

Why the George Lakoff and Mark Johnson Theory of Metaphor Is Inadequate for Addressing Cultural Issues Related to the Ecological Crises

C. A. Bowers

C. A. Bowers has taught at the University of Oregon and Portland State University, and now, in retirement, serves as adjunct professor of environmental studies at the University of Oregon. Bowers has published 14 books that address the cultural roots of the ecological crisis. His most recent are: *Educating for an Ecologically Sustainable Culture* (1995); *The Culture of Denial* (1997); *Let them Eat Data* (2000); *Educating for Eco-Justice and Community* (2001); *Detras de la Apariencia* (2002) and *Conserving in an Era of Ecological Uncertainties*.

George Lakoff and Mark Johnson intended to radically change one of the dominant traditions of Western philosophy, that is, the tradition of abstract theory that stretches from the ancient Greeks down through the writings of the contemporary analytic philosophers. In place of de-contextualized and thus culturally uniformed theories about the nature of reality, mind, language, and individualism, Lakoff and Johnson proposed that the task of the philosopher is to clarify how the metaphorical basis of language, and thus systems of knowing, originates in the embodied experience of individuals. Their agenda is summed up in the title of their major book, *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought* (1999). While they make a cogent case against the many ways in which Western philosophers have framed the process of reasoning, thus achieving little more for humanity than giving legitimacy to their own theoretical edifices, the Lakoff and Johnson argument that metaphorical reasoning originates in the individual's "sensorimotor experiences so regularly they become neurally linked"¹ represents an equally extreme

and problematic position. In place of the rational process represented by most Western philosophers as free of both cultural and embodied experiences, Lakoff and Johnson argue that the starting point of philosophy, science, and knowledge generally begins with the individual's perceptual and motor systems—that is, embodied experience. In his most recent book, *The Meaning of the Body: Aesthetics of Human Understanding* (2007), Johnson introduces the phrase “organism-environment coupling” to reaffirm the earlier position he shares with Lakoff that knowledge of the environment is limited to the embodied experience of the individual. As will be explained later, this precludes learning about the environment from scientific studies and from the observations and insights of others.

The word culture occasionally appears in their joint writings on how language is framed by embodied experience, but its complex nature and diversity is not explored in any depth. One of the results is that the implications of a comparative study of different cultural epistemes has for bringing into the question the Western notion of the autonomous (that is, the supposedly culturally uninfluenced) individual they take for granted—and upon which their entire theory rests—is not considered. A word they do not mention is *ecology*. This omission leads to their failure to acknowledge that, today, the ecological crises should frame any discussion of metaphorical thinking. What cannot be explained by their theory is why they share this oversight with key Western philosophers who also ignored how the environments of their era were being degraded. Supposedly, the individual whose sensorimotor experiences and habituated neural connections become the basis for framing the meaning of words (metaphors), and thus for how relationships are understood, is unaffected by the global changes in the natural environment.

This is not simply an oversight with few if any serious implications. It becomes of paramount importance when it is recognized that the extrapolation of the word *ecology*, which is the modernized version of the early Greek word *oikos*, always situates the individual as a participant within a cultural and environmental context. It is only when the “individual” is treated as an abstraction that these ecological relationships are ignored. In effect, the individual's embodied participation in this larger ecology of relationships includes other people, the semiotic systems of the culturally constructed world, and the complex message exchanges (which Gregory Bateson refers to as the “difference which makes a difference”²) that sustain the complex and interdependent living systems we refer to as the natural environment.

