now becomes one of whether social justice and market liberal professors can reach a consensus that global warming, and the many changes in other ecosystems that are being affected, is a genuine threat. Will they be able to reach a consensus that this should be the main priority in undertaking major university reforms—and by, extension, reform of public schools? In suggesting the role that professors and public school teachers need to play as mediators who help students understand the differences between the local cultural commons and the industrial/consumer-oriented culture they daily move between, I will make the optimistic assumption that just as generations in the

past abandoned the idea that the earth was flat, and later that it was the center of the universe, this generation of market and social justice liberal professors will make a similar adjustment to what now constitutes the new scientific evidence of an even more fundamental change that has not occurred since the last great mass extinction.

What Does the Role of a Mediator Involve, and Why Is It Important in Terms of Addressing the Ecological Crises?

One of the characteristics of participants in many local commons activities, such as maintaining community gardens, mentoring relationships, promoting social justice issues at the local and national level, is that they are involved in democratic decision making. In order to participate in this process it is necessary that the members of the commons possess communicative competence. That is, if individuals lack the language that enables them to name the cultural commons activities that are being threatened by different forms of enclosure, and if they do not understand how the aspect of the cultural commons being threatened contributes to the well-being of the larger ecology of community/environmental relationships, they will be limited in their ability to resist the external forces of enclosure. Similarly, if they cannot name other traditions of the cultural commons, such as how the language, narratives, laws, and other taken-for-granted patterns of interpersonal relationships that support traditions of discrimination, they will be unable to engage in the democratic process of bringing about needed reforms. Examples of this process can be seen in how feminist, civil rights, and migrant worker movements, among others, demonstrated the importance of being able to name the nature and sources of prejudice and discrimination as the first step in breaking the hold of taken-for-granted beliefs and practices—which often bind both the exploiter and the exploited to traditions that have not been made explicit and challenged.

In the context of global warming, communicative competence involves more than what is too often modeled by the elaborated speech code of the professor who can justify her/his assertions, who can cite evidence based on research, and who can talk endlessly without ever acknowledging that human activity is responsible for the changes now occurring in the oceans, atmosphere, and animal and human habitats. Communicative competence that is not based on double-bind thinking requires that the student and other members of the commons possess an explicit knowledge of the cultural commons that are being threatened by market forces, new technologies, and various forms of fundamentalism. They also need to possess knowledge of

the forces behind various forms of enclosure, such as the ideology and corporate agenda behind the current efforts to enclose (that is, take away) long-standing traditions of civil liberties, the gains in the labor movement, the face-to-face traditions of mentoring (which are now being replaced by DVDs), the intergenerational traditions of children's play, and so forth.

If the taken-for-granted experiences in both the cultural commons, as well as in the market-oriented culture do not become part of the student's explicit knowledge and vocabulary, she/he will be unable to recognize the reasons for the downward spiral into a state of dependency and poverty that many people are now experiencing. This condition of poverty includes more than the lack of economic resources; it also includes the deprivation of a shared symbolic culture that is the source of meaning, expressive arts, patterns of moral reciprocity, and narratives of how to live lightly on the land and in mutually supportive ways. To make the point more directly, if the student cannot name it, she/he cannot resist the forces that want to enclose it—and she/he even will be unable to change what is a destructive tradition. “It” refers here to whatever aspect of the cultural commons that is being enclosed, as well as to what needs to be changed in ways that contribute to more morally coherent communities and sustainable ways of living.

A few examples may be helpful. The failure of professors in the past to help students recognize and thus make explicit the many expressions of gender bias that were a taken-for-granted part of institutions, the legal system, the workplace, and other areas of the commons, limited the student's ability to acquire the language necessary for exercising the communicative competence necessary for bringing about fundamental social changes. It was the feminists who named the patterns that provided others with the language necessary for politicizing what previously was part of people's taken-for-granted reality. The feminists were doing “thick description” while those who were perpetuating the patriarchal patterns at all levels of social life were defending the ancient analogs they associated with the word “woman”.

