Learning, Learning to Learn and the Democratic Matrix

Francis McCollum Feeley

*This essay was first published in **American Studies Yearbook 2006-2007, Transatlantic Experience: Experimentation, Appropriation, Disruption**, under the direction of Professor Yuri Stulov, Editor at the American Studies Center, European Humanities University, Minsk, Belorussia: University Press, 2008 (pages 180-197).*

"A little learning is a dangerous thing;
drink deep, or taste not the Pierian spring:
there shallow draughts intoxicate the brain,
and drinking largely sobers us again."
-- Alexander Pope (1688 - 1744)
in *An Essay on Criticism*, 1709

Abstract:
Using the anthropological definition of learning that was developed by Gregory Bateson and by employing concepts borrowed from recent Information Theory, I will attempt in this essay to demonstrate why learning and scientific communications must of necessity take place in a democratic humanist environment, where prejudices such as nationalism, racism, sexism, ageism, and homophobia are receding or are non-existent. In the absence of such an environment, where democratic dynamics are at play, scientific inquiry is, at best, replaced by applied technology, but usually the intellectual vacuum is filled by rapport-de-force behaviours where no significant learning can be detected and the reproduction of knowledge is as risk.

I. Introduction.

Learning is not a value-free activity. The social context of learning influences what we deem to be worth learning and what we do not. When we enter a specific field of study with the desire to acquire new information, skills and knowledge, we are informed by practical considerations about the usefulness of the experience for our own personal interests, for the professional milieu in which we wish to participate, and for society in general of which we are an integral part. With this objective, we accept the necessary constraints and learn to work with them, as a concert pianist learns the limits of her instrument in order to perfect her skills in decoding the works of the masters.

Teaching social literacy: the decoding of experience.

1) acquiring technical experience.
If we examine this twin process of decoding while operating within real constraints, we can see perhaps more clearly some of the rules which govern learning. First, to take an extremely

conservative example of learning to preserve the *status quo* we might consider the ideologically motivated *School of the Americas/ Western Hemisphere Institute for Security Cooperation* (SOA/WHINSEC) founded by President Kennedy in 1961 at Fort Benning, Georgia. Here counter-insurgency techniques, such as interrogation and torture, espionage, sabotage and assassination are taught to police and military personnel visiting from various Latin American countries. These students receive financial assistance from the United States government to attend courses at this international technical school, which offers a diploma as a guarantee to advanced career opportunities in the police or military profession with future promotions to employment with higher salaries and more responsibilities. At the same time these graduates can look forward to joining a milieu of elite experts whose responsibilities include maintaining the status quo against those forces of progressive change which threaten the stability of this "order". The ends, they are taught to believe, justify any means necessary short of their own self-destruction.

2) acquiring critical consciousness.
On the other hand, in a truly humanist education, the approach to learning by indoctrination and acquiring technical skills are not enough. To achieve "the good life", *praxis* is necessary. One must learn to reflect on how things work and act strategically upon the environment, to successfully modify the system so that a critical consciousness is achieved and at the same time the system is rendered more compatible with real human needs. In this process the apprehension of social needs (including ones own needs) is integrated, through *praxis*, with the development of technical competence. Real constraints are confronted, and creative activities are guided by contradictions involving questions of justice and equality as well as by an overarching concern with the well-being of society as a whole. Humanist teachers are more than technicians; they learn to read and write and to think in critical abstract terms about the society in which they live, and from this activity, as a matter of individual fulfillment, professional pride, and social responsibility, they develop the ability to pass on to the next generation skills such as critical reading and writing which are necessary for strategic reflection and democratic reforms.

II. Adapting to New Social Contexts.

Shifts in the environment --both social and natural changes-- affect needs and behavior. These changes in context can affect specific aspects of learning, which are necessary for the survival of our species.

A. Past transformations of the economic context in America's history.

Consider, for example, the systemic "need" of Europeans to take control of and to plunder the homeland of the indigenous peoples of the western hemisphere beginning at the end of the 15th Century, or the 18th-century "need" in England and America to capture and discipline the early industrial labor force, or the 19th-century "need" to wage war for more colonial conquests on the continents of Africa and Asia, or the 20th-century need for military production on an industrial scale to protect the rate increase of corporate profits in an international competition that quickly transformed into the "production of destruction."

Since the last decades of the 20th Century we can apprehend significant environmental changes which have greatly modified human behavior, including the cultural reproductions associated with teaching and learning. No changes have had more fundamental consequences in the world than transformation within the U.S. economy. The economic history of the US reveals a series of industrial changes. Beginning around the mid-19th century cotton production replaced sugar and tobacco production as a primary force behind the western economies. Secondary and tertiary industries stemming from cotton production stimulated world-class trade moving far beyond the great Mississippi River in the decades before the War of Succession (1861-1865). The railroad industry replaced cotton production in the second half of the century; it became the central pillar supporting continued economic expansion in the United States and beyond. At the beginning of the 20th century, it was the automobile industry that replaced the railroad as the principle economic activity, and again this production spawned secondary and tertiary industries throughout the western economies. By the end of the Second World War and with the advent of the Cold War, the defense industry had replaced automobile production as the main economic force sustaining U.S. economic growth. For the first time in U.S. history we witness the formation of a "permanent war economy", with economic expansion totally dependent on growth in defense industries, which in turn are linked to an ever-increasing number of defense contractors in the U.S. and abroad.

