EIR Is the Devil in Your Laptop?

HOW WIENER ATTEMPTED TO KILL SCIENCE

Only Diseased Minds Believe in Entropy

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Editor's note: *These articles should be read in the context of the LaRouche PAC's November 2007 pamphlet, "The Noösphere vs. the Blogosphere: Is the Devil in Your Laptop?" (www.larouchepac.com). One article from that pamphlet, Peter Martinson's "Where Your Computers Really Came From," is summarized in this section, since it forms a conceptual unit with the other two presented here.*

The Cult of Cybernetics

To cure the patient, we must first diagnose society. Thus, we start by examining one of its chief contagions, Norbert Wiener (1894-1964), "pioneer" of information theory and coiner of the term *cybernetics*; a creature whose vision for the cyber-future is not much different from that of the evil H.G. Wells, that is, one of "One World Government."[1] Wiener writes, "Very many of the factors which previously precluded a *World State* have been abrogated. It is even possible to maintain that modern communication, which forces us to adjudicate the international claims of different broadcasting systems and different airplane nets, has made the World State inevitable." It is precisely this fantasy of a "world state" that Wiener's work took strides to produce. He was joined in this endeavor by many of the leading social engineers of the counterculture movement, including the famed sex-crazed anthropologist Margaret Mead, and the Grateful Dead creator, psychiatrist Gregory Bateson, both of whom were among the many "social scientists" who participated in the Cybernetics Conferences of the 1940s, hosted by the Josiah Macy, Jr. Foundation.[2] It was Wiener's notion, that the computer was a perfect mimic of the human brain, that these social engineers found particularly useful, and they thought that computers could play a similar role as LSD for use in mind control. To create "concentration camps without tears." But perhaps the most sinister of those who clustered with the likes of Wiener was John von Neumann, whose "Theory of Games" became the economic-social construct that cybernetics plugged into, and is the theoretical basis for much of the fascist, economic mass-murder, policies of globalization today.

The Devil Flies the Union Jack

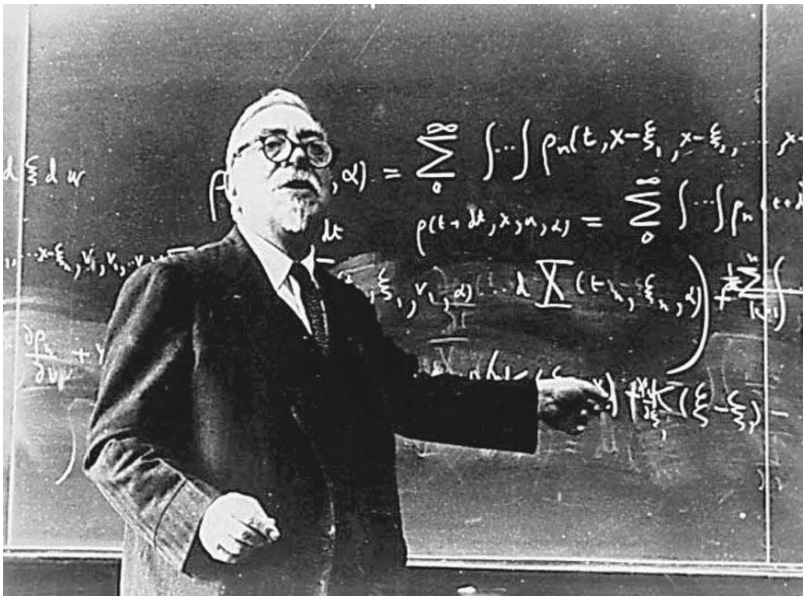
But first, to understand Norbert, you must come to know his own personal Dr. Faust, the man Lyndon LaRouche has dubbed "the most evil man of the 20th Century," Bertrand Russell.[3] Here we speak of a man, who under the abusive hand of his grandfather, one-time British Prime Minister Lord John Russell, was bred to be an embittered defender of oligarchic racialism, whose only love became the hatred of mankind, and its principal defender, the United States.[4] His devilish pessimism oozes out of his book *Impact of Science on Society* (1953), where he wrote, "Life is a brief, small and transitory

1. See Matthew Ogden, "The Noösphere vs. the Blogosphere," *Is the Devil in Your Laptop?*, LaRouche PAC pamphlet, November 2007. Also published in *EIR*, Dec. 7, 2007.