Similarly, a lack of knowledge of the characteristics of fascist societies, which came to power in Europe between the two world wars as a result of the rise in social chaos and a desire for a powerful centralized authority, will leave students without an explicit awareness of how the technologies of total surveillance and the combination of the market liberal and corporate agenda of economic globalization may be putting us on the same slippery slope. Before taking

up the issue of how the professor's mediating role can address the critical problems of double-bind thinking, as well as contribute to the students' communicative competence in making decisions that are ecologically viable and initiate a fundamental re-ordering of the priorities of the university, it is necessary to again identify the Achilles' heel of higher education. That is, the double-bind thinking that most professor take-for-granted makes it difficult for them to reflect on how their own taken-for-granted cultural assumptions may be major contributors to the industrial/consumer oriented culture that is a major contributor to the billions of metric tons of carbon dioxide that are changing the chemistry of the atmosphere and the world's oceans.

I suspect that as scientists document the human impact that is causing the melting of glaciers, the changes in habitats that plant and animal species are unable to adapt to, the dislocation of huge numbers of people as crops fail and potable water becomes in even shorter supply, more professors will include environmental issues in their courses. And as the nature of the environmental crises becomes obvious to the point where denial is no longer possible, some may even begin to question how current patterns of double-bind thinking are preventing them from taking seriously the only proven alternatives to the current reliance on hyper-consumerism that many Americans are now addicted to: which are the cultural and environmental commons that humans have relied upon since their earliest beginnings. As these changes occur professors will need to take seriously their role as mediators.

Mediating involves helping the students become explicitly aware of the differences between their experiences in the local cultural commons and their experiences in the sub-culture characterized by the cycle of working for money in order to purchase what too often will quickly be replaced by new consumer products, falling further behind in credit card debt, becoming increasingly stressed—thus becoming more dependent upon the pharmaceutical industry, and then facing retirement without either an adequate economic source of support or a knowledge of how to participate in the local cultural commons that is the basis of symbolic wealth. This may be an over-simplified account of the cycle of life in the industrial/consumer culture; but on the other hand, it is accurate in terms of the greed of the power elites who grant themselves multi-million severance packages while their corporations outsource work to countries with lower wages, and even lay off the higher paid workers in order to replace them with workers who are paid the minimum wage. There is little left of the moral reciprocity that the labor movement and social justice groups forced on corporate America, and what remains

of moral reciprocity exists mostly within various intergenerationally connected groups carrying forward different traditions of the cultural commons, including the traditions of mentoring in various skills and in volunteerism.

Before discussing what is involved in the professor's (and classroom teacher's) role as a mediator, it is necessary to address a possible misinterpretation. Because I sometimes refer to the cultural commons of indigenous cultures, critics often claim that while my ideas possibly have relevance to rural America they have little relevance for suburban and urban America. These critics obviously do not understand that the local cultural commons may be expressed differently in rural and urban America—and that language, civil liberties, intergenerational knowledge, skills, ceremonies, narrative, mentoring relationships, and so forth, are also part of the cultural commons in urban areas. That is, the tension between what is not dependent upon monetized relationships and the forces of economic enclosure exists in *all communities*. Another misinterpretation that critics impose on my proposals for reforming universities is that I am suggesting that the entire curriculum focus on the tensions between the commons and market forces—and that, by extension, I am suggesting that all forms of scholarship not focused on these tensions should be abandoned. This is definitely not what I am proposing. I know that the taken-for-granted interpretative frameworks that underlie current scholarly and teaching interests will continue to prevail—partly because they are taken-for-granted and partly because many of these traditional scholarly interests are important for other reasons. I am a realist in recognizing that even when new ideas are supported by evidence of extreme importance, such as global warming, the influence of past ways of thinking will only yield slowly to thinking within this new (actually old) paradigm that places community over the importance of what can be manufactured and sold for a profit—and that many of the achievements of the past will be integrated into this new paradigm. In my most optimistic moments I am hoping that professors will *begin* to address the tensions and double binds that will contribute to revitalizing the cultural commons and to democracy at the local level.