In order to understand the long-term problem of locating, as Lakoff and Johnson put it, “our conceptual system” in the individual’s “perceptual and motor systems,”³ it is necessary to summarize the changes that the Earth’s natural systems are undergoing. It needs to be recognized that global warming is just one aspect of the ecological crises that is not likely to be addressed by concepts derived from the embodied and thus limited experience of the individual. Indeed, their extreme reductionist understanding of the origins of knowledge leads to a radical difference between what individuals would learn from their embodied encounters with their local environments and what scientists are now reporting. For example, scientists studying the impact of global warming have documented that the Greenland ice cap is melting at an accelerating rate, with one glacier moving to the sea at a rate of two metres an hour on a three-mile front and at a depth of 1500 metres. The melting of the Arctic sea ice and the glaciers in the Antarctic is also accelerating at a rate totally beyond what scientists thought possible. And the glaciers in the Himalayas and the Tibet-Qinghai Plateau, which feed the major rivers in India and China, are disappearing at a rate of seven per cent a year, with glaciers in other parts of the world disappearing at similar rates.⁴ The basic assumptions (listed below) of Lakoff and Johnson limit the individual’s conceptual understanding of the environment to the inherently limited nature of embodied experience. The result would be that grasping the world-wide consequences of global warming would be beyond the individual’s conceptualization.

There are other changes in the life-sustaining capacity of the Earth’s ecosystems that would also go unrecognized. In addition to the global threat to the sources of fresh water that hundreds of millions of people face, there are similar changes in the chemistry of the world’s oceans. As the oceans absorb higher levels of carbon dioxide they are becoming more acidic, and this change in chemistry, as well as in temperature, is threatening the organisms that are the basis of the ocean food chain. Other changes in the world’s oceans include the near extinction of many fisheries that are the vital sources of protein for much of the world’s population.⁵ In addition, droughts are affecting many regions of the world, and vast forests are dying off due to changes in temperatures that make them vulnerable to insects. And the estimated loss of the earth’s topsoil has been estimated at over thirty per cent.

The huge growth of the world’s human population over the last century, along with the spread of economic globalization, have combined into an increasingly destructive force that is undermining the capacity of natural systems to regenerate themselves. Until social philosophers and market liberals turned Adam Smith’s theory of free markets and the “invisible hand” into an abstract and thus universal law of economics,

markets were local and integrated into the cultural fabric (including moral norms governing reciprocity) of the world's diverse communities. This abstract theory has now taken on the same status as the law of gravity, and has become a major force in spreading the industrial-consumer dependent lifestyle that is increasing the rate of environmental degradation. China, for example, is transforming into a consumer-oriented society, and now is first in the production of coal, steel, and cement. It also has 16 of the world's 20 most-polluted cities. China's current economic downturn is being met by reducing the production of consumer goods for export, which is being replaced by greater investment in infrastructure projects—including the building of more coal-fired electrical generating (and carbon emitting) plants. These plants are being built at a rate of one very week or so. China has already consumed the forests of Thailand, Cambodia, and the Philippines—and at the current rate will swallow the forests of five neighbouring countries, including the forests of the Russian Far East within two decades. India, Brazil, as well as many other countries are also on the same consumer-oriented cultural pathway of development. Indeed, consumerism and the adoption of Western patterns of thinking and values are now associated with becoming modern and developed, and thus free of being stigmatized as culturally backward.

Since philosophers have a long history of ignoring how cultural belief systems impact the life-sustaining capacity of local ecosystems, the question that is likely to come up is: what relevance does this overview of the ecological crises have for assessing what is problematic about the Lakoff-Johnson theory of the embodied origins of our guiding metaphors? What is being overlooked by the scientists and engineers who are trying to develop more sustainable and less carbon producing technologies, and by the general public that has accepted that new technologies are the solution to the ecological crises, is that we need to change the metaphorical language that gave conceptual direction and moral legitimacy to the industrial-consumer oriented culture that has become a major contributor to overshooting the sustaining capacity of natural systems. Lakoff and Johnson got it right when they argued in *Metaphors We Live By* (1980) that all thought is based on metaphors, When they made the turn toward locating the source of metaphors in the embodied experience of the individual, which was motivated by their concern with the hegemony of abstract theory and language usage by mainstream Western philosophers, they lost sight of the more obvious and now ecologically important characteristic of language. That is, they ignored that words as metaphors have a history and that they carry forward the misconceptions and silences of earlier thinkers who succeeded in establishing the analogs that framed the meaning of

words over time. In effect, they failed to recognize that the industrial-consumer oriented culture that is now being globalized, and that is overshooting the sustaining capacity of the natural systems, is based on the metaphorical thinking of earlier thinkers who were unaware of environmental limits.

