

Science versus 'new math' witchcraft

by Lyndon H. LaRouche, Jr.

The following statement on U.S. military and educational policy was released by LaRouche's Presidential campaign committee.

October 3, 1999

Today, the U.S. admirers of Britain's former Prime Minister Margaret Thatcher and her current clone Tony Blair, such as former President George Bush and the Principals Committee cronies of Zbigniew Brzezinski and Vice-President Al Gore, parade like angry geese in a barnyard. They imply that the combined military might of the U.S.A. and the British Commonwealth, represent the rulers of planet Earth, if not yet the universe in general.

Many other, even relatively sane U.S. citizens often echo some of that same imperialist self-delusion. They assume that the fall of the Soviet Union left the U.S.A. in a position it need no longer worry much about the world outside our borders — unless we should happen to choose to globalize other nation's internal affairs. These citizens believe, that only local and family interests are really important to them. Tell them about the dangers threatening the world as a whole, and they usually shrug that off, saying, like typical Baby Boomers, "We don't go there." Very well, then, perhaps, it will come to them, and then they will wish they had "gone there."

Thus, while citizens fight not to be disturbed during the few hours of the day remaining for morally cheap (and often disgusting) popular TV and kindred entertainment, the world as a whole is becoming a very dangerous place for all of us. U.S. officials use our nation's power to dictate economic and cultural policies to other nations, and the reckless use of U.S. military force — usually at the British monarchy's command — for military adventures against nations in Africa and elsewhere. Meanwhile, the existing world economy is faced with threatened collapse of the world's present financial system — soon.

In this setting, consider how foolish the present military and strategic policies of the U.S. government have become. We run around the world, usually on British command, making wars, threatening wars, and meddling in even the most cruel and outrageous ways, while bragging about a military policy which has become a disgusting farce, relative to our capabilities of even a few years earlier. Currently, this stupid

policy-making is being led by a Principals Committee which is predominantly a gang whose professional incompetence is outweighed only by their swaggering arrogance and general practice of outright lying. Under Condoleezza Rice's George W. Bush, things would become much, much more foolish, more dangerous to us all.

In this situation, the government, as represented by our Congress and Executive Branch, is relying on notions of ballistic missile defense which were already exposed as incompetence two decades ago. The use of so-called "smart weapons," including so-called "kinetic energy" intercept modes of pretended ballistic-missile defense, are typical of this technical incompetence pervading much of our military and related strategic establishment.

On these matters, it must be said, that no man is so blind as the man who refuses to see. The most dangerous people of that sort within the Congress and Executive Branch today, are those madmen, like outgoing Vice-President Al Gore, who are made mad by their hysterical refusal to accept any fact which is contrary to their treasured, utopian delusions. \$100 millions to test a scientifically obsolete design of Raytheon's new "kinetic energy" intercept weapon! Who are they kidding? The greatest technological military-strategic threat to the U.S.A. comes not from any foreign power, but, rather, from the fools who refuse to concede the existence of military strategies which contradict the madness of their own technological delusions.

The strategic planners of the U.S.A. must quickly acquaint themselves with an old lesson, which I identify here as "The Prometheus Principle."

The Prometheus Principle

Take the case of that great hero of ancient Greek history, that great friend of man called Prometheus. In nature, fire can be used to destroy a forest, even an entire planet, or to burn down a city. The point about fire, Prometheus taught people, was to learn to use fire as a friend to man. The evil gods of Olympus, the model for today's London and Wall Street financier oligarchy, which hated mankind and sought to destroy it, attempted to destroy civilization, by outlawing man's knowledge and use of fire. When man learned to use fire as a friend, civilization became possible. When mankind ceases to rely on the use of fire, civilization will collapse.

Today's science-illiterates shudder in horror when the term "nuclear energy" is mentioned. Rational, reasonably educated people, on the contrary, think of nuclear energy as nothing other than a form of fire, dangerous when unleashed in a crowded theater, but necessary when organized within a kitchen oven. When John F. Kennedy was still U.S. President, most adult Americans were still rational about such matters. It is not only important, but urgent that our citizens, today, go back to thinking in the way most adult Americans still did while Kennedy was President. The survival of our nation, this civilization, and, also, your personal family, may depend upon your doing just that. The present danger of a Zbigniew Brzezinski-led slide into what could become a nuclear "World War III" in Central Asia, should be seen as a warning that it is already past time to return to the saner adult world-outlook, about fire, and about many other things, of the Kennedy years.