MEDIATING AS MAKING EXPLICIT.

At every age level, students are involved in experiences in the two sub-cultures, and they generally move between them without being explicitly aware of what the differences are in social relationships, language, dependencies, forms of empowerment, influence on skill development, and so forth. Some of these experiences involve different forms of

enclosure—in undermining self confidence, marginalizing the exploration of personal talents and skills, greater dependence upon monetized relationships, eliminating the sense of privacy, replacing the practice of moral reciprocity with the pursuit of self-interest and material wealth, and so forth.

Pre-school children move between the oral traditions of the family (not all of which are supportive of social justice and good environmental citizenship) and the computer-based entertainment and communication that reinforces the industrial/consumer-oriented mind-set. In the early grades students are involved in oral and print-based forms of thinking and communicating. They also participate in various creative arts that are only marginally dependent upon consumerism, and the various arts that are the products of the entertainment industry. In the middle grades and at the university level, students are constantly moving between being participants in the different aspects of the cultural commons and the monetized world of products and relationships.

At the university level, the language that encodes the double-bind thinking that supports the further expansion of the industrial/consumer culture becomes a more prominent part of their experience—accompanied by the silences and prejudices that further marginalize an awareness of the cultural commons that are also part of their everyday life. Few university students, for example, can explain the nature of metaphorical thinking. Nor are they knowledgeable of the history of root metaphors and how the vocabulary they rely upon on a daily basis is largely dictated by these root metaphors. And few students are able to recognize when scientists are straying into the quagmire of scientism. In addition, the different technologies that teachers and university professors encouraged students to rely upon make the need for doing a thick description of the student's embodied/cultural experiences appear as totally irrelevant.

Mediating thus starts with the student's description of what they are experiencing as they participate in different aspects of the cultural commons and the consumer-oriented culture. The thick description is different from the form of learning where the classroom teacher, professor, and software program start with telling the student how to think about different aspect of their everyday world—or history, or other cultures. What the anthropologist, Clifford Geertz referred to as thick description involves naming of different relationships, feelings, sense of empowerment, discovery of interests, awareness of what cannot be communicated,

how the activity or object dictates how one should act and think, and so forth. Thick description enables the student to connect an activity or relationship within the larger network of relationships that Bateson referred to as the pathways through which information is passed. Making explicit the ongoing exchange of information that circulates through the interconnected ecology of culture and natural systems, acts on the actions of others—including the student's experience. In effect, this process of doing thick description can be understood as doing a personal ethnography.

By making explicit these exchanges of information, gaining an historical perspective on the forces that continue to influence these relationships, and by aligning words with actual experiences rather than taking the easy route of accepting the linguistic colonization of the present by the past where words often carry forward the earlier misconceptions, the student is acquiring the vocabulary essential for naming the differences between commons and market-oriented activities. This approach to mediating-- that is, helping the student become explicitly aware of the network of past and current relationships that would otherwise be taken-for-granted-- reinforces the idea that the student's embodied culture is important to learn about.

Mediating as Introducing a Knowledge of the History of the Commons and the Forces of Enclosure:

Engaging students in a comparative examination of their experiences in the two sub-cultures needs to be framed in terms of assessing which contributes to a smaller ecological footprint and to a more socially just and self-reliant community. But it needs to go beyond the thick description that makes explicit the cultural and environmental context—including what forms of relationships and patterns of thinking are being reinforced, and how these patterns vary in terms of different cultural assumptions. That is, the classroom teacher and professor need to bring an historical perspective to the comparative analysis. For example, students may be involved in community experiences that are centered on one or several performing arts, and they may also be involved in downloading commercially produced art onto their iPods or onto a new technologically dictated format that cannot even be imagined at this time. The students need to examine the history of cultural developments that contributed, for example, to the transition from the various arts being integral to the community's ceremonies, being storehouses of knowledge of moral relationships, being ways of transforming (as Ellen Dissanayake points out) the mundane aspects of everyday life into a realm of experience that is

special and transcendent, to being what is valued because the market has designated it is a source of profits—and because it is produced by a person whom the market has elevated to celebrity status.

