Ray Peat's Newsletter

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Poetry fettered, fetters the human race. Nations are destroyed or flourish in proportion as their poetry, painting, and music are destroyed or flourish. William Blake

Language and Criticism of Science

In the last 10 or 15 years, several people have written about the lack of major transformative ideas in science since about the middle of the last century; risk avoidance, by researchers and bureaucrats in the funding agencies, sometimes gets all the blame. I think other factors are involved, some of which affect every aspect of culture and life. Science, as art and practice, has been taken from individuals and turned into "Big Science," controlled by hierarchical organizations. This has changed the way many things work, including medicine and education. Doctrines such as the irreversibility of the genetic changes which cause cancer, that have become an integral part of authoritarian Big Medicine, determine the fate of millions of people.

In 1956, C.P. Snow, an English physical chemist and novelist, published an article, The Two Cultures, in which he contrasted "scientists" and "literary intellectuals." He argued that scientists and their technical knowledge were responsible for the progress of civilization, while the literary intellectuals were the equivalent of 19th century Luddites, ignorantly opposing technical progress. His view, which he expressed again in 1959 in a lecture, was echoed by the mass media, and a few years later the critic F.R. Leavis responded to his views, describing Snow as a public relations man for the science establishment.

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Beginning right after the second world war, government, corporations, and foundations began taking an increased interest in science. As funding for research grew, control of science moved from the researchers themselves to the funding institutions. The new discipline of "Science Studies" was presented to the public as a natural development of the government's traditional role in education. Edward Shils, an influential professor of sociology at the University of Chicago, said "The governmentalisation of science and scholarship is, in part, a product of intellectual development and its changed relationship to technology . . . ." What Shils

didn't discuss openly was that huge amounts of public money—starting with money diverted from the Marshall Plan for the reconstruction of Europe—were being used, by the Central Intelligence Agency, to promote a particular ideology of science. To reconstruct science, they had to reconstruct the minds of Americans, Europeans, and Latin Americans, as a start.

When non-scientists objected to the way the culture was being changed, the CIA, using organizations such as Shils' Congress for Cultural Freedom, began reshaping the humanities so that they would complement, rather than conflict with, the culture of Big Science. The humanities (languages, literature, philosophy, religion, and the arts) were a major obstacle in the way of creating a new authoritarian civilization.

The agencies such as the CIA, CCF, and the Rockefeller and Ford foundations didn't begin by attempting to simply impose a uniform ideology in all of these areas; instead, they identified individuals who represented particular features of their ideology, and then created the means by which their attitudes could be powerfully disseminated. What had been minority extremist views were amplified until they constituted the mainstream. In biology, Konrad Lorenz's genetic determinism was de-nazified; in literature, philosophy, and painting, formalism was glorified.

They funded journals and conferences that extended the new ideology to painting, music, language, literature, economics, philosophy, religion, social activism, and politics. They placed their agents in strategic positions, in all the major newspapers in the world, in the prestigious old book publishing houses, in major mass magazines, in broadcasting, the movie industry, and in the universities.

Although only fragments of the CIA's role in creating our new culture have been declassified, there is no doubt about their massive involvement, or about their general success in eliminating the elements of traditional culture that were obstacles to the new order.

It's possible (for a certain mentality) to see this in a positive light, as Thomas Braden (head of the CIA's covert operations branch) did, after their control of the National Student Association was made public: "I'm glad the CIA is 'immoral'" (Braden, 1967). One writer (Richard Cummings) suggests that the CIA might have been responsible for Nelson Mandela's survival in prison—his death would have increased opposition to apartheid.

But simultaneously with their cultural activities, they were operating assassination programs around the world. In 80 institutions in the U.S. and Canada, including hospitals, prisons, and universities, they operated a program called MKULTRA, which according to the Supreme Court (CIA v. Sims 471 U.S. 159, 1985), involved "the research and development of chemical, biological, and radiological materials capable of employment in clandestine operations to control human behavior." They were treating the world like an orchard, fertilizing some trees, pruning others, and removing unwanted trees and weeds.

Braden's boss, Frank Wisner, described their operation (the mass media in particular) as his "Mighty Wurlitzer," a juke box that would play any tune they wanted. The tune they wanted to hear in biology was genetic determinism, and in physics, math, and logic, it was quantized indeterminacy, the doctrine that chance is behind all observed events, that meanings are "atomic" or quantized, that generalizations can only be statistical.

Determinism of genes might superficially seem inconsistent with indeterminacy of atoms and a practical reality that is only a statistical description, but they have in common their utility for arguing against those who would rock the boat—a meritocracy based on survival of the fittest, in which moral judgments can have no rational basis, unless they affirm what exists.