2. See David Christie, "INSNA: 'Handmaidens of British Colonialism,'" LaRouche PAC, ibid.

3. Lyndon H. LaRouche, Jr., "How Bertrand Russell Became an Evil Man," *Fidelio*, Fall 1994. Available at www.schillerinstitute.org.

4. Lord John Russell's role as an anti-American shows roots in his role as foreign secretary, at one time serving under Lord Palmerston. He met with Confederate Commissioner James Murray Mason, and organized across Europe for support of the Confederacy. See A.R. Tyrner-Tyrnauer, *Lincoln and the Emperors* (New York: Harcourt, Brace & World, 1962).



Norbert Wiener's goal was to impose his entropic view of the universe on mankind, by building it into his artificial "information society."

phenomenon in an obscure corner . . . not at all the sort of thing one would make a fuss about if one were not personally concerned." And later, in discussing the threat to the aristocratic way of life posed by human progress and population growth, Russell wrote, "The danger of a world shortage of food may be averted for a time by improvements in the techniques of agriculture. But, if population continues to increase at the present rate, such improvements can not long suffice. There will then be two groups, one poor with an increasing population, the other rich with stationary population. Such a situation can hardly fail to lead to war. . . . War may become so destructive that, at any rate for a time, there is no danger of overpopulation, or the scientific nations may be defeated and anarchy may destroy scientific technique. . . ."

Thus, Russell took it as a personal mission to complete the job begun by Venice's Paolo Sarpi (1552-1623): to destroy scientific progress and its generator, creative thinking. Sarpi must be recognized as the man, who in the 16th-17th Century, faced with the annihilation of the Venetian oligarchy by the hand of scientific progress that had emerged out of the Renaissance, developed the virus of empiricism, spread by his lackey Galileo, as a means of embracing science with one hand, and stabbing it in the back with the other.

So Russell began early in his academic life, by sophistically attacking two of the primary contributors to modern science: Gottfried Leibniz, the founder of the calculus, whose concept of the immortality of the soul Russell took particular issue with, and Bernhard Riemann, discoverer of the principle of higher-order, transcendental, upward development in mathematical physics; the man Einstein acknowledged, along with Johannes Kepler, as being the bookends to the creation of modern physics. It was in his *Hypotheses That Lie at the Foundations of Geometry*, that Riemann broke the silence on the suppressive role that Euclid, an Aristotelian deployment against the work of Plato and the Pythagoreans, had played in the history of science. Riemann attacked the notion of approaching the investigation of reality with an *a priori* set of axioms, from which our interpretation of events was to be logically derived. Riemann proved, rather, that the universe was one characterized by progressive change, from lower, to higher order states of existence. Yet, despite these discoveries grounded in experimental truth, Russell insists, as in his *Principia Mathematica*, on an *anti-creative* description of a closed Euclidian universe, one of fixed logical consistency. One, of course, devoid of human progress and beauty.

. . . It Will Be a Cold Life in Hell

It is from the teat of this swine, that Wiener suckled, and, therefore, contracted the Sarpi virus, with the corresponding evil world view of pessimism. To this effect Wiener writes, in *The Human Use of Human Beings*, "Sooner or later we shall die, and it is highly probable that the whole universe around us will die the heat-death, in which the world will be reduced to one vast temperature equilibrium in which nothing really new ever happens. There will be nothing left but a drab uniformity out of which we can expect only minor and insignificant local fluctuations." It is this Gnostic belief in an entropic universe, with its subsuming purposeless, and bestial view of man, that Wiener sets to impose on society, through building it into the fabric of his artificial society of information. Here we see, in the form of that axiom of *entropy*, built into the system as truth by Wiener, what Lyndon LaRouche dubbed "The Force of Tragedy" (*EIR*, Nov. 9, 2007). A belief acting as a kind of "invisible fence" of the mind, herding those who, in this case, would hook the fate of their nation to that belief in the truthful representation of reality by "information systems," to their own inevitable heat-death.