Other comparisons where the historical perspective needs to be introduced include learning about the cultural developments that subordinated craft knowledge and skill to the need to find more efficient and low-cost methods of production—and now to replacing workers entirely with computer-driven systems of production. For example, students should know about the cultural developments that led to giving high status to print based knowledge and to representing orality as an unreliable source of knowledge. The tensions between civil liberties that are protected by the tradition of separation of church and state and the political/religious forces that are working to undermine this separation in order to create a theocracy also needs to be understood in terms of the history of the religious wars that ravaged Europe for hundreds of years.

If students are going to become aware of how the double-bind thinking that is such a prominent feature of today's political discourse has marginalized an awareness of how all the participants in cultural and environmental ecologies are interconnected, they will need to examine the history of the layered nature of metaphorical thinking. Every aspect of the cultural and environmental commons, as well as the forces of enclosure, have a history. Students also need to learn about the history of the enclosure of socially unjust traditions that have been a prominent feature of some cultural commons. The student's communicative competence is as much dependent upon a knowledge of the history of the development of the cultural commons as it is on a knowledge of the history of the forces that are contributing to the current processes of enclosure. Again, it must be stressed that this historical perspective enables students to recognize the misconceptions of the past that still dominate current thinking and policies, as well as to recognize the traditions that grew out of past struggles that need to be carried forward and intergenerationally renewed.

Why a Department of Cultural Commons Studies is Needed.

When we compare the nature and rate of environmental degradation—in terms of the changes in weather patterns that are melting glaciers that are the source of water for millions of people and are causing droughts that make huge areas uninhabitable, as well as the collapse of edible fish stocks that are an important source of protein for an expanding population—the

suggestion that university reforms should include the creation of a department that has the responsibility of providing courses that introduce students to an in-depth knowledge of the cultural commons and the forces of enclosure may appear as too little and too late. Yet, this proposal needs to be viewed in the light of what is problematic about the current approaches to introducing environmental issues into courses where the conceptual framework is too often dictated by the traditional assumptions upon which the discipline has been based. Except for the sciences, the efforts to introduce environmental issues into courses in the social sciences, humanities, and professional programs represent introductory efforts. But their introductory nature is only part of their shortcomings.

As mentioned earlier, courses in sociology, history, philosophy, literature, economics, political science, education, law, and so forth, follow the general pattern of more traditional courses that are thought to be strengthened when students are introduced to a wide range and often unconnected series of readings. Aside from the fact that few, if any, of these courses introduce students to writings on the cultural commons and to doing a thick description of their experiences in the local cultural commons, there is another major short coming. A course that introduces students to the writings of Henry David Thoreau, John Muir, Aldo Leopold, Rachel Carson, Gary Snyder, Wendell Berry, and Vandana Shiva, is a valuable learning experience for students in that it introduces them to profoundly different ways of thinking about human/environmental relationships, and what gives a deeper sense of meaning to life.

To cite another example that appears to have similar strengths in terms of awakening students from the industrial culture's dream of a life of ever expanding prosperity (and if that fails, the prospects of life in an inter-planetary settlement) is an introductory course in environmental studies that introduces students to short excerpts from the writings of David Abram, Stephanie Mills, Arne Naess, Lao Tzu, Rene Descartes, a Cherokee creation story, in addition to other environmental writers. Courses that follow the same pattern of introducing students to a wide range of environmental thinkers have a major shortcoming that can only be corrected by having a department that has as its central focus the study of the cultural commons and the myriad forms of enclosure.

