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Metaphors of Knowledge and their Effect on the Humanities

In laying out his concept of postindustrial society, Daniel Bell says that in the United States "nearly fifty per cent of GNP, and more than fifty per cent of wages and salaries, derive from the production, processing and distribution of information goods and services. It is in that sense that we have become an information economy" ("The Social Framework" 521). Such an economy turns information, or knowledge, into a commodity, to be traded on interconnected economic, political and intellectual markets. The equation of knowledge and commodity is somewhat like a statement such as "a tabby is a cat" and somewhat like a statement such as "Johnny is a cool cat." That is, it skirts the borderline between the literal and the metaphorical, while seeking, in this case, to veil the statement's metaphorical aspect so as to conceal the theorist's acceptance of a functionalist and instrumentalist ethos. The fact that the statement "knowledge is a commodity" is so easily accepted as a fact rather than a metaphor suggests how powerful metaphorical language can be in controlling all aspects of "knowing."

Although metaphor is often considered an ornament of thought, there is good reason to conceive of it, instead, as thought's ground and determinant. The observation of metaphors overt and implied is important to understanding all aspects of meaning. It is especially important when one seeks to understand knowledge, that is, to understand the kind of action and thing referred to in the statement, "I know something." The process and act of knowing, which eventually produces knowledge of all types, is always carried out under the aegis of a metaphor. We are aware

that we are being metaphorical when we use "I see" as an analogy for "I understand," but we are less aware that systems of knowledge are conceptualized and even created in terms of dominating metaphors.

An examination of the metaphors that underlie or inform (to escape metaphor by any turn is impossible) various formulations of knowledge shows, first, that historical shifts in knowledge regimes are real and important and, second, that in particular periods and in particular texts different metaphors for knowledge often co-exist, sometimes colliding so as to throw our confidence in knowing into disarray. In this essay, I will suggest that two important metaphors, one dominant, the other residual, are now in conflict in the fields of study that we refer to as the humanities. This conflict leads to confusion over the value of the humanities and doubt about what they can be expected to do in and for contemporary society. I will also suggest that a new metaphor is emerging, one that may to some degree synthesize the conflicting aspects of the two metaphors now dominant and provide a foundation for humanities programs that are more confident about their worth and clearer about their purposes.

The work of the linguist George Lakoff demonstrates the central place of metaphor in the creation of meaning and provides the tools for a historical study of dominant metaphors. His 1980 collaboration with Mark Johnson, *Metaphors We Live By*, argues for metaphor's inseparability from meaning, while his important 1987 study, *Women, Fire, and Other Dangerous Things*, a summary of recent findings in cognitive science, points to the metaphor for knowledge that seems to be undermining and replacing the currently dominant one.

In *Metaphors We Live By*, Lakoff and Johnson argue that metaphor plays a larger role in the creation of meaning than is normally understood. Neither traditional nor contemporary theories of meaning give it a major role in understanding, yet linguistic evidence shows that "metaphor is pervasive in everyday language and thought" and that "our ordinary conceptual system is metaphorical in nature" (ix). The type of metaphor which informs and controls the understanding of a particular idea Lakoff and Johnson call a "conceptual metaphor." They give the example "argument is war," as in such common formulations as "He *attacked every weak point* in my argument." To show the significance of

this seemingly arbitrary choice of metaphor they ask the reader to consider the following:

> Try to imagine a culture where arguments are not viewed in terms of war, where no one wins or loses, where there is no sense of attacking or defending, gaining or losing ground. Imagine a culture where an argument is viewed as a dance, the participants are seen as performers, and the goal is to perform in a balanced and aesthetically pleasing way. In such a culture, people would view arguments differently, carry them out differently, and talk about them differently. (4-5)

As this example suggests, the choice of a conceptual metaphor determines not just the way we talk about things, but the way we act. If it comes to seem self-evident, because of the barely conscious use of metaphor, that an argument is a form of war, then the possibility of viewing it as a dance—and behaving accordingly—is unlikely to enter anyone's mind. In fact, any metaphor's power is largely dependent on its ability to block other choices. In so doing, it becomes "literal" in the sense that it influences behavior as well as emotional responses, a point made famously by Susan Sontag in *Illness as Metaphor*. Once the choice of a metaphor has become a "natural" part of the language—a process that often makes a metaphor "dead," i.e., no longer registered as metaphorical—it can be very difficult to dislodge. Common conceptual metaphors are part of the power relations of a society because, like myth in Roland Barthes's sense, they make certain attitudes and ideas seem natural and inevitable; only a change in the material base and then the ideological superstructure of a society can effect a change in its naturalized metaphors.