Terry Spitzer, a former student of Linus Pauling's who was teaching at Oregon State University, was one of the many teachers who were fired between 1947 and 1949 for having a positive view of Lamarck and Lysenko. Pauling avoided contact with his alma mater for 18 years because of the incident. Biologists who studied under T. H. Morgan went on to successful careers as university professors if they professed the doctrine of genetic determinism. One of them who dissented, Carl Lindegren, said that all of his Lamarckian friends lost their teaching jobs in 1947; he made his living as a yeast geneticist for a beer company. Another dissenter, Leonell Strong, made his living by breeding mice for research; his demonstration that "genetically determined" breast cancer could be reversed was thoroughly ignored.

Long before the CIA and other US funding agencies began imposing an ideology, ruling classes had used ideology to stabilize their secure position in the order of things. The idea of a "great chain of being," a detailed hierarchic ordering of things, with kings just below angels, and with peasants, slaves, and savages just a little above animals, has been an important feature of "western" culture for a long time. Its influence can be seen in Hegel's idea of progressive history, and in Darwin's belief in superior and inferior organisms (including people). Our major science journals of the last several decades have helped to promote the idea of a natural genetic aristocracy.

In the older forms of the ideology, everyone, as part of an ordered creation, had a right to exist (in their place), but social pressures such as England's enclosure movement, privatizing common lands and forcing rural people into cities, led to the development of an ideology that reconsidered the idea of rights. Malthus was one of the ideologists of privatization of the remaining common fields and forests; Darwin, accepting Malthus's ideology, became the theologian of the doctrine of "survival of the fittest," death of the less fit, and death of the idea of a right to exist. By the beginning of the 20th century, chance variation was said to explain the variety of living things. "Genes" came to be considered the essence of an organism, that "programmed" its development, and even its behavior, but those genes were acquired in the big lottery of existence.

With this reduction of the essence of life to the genes, or the atoms that the genes are composed of, knowledge of life is reduced to knowledge of genes, knowledge in general is reduced to knowledge of the essential parts, the atoms. The older ways of knowing, whether Aristotle's or Hegel's, referred to patterns of the whole system, but 20th century philosophers began revising logic to reflect the new view of science, and "Logical Atomism," in which a simplified "ideal language," that could reflect the atomic facts of the real world, became the ideal for many philosophers, and for most biologists and physicists.

For more than ten years, Bertrand Russell argued for logical atomism. An important step in his thinking was to separate a thing's relations with its surroundings from its intrinsic properties, making it possible to consider the thing as having a stable identity,

regardless of where it is and what might be happening around it. Over a period of several years, as he changed his thinking from idealism to realism, he believed that this was necessary if a stable, precise language was going to be able to correspond exactly to the facts in the real world that it was meant to describe.

The hope of constructing an "ideal language" that was so important to philosophers early in the 20th century followed from an assumption that language is an instrument of knowing, and that logic and mathematics are ways of ordering that knowledge, and expressing it in ways that can be "proved."

There has been a strong tendency in "western" culture, especially among academic psychologists and philosophers, to identify consciousness with language. For Freud, if it wasn't verbalized it was unconscious; for my professor of nerve physiology, if an animal can't verbalize pain, it doesn't feel it; surgeons performing circumcisions on babies argued that babies aren't conscious of pain until they can talk.

While Russell and Whitehead were moving away from their early attitude toward logic, others intensified their belief that language was the essence of knowledge, and "computability theory" would grow out of logical atomism, leading some of its proponents to argue that computers are able to produce thinking that's exactly like human thinking. Claims of that sort would have seemed sane to the earlier generations that identified consciousness with language, and language with the formalisms of reasoning.

Although that formalistic view of language dominated a large part of the academic world, there were people who were studying language as it exists in the real world. Franz Boas, Otto Jespersen, Ferdinand de Saussure, Edward Sapir, and Leonard Bloomfield contributed to the development of linguistics as a science. They studied the development of language through time, its function in communication, and its internal structure and organization. Between 1900 and the 1950s, their work defined "linguistics" as it was understood in western Europe and the U.S., but by the 1960s, students were being taught that the traditional approach to the study of language had been faulty, and the "generative grammar," a theory created by Noam Chomsky, in which a system of genetically defined rules, a "language organ," produces language, became a mania.

Financed by the Pentagon, Chomsky's "linguistics" research was seen as a way to improve military "Command and Control," with computers programmed to use language with great precision. The study of real languages was largely relegated to anthropologists and "literary intellectuals." The logical atomists' idealized and computable language, with government funding, was now joining with Konrad Lorenz's doctrine of genetically determined behavior, to explain how our minds work—if it works in computers, by algorithms and switches, that must be how our brains make language.

An anthropology student at the University of Oregon got her department to sponsor a class called "Interdepartmental perspectives on the nature of man." We had students in several different departments select a professor to give a lecture on what he felt his discipline's contribution was to the understanding of human nature. Shockingly, all of them explained in their lectures how transformational Chomsky's idea of the "generative grammar" had been for their discipline's understanding of human nature. In a very short time, a new ideology had been planted and taken root in the university culture.

