



Make America Great Again in Science: A Guide for All Sovereign Nations

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ABSTRACT

U. S. President Donald J. Trump is leading America and the world against the elitist-globalist goal of a One World Government. His efforts to free American entrepreneurs from unwarranted control by others are producing an economic renaissance. From a lifetime of first-hand knowledge and experience, I describe the problems that beset American science, and posit solutions for producing the cutting-edge science that Trump’s economic renaissance requires.

Keywords: Blacklisting; Science suppression; Science improvement; arXiv; Science publication.

INTRODUCTION

Science, the mother of technology, has the potential to make life on Earth a heaven or a hell, to enlighten or deceive, to free or enslave, to uplift or degrade, to cure or kill. The exponential growth of technology since World War II has been accompanied by a major decline in science, not only in progress but in understanding and application of its processes. From a lifetime of first-hand knowledge and experience [1], I proffer insights and suggestions to make science great again.

The first half of the 20th century was a time of great discovery in the physical sciences. New insights and discoveries fired imaginations leading to debates, discussions, and further discoveries. The formulation of quantum mechanics, for example, eventually gave birth to the technology of solid-state electronics that makes possible modern communications and computers.

There were relatively few scientists during the first half of the 20th century. Government support for science was virtually nonexistent. Scientists maintained ethical and scientific standards of behavior. In order to earn a Doctor of Philosophy degree (Ph.D.) a student was required to make a significant new discovery. If someone else first published the solution of the problem the student was working on, the student had to start over on a different new problem. Rarely today are students required to make an important discovery to earn that degree. Back then, integrity was important and, while there were occasional personal lapses of integrity, institutional corruption was generally absent, unlike today.

After World War II, circumstances changed, driven by good intentions and maladministration. U. S. President Franklin D. Roosevelt, cognizant of the wartime technological advances that resulted from government funding, requested a plan for funding civilian science after the war. The resulting report, *Science the Endless Frontier*, authored by Vannevar Bush [2], became the basis for

establishing in 1950 the National Science Foundation (NSF), which wrote the rules for administrating government funding of civilian scientific research. The NSF rules, adopted for subsequent agencies, such as the National Aeronautics and Space Administration (NASA), are a major factor in the decline and corruption of American science.

NATIONAL SCIENCE FOUNDATION STUPID RULES

I use the word stupid to describe the NSF rules for funding civilian science because they fail to take into account human nature and reflect an ignorance of the manner by which fundamental scientific discoveries are made. I have been unable to discover who wrote the stupid rules, but they were devised early in NSF's operation.

Stupid Rule #1

Early on, NSF decided that proposals for scientific research would be evaluated by the proposing-scientist's peers, usually the proposer's competitors, frequently the most knowledgeable individuals on the subject. Moreover, the competitor-reviewers were given anonymity. To my knowledge, nowhere in human interactions has secrecy led to increased truthfulness and objectivity. Rather, as in the Spanish Inquisition and in virtually all totalitarian governments, under aegis of anonymity individuals readily denounce their personal enemies so as to inflict harm.

The use of anonymous peer-reviews was thought to be such a great idea that it was adopted by other agencies and by publishers of scientific journals. All it takes are less-than-positive remarks by secret reviewers, for which they are unaccountable, and the proposer's career is potentially damaged and, perhaps, even ended. But that is not the worst problem.

Scientists were quick to realize that, if they criticized another scientist's work or a program that funds the work of other scientists, they expose themselves to potential retribution through secret peer-reviews. To obviate that possibility, scientists moved *en masse* to adopt, not challenge, the "consensus viewpoint," a perversion of science to be sure.

Science is about finding out what is wrong with current thinking, and replacing the less-correct understanding with more-correct understanding. In science, consensus is nonsense [3], but decades of failure to challenge current thinking led many to (falsely) believe that consensus connotes correctness. In many human endeavors, science included, the key to progress is to find out what is wrong and fix it.