The "choice" of metaphor (which is determined by complex forces) can affect what is considered knowledge, the mode through which knowledge is attained or created, and, consequently, the ideologies and practices of educational institutions. Before considering the effect, on the contemporary university, of the currently dominant metaphors for knowledge, I will briefly review those that have been most significant in the Western intellectual tradition.

At least before the rise of science in the sixteenth and seventeenth centuries, three metaphors dominated this tradition: knowledge is seeing, knowledge is hearing, and knowledge is discovering or remembering

origins. Since the first of these is the longest lasting and most influential, I will deal with the other two briefly first.

In *The Life of the Mind*, Hannah Arendt gives an excellent commentary on the metaphors of sight and hearing. Although she recognizes that light metaphors are important in both the Old and New Testaments, she argues that for the Jewish and Christian traditions, the crucial metaphor is *hearing* the voice of God. "The Hebrew God can be heard but not seen," she says, "and truth therefore becomes invisible" (119). Understood in terms of this metaphor, God's words demand first obedience, then action. The metaphor discourages contemplation in and for itself, and leaves the seeker after knowledge in a dependent and inferior position vis-à-vis God, who is the only source of truth.

The third knowledge metaphor mentioned above, of great importance to all cultural periods and dominant in some, is an equation between knowledge and origins; that is, to know something is to trace it back to its beginnings. This might be thought of as a compound metaphor, involving an analogy between the process of birth and the process of coming to know (both of which are associated with the concept of "coming to light"). Knowers as different as shamans, Aristotle and Darwin have depended on this dense image. I will not discuss this metaphor further, but we should keep in mind its great importance for the evolutionary theories of the nineteenth century and its continuing use by those who, in defending the humanities, emphasize the role of disciplines such as literature, philosophy and history, in preserving a culture's links to its origins and to its foundational principles.

In her account of the major epistemological metaphor structures in Western thought, Arendt rightly gives pride of place to the "knowing is seeing" metaphor. "The unquestioned priority of vision for mental activities . . .," she says, "remains absolutely decisive throughout the history of Western metaphysics and its notion of truth" (101). In her account of the advantages of sight as the guiding metaphor for the thinking mind, Arendt draws on the philosopher Hans Jonas, who makes three interesting points. First, no other sense "establishe[s] such a safe distance between subject and object," with the result that knowledge appears objective. Second, sight provides what Jonas calls a "co-temporaneous manifold," that is, an immediate apprehension of the whole which gives the viewer superiority over, as well as distance from, what

is seen. The "seer" enjoys a certain freedom because of this combination of distance and instantaneous comprehension. Third, Jonas shows that if hearing is chosen as the metaphor for thinking, the listener/knower is dependent upon and therefore bound by the unfolding of a truth moment-by-moment in time. When sight is the dominant modality for gaining access to truth, some of the restrictions of time can be avoided: the present moment is not the "point-experience of the passing now" but becomes detached from the flux as "a lasting of the same" (111-12).

In summary, then, Jonas argues that sight paradoxically reveals the causes that underlie appearances; it distances the knower from the object of her knowledge; and it helps the mind to conceive of the eternal or the permanent. A further result of adherence to the "knowledge is vision" metaphor, which Arendt herself adumbrates, is that knowledge or truth is considered "ineffable by definition" (119): the search for truth leads to a vision that is suggested by words, especially metaphors, but is never fully expressed by them. Arendt quotes Heidegger in support of this point: ". . . the basic meaning of Plato's dialectic [is that] it tends towards a vision, a disclosure" (118). I would add that the ability of words to be both heard and, when written, seen makes the "knowledge is vision" metaphor exceptionally paradoxical: truth is seemingly self-evident because the object contemplated stands before the eyes of the mind as words stand out on a page, but the vision of the "co-temporaneously" (Jonas) apprehended truth cannot be communicated. Examples of this paradox appear frequently in the "humanistic" tradition, such as Spenser's appeals to completion and wholeness through vision in *The Faerie Queene* and Northrop Frye's evocations of the reading ineffable in the conclusions of so many of his works.