Ideological and cultural changes on the North American landscape over the past centuries can be best understood as messages or syntax, at the level of surface structure, while the economic transformations can be seen as changes at the level of deep structure. These historic economic changes involved transformations in the very *codes* and *logic* of the U. S. political economy, an economy which became totally dependent on defense spending at the end of the Second World War. Today, in the post-cold-war world, with an unparalleled economic rivalry between the U.S., the European Union, and the Asian block, the military hegemony of the U.S. has been recognized by U.S. policy makers as the essential advantage to enhance American corporate growth. "If all you've got is a hammer," quipped U.S. presidential hopeful General Wesley Clark in a recent interview with Amy Goodman on the U.S. news broadcast, *Democracy Now!*, "then every problem looks like a nail."(1)

The economic interests of the United States and the constraints which threaten economic expansion are at the level of deep structure, the logic which generated the syntax of the Cold War, including the messages, the rhetoric and posturing, the human rights violations, and even the mass murders in Third World countries can best be understood as surface structure phenomena, generated by deep structural needs of the U.S. economy, *the rules of which neither major political party in the United States could afford to ignore*. The danger, of course, is that values formally promoted by the United States governing elite since the Declaration of Independence will be blamed for the occurrence of this violence, and the cry against "too much democracy" in America will be used in the attempt to install an authoritarian regime, curtailing the constitutional rights of citizens and weakening institutional protections against tyranny in the name of "national security" and "economic growth".

What makes our contemporary period of U.S. history different from other periods of official paranoia and tyranny, such as the First Red Scare of 1919-1920, and the McCarthy Era of the early 1950s, is that the economic needs of corporate expansion are more global and competition for access to natural resources, cheap labor, consumer markets, and environmental "carrying capacities" for toxic waste involves planetary *tactics* against which

only democratic *strategies* can be effective. But such strategies, if they are to succeed, require the recognition that the many levels of crises which we are now experiencing throughout the world are, in fact, due to the **dictatorship of capital**, in other words they are the result of *too little democracy* in the industrialized societies rather than too much democracy. Only by recognizing this deep structure, which has generated terrorism as a *tactic*, can a successful *strategy* against terrorism be developed. To borrow the famous phrase of "the former future president of the United States," Al Gore, it is indeed "Earth in the Balance". . . .

B. An experiment with animal behavior in a changing context.

A few years ago William Blum, the distinguished author of the influential book, *Killing Hope*, sent me a report by journalist Per Fagerent on an experiment in a psychology lab on animal behavior. Blum had served as an official in the U.S. State Department under the Nixon administration and had resigned his post in protest of the crimes against humanity by U.S. policy makers during the Vietnam War. The Swedish-American journalist asked us to consider the following description of an experiment in the effects of environmental change on animal behaviour.

> Picture this standard experiment in psychology: A group of rats is placed on an electric grid and the voltage is slowly increased. After a while the rats feel the burning tingle in their feet. The experimenters up the voltage some more, and watch the rats dance and bite each other.
>
> The experimenters are seeking knowledge, and the rat's pain is presumably worth it. The experimenters don't blame the rats for fighting each other, or punish the more aggressive ones. They know that individuals react to pain in different ways.
>
> Now picture the economic terrain as a different kind of pain grid. Instead of electric shocks, the inhabitants experience job loss, higher prices, less pay, overwork, polluted neighborhoods and so no. Controlling the grid are not psychologists, but CEOs and bankers. Instead of knowledge, they are seeking profit. And so they up the pain, but not because they want to hurt people. They are really trying to up their profits, and the pain is a side effect. After a while people on the grid do nasty things to each other, everything from domestic violence to immigrant- bashing to crime. Unlike the rats, people get blamed for their misbehavior. We are told to point our fingers at the victims on the grid, instead of at the economic rulers who keep increasing the pain.
>
> You'd think that the CEOs and bankers would ease up on the pain, but think again. They continue to demand more sacrifice from the poor, knowing full well how they react.
>
> Would you call this a big conspiracy? Or the sum of many small conspiracies? Maybe it doesn't matter that much. I'm not a mind reader. The point is, the economic rulers pursue

their profits and they know the consequences.
So to that extent, they are choosing to inflict pain.(2)

In this example of the electronic grid, we see the context of environmentally induced pain and a subsequent behavioural change in rodents, who quickly develop an *illegitimate power hierarchy* that is maintained by violence. Dominate/subordinate relationships materialize in these pyramids, and it would appear that the activity of chewing the ears and tails off individuals offers the possibility of eluding the pain induced by the electric grid, while others seek some other sort of "advantage". Any natural hierarchies within this rat population, which might have been based on survival instincts or procreation was effectively dissolved by the experimenters who are pursuing their own goals, totally unnoticed by their animal victims.