Stupid Rule #2

NSF's procedure of scientists proposing projects for funding, a delight for bureaucrats, was apparently conceived without an understanding of how important discoveries are made. How can one say beforehand what is to be discovered that has never before been discovered, or how it is to be discovered? Those unique individuals who *are* capable of making discoveries suffer discrimination from a system that favors those who propose trivial projects that can be well-described.

Moreover, proposal reviews are often a guise for bureaucrats or peer-reviewers to engage in exclusionary or questionable practices to the detriment of those unique individuals who can make important discoveries.

Discovery-makers also suffer discrimination by not fitting into bureaucrat-designed research programs, which also are not receptive to criticism. Science support should be based upon a track-record of important discoveries, or perhaps should be a lottery, which would at least provide a chance for funding to those who actually make important discoveries.

Stupid Rule #3

NSF accepts proposals from non-profit institutions and considers the scientists only as “Principal Investigators.” Consequently, there is no direct legal responsibility for scientists to tell the truth. Moreover, in my experience university provosts and presidents are reticent to redress their faculty members for scientific ethical-transgressions.

Rather than being classed as “Principal Investigators,” I posit, the proposing scientists should be classified as government contractors subject to Federal Acquisition Regulations [4].

Stupid Rule #4

Through the manner by which it pays for and/or allows publication of scientific results, NSF enriches commercial firms and special-interest associations to the great detriment of science. The practices are so pervasive and egregious that they warrant considerable elaboration in the discussion below.

SCIENCE SUPPRESSION

In 1974, just after I earned the Ph.D. degree in nuclear chemistry, I was invited to spend three years learning from two aging master-scientists, Harold C. Urey and Hans E. Suess, while conducting whatever research I deemed important [3]. After that time I obtained a research position at the University of California, San Diego that was funded entirely by government grants.

In the course of my research, I realized a different composition of Earth’s inner core, an object at the center of Earth, slightly smaller than the Moon and about three times as massive. I published the concept in the *Proceedings of the Royal Society of London* [5]. The entire abstract of that paper states: *From observations of nature the suggestion is made that the inner core of the Earth consists not of nickel-iron metal but of nickel silicide.* Instead of engendering debate and discussion, there was silence. It was as if the paper had never been published. Moreover, for no good reason my NASA grant that funded the work was not renewed, my unfunded academic position vanished; I was ‘excommunicated’. That was my first experience in governmental anti-science, but there was much more to come.

When a new idea arises, there should be debate and discussion. Attempts should be made to refute the work, ideally in the same journal; otherwise the work should be cited in subsequent studies on the subject. Other researchers will see the work and perhaps be influenced to make additional discoveries. That is how science progresses, but that is not the way of NSF and NASA science [6, 7]. During the 40 years following my ‘excommunication’, I discovered considerable evidence supporting my nickel-silicide inner-core concept, but even now government funded researchers still investigate the inner-core as if it is composed of iron metal [8, 9].

Making scientific discoveries is like following a logical path through the wilderness. Along the way, junctions occur. Choose the wrong path and the progress stops, like being trapped in a cul-de-sac.

Progress is only possible by following the correct logical path. But sometimes the junctions are invisible, the requisite discoveries had not yet been made. That was the case for the nickel-silicide inner core concept until the 1960s when the necessary underlying discoveries were made. By ignoring new concepts, which is bad science, correct junctures can be missed.

Another reason why new concepts should be discussed and debated – not ignored – is that mistakes are made in science. Scientists tend to be forward-looking, rarely looking questioningly at concepts from the past which, in light of subsequent discoveries, might no longer be correct. Progressing forward in science, on the basis of mistaken concepts, leads to confusion, not progress. On the other hand, correcting past mistakes opens the way for new discoveries, connected logically and causally. In Table 1, I show four science mistakes that I personally corrected and the new discoveries that resulted [10].

Table 1. Examples of science mistakes and the consequential discoveries made upon correction. From [10].