The truth of the Greek philosophers, its visual basis positing a perceiver who stands apart from the truth at the very moment of beholding it, necessitates a delay between seeing and acting and allies itself with contemplation, even if the moment of insight eventually leads to virtuous action. Whereas the Hebrew and Christian traditions emphasize knowledge based on faith, they of course eventually absorbed some of the Greek philosophers' emphasis on reason as the source of truth. The rationalist approach to truth, which has always depended on the light or sight metaphor, reached its apogee in the Enlightenment, and is now under strenuous attack. It is hardly surprising that, as Martin Jay has

shown in his comprehensive 1993 study of the denigration of vision in twentieth-century French thought, the attack involves an undermining of the sight metaphor itself (*Denigration of Vision*).[1]

The kinds of truth enabled by the sight metaphor can and have come to be considered as instances of blindness. When what the metaphor hides rises to consciousness—by whatever mysterious process—the "revelations" that it provided become untrue or simply irrelevant. The paradoxical connection between truth and the ineffable is a major reason why the sight metaphor is hard to separate from "elitist" views of knowledge. The "lover of wisdom" is led to a vision of the truth which remains partly inexpressible to the unknowing, and the gap between those who know and those who don't can ultimately be crossed only by a leap of faith. The recently popular deconstructive philosophies, especially those of Foucault, Derrida and De Man, are intended to demonstrate the will to power buried in Plato's claim to a hermetic knowledge available only to the self-defined philosopher. Derrida's notion of "speech" refers to a truth made present by the force of speech (although the speech may later be written down) but dependent on the metaphor of vision on which Heidegger commented. Derrida's "writing," on the other hand, is a metaphor for the differences which create meanings but make impossible the creation of a single, "full" meaning. Both vision, and speech in Derrida's sense, are signs for transcendental knowledge, for precisely the kind of knowledge which is denied not only by "nihilist" philosophers but by everyday relativism. The attack on the Platonic tradition which has been so important to the humanities as they have traditionally been understood is partly the result of a democratic impulse to accept everyone's truth as equally valid—with the corollary that no single truth is likely to be acceptable to all. The epistemological chaos that has threatened to overtake the hoped-for certainties of the Enlightenment has demanded a new way of judging truth, a way that can best be characterized as instrumental. For these and other reasons, in spite of its survival in ordinary speech, the sight metaphor has lost out as the basis of both philosophical and everyday understandings of knowledge.

The implication of theories of metaphor such as that of Lakoff and Johnson is that the decline of one dominant metaphor is bound to lead to the rise of another. I have just described both the importance and the problems of the sight metaphor. As it faded, then, what took its place?

Let us start again with Arendt, who not only records its decline, but gives hints as to its successor:

> Since Bergson, the use of sight metaphor in philosophy has kept dwindling . . . as emphasis and interest have shifted entirely from contemplation to speech, from *nous* to *logos*. With this shift, the criterion for truth has shifted from the agreement of knowledge with its object—the *adequatio rei et intellectus*, understood as analogous to the agreement of vision with the seen object—to the mere form of thinking, whose basic rule is the axiom of non-contradiction, of consistency with itself. . . . (122)

Arendt's new "criterion for truth," based on "the axiom of non-contradiction, of consistency with itself," involves a new metaphor, which has indeed been dominant throughout most of this century. Knowledge is now conceptualized as the understanding and manipulation of a *code*, which I would define as a set of signs ordered so that systematic differences in the constituent signs allow for the creation and transmission of messages. The elements of a code are limited, and its functional differences (in a language like English, for example, the differences between individual consonants and vowels with a vowel/consonant set of twenty-six letters) are small and arbitrary, but the messages it can form are complex and, for practical purposes, unlimited.

The connection between knowledge and code is not, of course, new; forbidden knowledge of various sorts has long been thought to be encoded in secret signs known only to adepts. Science, especially in the earlier phases of its rise, was often equated with magic and feared because of the power it gave to those who understood nature's code; gradually scientists came to understand that mathematics was the master code that would render comprehensible the workings of the universe. What is new is the extension of the code metaphor to so many areas of knowledge and the concomitant rise of linguistics to the position of paradigmatic science. In *Grammatical Man*, the title of which points to code-making as the characteristic human trait, Jeremy Campbell comments:

> The modern revolution in linguistics, which began in the 1950s, roughly contemporaneously with the discovery of the genetic code, was an attempt to investigate the universal principles of all languages using a similar

route, delving down beneath the surface of spoken sentences to the hidden, abstract structure underlying them. (160)