C. On human praxis.

Animals, the Brazilian educator, Paulo Freire observes, are essentially ahistorical. They are fundamentally "beings in themselves" and are unable to separate themselves from their activity and thus are unable to reflect upon it. Animals are not challenged by their environment; they are merely stimulated. Thus, for example, when animals "produce" a nest it is not comparable to human labor. Their productive activity is subordinated to the satisfaction of a physical necessity; it is the result of stimulation rather than a challenge. Human beings, on the other hand, can create products detached from themselves, and, accordingly, are able to act upon the world to create a realm of culture and history. *Praxis*, which Freire defines as "reflection and action which truly transforms reality," is the source of knowledge and creation. Animal activity, because it occurs without praxis, is not creative.

The uniquely human capacity to "tri-dimensionalize" time, to conceptualize time in units of the *past*, the *present*, and the *future*, enables human beings to construct a concept of their history as a function of their own creations. These historical concepts include what Freire calls "generative themes," which take into account what existed in the past, in relationship to what did *not* exist, and how the later came into being through human activities. “Problem-posing” *education*, as opposed to the “bank deposit approach” to pedagogy is the effort to *re-present* significant dimensions of an individual's contextual reality as a “complex web of social contradictions”, and thereby introduce him to a critical form of thinking about his real world, which in turn serves to generate the recognition of additional real problems.(3)

Professor Harvey Brenner of Johns Hopkins University has shown that the social effects of unemployment, even in mild recessions, are devastating. For every percentage point that unemployment rises in the United States the death rate increases 2 per cent and the suicide rate rises 4.1 per cent. Deaths from heart attacks, strokes, liver diseases (associated with alcoholism), mental illness, crime, and murder increase also when unemployment rate increase. The 1.4 percent rise in unemployment in 1970 in the United States, sustained over six years, resulted, according to Brenner's statistics, in an extra 51,000 deaths. The author has demonstrated similar increases in mortality in Great Britain, and the same increases in the death rate are believed to be occuring in other industrialized countries as well.(4)

Unlike the rats on the electronic grid, who fall into an *illegitimate power hierarchy* and are unable to conceptualize the destructive relationships they are engaged in, nor the contradictions which produced these real relationships, human beings are capable of seeing what they are doing at different levels, and eventually of apprehending how changes at the

level of their environment affect their individual behavior. This essentially human capacity of becoming *self-conscious* (and of reaching a "perception" of the "previous perception") is a necessary condition for a person to become a *subject* capable of acting *for himself*, against the *practico-inert* of which he/she is a part, and to move beyond the limits of his/her real experience into the realm of "untested feasibility"(5)

> Action = work + word
> Reflection = critical consciousness
> Parxis = Action +Reflection
> Sacrifice of action = Verbalism
> Sacrifice of reflection = Activism(6)

To inhibit this *critical consciousness*, to prevent it from developing among oppressed human beings, Freire observes that an *unauthentic world* is created with *unauthentic words*. "To speak a *true* word," he writes, "is to transform the world." But there is no *true* word that is not at the same time a *praxis*, an action informed by critical reflection and social theory.

> An unauthentic word, one which is unable to transform reality, results when dichotomy is imposed upon its constitutive elements. When a word is deprived of its dimension of action, reflection automatically suffers as well; and the word is changed into idle chatter, into verbalism, into an alienated and alienating "blah." It becomes an empty word, one which cannot denounce the world, for denunciation is impossible without a commitment to transform, and there is no transformation without action. On the other hand, if action is emphasized exclusively, to the detriment of reflection, the word is converted into activism. The latter --action for action's sake-- negates the true praxis and makes dialogue impossible.
> Either dichotomy, by creating unauthentic forms of existence, creates also unauthentic forms of thought, which reinforces the original dichotomy.
> Human existence cannot be silent, nor can it be nourished by false words, but only by true words, with which men transform the world. To exist, humanly, is to name the world, to change it. Once named, the world in its turn reappears to the namers as a problem and requires of them a new naming. Men are not built in silence, but in word, in work, in action-reflection.(7)

Dialogue is, thus, an encounter among humans who name the world. It becomes an instrument of domination, according to Freire, when some people name on behalf of others, or when one person seeks to "deposit" ideas in the body of another, or when the dialogue is a simple exchange of ideas to be "consumed" by the discussants. Thus, Freire concludes,

> Hence, dialogue cannot occur between those who want to name the world and those who do not wish this naming --between those who deny other men the right to speak their word and those whose right to speak has been denied them. Those who have been denied their primordial right to speak their word must first reclaim this right and prevent the continuation of this dehumanizing aggression. (8)

D. Counter-revolution as a stimulus/response.

These reflections on animal psychology and human potential seem to relate to the problems of imperialist conquest in the face of popular resistance. Simple behavior modification is an inexact science in the realm of human society, and there is no reason to think that imperialist conquest will be tolerated indefinitely. Becoming conscious of contradictions such as illegitimate hierarchies, --little pyramids controlled by local tyrants which populate every landscape across the planet-- is an innately human capacity, which is generated by authentic dialogues, i.e. giving authentic names to the reality around us.