Examples of Science Faltering	Consequence of Revised Logical Progression
Composition of Earth's inner core	Understanding Earth's internal composition
Giant planet internal energy production	Nuclear origin of planetary magnetic fields
Physical impossibility of core/mantle convection	Invalidation and replacement of plate tectonics
Thermonuclear ignition of stars	Understanding luminous-star patterns of galaxies

Science-funding bureaucrats make up programs to address what they envision constitutes science, and scientists then propose research within that framework. Not surprisingly, most of the work done is trivial, and does not lead to further advances.

When I realized that the inner core composition might be different from the idea of its being partially crystallized nickel-iron metal, my NASA funding ceased, and the subject became “politically incorrect”, unmentionable; BIG MISTAKE! Whenever an observation does not seem to fit into the current understanding on a subject, it is an indication that something might be amiss with that understanding, possibly an invitation to make new discoveries. It was not that just the inner core might have been misunderstood, but just about everything about the Earth. The interior composition of the Earth, its origin, energy sources, and geodynamic behavior were all misunderstood, but which I corrected [11, 12].

Jupiter, Saturn, and Neptune each radiate about twice as much energy as they receive from the sun; this was a great mystery for NASA-funded scientists. I proffered a solution to that mystery and others involving the generation of magnetic fields within planets and large moons by planetocentric nuclear fission reactors [7, 11, 12], but to my knowledge NASA-funded scientists have never cited that work.

Science is about discovering the truth about nature. Failing to cite credible contradictory concepts is like lying to the public, and doing so at taxpayer expense. Neither the scientists who practice deception nor the agencies that support them should receive funding.

There has been for decades a dearth of moral leadership in the taxpayer-supported scientific community. It is common for scientists acting as reviewers, shielded by anonymity, to attempt to prevent or at least delay publication of competitors' papers. By the mid-1990s, physicists' papers were taking up to two years to get published. Then, the National Science Foundation supported development of an author-self-posting archive at Los Alamos Scientific Laboratory. The idea was that scientists could post pre-prints of not-yet-published papers that would immediately be available to scientists worldwide. It was a great idea, but from the beginning there were allegations of blacklisting by the operators of the archive [13].

In about 2001, NSF gave Cornell University almost one million dollars to take over ownership of the archive, called arxiv.org. The archive developers then became employees of Cornell. Blacklisting became institutionalized. This is how it works. Individuals whose email addresses ending with .gov or .edu can post without intervention. Others with different email address-endings require being endorsed by someone who has been qualified by the archive to endorse. I received endorsements, posted papers, and became qualified to endorse others in a number of areas: Then someone denounced me and I was blacklisted.

Being denounced by arXiv.org is a secret process that just happens. When I would attempt to post a paper it would be sent to anonymous "moderators" who would decide whether it should be posted in an inappropriate place, like general physics, where it would go unnoticed, or whether it should not post at all. On numerous occasions I complained to the Cornell University Provost, an officer of the corporation, but my complaint would just be sent to the very archive people I had complained about. Cornell University annually receives millions of dollars in contracts and grants, some of which were for investigations contradicted by my postings that arXiv.org secret-moderators 'buried' or prevented from posting.

The blacklisting I describe is not only a wholly un-American activity, but it plays a major part in crippling American scientific and technological knowhow. The people who get blacklisted are not the mediocrity; they are the innovative, creative people who question the consensus nonsense. The author-self-posting archive might have become a jewel in NSF's crown, had it monitored the integrity and then transferred the archive to a non-competitive entity, such as the Library of Congress. Instead, NSF provided yet another reason to justify its demise.