Before explaining how much of today's ecologically problematic thinking is based on what Gregory Bateson refers to as "double bind thinking," it is necessary to reproduce here the six basic assumptions on which the Lakoff and Johnson theory is based. In order to avoid any misrepresentation of their assumptions, the assumptions shall be presented as they appear in *Philosophy in the Flesh*.

Embodied Reason

- **Embodied Concepts:** Our conceptual system is grounded in, neurally makes use of, and is critically shaped by our perceptual and motor systems.
- **Conceptualization Only Through the Body:** We can only form concepts through the body. Therefore, every understanding that we can have of the world, ourselves, and others can only be formed in terms of concepts shaped by our bodies.
- **Basic-Level Concepts:** These concepts use our perceptual, imaging, and motor systems to characterize our optimal functioning in everyday life. This is the level at which we are maximally in touch with the reality of our environment.
- **Embodied Reason:** Major forms of rational inference are instances of sensorimotor inferences.
- **Embodied Truth and Knowledge:** Because our ideas are framed in terms of our unconscious embodied conceptual systems, truth and knowledge depend upon embodied understanding.
- **Embodied Mind:** Because concepts and reason both derive from, and make use of, the sensorimotor system, the mind is not separate from or independent of the body. Therefore, classical faculty psychology is incorrect.⁶

There can be no doubt that many of our metaphors have their origins in bodily experiences, as Lakoff and Johnson point out. Concepts such as up and down, back and forward, full and empty, and even the old British systems of measurement of inch, foot, yard, and mile can be traced back to bodily experiences. Also, their discussion of how

different experiences provide generative frameworks (schemas) for understanding activities, behaviours, and policies, where the already familiar becomes the model for understanding something new, has to be taken seriously. It needs to be pointed out, however, that their insight is only partially correct. Some of our concepts do have an embodied origin yet even these conceptual schemas will differ from culture to culture, depending on the culture's mythopoetic narratives or cosmology, or both. For example, while Lakoff and Johnson would attribute the concept that underlies the use of the personal pronoun "I" to the embodied experience of an individual, they overlook that this is a culturally constructed identity—one that can be traced back to the writings of post-medieval philosophers and political theorists. Instead of the "I want" and "I think" habituated pattern of thinking so prevalent in the West, there are profoundly different ways of understanding self which vary from culture to culture. Among the traditional Maori, for example, when a guest enters into the marea (the communal gathering place) she gives her name and then her lineage—followed by an explanation of her ties to the family or group she is visiting. If we consider the Quechua of the Peruvian Andes we find a different way in which this relational self is understood—which can be traced to their cosmovision that represents all aspects of life as interdependent and in constant communication—with plants, animals, and weather patterns communicating what the people's agricultural decisions should be. The key point is that Lakoff and Johnson repeat the silences about the influence of culture that characterizes Western philosophy. One of the consequences of perpetuating this hubris is that readers who take them seriously are not likely to recognize that we have much to learn from cultures that have developed in ways that enabled them to live within the limits and possibilities of their bioregions.

While Lakoff and Johnson also remain silent about the ecological crises, the consensus of the world's scientists is that we are within a few generations of a tipping point when changes in human behaviours will no longer be able to slow the rate of global warming. It is important, therefore, to consider whether the Lakoff and Johnson theory of the embodied basis of metaphorical thinking is useful for understanding why the dominant Western culture continues to promote an industrial-consumer dependent lifestyle when the evidence continues to mount that it is ecologically unsustainable. The other question that needs to be raised is whether their theory of the embodied origins of our concepts can lead to fundamental changes in ways of thinking and behaviours that have a smaller ecological footprint—including changes in our policies of economic and cultural colonization that prevent other cultures from revitalizing their traditions of self-sufficiency and mutual

support, traditions that are less dependent upon a money economy and that have a smaller ecological footprint.