The social context of the 1960s in the United States of America, and to a great extent throughout the industrial world, was one of democratic growth. In the United States particularly the Civil Rights Movement in the South, and the Freedom of Speech Movement on university campuses, gave great energy to the anti-Vietnam War movement which expanded across the North American continent rapidly, and quickly evolved from an *anti-war* movement into an *anti-imperialist* movement, and eventually into an *anti-capitalist* praxis. Gradually home-grown *democratic socialist* movements threatened to emerge in every region of the nation. The theories and strategies that these activities spawned were reflected in a wider and deeper domain of democratic praxis: the hippie movement, the student movement, the feminist movement, the Black Power movement (and many other ethnic liberation and anti-authoritarian movements), as well as the labor movement, the gay movement, the soldiers' and war veterans' movement, the prison movement, and countless other grassroots movements demanding self-determination, justice, and the democratization of institutions, ranging from the family and schools, to penitentiaries, the military, and U.S. corporations, including those involved with defense contracts.

This popular demand for democratic accountability was perceived correctly as a threat to the capitalist social order in America, while democratic socialism was viewed by an increasing number of people as the best solution to correct the miseries and injustices caused by "artificial scarcity", the "sanctity of private property", and the "sovereignty of exchange value" –all of which was governed by the "private profit motive."

The fall of President Nixon, in 1974, signaled the beginning of a counter-revolution. The consequences of a military defeat in Vietnam was nothing compared to the internal contradictions confronting American capitalism at home. In the 1970s sophisticated strategies were developed against a variety of democratic movements which were increasingly contesting capitalist control of American institutions. "Black capitalism" was conceived to undermine the socialist content of Black Panther Party by granting millions of U.S. dollars in loans which were never to be repaid due to an entirely predictable spate of bankruptcies. But the objective of this financial strategy was not immediate profit. This time capital investment in small businesses in African American communities was conceived to create a *pro-capitalist environment* that would serve to protect the future of gigantic investments of large corporations. Investing millions of dollars to protect multi-billion-dollar investments for years to come was sound policy in the minds of the corporate elite. That this artificial stimulation of the economy had political objectives, is beyond dispute today, as is the tactic used by U.S. police departments to infiltrate, destabilize and even to assassinate the political opposition in a concerted effort to retard the growth and development of democratic

movements which challenged capitalist control. On university campuses critical consciousness was also subverted. An increase the number of federal grants to critical professors prepared them to more readily engage in self-censorship, or, better yet, to write and teach pro-capitalist propaganda.(9)

With the arrival of Ronald Reagan in the November election of 1980, the stage had been set to launch a full-out counter attack against democratic socialism and its potential allies in every town and village of North America. The liberation movements had created counter-revolution as a top priority of the U.S. government. The repression began slowly and buttressed by the writings of professional ideologues, like William Buckley, Milton Freedman, and above all by Ronald Reagan and Margret Thatcher. The new heroes of the American cultural counterrevolution included men like Ray Crock (the founder of McDo), Ted Turner (founder of CNN and billionaire husband of anti-war activist Jane Fonda), and of course Bill Gates (of Microsoft fame who today is a private philanthropist in control of billions of dollars). It was only a matter of time before the aging Bob Dylan (author of "The Times They Are a Changin'") would join forces with the counterrevolution and sign a lucrative contract to sing an advertisement jingle for a lady's lingerer company selling bras to young girls.

The social context had changed, and political repression was accompanied by "golden opportunities" reserved for a few well-connected individuals. Even the French historian, François Furet, it was reported by French sociologist Pierre Bourdieu, had received a large research grant from the Olin Corporation (the large American chemical company with defense contracts to produce weapons of mass destruction for the Pentagon) as an advance to write a revisionist history of the French Revolution, which he eventually published in 1985 under the title, *Penser la Révolution française*.(10)

It would seem that today the silence has been broken, that the debacle of imperialist forces is once again on the horizon. It is a question of *when*, not *if*, new political formations will begin to appear. What political structures will replace the old and from where will they come? These are the questions we must ask ourselves.

III. The Humanist Tradition as a Harbinger of Capitalist Culture.

The origins of humanist thought are commonly attributed to medieval France and Italy, before the Renaissance, dating back as early as the 12th century. The "Father of Italian Humanism," according to intellectual historians, was Francesco Petrarch (1304-1374), whose recognized literary accomplishments include the attempted translation of Plato into Latin. The humanist mission to rescue classical antiquity from the *mortmain* of medieval philosophy was a prolonged struggle against the influences of medieval Scholasticism, which was thought to privilege appearance over substance. Christian humanists were among those who believed that Scholasticism was misguided because of its preoccupation with abstract speculation rather than teaching people how to live "a good life".

The humanists of Renaissance Europe saw their world rapidly changing. Medieval structures like the Holy Roman Empire, the medieval Church, and Feudalism were loosing their legitimacy. The Italian republics and cities were headed by the new bourgeois class which was also beginning to acquire influence in the great monarchies of France, England and Spain. It was an era of voyages, commerce and exchanges of all kinds. The "Golden Age" of the peaceful, happy republic described by Plato was discussed with renewed interest. The humanists sought to make it happen. These concerns were shared by Northern Renaissance

humanists, who above all wished to rescue human knowledge from the authority which still oppressed it and to vindicate its freedom. These included scholars such as Erasmus of Rotterdam (1467-1536), author of *In Praise of Folly* (1509) and *Colloquies* (1518) and Sir Thomas More (1478-1535), author of equally ironic attacks on European hypocrisy in his famous essay, "Utopia" (1517).