The revolution in linguistics might well be thought to have occurred earlier in the century than Campbell allows, with the work of Ferdinand de Saussure, but the link between linguistics and biology that Campbell notes is not incidental. The discovery of the genetic code—which the title of a recent book refers to as *The Code of Codes*—involved not only the registering of new "facts," but, more fundamentally, entailed the use of a new metaphor: the genes that control life processes operate like a language. The implication was that if the elements of the code (individual genes) could be manipulated, then so could the messages that the code transmitted to organisms which it both created and controlled. Lakoff's and Johnson's emphasis on the literal quality of a conceptual metaphor is strikingly relevant here. Once biological knowledge is conceptualized as a code, the literal result is power over life itself. As the reader no doubt understands, it is not that the adoption of a new metaphor *causes* what the philosopher of science Thomas Kuhn called a paradigm shift, but that any major change in understanding is accompanied by and expressed in new conceptual metaphors, which then serve to maintain the new paradigm.

As the case of the discovery of the genetic code in biology suggests, the paradigmatic status of linguistics and the regime of the code metaphor have influenced many areas of knowledge, including in particular computer science and the disciplines, such as literary studies, history, sociology and anthropology, which have been affected by the new meta-discipline of semiotics, itself an extended version of linguistics. The knowledge produced by these disciplines is based on the assumption that the laws of both nature and man exist as codifications, that is, as coherent systems. As I have said, this is not a new idea. What is new is the assumption that the most important kind of knowledge is not "transcendent," as both the sight and hearing metaphors tend to take for granted, but remains in the code itself. The sovereign knowledge is now knowledge of the rules governing the creation of codes. Daniel Bell makes this point in his famous study of post-industrial society:

. . . knowledge has of course been necessary in the functioning of any society. What is distinctive about the post-industrial society is the change

in the character of knowledge itself. What has become decisive for the organization of decisions and the direction of change is the centrality of *theoretical* knowledge—the primacy of theory over empiricism and the codification of knowledge into abstract systems of symbols that, as in any axiomatic system, can be used to illuminate many different and varied areas of experience. (*The Coming of Post-Industrial Society* 20)

Clifford Geertz makes a similar point:

> Something is happening to the way we think about the way we think. . . . The move toward conceiving of social life as organized in terms of symbols (signs, representations, *signifiants*, *Darstellungen* . . . the terminology varies), whose meaning we must grasp if we are to understand that organization and formulate its principles, has grown by now to formidable proportions. ("Blurred Genres" 165-79)

Like Arendt's "mere form of thinking," Bell's "abstract systems of symbols" and Geertz's "symbols" are clearly similar to what I am calling codes.

Although the code metaphor is more obviously connected to scientific and scientistic discourses, its methods and implications have infiltrated the humanistic discourses as well. Because it is dominant in our contemporary knowledge-based society, the code metaphor imposes itself on the humanities, but it is often resented because of its lack of congruity with the traditional metaphors that I have been describing. Those who live by codes, such as nuclear scientists and geneticists, create great power, but they share with the rest of society the strange sense of powerlessness about what to do with that power. The humanities are sometimes expected to provide the "higher" or synthetic knowledge that might guide the acquisition of practical knowledge, but they must struggle to do so because older forms of truth, such as myth, poetry and religion, with which the truth claims of the humanities are still connected, have been marginalized in the modern university as they have in modern society at large.

The main charge that has been made against the code metaphor, especially in regard to its infiltration of the humanities, is its assumption that instrumental reason deserves authority over all other forms. Both the Enlightenment and the Industrial Revolution encouraged the idea that knowledge is good for what it can *do*; the desired knowledge is that

which gives power over nature and society. The reading of both as a series of codes to be deciphered has been dazzlingly "successful," as has the organization of post-Enlightenment society according to a series of bureaucratized codes or discourses. Yet as so many thinkers have shown, the price to be paid for this success is high, involving the separation of knowledge from truth, if truth is understood as a reality anchored in God, nature or a trans-temporal humanity. A code runs alongside reality, so to speak, and often, as in the case of science, has an uncanny ability to affect it, but the code is self-referential and cannot be taken as a revelation or manifestation of that reality.