The Lakoff and Johnson theory of metaphor fails to take into account that words have a culturally specific history. As metaphors whose meanings were framed by analogs established in the distant past by people who were unaware of environmental limits and other cultural knowledge and moral systems, these words continue to influence current thinking in ways that reproduce the misconceptions and silences taken for granted in earlier times. Albert Einstein was aware of this problem when he warned about the danger of relying on the same mindset that created the problem to fix it. “Double bind thinking” is the phrase Gregory Bateson used to describe this same problem, which he understood as the failure to recognize that the meaning of key words used today as the basis for understanding current problems and relationships were framed by the analogs established by earlier thinkers who were addressing issues in a different historical and cultural era.

The analogs that framed the meaning of words such as *intelligence*, *technology*, *tradition*, *individualism*, *property*, *freedom*, *woman*, *environment*, and so forth, can be traced back to earlier theories, powerful evocative experiences, and even to mythopoetic narratives such as those found in the *Book of Genesis*. For example, the limiting analogs that framed how the word *woman* was understood in the West over thousands of years did not arise out of the embodied/sensorimotor/neurally connected experience of today’s individual. Nor do today’s widely accepted understanding, especially within the academic community, of such words and phrases as *tradition*, *artificial intelligence*, *property*, and *enlightenment* have their origins in the subjective embodied experience of the individual. The analogs that continue to frame what is understood today as the meaning of these words can be traced back to earlier events and thinkers. To summarize a key shortcoming of the Lakoff and Johnson theory about the origins of metaphorical thinking: it cannot account for the linguistic colonization of the present by the past.

Nor can their theory clarify the dynamics of the linguistic colonization of other cultures. Indeed, if one gives careful consideration to their six key assumptions, it becomes impossible to explain the differences in cultural ways of knowing—including why some cultures have developed in ways that are more ecologically sustainable. For example, the collection of essays by Third World writers in Wolfgang Sachs’ *The Development Dictionary: A Guide to Knowledge as Power* (1992) provide examples of how such words as *development*, *market*, and *poverty*—whose meanings were framed by the analogs taken for

granted by Western thinkers—are understood as the language of cultural colonization. Gérald Berthoud summarizes the colonizing agenda in the Western use of *development*:

What must be universalized through development is a cultural complex centred around the notion that human life, if it is to be fully lived, cannot be constrained by limits of any kind.

To produce such a result in traditional societies, for whom the supposedly primordial principle of boundless expansion in the technological and economic domains is generally alien, presuppose overcoming the symbolic and moral ‘obstacles’, that is, ridding these societies of various inhibiting ideas and practices such as myths, ceremonies, rituals, mutual aid, networks of solidarity, and the like.⁷

Berthoud identifies the analogs that frame the Western idea of development by observing that it subjects Third World cultures to “the compelling idea that everything that can be made must be made, and then sold. Our universe (according the Western way of thinking) appears unshakeably structured by the omnipotence of technoscientific truths and the laws of the market.”⁸ The other essays in *The Development Dictionary* explain how key words in the modern vocabulary are not culturally neutral metaphors, but are part of the process of linguistic colonization that serves to legitimate economic colonization. And the combination of linguistic and economic colonization impacts the behaviour of individuals—even at the level of the individual’s “perceptual, imaging, and motor systems”—which is the reverse of the Lakoff and Johnson formula that represents bodily experiences as shaping the individual’s conceptual system.