Erasmus' *Colloquies* was a sophisticated work using irony to step outside the social system of which he was a part. In it Erasmus had a fictional character lamenting the evil signs of the times: "kings make war, priests strive to line their pockets, theologians invent syllogisms, monks roam outside their cloisters, the commons riot, and Erasmus writes colloquies."(11)

In More's equally scathing critique of the glaring abuses common to 16th-century England we read "of poverty undeserved and wealth unearned, of drastic punishments, religious persecution, and the senseless slaughter of war," after which he proceeds to describe an imaginary alternative with a social context of different sets of systems, "where the inhabitants held all goods in common," worked only six hours a day so that they might have leisure time for intellectual pursuits. Iron was the most precious metal "because it was useful," and toleration was granted to all who recognized the existence of God and the immortality of the soul.(12)

The humanist tradition in Western Civilization evolved with the growth of liberal capitalism, and by the 17th century, according to C.B. MacPherson in his classic study, *The Political Theory of Possessive Individualims, Hobbes to Locke* (Oxford, 1964), it had evolved into a liberal-democratic form and had developed the social theory of "possessive individualism" The unique possessive quality in this applied social theory, wrote MacPherson,

> is found in its conception of the individual as essentially the proprietor of his own person or capacities, owing nothing to society for them. The individual was seen neither as a moral whole, nor as part of a larger social whole, but as an owner of himself.(13)

The notion of a free individual entering into voluntary relationships, as "a proprietor of his person and capacities", was supported by the idea that society consists of relationships of exchange between proprietors and that government was a device to protect this property and to maintain an orderly exchange.

This 17th-century concept of market values is of course only one aspect of humanist thought, but it does represent the liberal-democratic variant that was reproduced over the next several centuries throughout Anglo-Saxon empire following the English Revolution (1642-1688).

The evolution of this political tradition conformed to the economic requirements of capitalist developments, from early mercantilism, throught laissez-faire capitalism, eventually maturing into monopoly capitalist power, which characterizes the contemporary political economy. This process of corporate consolidation of economic and political power was accompanied by shifts in ideological perceptions of the individual and society. Toward the end of the 20th century, Catholic humanists who represented "liberation theology" declared a new critical view of the world labor market: "…if workers do not somehow come to be owners of their own labor, all structural reforms will be ineffective … they [must] be owners, not sellers, of their labor … [for] any purchase or sale of labor is a type of slavery."(14)

"To achieve critical consciousness of the fact that it is necessary to be the 'owner of one's own labor,' Friere concluded, " that labor 'constitutes part of the human person,' and that 'a human being can neither be sold nor can he sell himself' is to go a step beyond the deception of palliative solutions. It is to engage in authentic transformation of reality in order, by humanizing that reality, to humanize men." (15)

IV. Post-Humanism as a Cultural Manifestation of Late Capitalism.

A. The origins and the "differnce that makes a difference."

Humanists, at specific moments in their lives, from Francesco Petrarch to Bob Dylan, have commented on the devastating effects which *illegitimate power hierarchies* have had on humanity and on its environment. In the history of ideas, we can see humanists again and again advocating reforms for social justice, economic equality, and human freedom from tyranny and scarcity.

From this long intellectual history evolved the contemporary concept of "post-humanism" meaning not simply "that which *follows* humanism" but rather "that which *supersedes* humanism," an inclusive development that retains much of the traditional concerns for human well being in a new social and political context, that of late capitalism, while at the same time taking into account the qualitative changes in society caused by the appropriation of advanced technology. What is new about post-humanist thought is its willingness to strategically displace the individual as the privileged subject of study in society, and to focus rather on systemic relationships at various levels within a global context, which necessarily includes the cultural, social, political, economic, and natural environments. This mode of abstraction is not an attempt to *dehumanize* the individual, but instead it represents an effort to apprehend the context from which individual behaviour is derived. By looking at relationships between the various interrelated systems within the social structure, and at their connection to the larger context of nature, the condition of humankind is better understood and strategies for human liberation from violence and oppression are incorporated as part of a greater strategy for systemic change. Mankind makes history, and history makes mankind is the paradox presented by post-humanist thinkers as *reflexivity*(16)

Post-humanism, it has been argued, is humanism with a difference. To effectively refuse the dehumanization of our species, we must develop a strategy which includes a systemic understanding of the greater environment of which we are a part. By acknowledging the interrelationships of systems, we can advance beyond linear oppositions to an apprehension of multiple levels which is required for resolving contradictions. This engages us necessarily at the level of strategy and not simply tactics.(17)

Seen another way, post-humanist thought represents the same ontological vocation of human liberation from domination as humanists have done for many centuries, but it also takes into account the systemic structures which reproduce human behaviours. If we look, for example, at historic analogies between the component parts of the capitalist system and specifically at the social/cultural systems it has supported at different periods of history, we might discover strategic advantages for achieving human liberation from subjugation and misery in our own era.

If this way of *systemic* thinking supersedes the traditional humanist focus on the individual, it nevertheless contains the basic tenants of humanist thought, namely that human needs and desires should guide human behaviour in a liberated society that is organized around the acknowledged nature of our species and of all other species with which we co-habit this planet. In this way human needs are acknowledged, but, also, they are recognized to exist as part of a larger context, which enables strategic thinking at different levels when it comes to fulfilling these needs and desires.