The Marxist literary critic Fredric Jameson, who like Geertz, has made profound use of the code metaphor, nevertheless recognizes how it threatens the truth-content of the humanities. He remarks that contemporary interpretative strategies, such as deconstruction, have established

> the methodological hypothesis whereby the objects of study of the human sciences . . . are condensed to constitute so many texts which we *decipher* and *interpret*, as distinguished from the older views of those objects as realities or existents or substances that we in one way or another attempt to *know*. (*Prison House of Language* 205)

Jameson's phrasing suggests that "knowledge" is an archaic concept, now replaced by "deciphering" and "interpreting," the principal aspects of decoding. Recalling the dead metaphor buried in the term "code" suggests the same point. The Latin "codex" originally meant "trunk of a tree," then "split block of wood," and "tablet of wood covered with wax on which the ancients wrote, book, writing." "Code" records a transformation from organic to abstract systems, which makes it a problematical sign for knowledge. It enacts the history of its own alienation: the living tree, which allowed the word to live, now designates the written, the encoded, and therefore the dead.

Yet, the humanities have hardly refused the code metaphor. In spite of the fact that the humanities disciplines have recognized the dangers connected to the abandonment of the metaphor of enlightenment, as well as those of the divine or divinely inspired word and of origins, upon which their traditional authority has been based, they have nevertheless, and perforce, allowed the code metaphor to affect their understanding of the type of knowledge they can produce and impart. Giving up claims to

absolute or transcendental knowledge, the humanities offer instead, in a spirit of modest co-operation with social needs, "critical skills," (a humble form of decoding) or (less humbly) meta-decodings such as semiotics, which give students in the humanities a perhaps short-lived superiority complex. Why have the humanities submitted, or been forced to submit, to the hegemony of the code metaphor?

One possible answer is that just as the sight metaphor is connected to a type of knowledge belonging fundamentally to the individual philosopher or knower, even if such individuals sometimes join together in academies or universities, so the code metaphor finds its natural place in modern bureaucratic institutions. These include the contemporary university, which provides the kinds of knowledge needed by other bureaucracies, whose employees, especially their managerial employees, must be skilled in the manipulation of codes. Such employees may possess "real" knowledge as articulated and organized by particular codes, such as those formulated in computer science. But even more important, they are imbued with the *belief* that knowledge is the understanding and manipulation of codes.

In a society dominated by the demands of technology, two connected attitudes are desirable in managers. First, the assumption that knowledge is a matter of en- and de-coding results in an emphasis on the skills needed to shift quickly from one code to another. Second, the relativizing of codes prevents any particular code or belief system from becoming dominant (except the belief in technological and bureaucratic efficiency). The type of manager needed by modern bureaucracies must accept that codes are the principal form of knowledge (even if he or she is ignorant of any particular code, responsibility for which lies with various skilled or expert workers), must believe that systems should be switched when one is obsolete, and must refuse to allow commitment to one way of doing things to get in the way of the smooth functioning of the system as a whole.

To provide such employees, many disciplines within the university, especially the humanities, have built students a number of "approaches" to a particular subject or text and reward those students who handle these approaches self-consciously and flexibly. One approach may be presented as preferable to another, but there is an overall emphasis on "critical" detachment. Those students who have difficulty manipulating the codes,

partly because they are mired in the social pieties and clichés imparted to them at earlier stages of their education (a necessary process, of course, if there is to be social consensus), get the lowest grades. Those who manipulate them with some skill but without gaining much sense of their social functions become middle managers. Those who get A's, partly because they have learned and retained information and partly because they have learned to see things "from a number of perspectives," become upper managers, doctors and lawyers. Finally, those whom their professors think of as "really bright," because they have cracked the Marxist, deconstructionist, and other codes that in turn serve to crack the dominant codes of modern society, go on to become professors themselves. Such a position renders the social critique that they have learned largely inoperative in terms of social action.

This analysis of critical discourse within the university suggests (one) reason why Marxism thrives there and hardly anywhere else in society: the professors who are classroom Marxists have found the most obvious means of critiquing capitalist society, but they have not always realized that the latest stage of capitalism has in fact co-opted that critique and found a very good use for it. "Subversive" academics are harmless as far as the dominant business and political elite is concerned, but they are useful for encoding the next generation of managers with the attitudes to codes needed by an industrial market economy and the bureaucratic structures, both private and public, that accompany it. Even a deconstructionist critique, for example, which isolates the points at which supposedly coherent codes reveal their contradictions and which breaks down the binary oppositions on which such codes are based, serves in part to makes students aware of the importance of understanding codes while keeping their distance in terms of claims to "truth." Like Marxism and other critical theories, deconstruction is always in danger of becoming merely parasitic on the dominant codes which it has set out to break.