There is another characteristic of metaphorical thinking ignored by Lakoff and Johnson that is critical to whether we are able to adopt a more ecologically informed way of thinking and behaving. The image (or iconic) metaphors they focus on as originating in embodied experiences, as well as image metaphors that come down to us from earlier times (which they do not recognize) are often framed by the prevailing root metaphors of the culture. According to Richard H. Brown, root metaphors are meta-cognitive schemata that are taken for granted and thus frame thinking in a wide area of cultural activity over years—even centuries⁹. They originate in the mythopoetic narratives of the culture, powerful evocative experiences that are sustained over generations, and from the processes of analogic-based theories by writers who were able to overturn older root metaphors.

In the West, patriarchy and anthropocentrism are examples of taken-for-granted explanatory and moral frameworks (root metaphors) that have not only framed how people think and behave, but also what they

ignore. Individualism and progress also are examples of root metaphors, and they can be traced back to various political theorists, evocative experiences ranging from the introduction of the printing press to the early successes of modern science. Mechanism is yet another root metaphor whose origin was not in the individual's bodily experiences, but originated from a combination of historical events—ranging from organizing the rhythms of daily life in accordance with the cycles of a mechanical clock, the successful applications of a mechanistic paradigm by scientists, to advances in medicine and other technologies such as computers. The explanatory power of the mechanism root metaphor used over hundreds of years can be seen in Johannes Kepler's (1571–1630) statement that “my aim is to show that the celestial machine is to be likened not to a divine organism but to a clockwork”; in Marvin Minsky's (early leader in the field of artificial intelligence) statement that “our conscious thoughts use signal-signs to steer the engines in our minds, controlling countless processes of which we're never much aware of”; in Richard Dawkin's reference to the body as a “survival machine”; in E. O. Wilson's reference to his brain as a machine; in the current way of identifying a plant cell as possessing a “powerhouse,” “a recycling centre,” and “a production centre”; and in today's widespread references to the brain as like a computer.

As meta-cognitive explanatory frameworks guide thought and behaviour at a taken-for-granted level of consciousness, they exercise a profound influence on many aspects of culture—and thus on the embodied experiences of the individual. For example, the root metaphor of patriarchy established the analogs for understanding the identity and behaviour of women in ways that were highly restrictive. It exercised this control over centuries until recently when the word *woman*, in some sectors of society, became associated with a wide range of new analogs such as engineer, artist, doctor, politician, and so forth. We could take other mutually supportive root metaphors in the West and trace how they create areas of silence, limit the vocabulary to what is conceptually and morally coherent with the root metaphor, and thus control the discourse that frames how political problems are understood and the approach to resolving them. What is especially important about these Western consciousness-shaping root metaphors is that they gave conceptual direction and moral legitimacy to the industrial-individually centred-consumer-dependent lifestyle that has been a major contributor to global warming and to the economic exploitation of the environment.

As fisheries disappear, droughts become more widespread, storms more violent, and sources of potable water increasingly scarce and contaminated, the embodied experiences that Lakoff and Johnson want to claim as the source of concepts and inferences are unlikely to lead to

an awareness that everyday life is being impacted by a symbolic ecology that is still being reinforced at every level of the educational process— and by the media, political pundits, and even by many environmentalists. Embodied experience alone will not provide the conceptual and linguistic capital necessary for recognizing the double bind thinking that limits our ability to renew the intergenerational patterns of self-sufficiency and mutual support that represent alternatives to the industrial-consumer lifestyle—a lifestyle that is moving us closer to the tipping point and that will have huge consequences for the embodied experience of the individual—such as social chaos, starvation, and toxic chemical-caused illnesses and death. What is ironic, especially since the new root metaphor of evolution is now being used to explain how cultural patterns (memes) are subject to the same process of natural selection, is that it is being promoted by professors who are unaware that when evolution is turned into a root metaphor that supposedly explains the symbolic world of culture it supports the liberal market ideology that, in being globalized, is exacerbating the ecological crises.