B. The pioneering work of Gregory Bateson on learning to learn in a democratic matrix.

The early development of post-humanist thinking can be seen in the innovative work of British anthropologist, Gregory Bateson, who, beginning in the 1940s, based his theories of deutero-learning applying Norbert Wiener's new discoveries in the science of cybernetics, together with the mathematical concepts of Bertrand Russell and Alfred North Whitehead in *Principia Mathematica*, to animal and human behaviors. Bateson's conclusions from his studies suggested that human beings are capable of at least three levels of learning activity.(18)

All learning, according to Bateson involves "change over a designated period of time." Thus we are presented with the following paradigm, where Learning (L) represents the pattern of change which takes place between two periods of Time (T_1) and (T_2) :

$$LL = \frac{T_1}{T_2}$$

At Learning Level 0 (LL-0) no pattern of change is detected; there is only the "specificity of response" constituting no pattern and therefore <u>not subject of "correction</u>". LL-0 is characteristic of all protoplasm, and is best described as a random response.(19)

$$LL\text{-}0 = \frac{T_1}{\underline{A}}^{T_2}{}^{\infty}$$

At the lowest level of learning, LL-1, there is evidence of a pattern of change, which Bateson calls "habituation":

$$LL\text{-}1 = \frac{T_1}{\underline{A}}\ \frac{T_2}{\underline{B}}$$

Here the change from A to B represents "a change in specificity of response by <u>correction of errors of choice within a set of alternatives</u>". "B" represents the effect of conditioned reflex (like the involuntary response to stimuli of Ivan Pavlov's dog who salivates in response to a buzzer) or in human beings engaged in rote memory exercises. This most primitive level of learning is shared by all animal life.(20)

By contrast, learning level 2, LL-2, supersedes these activities of change in specificity of response by habitual choice, conditioned reflex, and rote memory. Here we discover change of a different nature, which includes "a corrective change in the set of alternatives from which choice is made [or] change in how a sequence of experience is punctuated."(21)

	T_1	T_2
LL-2 =	A	C

"C" represents the changed state of consciousness, which has been achieved not by conditioned reflex or by rote memory, but rather by a voluntary series of activities of stimulus/response/reinforcement (like the activity of playing fetch with your dog, who has learned to "correctly" retrieve the ball that you throw across the park) or again in human beings this level of learning can be achieved by engaging in activities beyond rote memory, in which the choice is between sets of responses instead of triggering an elementary search for the "correct" response, as in LL-1.

Here we find human individuals seeking to reaffirm their "character" by choosing the most appropriate context in which to act. "[The] … self-validating characteristic of the content of Learning II," writes Bateson, "has the effect that such learning is almost ineradicable." Like looking at an inkblot, there can be no "right" or "wrong" answer, but only the opportunity to reaffirm one's character by "punctuating" what one sees in a certain way.(22)

Learning Level-3 is a logical extrapolation from level-2. It represents change in the process of Learning-2, and the activity constitutes "a corrective change in the system of sets of alternatives from which choice is made." This activity is potentially pathogenic in both animals and humans. In humans this level of learning represents more than simply reaffirming pre-established character traits. Here we see the attempt to transcend "self-validation". LL-3 is rarely achieved even in humans. It corresponds to experiences such as religious conversions or some other sequence of experiences "in which there is a profound reorganization of character".(23)

	T_1	T_2
LL-3 =	A	D

Bateson further clarifies this learning activity by pointing out that the simple act of "reversal," of learning a converse premise at LL-2, is not to achieve LL-3. Thus, in our analogy of religious conversion, for example, switching from Catholicism to Judaism is not evidence of activity at LL-3.

On the other hand, to apprehend the context of contexts –the system of sets of alternatives— would be to truly achieve Learning Level-3. There would be loopholes by which individuals might escape from LL-3 and return to an ontological vocation at LL-2 of self-affirming their character regardless of contextual inconsistencies, or at LL-1 to a career of seeking reinforcement for "correct" behavior, and if they continue to question unexamined premises, they will continue to experience changes associated with LL-3, changes which include but are not limited to a) learning more readily those habits of behavior associated with LL-2, b)

closing for themselves those escape avenues with which to avoid learning at level-3, c) changing habits acquired at LL-2, and d) leaning not to learn some behaviors at LL-2.(24)

By learning the contexts of those contexts of LL-1 and LL-2, the third level of learning Bateson suggests could represent certain existential risks. The person who achieves Learning Level-3 (represented by D in the diagram above), has learned "to perceive and act in terms of the contexts of contexts, [and] his 'self' will take on a sort of irrelevance. The concept of 'self' will no longer function as a nodal argument in the punctuation of experience."(25) Words such as "correct", "efficient", and "precision" which are associated with the *reinforcement of behavior* at LL-1, and words like "satisfaction", "accomplishment", and "initiative" which are linked to *punctuations of experience* at LL-2 are transcended at LL-3, offering the possibility of a more creative consciousness in which, Bateson reports, "personal identity merges into all the processes of relationship in some vast ecology or aesthetics of cosmic interaction … [where] every detail of the universe is seen as proposing a view of the whole."(26)