Governed by this belief himself, Wiener begins the preface to the 2nd edition of his principal work, *Cybernetics*, where his wicked ancestors had left off: with a sinister attack on the epistemology responsible for mankind's development and survival. In trying to convey the state of affairs of science at his time, he indicates what side of the battle he's on, by maliciously disregarding scientific revolutionary Johannes Kepler, focussing rather on those whom Kepler himself had refuted, saying that "the result was that the study of non-linear electrical engineering was getting into a state comparable with that of the late stages of the Ptolemaic system of astronomy, in which epicycle was piled on epicycle, correction upon

Bertrand Russell followed in the footsteps of Venice's operative Paolo Sarpi, in his mission to destroy scientific progress and its generator, human creativity. It was from Russell, that Wiener contracted the Sarpi "virus."

correction, until a vast patchwork structure ultimately broke under its own weight. Just as the Copernican system arose out of the wreck of the over-strained Ptolemaic system, with a simple and natural heliocentric description of the motions of the heavenly bodies instead of the … complicated Ptolemaic geocentric system, so the study of non-linear structures and systems, whether electrical or mechanical, natural or artificial, has needed a fresh and independent point of commencement."

Thus we see, consistent with his state of mind throughout the book, and his life's work, Wiener, in classic sophist style, chooses to misdirect the audience to the formal, mechanistic distinction between Ptolemy and Copernicus, as opposed to the principled, physical contribution of Kepler. That Wiener would conveniently do so, should come as no surprise to anyone familiar with Kepler's *The New Astronomy* and *Harmony of the World*, where Kepler proves the anti-entropic nature of the universe, contrary to Wiener's politically imposed assertion of a world headed for heat-death (entropy).

Information Theory Is Not Cognitive Power

Wiener then truly betrays his motives, and spells out the doom of those who buy into his *Cybernetics* crap shoot. He says,"It turns out that the overwhelming importance of a trigonometric analysis in the treatment of linear phenomena does not persist when we come to consider non-linear phenomena," and then, "What it amounts to in practice is that the appropriate test input for the study of non-linear systems is rather of the character of the Brownian Motion than a set of trigonometric functions."

To understand the deeper epistemological, and consequently existential implications of what might otherwise appear to be a matter of formality, one need reflect upon the true arc of development of modern science, with its ancient roots in the Egyptian and Greek investigation of ante-Euclidian spherical geometry. For, to know the history of science is to know the history of civilization, and to "own" a proof as to how man has survived, and must continue to do so.

It is with this understanding that Lyndon LaRouche constituted the LaRouche Youth Movement (LYM) "basement teams," in an effort to breathe life back into the great ideas on which man's survival has been contingent, and, to give a glimmer of hope to our posterity. These are teams of young adults, tasked with rigorously working to rediscover the great paradigm-changing discoveries of the past, so as to lawfully communicate how to provoke such discoveries of principle in the minds of peers and future generations.

To that end, the LYM begins in the penumbra of Pythagoras and Plato, with the revolutionary discovery of the founder of modern science, Nicolas of Cusa: that the circle has a "transcendental" relationship to the polygon, and that quadrature of the circle is an ontological absurdity. In other words, the circle is of a higher species, and has its generative origin in a domain above and beyond "knowability" from the domain of the Euclidian "straight." From here the journey continues, on its way to the enigmatic C.F. Gauss and his superior student Bernhard Riemann, through a student of Cusa, the discoverer of universal gravitation, Johannes Kepler, whose challenge to future mathematicians, to discover the appropriate mathematical language for properly investigating the characteristic change of that elliptical geometry corresponding to his discovery (what would become known as the calculus), brings us to our next scientist, Gottfried Leibniz, and the point of current emphasis. As a colleague, and current member of the LYM "basement team," pointed out, Johann Bernoulli, friend and collaborator of Leibniz, the discoverer of the calculus, hypothesized that since he and Leibniz had solved the problem of finding the functions that express the characteristic change of circular and hyperbolic transcendental action, all one need do to solve the integral of any curve, is to find the right combination of circles and hyperbolas that construct the curve, and apply the rules already worked out. Again, Leibniz deemed these integrals "transcendental." This work gave way to the discoveries of Gauss (the complex domain) and Riemann, who discovered the principle of "higher-transcendentals," beyond even the simple circular transcendental of Cusa and Leibniz, what might be call hyper-spherical geometries.