For example, in a campaign statement which I wrote and released the day before yesterday, I warned you all about the importance of new kinds of weapons being prepared for deployment now. I gave as an example, so-called "EMP," or "electromagnetic pulse" weapons. EMP weapons, which are among the types of weapons which can use nuclear reactions, are not aimed to kill people, but rather computers and other electronic equipment, such as those of today's popular automobiles, communications systems, power lines, aircraft, your local bank, and other appliances, which latter are vulnerable because they rely too much, foolishly, on "smart chips" designed to imitate "mathematical modelling."

Madmen, such as obscenely dancing "Phantom of The Opera," Secretary of State Madeleine Korbelt Albright, appear to believe, that the function of warfare is to kill and terrify as many people as possible. Intelligent statesmen think differently. For them, war must never be fought unless it is justified, and unless it is fought, as General Douglas MacArthur fought the Pacific War, to be won with the relatively least loss of life and wealth by both sides of the conflict. The object is to prompt the adversary to justly perceive the blessings of peaceful submission to a just peace among perfectly sovereign nation-states, as outweighing vastly the undesirable political and physical circumstances of continued war-fighting.

Thus, contrary to nuclear-weapons madmen such as H.G. Wells, that inhuman monster Bertrand Russell, and such Russell accomplices as Leo Szilard, John J. McCloy, McGeorge Bundy, and Henry A. "Strangelove" Kissinger, the proper military use of the physical principles associated with nuclear fission and fusion, is as "fire," as sources of power for the purpose of winning necessary wars without destroying civilization. In other words, for purposes directly contrary to that failed, utterly hypocritical folly known as NATO's recent war against Yugoslavia.

In matters of application of physics to warfare, the leading issue today, is the absolute opposition of the pseudo-scientific mathematics doctrines of Bertrand Russell, and such Russell clones as Norbert Wiener and John von Neumann, to every

principle of physical science. The related problem is a variety of mathematics which superstitious science-illiterates mistake for science. That superstition controls most of the opinion behind the economic, scientific, and military policies of the U.S. government (and NATO's command) today.

For you, the citizen, the practical issue is: do not vote for candidates whose thinking about the economy, science policy, and strategic doctrines is influenced by the kinds of computerized witchcraft, called "mathematical modelling," which is widely taught in the abused name of "science" in today's classrooms. I explain why.

What is a 'physical principle'?

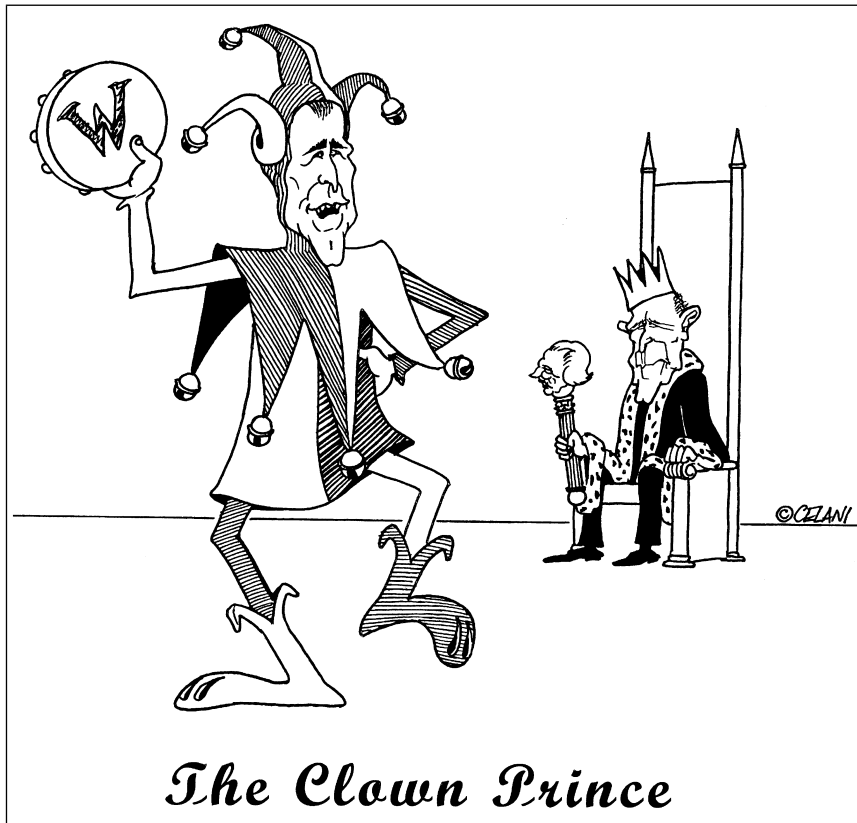
For example, if a length of coaxial communications cable is lying on the ground, during the period of an intense thunderstorm, do not pick up that piece of cable! It may be dangerously charged, and find your foolishly fondling hand just the place at which to discharge itself! The same physical principle, like fire, may be very useful, if you know how and when to use it.