Bateson concludes this discussion by quoting the 19th-century poetic democrat William Blake to illustrate a human consciousness which might have achieved Learning Level-3:

> To see the World in a Grain of Sand,
> And a Heaven in a Wild Flower,
> Hold Infinity in the palm of your hand,
> And Eternity in an hour.(27)

V. Conclusion: Learning as a Subversive Activity.

The systemic consciousness of neo-humanism acknowledges the link that exists between the observer and the system. This reflexivity takes into account the interrelatedness of all parts of the system, and as a living whole (or as an informational feedback system) the boundary between the subject and the system is no longer clear. To illustrate this ambiguity, Bateson asks the question is a blind man's cane part of him? When apprehended as a strictly mechanical model, the living organism is seen as a biological system in contact with an inorganic object (the solid crystallization of petroleum, if the blind man's cane is made of plastic). But if perceived as cybernetic system of information flow, then both the cane and the man exist as component parts of one system. If the cane is dropped from the system the mental image of the environment that exists in the man's brain is altered, similar to covering the eyes of a person who can see.

In this analogy the cane symbolized technology, which can also be seen as a sort of prosthesis, serving as an extension of the human body. Using technology, and particularly electronic technology, human kind affects his environment and the feedback from this action will further affect his behavior, which in turn influences the environment of which he is a part.

Neo-humanism, then, takes into account relationships between systems. Rather than focusing on the "autonomous subject" it identifies "feedback" loops that govern behavior, but are also governed by behavior. The component parts of the system make the system, and the system makes the component parts. The interrelationships between humans and advanced technology, in this view, speaks to the question of compatibility. Machines (including computer memory)

are viewed as prostheses, artificial appendages to the human body designed to facilitate the system which supports life on this planet. According to UCLA Professor N. Katherine Hayles,

> Humans may enter into symbiotic relationships with intelligent machines . . . . They may be displaced by intelligent machines. . . . but there is a limit to how seamlessly they can be articulated with machines, because they remain distinctively different from intelligent machines in their embodiment."(28)

Today, we find ourselves ill equipped to rescue our environment from the control of corporations. The inability to develop a democratic strategy represents, in my opinion, a learning impairment. Strategic thinking requires an understanding of the real constraints which govern society and the will to address them. Learning and learning to learn in our contemporary context thus raises the question of "embodiment": can learning occur in the abstract, without reference to material existence, or is context essential for meaning? Antonio Damasio, author of *Descartes' Error*, argues that embodiment is in fact an essential part of consciousness, that without emotions and feeling there could be no learning.

The post-humanist project of learning more about our environment and the systemic role played by humans, invites strategic thinking about change that incorporates the needs characteristic of our species with the context in which we live. "Seen in this perspective," writes Hayles,

> the prospect of humans working in partnership with intelligent machines is not so much as usurpation of human right and responsibility as it is a further development in the construction of distributed cognition environments that has been on-going for thousands of years. Also changed in this perspective is the relation of human subjectivity to its environment. No longer is human will conceived as the source from which emanate the mastery necessary to dominate and control the environment. Rather the distributed cognition of the emergent human subject correlates with . . . the distributed cognitive system as a whole, in which "thinking" is done by both human and nonhuman actors. "Thinking consists in bring these structures into coordination so they can shape and be shaped by one another, writes Hutchins (p.316) To conceptualize the human in this way is not to imperil human survival, but precisely to enhance it, for the more we understand the flexible adaptive structures that coordinate our environments and the metaphors we ourselves are, the better we can fashion images of ourselves that accurately reflect the complex interplays that ultimately make the entire world one system."(29)

In a comment on Margaret Mead's early work on the epistemological limitations of social science research practiced in the United States, Gregory Bateson wrote in 1942 that her concern with scientific "objectivity," and with values and methodology made an important contribution to the direction of new research.

> Dr. Meads contribution consists of this … she … has been able to

> transcend the habits of thought current in her own culture and has been able to say virtually this: 'before we apply social science to our own national affairs, we must re-examine and change our habits of thought on the subject of means and ends. We have learnt, in our cultural setting, to classify behaviour into 'means' and 'ends' and if we go on defining ends as separate from means and apply the social sciences as crudely instrumental means, using the recipes of science to manipulate people, we shall arrive at a totalitarian rather than a democratic system of life.' The solution which she offers is that we look for the 'direction,' and 'values' implicit in the means, rather than looking ahead to a blueprinted goal and thinking of this goal as justifying or not justifying manipulative means. We have to find a value of a planned act implicit in and simultaneous with the act itself, not separate from it in the sense that the act would derive its value from reference to a future end or goal.(30)

Essential to our study of social science and to our learning about our place in social system which we inhabit, is a free inquiry into the larger context of which we exist not only as "component parts" but also as "active agents." This freedom of thought presupposes an environment friendly to change, where random activities are not an anathema, but rather are perceived as the domain from which new information is acquired and that the search for new information and better understanding is a necessary ingredient for survival of our human system, for our biosphere, and for its larger context.