While Lakoff and Johnson claim that “our conceptual system is grounded in, neurally makes use of, and is crucially shaped by our perceptual and motor systems,” it turns out that their writings and ways of understanding political issues have been heavily influenced by the root metaphors they take for granted—and of which they are not explicitly aware. For example, Johnson responded in a letter to my earlier criticism of Lakoff’s lack of historical accuracy and misuse of our political categories by claiming that there is nothing problematic with Lakoff’s reference to environmentalists as progressives. The point to keep in focus is that Johnson’s association of environmentalism with the forces of progress and Lakoff’s reliance on the same political language that underlies the cultural forces that are pushing the world beyond what the ecosystems can sustain is that their concepts are not derived from their own embodied experiences. If they had done an ethnographic description of their own embodied experience (or what Clifford Geertz calls “thick description”) they would have found that their use of the context-free vocabulary of freedom, individual autonomy, and linear progress are derived not from their own experience but from the reification of analogs derived from Enlightenment thinkers that are reproduced in the languaging and socialization processes. A self-focused ethnography would lead to a different vocabulary, one that takes account of how the description of embodied experiences foregrounds the many biological and cultural conserving processes. This includes the language and thought patterns derived from the past, the temperamentally conserving of what one is

comfortable with in food, conversations, friends, of how their own DNA and RNA conserves physical traits that are intergenerationally connected, and all the taken-for-granted cultural patterns that sustain everyday life. In effect, a description of embodied experience that is not distorted by ideology and the formulaic use of language would be a description of conserving biological and cultural processes and patterns—with only minor ethno-biographic differences.

Lakoff, in particular, is unable to rely on his own theory when it comes to justifying his political preferences, and to stigmatizing his political opponents. In his *New York Times* best-selling book, *Don't Think of an Elephant: Know Your Values and Frame the Debate* (2004) Lakoff makes an important contribution to understanding how the use of language frames what is given attention and what is marginalized in today's political discourse. He makes the point that language is not politically neutral. Instead, the group that is able to establish its preferred vocabulary (including its silences and metaphorically based prejudices) will control the policies that are conceptually consistent with its language. In effect, a group cannot achieve its own political goals if it is forced to think in the opponent's language.

Instead of following what is derived from his own embodied-based reasoning, Lakoff adopts the Orwellian vocabulary that is now current at every level of American political discourse. This discourse labels as conservatives the market liberals who derive their ideas about free markets and the invisible hand from the abstract theories of classical liberal thinkers—and the religious fundamentalists who derive their guiding principles from the equally abstract idea that the Bible, which has undergone many translations, represents the actual word of God. Lakoff's historically uninformed thinking leads to identifying as progressive the social groups concerned with conserving our civil liberties (the American Civil Liberties Union), the environmentalists working to conserve species and habitats, the people who translate their religious traditions into social justice activism, and ethnic groups working to sustain the connections between their identities and their traditions.¹⁰

Lakoff also labels as conservatives the CATO Institute, the American Enterprise Institute for Public Policy Research, and the Hoover Institute. If he had checked out their websites, rather than relying on popular misconceptions, he would have found that all three identify the expansion of free markets, individual freedom, and a strong defence as their primary political agenda. He would have found the following on the website of the CATO Institute: “‘Conservative’ smacks of an unwillingness to change, of a desire to preserve the status quo. Only in

America do people seem to refer to free-market capitalism—the most progressive, dynamic, and ever-changing system the world has ever known—as conservative.”¹¹ Lakoff is old enough to remember Ronald Reagan introducing the General Electric weekly television program where the GE mantra, “Progress is our most important product” served as the analog the public was to identify with GE technologies. Surely, he is aware that the techno-scientific industrial culture has always claimed the role of being the primary progressive force in society. It has only been in recent years that, out of widespread ignorance that can be partly attributable to the failure of universities to introduce students to the historical roots of current ideologies, that the ever-changing system of free-market capitalism has been labelled as conservative.¹²