The discussion so far has shown that the code metaphor is important in the humanities and has suggested some of the reasons why this is so. Needless to say, such implications of the code metaphor as I have outlined are rarely articulated within the university. More often, defenders of the humanities attempt to reconcile the ideals of the old metaphor structures with the assumptions implicit in the code metaphor. An

example is the editors' directive to undergraduates in a fairly popular anthology of literature called *The Lexington Introduction to Literature*:

> . . . Men and women are interpreting beings. . . . We do so among texts, codes, and languages that always have been read and interpreted by many others before us. . . . What we have traditionally privileged as literature offers us concentrated and moving opportunities to make discoveries about ourselves, as we struggle to find meaning amid the codes of our culture. The more self-conscious we become about the forces—textual, psychological, social, cultural—that influence our reading, the stronger readers we shall become, both of literary texts and of the texts of the wider world that literature enables us to read and reread. (23-24)

These writers accept the point that I have been arguing: that knowledge today is most frequently understood as an imposing and exposing of codes. But they also want to hold on to the traditional view that the most valuable knowledge is self-knowledge, an assumption that the code metaphor works to undercut.

Furthermore, their formulation of self-knowledge depends on a number of quasi-metaphorical assumptions already implicit in the concept of "self:" that the self is a coherent and indivisible existent; that the self is "known" by something outside it. Yet because of the questionable assumptions on which the common idea of self are based, the term self-knowledge can easily come to seem like a mixed metaphor. The slipperiness of the editors' language in the above passage betrays their difficulty in bringing the concepts of reading codes, on the one hand, and of gaining self-knowledge, on the other, into coherent relation. They seek meaning "amid" the codes of culture, yet where is "amid"? One can imagine meaning *in* the codes, or *in* the mind, but the phrasing here suggests just the despairing conclusion (knowledge is nowhere) that the editors wish to avoid.

They also suggest that "the more self-conscious we become" about ideological influences the more we are able to be "strong readers." By the latter phrase they mean interpreters who have a definite "angle" on the text, an interpretative "position" which recognizes that there are many possible readings and that one's own must stand out in order to be noticed. The "strong" reader is also, however, one capable of adopting a range of "approaches" in order to decode a text. That is, he or she can

"apply" Freudian, Lacanian, Marxist, structuralist, functionalist—the list is long—frameworks to a text in order to stabilize, at least temporarily, its meaning. The problem is that the very emphasis on reading undermines the concept of self: the "self" momentarily crystallized by the interpretation is temporary, contingent and relative to all the other positions within the interpretative field. Instead of a core self, which in a number of formulations has been the basis of self-knowledge, we now have self-consciousness and skill in the manipulation of discrete "knowledges." The editors of *The Lexington Anthology* hope that the new paradigm of knowledge and the code metaphor on which it is based can be painlessly united with traditional forms of self-knowledge. In fact, however, the old and new understandings are irreconcilable. Knowledge based on insight, which demands a core self that can "see," is very different from knowledge based on decoding, which does not. The code metaphor in general tends to break down the humanistic conception of the self to replace it with a detached observer, a mind which hovers over the system it is examining but finds itself inevitably and disorientingly structured and limited by that very system. Any new metaphor which might attempt to "save" the knowing self would have to accept restrictions on its Cartesian autonomy while resisting the impulse to make the self an ideologically motivated myth, as so many recent thinkers have argued that it is. Is there any sign that such a self-saving metaphor is emerging? Is it possible to conceptualize knowledge in a new way?

The answer, I think, is yes. Codes obviously cannot be given up, any more than we are likely to give up, for everyday use, the notions of "seeing" and "hearing" the truth. But there are indications that a new structural metaphor is beginning to appear, one that brings with it a different concept of the self and that can even be thought of as synthesizing the partial truths of the conflicting metaphors that I have just discussed.

George Lakoff's major work, *Women, Fire and Dangerous Things: What Categories Reveal About the Mind* (1987) is a study of recent findings in cognitive science. In it, he suggests that we are in the midst of a paradigm shift in the understanding of thinking, a shift that is being accompanied by the development of a new metaphor for the mind and hence for knowledge.