By climbing out of the proverbial "box" and looking around at the "outside" environment we achieve a better appreciation of who we are and of what we are becoming. This systemic view of our environment is facilitated by technology which, if reappropriated by public interest and democratic governance instead of control through private ownership, could affect significant transformations in the service of real human needs rather than persist in the pursuit of private profit with its inevitable pathologies of individual greed and imaginary insecurities that presently control the various levels of the education industry and therefore affect the learning process of most people.

For this reason we defend the revitalization of the democratic matrix, for it is the only environment supportive of scientific inquiry and the reevaluation and reproduction of value systems, the activity that we call *learning*. Two activities essential for building a humane society are learning and learning to learn, and by practicing these activities in a social context and appropriating new technologies whenever useful, we reduce our alienation and confirm our place as contemplative agents in a dynamic environment which, to return to the pre-Platonic thought of Socrates, supports "a life worth living".

NOTES

1. General Wesley Clark interviewed by Amy Goodman on Democracy Now! March 2, 2007, http://www.democracynow.org/article.pl?sid=07/03/02/1440234&mode=thread&tid=25, visited March 18, 2007.

2. Per Fagereng, "Dancing on the Electronic Grid", personal communication from William Blum, April 2004.

4. Harvey Brenner cited by Anthony Wilden in *Man and Woman, War and Peace*, p.141.

3. Paulo Freire, *Pedagogy of the Oppressed*, New York, 1970, pp.58-59

5. Paulo Freire, *Pedagogy of the Oppressed*, p.105.

6. *Ibid*., p.75.

7. *Ibid*., pp.75-76.

8. *Ibid*., p.76-77.

9. Howard Zinn, *People's History of the United States*, New York, 1980, pp.455-56 and pp.544-48. See, also, Ward Churchill, et al., *The COINTELPRO Papers: Documents from the FBI's Secret Wars Against Dissents in the United States*, Boston, 2001, and Manning Marable, *How Capitalism Underdeveloped Black America*, Boston, 1999.

10 Pierre Bourdieu et Hans Haacke, *Libre-Échange*, Paris, 1994, p.54. See, also, Jon Wiener article, « The Olin Money Tree : Dollars for Neocon Scholars, » *The Nation*, New York, 1 January 1990, p.12-13. The Olin Corporation at this time distributed $100,000 a year for social science research grants to academics who submitted acceptable proposals.

11. Philip Lee Ralph, et al., *World Civilizations, Their History and Their Culture*, eighth edition, Vol. I, New York, 1991, p.629.

12. Lee, *op. cit.,* p.631.

13. C.B. MacPherson, *The Political Theory of Possessive Individualims, Hobbes to Locke* (Oxford, 1964), p.3.

14. This declaration from bishops of the Third World was cited by Freire, *op. cit*., p.185.

15. *Ibid.*

16. For a discussion of post-humanism and the concept of "reflexivity" in the cybernetic theory describing the phenomenon of energy/information turning back on itself with the result of modifying its effectiveness, see UCLA Professor N. Katherine Hayles, "How We Became Posthuman: Humanistic Implications of Recent Research into Cognitive Science and Artificial Life," visited on 20 March 2007, http://online.kitp.ucsb.edu/online/colloq/hayles1/ .

17. An interesting discussion of the ideological error of confusing "opposition" with contradiction is found in Anthony Wilden's book, *Man Woman, War and Peace, The Strategist's Companion*, New York, 1987). Particulary useful is the discussion in chapter 1, "Oscillation, opposition, and illusion East and West: The ideology of error".

18. Throughout the anthology of essays by Gregory Bateson brought togther in *Steps to an Ecology of Mind* (New York, 1972) we see the influence of Wiener, Russell, Whitehead and

of many other physicists and mathematicians usually not associated with research in the social sciences.

19. Gregory Bateson, "The Logical Categories of Learning and Communication," in *Steps to an Ecology of Mind*, Ballentine Books, 1972, p.293.

20. *Ibid.*, p.301.

21. *Ibid.,* p.300.

22. *Ibid*., p.293.

23. *Ibid.,* p.301.

24. *Ibid.,* pp.303-304.

25. *Ibid.*, p.293.

26. *Ibid*., p.306.

27. *Ibid.*

28. For a discussion of post-humanism see: N. Katherine Hayles, "How We Became Posthuman: Humanistic Implications of Recent Research into Cognitive Science and Artificial Life," visited on 20 March 2007, http://online.kitp.ucsb.edu/online/colloq/hayles1/ .

29. *Ibid.* p.16-17 Professor Hayles goes on to observe the early discomforts associated with a cybernetic view of humanity: "Only if one thinks of the subject as an autonomous self independent of the environment is one likely to experience … panic…. This view of the self authorized the fear that if the boundaries are breached at all, there will be nothing to stop the self's complete dissolution. By contrast, when the human is seen as part of a distributed system, the full expression of human capability can be seen precisely to depend upon the splice rather than being imperilled by it.

… In this model it is not a question of leaving the body behind but rather of extending embodied awareness in highly specific, local, and materials ways that would be impossible without electronic prosthesis

30 Gregory Bateson, "Social Planning and the Concept of Deutero-Learning" written in 1942 and published in *Steps to an Ecology of Mind*, New York, 1972, pp.160-161.