The problem is that students who take these survey courses, as important as they are, will graduate without an in-depth knowledge of the different ways in which cultures renew their commons, including how some cultures have learned to live within the sustaining

capacity of the natural systems in their bioregion. A department of cultural commons studies would have the advantage of not having the environmental issues determined by faculty whose main area of intellectual competence is based on their past training in a traditional discipline. Rather, the faculty in this department would be better able to ensure that students encounter the conceptual framework that introduces them to the nature and diversity of the cultural and environmental commons, as well as the different forces of enclosure. This conceptual framework is needed to understand the importance of how the insights, silences, prejudices of a wide range of environmental thinkers were influenced by the cultural assumptions of their times, why their ideas were widely ignored by the larger society, and their relevance for understanding the tensions between the local cultural commons and today's forces of enclosure. Unless students acquire this conceptual framework first they will be less prepared to recognize a wide range of cultural issues that will likely not be discussed in environmentally-oriented courses taught in the traditional disciplines, and the survey type courses that introduce students to the writings of major environmental thinkers. Acquiring this conceptual framework should then be followed by learning from the mentors in sustainable living practices, which will vary depending upon the location of the university. For example, learning which plants require less water will be different in Oregon than in New Mexico, and how to take advantage of sunlight as a source of energy will also differ depending upon the bioregion. Combining consciousness raising that comes from the survey courses with learning the practical sustainable living skills, as well as learning about the network of mentors in the community, can only be effectively combined in a department of cultural commons studies.

The basic course that should be offered by the department needs to introduce students to the role that the languaging processes of a culture play in constructing what will be taken as the common-sense daily reality — what I refer to as the taken-for-granted storehouse of cultural knowledge and values. Other basic understandings include the layered nature of the metaphorical language that is taken-for-granted by everyone, even by people on the cutting edge of their field of inquiry — as well as how this language reproduces the misconceptions of earlier times. The nature of double-bind thinking needs to be a central focus in this introductory course — particularly since both students and the professor may be under the influence of double-bind thinking when they read environmental writers and even when they engage in discussions of the cultural commons. Students also need to understand the

differences in cultural approaches to storing and renewing intergenerational knowledge, such as the differences between oral and literacy traditions (which also vary from culture to culture). The British and marxist anthropologist, Jack Goody, argues in The Domestication of the Savage Mind (1987) that the divide between oral and literate cultures is far more significant than the divide between social classes. The question that is not likely to be asked of students reading and discussing the writings of a wide range of environmental writers, and early philosophers who got it completely wrong, relates to how the tradition of literacy (and now the increasing reliance on computer mediated thinking and communication) contributes to the inability of students to hold the users of language accountable in terms of accurately representing local contexts, tacit and embodied experiences, and an awareness of how current cultural practices will impact future generations. I suspect that there are few courses that introduce students to the wisdom of environmental writers that also engage students in a discussion of the different impacts that computers have on the cultural commons and environmental commons—impacts that are both positive and destructive.

This basic course should also introduce students to the thinking of Gregory Bateson's understanding of how human intelligence is encoded ("immanent") in the material culture that, in turn, influences the natural systems that the material culture is embedded in. There is a tendency on the part of university graduates to view the various expressions of material culture as things, distinct objects, buildings and so forth; and to lose sight of the fact that they embody an earlier form of intelligence that may have been based on the cultural assumptions about an anthropocentric, mechanistic, and inherently progressive world. A deep knowledge of Bateson's ideas about intelligence, including how it is a mix of culturally constituted pre-conceptions and constant participation in the multiple pathways through which different participants in the larger ecology communicate differences, is essential to overcoming the misconception that thinking, and the intelligence it supposedly is based on, is an activity occurring in the brain of the individual. Students who take subsequent courses that address different environmental and cultural commons issues need to break with this double bind way of thinking if they are going to learn from the thick descriptions of the differences between their experiences as they move between the monetized and non-monetized activities and relationships within their communities.