You may think that anyone with a Ph.D. in science today knows of such things. If you believe that, you are sadly misinformed. Some of the fellows with those degrees are really terribly ignorant and superstitious heathen when it comes even to some elementary issues of modern physical science. Some of those heathen are responsible for many of the dangerously foolish superstitions stuffed into the head of science-illiterate Vice-President Al Gore, for example. Some of the leading science advisors of even actually elected Presidents have been superstitious bunglers of that same type.

For example, for years, some people insisted that controlled thermonuclear fusion was impossible, because of what superstitious types of Ph.D.'s and others called "the Coulomb Effect." They did not know that Coulomb's so-called "principle" was exposed as based on a crude superstition about microphysics, a superstition exposed as false by such leading Nineteenth-Century scientists as Augustin Fresnel, André-Marie Ampère, the founders of modern electromagnetism, and the Carl Gauss, Bernhard Riemann, and Wilhelm Weber who completed the foundations of modern electromagnetism. Anyone who actually knew the relevant history of science, as my late and dear friend Professor Robert Moon did, would have known that Coulomb was on the wrong side in the issues of Fresnel's and Ampère's discoveries, and that the simplistic Coulomb "effect" can not be freely applied to the domain of microphysics.

Take the case of the so-called scientists, festooned with Ph.D.'s, who joined a science-illiterate Lt.-Gen. (ret.) Daniel Graham's attacks on me and Dr. Edward Teller, over SDI, back during late 1982 and early 1983. These are the kinds of Ph.D.'s who might leave you and our nation virtually defenseless against the effects of the weapons of "World War III."

A civilized mankind will recall such science-illiterates as those supporters of Daniel Graham as poor, superstitious



The Clown Prince

savages, and quite rightly so. That use of the term “savage,” or “barbarian,” will be fully justified. Not only does it point to their ignorance of science; their ignorance of science is a reflection of a broader, moral deficiency in their make-up. I mean the specific quality of moral deficiency that leads to such monstrous nightmares as the “religious wars” which bestialized most of Europe during the interval A.D. 1517-1648. I point to a disgusting moral quirk in the way in which they think about almost everything, a quirk which defines them as representing a culture which lacks, or has lost the moral quality of fitness to survive.

That is, I admit, a strong charge. I would not make such a charge unless it were true, provable, and fully justified. The best example of the problem is the attacks which the Mont Pelerin Society-controlled Heritage Foundation, and its General Daniel Graham launched against me, and against Lawrence Livermore Laboratory’s Dr. Edward Teller during the second half of 1982. The issue was my public proposal, in mid-February 1982, of what became known in March 1983 as President Ronald Reagan’s public offer of a Strategic Defense Initiative (SDI) to the Soviet Union. The circles of both the Heritage Foundation and parts of the Democratic Party leadership successfully replaced the original, competent SDI design, with a “double-dipping,” Wall Street weapons salesman’s “kinetic-energy weapons” swindle. That swindle is still U.S. strategic ballistic-missile defense policy today!

Unfortunately, many professionals in high-ranking places, in scientific institutions, industry, and government, sincerely know no better than to adopt such terribly incompetent, actually unscientific policies. To understand why most circles of today’s top management are so terribly incompetent, when compared with the average top executive from as recently as the mid-1970s, one must go back to changes in public and university education instituted during the 1950s. Typical of the mind-deadening effects of that campaign of miseducation, is what was called then, and later, “the new math.” The teaching of that “new math” program has been, probably, the single most efficient source of the pervasive scientific and technological incompetence of the leading executive strata of industry, science, and government today.

The specific incompetence of that “new math” program, is that it destroys the victim’s ability to understand the all-important, fundamental difference between a mere mathematical formula and a principle of physical science. The

intrinsically fraudulent report of “Chinese spying” recently issued by the Stone-Age variety of inmates of the U.S. Congress, is just one more example of that kind of utter incompetence to think clearly about important technical matters.

Those unfortunates within the Congress need to learn a principle: the principle of industrial and agricultural management, is not just to make money; it is to make things that work. Making things that actually work, is something that can not be done with a “new math” addict’s understanding of a mere mathematical formula—such as the doomed, Nobel Prize-winning formula of Merton’s and Scholes’ failed Long Term Capital Management (LTCM) enterprise.

The victims of “new math” brainwashing believe that one must prove a formula at the blackboard, or by similar use of a digital computer apparatus. A scientist never proves any principle at the blackboard; he, or she proves it by means of what mathematical physicist Bernhard Riemann defined as a unique experimental test of a universal physical principle.