As pointed out, one of the characteristics of a root metaphor is that its supporting vocabulary does not include the words that enable the basic taken-for-granted cultural assumptions upon which it rests to be questioned. In the case of the root metaphor of progress, the two words that are either proscribed or mis-represented are *tradition* and *conserving*. By relying upon the root metaphor of progress to frame his analysis of liberalism and conservatism, Lakoff falls into the conceptual trap of letting the root metaphor of progress dictate what should not be questioned: namely, whether interpreting all forms of change as the expression of progress is partly responsible for undermining the traditions that should be conserved such as *habeas corpus*, the United States Constitution, and the Bill of Rights. Since the early days of the 1900s, there has been a movement to conserve the environmental commons, which includes what remains of the natural systems that have not been taken over by private and corporate ownership and turned into market opportunities (which is considered by market liberals as progress). The cultural commons, which both Lakoff and Johnson could have made the focus of their discussion of embodied knowledge, includes the intergenerational knowledge, skills, and mutually supportive relationships that enable people to live more community-centred and thus less money dependent and less environmentally destructive lives. Yet it is these communities that are sources of resistance to the market system that the CATO Institute celebrates as the engine of progress. In short, by uncritically accepting an interpretative framework (root metaphor) that can be traced back to the seventeenth-century shift in Western consciousness, Lakoff abandons his own prescriptions for how to account for “Embodied Reason.” In lacking an historical knowledge of the origins of philosophical conservatism, which led to our checks and balance system of government, and of the abstract theories of classical liberalism, Lakoff unknowingly aligns himself with the environmentally destructive and

cultural colonizing forces of the market liberals who promote progress as though it is a law of nature.

The questions that should be asked about the Lakoff and Johnson theory of the embodied reason and the embodied origins of metaphorical thinking go far beyond their inability to abide by their own guiding assumptions. The deeper problem is their lack of awareness that we are not only at a tipping point in terms of the rate of environmental changes, but also at a tipping point as to whether humankind can move beyond the myths that underlie the individualistic/consumer-oriented/industrial culture. The tipping point, in effect, involves the choice of following the current cultural agenda of economic globalization that is being adopted in many regions of the world or revitalizing the local cultural and environmental commons that represent a post-industrial consciousness based on the ancient root metaphor that defines the biological and cultural renewing processes as an ecology. Fortunately, many environmentally oriented scientists have moved beyond the mechanistic root metaphor by learning to think of the natural world as living ecologies, and many Third World cultures have not entirely lost their ecologically informed traditions.

The main challenge will be for philosophers and social theorists, such as Lakoff and Johnson, to explain the dangers of accepting without question the root metaphors that were constituted before there was an awareness of ecological limits and to explain, in ways that can be widely understood, how our everyday vocabulary in the West needs to be framed by analogs that are culturally and ecologically informed. Given their unquestioning embrace of the root metaphor of progress and their commitment to assuming that embodied experience is the primary source of the metaphors that guide thought and behaviours, it is doubtful that their contribution will be little more than yet another distraction as we move closer to the ecological tipping point. Perhaps if they were to start not with the embodied experience of the supposedly autonomous individual, but with the individual's culturally mediated embodied experience, they would have the conceptual opening for considering the influence of culture, the role of language in the cultural construction of identities and ways of thinking, the impact of diverse cultures on embodied experiences, and the ecological implications of doing a "thick description" or personal ethnography of the interdependencies within the local cultural commons. This would have represented a genuine departure from the silences and hubris of most Western philosophers.

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Notes

¹ Lakoff and Johnson 1999, p. 555.

² Bateson 1972, p. 318.

³ Lakoff and Johnson 1999, p. 555.

⁴ Brown 2008.

⁵ Kolbert 2006.

⁶ Lakoff and Johnson 1999, p. 555)

⁷ Berthoud 1992, p. 72.

⁸ *Ibid.*, p. 71.

⁹ Brown 1977, p. 125.

¹⁰ Lackoff 2004, p. 14.

¹¹ CATO Institute website <http://www.cato.org/about.php>

¹² Hartz 1955.