There are several other reasons for establishing a department of cultural commons studies. The first relates to the need for members of the department to recognize when courses could be strengthened by involving faculty from other disciplines who can introduce the unique insights of their disciplines into the discussion of various aspects of the cultural commons and the different forms of enclosure. What is being suggested here is a reversal of the current approach where faculty who have little background knowledge about the nature of the cultural commons and the different forms of enclosure introduce environmental issues into courses that are still dominated by the deep assumptions of their discipline. In these situations, the environmental issues are more peripheral to the deep cultural assumptions that the professor in philosophy, economics, sociology, literature, and so forth, may take for granted—and that may have a long-term influence on the student’s way of thinking (even after they have forgotten what they learned from the environmental writers). Faculty in the department of cultural commons studies would, in effect, have the responsibility for knowing which faculty in other departments could make an important contribution. If I had taught a course that focused on how Western philosophers contributed to the prejudices and silences about the importance of the cultural and environmental commons, rather than writing about it myself, the course would have been strengthened by involving faculty from the department of philosophy who could provide insights about how the ideas of different philosophers validated the argument that part of our current patterns of double-bind thinking can be traced back to the acclaimed giants of Western philosophy—and they may have been able to provide counter evidence to this argument. The disciplinary background of most faculty makes it unlikely that they would consider inviting a faculty member to make a presentation in their course even when this faculty member is better grounded in a knowledge of the cultural commons, the different forms of linguistic imperialism, and the ideological forces behind the incessant efforts to monetize what remains of the cultural commons.

The second reason for a separate department that goes beyond that of ensuring that the courses are grounded in a deep knowledge of why so many cultural patterns are taken-for-granted, and an equally deep knowledge of the diversity of the cultural commons—including the many forms of enclosure, is that the faculty in this department can take on the task of organizing workshops for other faculty who become interested in ecojustice issues and the need to renew various aspects of the cultural commons. Faculty in this new department can

also play a key role in coordinating seminars and conferences that frame the discussion of alternatives to the consumer-dependent pathway that economic globalization is putting the entire world on. Introducing students to the political and economic forces that have enclosed earlier expressions of the cultural and environmental commons--ranging from the community centered intergenerational practices relating to food, healing, creative arts, social justice (and injustice) practices—should be the responsibility of faculty from a variety of disciplines. However, it is most likely to be undertaken if the faculty in the Department of Cultural Commons Studies serve as a catalyst for introducing this new area of understanding. Currently, the focus of the techno-scientific oriented faculty is on the development of more energy efficient and less carbon producing technologies, but little attention is being given to revitalizing the cultural commons. This cultural commons pathway to a post-industrial future is still being treated as low-status, and the intergenerational knowledge upon which it is based is still considered as irrelevant to what university students should be learning—even in the environmental courses that are attracting more and more students.

The proposal that a separate department should be established is unlikely to be taken seriously unless faculty are able to recognize yet another double bind: namely, the need for faculty to overcome the silences and prejudices in their own education that may lead them to ignore this proposal as unworthy of their attention. As most faculty still consider the environmental crises as unrelated to their scholarly interests, the effort to overcome the above double bind is going to require the dedicated and persistent effort of a few faculty. As changing human consciousness is exceedingly complicated and slow beyond what should be expected of rational people, we need to keep in mind that the most fundamental changes in recent times, such as those introduced by early feminists, Mahatma Gandhi, Rachel Carson, Martin Luther King, Jr., and Aldo Leopold, were started by a small minority who refused to go along with the taken-for-granted thinking and values of the times.

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A list of books written by C. A. Bowers can be found by going to the short bio-statement on his website <http://cabowers.net> Other online articles and book may also be found there under the heading of the Eco-Justice Press. If you find UNIVERSITY REFORM IN AN ERA OF GLOBAL WARMING a useful source of ideas, please inform colleagues at other colleges and universities about where it can be found. There is currently an emphasis on college and university campuses on finding technological solutions to lowering our carbon footprint, with little attention being given to how educational reforms must contribute to a change in consciousness.