The point to be gleaned from this brief sketch of the curve of development of real science, is that a certain "trigonometric" (sine, cosine, etc.), or better, circular/spherical invariant, persists at every step along the way. It is precisely this history,

the history of the increasing power of mankind, and corresponding method, not simply the formality of choosing one mathematics over another, which Wiener is attacking when he says that "trigonometric analysis" loses its importance with his new science of "communication." Thus, similar to the Southern slaveowner, Norbert Wiener would put to death those who would free slaves' minds by teaching them how to read.

To this point, of the primacy of circular and higher transcendental functions, inspired by the art of *Sphaerics*, Lyndon LaRouche writes:

> At first impression, the starry universe appears to be spherical. Why is that so? Does that appearance not imply that a quality of "sphericalness" bounds the universe? If so, does something else, of a still higher authority, bound that apparently spherical quality of boundedness? These are not merely coincidental questions; these questions imply a different question of deadly seriousness: How was this stubbornly persistent appearance of spherical boundedness generated for the mind of man?
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> Two great questions are implied in that set of questions. The first of these questions, is expressed in the form of the elementary notion of an anti-Euclidean geometry of the type underlying the physical science of the Pythagoreans and the related circles of Socrates and Plato. The second, deeper question, which is also implied in certain features of their work, as also the famous argument of Heracleitus, is, to what degree is the way in which we acquire reliable scientific knowledge, itself a reflection of the "architecture" of what appear to be the specifically biological conditions under which all valid human knowledge of the universe is organized?[5]

To go further as to the true existential question being posed in exposing the fraud, and evil intent of Wiener and the "true believers" of cybernetics and digital information theory, we must look at the essence of what Wiener says is the "appropriate" mathematics to be used. In saying that we will construct a system that uses functions derived from investigations of Brownian Motion, he is saying that our world will be one that is fundamentally random, therefore ontologically unknowable, and only capable of being analyzed by infinite approximations, and statistical analysis. This means that the transcendental will be eliminated, and replaced with an approximation. That is, we will construct a system that maintains total mathematical consistency, to the effect that the sort of paradox that arose in attempting to "square the circle," which thus gave rise to Cusa's discovery of the transcendental, and the subsequent unleashing of humanist science, is eliminated.

Consider further the idea of compound circular action as a projection of compound least-action processes. Where we understand least action, as a universal characteristic, of each and all of an array of universal physical principles, which themselves reflect a bounding universal intention of upwardly developing change (i.e., anti-entropy). In mathematical physics, each higher-order discovery of principle will be of a "transcendental form," recognized only as a paradox from the viewpoint of the lower state of understanding, yet knowable as a new principle by the mind that discovers it. The integrating of that newly discovered principle into our cognitive map of the universe has the dynamic effect of transforming all the internal relations of thought, such as to account for the newly discovered, everywhere-acting (universal) principle, to the effect that what was "true" becomes an infinitely distant parody of our now more appropriate understanding of the "real" universe. This is characteristic of the calculus, where at various inflection points in the history of that branch of science's development, integrals were found as expressions of newly investigated physical curves or actions, such as Leibniz's investigation of the catenary curve, or Gauss's work on the lemniscate curve, whose solutions did not correspond to the mathematical rules developed up to that point. These new unsolvable curves became known as higher-transcendental, as, for example, the elliptical integral.