In other words, one teaches science, not just in the classroom, but in the pedagogical laboratory, where known principles are demonstrated by reliving the experience of the appropriate unique experiment. Newly discovered principles are proven in the same way. It is the student whose sense of science has been honed in the pedagogical laboratory, who becomes qualified as the pioneering discoverer of new universal physical principles in the research laboratory.

(By the way, what is the current pedagogical laboratory program in your neighborhood's secondary school? What is the pedagogical laboratory program at your chosen university, the one whose graduates you may regret you hired? What is the quality of the research-laboratory programs, at that university, or in the firm whose products you buy? By these standards, judging by the standard of U.S. national interest, which such institution deserves public support, such as more favorable tax treatment?)

It is the application of newly proven universal physical principles, to a broader range of media and physical processes and assemblies, by aid of crucial laboratory testing of those designs, which generates the new technologies on which we depend for better products and increased productivities.

That is the quality of scientific education which the U.S.A. has lost over the course of the past thirty to forty years — since about the time of the 1966-1967 preparations for the first manned Moon landing. That is the quality of thinking which has been ripped out of the West Point military academy (in favor of the soft-brained study of sociology, for example), and replaced by the inherently incompetent practice of so-called “benchmarking” in the industries of the U.S. and western Europe.

Incompetents, such as the followers of Bertrand Russell, Norbert Wiener, and John von Neumann, believe, that science begins inside “pure mathematics,” essentially mathematics of the brain-damaged variety called “the new math.” They insist, as John von Neumann insisted, for economics, from 1938 on, that all economic processes can be reduced to matters of solutions for systems of simultaneous linear equalities. They insist, as Professor Norbert Wiener did, that human cognition does not exist, that there is no such thing as knowledge of universal physical principles, but only “information.”

The key issue here, as for military policy, is that no universal physical principle ever could have been discovered by such so-called “mathematical methods.” New universal physical principles are discovered by a mental process, called “synthetic judgment,” “reason,” or “cognition,” which Wiener and von Neumann, like Immanuel Kant earlier, denied to exist. These principles, once discovered, are then proven by the kind of experiments which Riemann termed “unique.” That is the only way in which they could be discovered, proven, and successfully applied.

In science, mathematics was developed, not as a by-product of business-style accounting practice, but as a way of measuring the effects of applying a newly discovered universal physical principle, and the technologies derived from such principles. This was the way in which the greatest modern mathematician, Kant opponent Carl Gauss, defined mathematics, as “the queen — i.e., the consort — of the sciences.” The earliest known forms of mathematics are known to have been developed tens of thousands of years ago, by ancient astronomers and transoceanic navigators, who observed the

regular angular changes of position of Sun, Moon, stars, and equinoxes, for example. They learned their mathematics, as the Classical Greeks, from Thales through Eratosthenes did, as Johannes Kepler did, from the stars, from the discovery of universal physical principles which order the regular procession of events within our universe as a whole.

But, today's madmen disagree

Today's madmen disagree with what I have just summarized. They insist, that no physical principle exists in this universe which contradicts what they have chosen to believe.

Others, who can not afford the luxury of our Anglo-American madmen's arrogant conceits, driven by the desperate threats of madmen such as the Thatchers, Bushes, Gores, and Blairs, have no choice but to seek out new physical principles which would give them an offsetting technological advantage. Rich fools, such as Clown Prince George W. Bush, seek to rule by spending money to buy power. Poor people, lacking the George W. Bush campaign's vast wealth, must use their natural advantage, their brains, instead.

Those who seek such new universal physical principles, if they are scientifically qualified, will find them. It is my information that some such principles and their appropriate application have been discovered in a number of relevant places. It is time for you citizens to wake up to the new realities coming down upon you now. Thinking may seem painful at first try, but keep trying and it becomes fun!

Nuclear nightmare of the Information Age

by Laurence Hecht

A variety of warnings and hints, both in and out of the printed literature, suggest that, following the attack on Yugoslavia, Russia is in the process of reconfiguring its strategic and tactical defense capabilities, to take account of the serious perceived threat from NATO forces. It is likely that the plan includes an emphasis on new types of directed-energy weaponry which will target the special vulnerabilities of U.S. and NATO forces, particularly their heavy reliance on computer and information-age technology both on the battlefield and in civilian sectors.

A signal piece to this effect appeared last spring, right after the NATO bombing of Yugoslavia, in an article by First Deputy Defense Minister Nikolai V. Mikhailov (*Nezavisimaya Gazeta*, April 30, 1999). Mikhailov proposed there that despite the unequal ratio of U.S. to Russian defense expenditures (279:4 by his calculations), it were possible