Lakoff calls the view of thinking that is now being superseded "objectivist." His list of the assumptions of this view, of which I give the first two, indicates its characteristic metaphors:

— Thought is the mechanical manipulation of abstract symbols.
— The mind is an abstract machine, manipulating symbols essentially in the way a computer does, that is, by algorithmic computation. (xii)

Clearly, this is the concept of mind that underlies the use of the code metaphor. Lakoff is aware that other metaphors of mind have been influential, in particular the "mind is a lamp" metaphor made popular by the Romantic poets. This view traditional counterview of the mind he calls subjectivist. The research of cognitive scientists and his own work in linguistics lead Lakoff to the conclusion that both the objectivist and the subjectivist views of thinking are false.

The view of the mind that now appears to have greatest empirical support Lakoff calls "experientialism" or "experiential realism." Describing this in a recent interview, he says:

[Experientialism] holds that meaning depends upon the fact that you are part of the world and constantly interacting with your environment as a part of it; that you only construct and always exist in history; that your conceptual system is constrained by your biology, physical and cultural environments and your history. (Lakoff interview, *Open Letter* 18)

In *Women, Fire and Dangerous Things*, Lakoff gives a list of the characteristics of thought as understood by experientialism:

— Thought is embodied, that is, the structures used to put together our conceptual systems grow out of bodily experience and make sense in terms of it—moreover, the core of our conceptual systems is directly grounded in perception, body movement, and experience of a physical and social character.
— Thought is *imaginative*, in that those concepts which are not directly grounded in experience employ metaphor, metonymy, and mental imagery, all of which go beyond the literal mirroring, or *representation*, of external reality. It is this imaginative capacity that allows for "abstract" thought and takes the mind beyond what we can see and feel. . . .

— Thought has *gestalt properties* and is thus not atomistic; concepts have an overall structure that goes beyond merely putting together conceptual "building blocks" by general rules. (xiv)

There is perhaps no single metaphor at work in this list, although in his comments on this new understanding of thinking Lakoff does in fact suggest one: "[Experiential realism] reflect[s] the idea that thought grows out of embodiment. . . . [It] is thus defined in contrast with objectivism, which holds that the characteristics of the organism have nothing essential to do with concepts or with the nature of reason" (xv). His insight is hard to put into exact metaphorical form, but something like "knowledge is experience" captures his meaning, as long as experience is understood to include "everything that goes to make up actual or potential experiences of either individual organisms or communities of organisms" (xv). While accepting that knowledge involves the understanding of codes such as DNA, this metaphor also implies that knowledge is always related to and dependent upon the experience of each individual, embodied consciousness.

What Lakoff describes as the developing consensus about mind in both the natural and social sciences is an encouraging one for the humanities, since they have always been both "embodied" and "imaginative," and they have always been dedicated to the wholeness of the human being and of human knowledge. Art is based on "experiential realism" and can stand as the paradigmatic human knowledge according to the view of mind that Lakoff persuasively outlines:

> [These studies in the cognitive sciences] have something magnificent about them: evidence that the mind is more than a mere mirror of nature or a processor of symbols, that it is not incidental to the mind that we have bodies, and that the capacity for understanding and meaningful thought goes beyond what any machine can do. (xvii)

The kind of knowledge implied by experiential realism can be helpful to the humanities, even if the regime of the code, now expanded by the new electronic media (which, it must be said, hardly remind us of our bodies) is far from over. Lakoff's and Johnson's reminder of metaphor's role in the creation of meaning is a corrective to overly scientistic implications of the code metaphor. Lakoff's insistence that meaning

depends upon the fact that we are part of the world and constantly interacting with it suggests that the humanities cannot base their claims on an appeal to transcendental truth, nor must they give in to soft forms of relativism. Instead, they must recognize that because human beings are embodied, they are rooted in the world. As the philosopher Richard Rorty has argued, the humanities, literature in particular, give the best sense of the human condition as embodied and contingent (Rorty, ch. 1).

I cannot outline here a humanities program that would emphasize the combination of diversity and solidarity that characterizes the contemporary world. But I have perhaps said enough to suggest that the history of metaphor is an important part of the history of the humanities and that the now emerging metaphor of embodiment provides a better guide for the humanities than those of sight and code. On a crowded and pathetically finite planet, such an understanding of knowledge is not only scientifically convincing but necessary to the survival of societies and environments.

NOTE

1. This lengthy and impressive study includes an excellent chapter (Chapter Two: "The Noblest of the Senses: Vision from Plato to Descartes") on the history of attitudes to vision and on "ocularcentrism" in Western thought. It also gives massive support to Arendt's account of the decline of the sight metaphor since Bergson.

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