I Find No Reason in Your Logic

Against what has just been said, read from chapter five of *Cybernetics*, "Computing Machines and the Nervous System," where Wiener equates the human brain to a logical binary system. He writes:

> A proof represents a logical process which has come to a definitive conclusion in a finite number of stages. However, a logical machine following definite rules need never come to a conclusion. It may go on grinding through different stages without ever coming to a stop, either by describing a pattern of activity of continually increasing complexity, or by going into a repetitive process like the end of a chess game in which there is a continuing cycle of perpetual check. This occurs in the case of some paradoxes of Cantor and Russell. Let us consider the class of all classes which are not members of themselves. Is this class a member of itself? If it is, it is certainly not a member of itself; and if it is not, it is equally certainly a member of itself. A machine to answer this question would give the successive temporary answers: "yes," "no," "yes," "no," and so on, and would never come to equilibrium.
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> Bertrand Russell's solution of his own paradoxes was to affix to every statement a quantity, the so-called type, which serves to distinguish between what seems

5. Lyndon H. LaRouche, Jr., "On Vernadsky's Space: More on the Calculus," *EIR*, Oct. 5, 2007, p. 34.

Arnold Schwarzenegger's portrayal of a cyborg in the movie Terminator *typifies Wiener's notion of a learning-capable, self-reproducing machine (an ontological absurdity).*

> to be formally the same statement, according to the character of the objects with which it concerns itself—whether these are "things," in the simplest sense, classes of "things," classes of classes of "things," etc. The method by which we resolve the paradoxes is also to attach a parameter to each statement, this parameter being the time at which it is asserted. In both cases, we introduce what we may call a parameter of uniformization, to resolve an ambiguity which is simply due to its neglect.

In Wiener's flat world of information, paradox is reduced to a simple formality, to be resolved as such. For example, Wiener demonstrates this ontologically flawed "squaring of the circle" approach to the "transcendental" elliptical function, writing, "When it comes to equations of the elliptical type, where the natural data are boundary values rather than initial values, the natural methods of solution involve an iterative process of successive approximation."

Thus, the very element of paradox and irony which has been the historic key to provoking the creative mind, to discover the previously unknown principles of reality, has been eliminated. Hence, progress has been eliminated; it is an "end of history" paradigm. Here lies the true threat to mankind's continued existence: Entropy has been built into the system as a controlling factor, guiding it to an inevitable "Doom." Therefore, to the extent that current society and economy has attached itself to cybernetics and information theory, civilization is fated to the tragic heat-death Wiener sadistically lusts for.

Let's go just one more, crucial step further, in understanding the existential nature of the problem.

Cyborg Existentialist and the Economics of Doom

The fantasized pinnacle of Wiener's world provides us with the clearest view of its deadly ends, when seen through the eye of physical economy. In the concluding chapters of *Cybernetics*, Wiener states the possibility of a future with learning-capable, self-reproducing machines, much like that depicted by George Shultz's cyborg wind-up governor, Arnold Schwarzenegger, in the apocalyptic movie *Terminator*. But, like all computers or logical systems, all the decisions and policy of those machines will be nothing more than a logical deduction—however clever and complicated it may be—from a set of rules and axioms of its initial programmer. There is no possibility for discovery of a new universal principle of science, with its manifest array of new higher-power (i.e., transcendental) technologies.

Therefore, if, for example, the programmer of the system had never programmed into the computer, the newly discovered principles associated with the organization of the subatomic nucleus, then, even given an infinite amount of time, the computer would never itself generate that principle and its implications for itself. For each new discovery, relative to its predecessors, is of a higher-transcendental quality (precisely that quality that has been eliminated by Wiener), and not susceptible to discovery through either logical deduction or induction, but only through the uniquely human act of fundamental discovery. It has been precisely this process of discovery and integration of new universal principles, that has enabled mankind to continue to grow in population and increase its living standards, through the creation of new, more efficient and power-intense technologies, such as nuclear power, with the corresponding increase in production potential, utilizing newly defined resource-bases, such as uranium to supersede coal or oil.

So it will be, that that futuristic world of "flabinators," who lack the power to discover new universal principles, and will be forced to "reproduce" in an entropic world of fixed and diminishing resources, eventually cannibalizing each other for spare parts. So would be the dismal future of us humans, were we to continue to deny that in ourselves which truly makes us uniquely human, and tie our future to that tragic belief in the flat, logical world of "information theory."