When it comes to scientific publications, reviewers are not the only ones who engage in activities that prevent publication of new or contradictory work. When I began working as a scientist in the early-1970s, publishers required editors to obtain reviews of submitted manuscripts. Even though secrecy was used, at least there was a chance that some reviewers might be ethical and give honest reviews. Later, journals started allowing editors to reject manuscripts *without* review. Here is an example: The first ever georeactor review article [12], was first rejected *without* review with a few pejorative remarks by an University of Oxford professor acting as editor of a new Elsevier journal. Mainstream journals make millions of dollars annually from publication of government-funded research. Presumably, it is in their financial interest not to publish work that contradicts the

establishment, government-funded story-line. When I was a graduate student, I published papers in *Nature* and *Nature Physical Science*, but after I started making important discoveries, my manuscripts were always rejected, typically without review. Publishers, a high proportion being European, control not only what is published, but access to research work that was paid for with U. S. taxpayer dollars. For decades, publishers have demanded to retain copyrights. Universities pay a large fee, which gives their faculty access. But independent scientists, like me, are expected to pay typically US\$ 50. for a pdf of a single article. Considering the number of articles that I read, the cost is prohibitive.

Fortunately, there is a new generation of open access independent publishers who charge reasonable fees, maintain integrity, and insist on using reviewers. Scientists, by virtue of their abilities and training, should be able to provide independent assessments related to human and environmental health. But instead, academic scientists all too often function as cartels [14]. Many, who tend to identify with globalist-elites, are committed to the political global-warming agenda [15] and/or have become pawns in international efforts to modify Earth's natural environment [16]. Had they have been objective scientists, committed to understanding the true nature of our planet, they might have (but did not!) discovered that particulate pollution, not greenhouse gases, is the main cause of global warming [14, 17-22].

CONCLUSIONS AND RECOMMENDATIONS

U. S. President Donald J. Trump is leading America and the world against the elitist-globalist goal of a One World Government. Since his election in 2016, the existence of a non-elected Deep State subculture has become abundantly evident. Mainstream news media, previously relatively objective, have become less-truthful than *Pravda* during the existence of the Soviet Union. Universities have become not only breeding grounds for ideologies that are inconsistent with sovereign nations, but have lost the ability to produce cutting-edge scientists and technologists that Trump's economic renaissance requires. The suggestions set forth here to "Make America Great Again in Science" are of value as a starting place for re-inventing scientific and technological education.

With vast income from student loans and ever-increasing tuition and fees, universities have become bloated bureaucracies, rendering them incapable of producing the high quality scientists and technologists the economic renaissance requires. Teaching faculty, for example, are often evaluated by the students they teach. While superficially, this may seem appropriate, in reality it imposes a bias against teachers' rigorous expectations of students, which may result in unhappy students giving less-than glowing evaluations.

Research professionals at universities, whether they are teaching faculty that are required to perform research or full-time research scientists, are subject to another form of bureaucratically-imposed bias. Research grants provide a steady flow of income for the bureaucracy from 'indirect costs', aka overhead. Research professionals are generally measured on the basis of the amount of grants they obtain and the number of papers they publish, sometimes even on the number of citations a paper receives. The bias, therefore, is to conduct research on popular, non-controversial subjects, rather than challenging topics that might not be as well received, but which might ultimately lead to breakthroughs. My suggestion, as mentioned above, is that rather than being classed as "Principal Investigators," the research scientists should be classified as government

contractors subject to Federal Acquisition Regulations [4]. The research professional then could negotiate with university officials or go it alone or with others as a business enterprise.

Major changes should take place in the publication of government-funded research. First and foremost, an author-self-posting archive should be established at the Library of Congress with no restrictions other than to demonstrate having an advanced academic degree. This would put all researchers on an even footing, with no blacklisting. Commercial publication should only be open access and emphasize competition between all publishing companies. Publication companies that hold copyrights to previously government-funded work should be required to make all of those papers open-access prior to being allowed to compete for future publication opportunities. Publication companies who are found to engage in exclusionary practices should be debarred from further business.

The problems that currently underlie American science are in certain respects the same problems that beset citizens of socialist and totalitarian governments: Peoples' overwhelming desire to control the actions and opportunities of others. The antidote in each case is freedom. For the scientist that means the freedom to make and disclose important discoveries, and to compete on equal footing with other scientists. With freedom from unwarranted control and restraint from others, scientists, like entrepreneurs, will flourish. My suggestions to "Make America Great Again in Science" can as well be viewed as a guide for other sovereign nations.

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