In treating language scientifically, people like Boas and his contemporaries considered the language in relation to the consciousness and intentions of the speaking organism, and to the changing culture in which the communication is taking place. For them, the essence of language was communication, and communication is a matter of modifying the relations of individuals with each other and their surroundings. When something is communicated, a change occurs in the consciousness of the person who understands the message. For Russell's logical atomism, it was necessary to deny that the relations between things were properties of the things, since the precise, computable logic was meant to correspond exactly to something unchanging in reality. When language is seen as an instrument of communication, rather than of logic, we look for the source of knowing outside of the logical forms of language. In the genetically determined behavior (constituting culture) imagined by Konrad Lorenz, Gunther Stent, et al., and the genetically determined grammar of Chomsky, et al., genes are defined in terms of their impenetrability by events in the environment, their unchanged persistence through time. Their image of reality is a projection of logical atomism onto reality.

In reality, any event is constantly modified or conditioned by all the components of an interacting system. The life of an organism is always an interaction with its environment, and its consciousness of its environment is part of its life process. Language is one of the ways that we interact with our environment, but it only exists against the background of our life, and our awareness and orientation to the world—the knowledge we have as living organisms.

Openness to experience has been displaced by a limited set of explanations in the dominant culture. Most people in the U.S. and western Europe have learned about Pavlov's dogs and the "conditioned reflex," thinking of it as something that happens on the tissue level below consciousness. A false translation many years ago created that impression. Pavlov's term was "conditional reflex," with very different implications. Pavlov knew that his dogs were evaluating the whole environment, including details such as whether or not he was wearing his lab coat. They were perceiving patterns, judging probabilities, and relating those to their needs or preferences.

For Descartes, the animal mechanism operated on the basis of inborn, determined, reflexes. For Pavlov, conditional reflexes were appropriate, intelligent reactions: "...under different conditions these same stimuli may initiate quite different reflex reactions; and conversely, the same reaction may be initiated by different stimuli." "So infinitely complex, so continuously in flux, are the conditions in the world around, that complex animal system which is itself in living flux, and that system only, has a chance to establish dynamic equilibrium with the environment." Maurice Merleau-Ponty, analyzing biological and medical evidence, argued convincingly that the older ideas of simple, mechanical reflexes were based on misinterpretations and experimental artifacts.

If we believe that language and logic are the source of knowledge, we will devalue our own animal intelligence, and in doing this we become susceptable to the clichés and doctrines that have been deliberately built into "our" culture. The dominant culture is an interlocking set of acceptable ideas, phrases, and definitions, that has been consciously created by advertisers and propagandists, to facilitate the exercise of power. Any important decision will be made either on the basis of accepting the ubiquitous clichés and

definitions, or through a process of considering ulterior motives and judging the quality of the evidence, looking for the best evidence. Experience, as the source of knowledge, is also the basis for criticizing false beliefs, which is necessary for knowledge to continue its development.

A computable logic and grammar is helpful for efficient "command and control," and a culture built on those elements makes the population programmable. A complex consciousness, "that complex animal system which is itself in living flux," on the other hand, tends to make autonomous judgments, critically examining each situation, to create the best solution.

NOTES and REFERENCES

Who Paid the Piper? The CIA and the Cultural Cold War by Frances Stonor Saunders, London; Granta Books, 1999

Subsidizing Culture: Taxpayer Enrichment of the Creative Class, by James T. Bennett, Transaction Publishers, New Brunswick, NJ.

The living principle: English as a discipline of thought, Frank Raymond Leavis, Chatto & Windus, 1975.

The importance of the Leavis-Snow controversy is that Leavis was neither attacking science nor defending literature, but attacking the Cartesian dualism that was degrading science, language, and civilization. Snow's "Two Cultures" had invaded the English schools the way Chomsky's "generative grammar" did in the US schools. The vacuous scientism that Snow called culture was nothing but an ideology of power; Snow was a mouthpiece for the British imperial government.

"The point to be stressed is that, whatever was gained by the triumph of 'clarity', logic and Descartes, the gain was paid for by an immeasurable loss: you can't . . . subscribe to the assumptions implicit in 'clear' and 'logical' as criteria without cutting yourself off from most important capacities and potentialities of thought which of its nature is essentially heuristic and creative." (Leavis, page 97.)

Thomas W. Braden, "I'm glad the CIA is 'immoral,'" ***The Saturday Evening Post***, 20 May 1967, page 10 - 14.

Richard Cummings: January 30, 1986 Issue ***New York Review of Books***. Allard Lowenstein: An Exchange, Richard Cummings, Barney Rosset, Victor Rabinowitz, and Sanford Friedman, reply by Hendrik Hertzberg.
http://www.nybooks.com/articles/1986/01/30/allard-lowenstein-an-exchange/

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