

### III. The Subjective Side of Science

*In the course of the second component of this present trilogy on the subject of a science of economy, I have outlined the principled features of a physically efficient, subjective aspect of a practice of the science of physical economy. I have located the central principle of that science, in the remedy for the systemic disagreement between two contrasting states of the human individual mind, the presently familiar “Type ‘A’.” and the qualitatively superior, less familiar “Type ‘B’.” I now restate, and amplify, the argument already outlined there.*

The known evidence from which competent physical science found its ancient roots, was in the practice of oceanic navigation according to the changes in array of those markers known as the planets and stars, a practice which gave rise to the meaningful use of the term “universe,” not as an image, but as a *dynamical* form of process, as indicated by the ancient use of the term *dynamis*, or, the modern concept of *dynamics* as that latter term was introduced by Gottfried Leibniz during the 1690s.

This is the process of development of that concept of *dynamics* which underlies the Riemannian concepts of relativity of Albert Einstein and V.I. Vernadsky, today, concepts which had already been expressed by ancient maritime cultures during the many hundreds of centuries prior to the roughly estimated onset of the close of the ice

age as about 20,000 years ago.<sup>1</sup> True science is not isolated experiments which merely appear to be “repeatably” successful. The standard for a proof of principle is its grounding in what is demonstrably universal from among the stars, expressed as the power, as from above, which controls the destiny of mankind. All other proofs depend upon their demonstrable derivation from actually universal principles so adduced, as the celebrated work of such followers of Bernhard Riemann as Albert Einstein and Academician V. I. Vernadsky best illustrate the presently best known extent of that connection.

Thus, mapping of what were, at least, apparently two fixed points on the ground-level map of our planet under the condition of changes in the apparent positions of planets and stars over time, as shown by the work of the great Eratosthenes, defines that irony which gave rise to humanity’s notion of *universal* during those times. This, of course, leads to the apposite approach, locating the changes in the map of the planet’s surface according to changes observed to occur within an astronomical universe, and, then, in turn, to the study of detected, long-ranging changes in what might have been thought a simple regularity of movements in the heavens. *It is important to acquire the habit of thinking about related matters in such a fashion, even if*



*Johannes Kepler (portrait from the University of Strasbourg, 1727).*

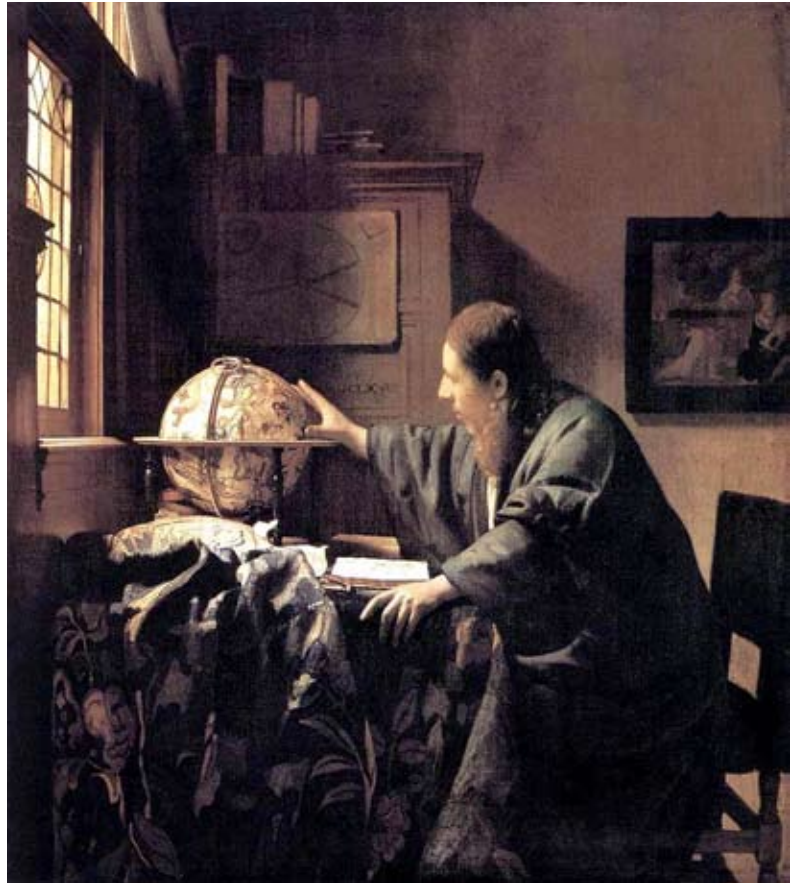
1. Contrary to a largely fraudulent, and systemically incompetent opinion of rabid amateurs such as the the British empire’s stooge and former U.S. Vice-President Al Gore, the world has currently entered a cooling phase, comparable to that which occurred during the late Eighteenth and early Nineteenth centuries. The purpose of the promoting of the World Wildlife Fund-sponsored, outright lie of “global warming” by vampirebat lovers such as Prince Philip, is the British empire’s intent to prevent any economic recovery which might echo the awesome threat to a world-wide British empire called “globalization,” which President Franklin Roosevelt’s great economic recovery had represented during his term in office. The spoor of the calendars developed by those indicated ancient mariners to whom I make implicit reference here is the evidence on which I am relying.

only for the purpose of training the human mind to deal competently with the idea of that universe which we inhabit. This practice fosters that quality of freedom in thinking which is indispensable for promoting the creative powers of the human mind. It is of the highest importance to examine your own mind's process of thinking, thus using the playing of such imagined tricks upon oneself, as a way of promoting true self-consciousness—a truly ironical self-consciousness: to make one's own processes of thinking, when caught in the moments of their relatively greatest moment of deceptively apparent finality, one recognized as a mere object of one's own continuing to think in new, higher-order terms of reference, while our mind's attention has leaped, meanwhile, to the challenge posed by a qualitatively higher set of relative terms of reference.

As the ancient practice of *Sphaerics* illustrates the point, what should actually be regarded as science, is limited to evidence of principles which are truly of the universe, principles whose proof is of a type rooted historically in the use of astronomy for celestial navigation in, especially, the oceans and seas of the world, as this was done by Johannes Kepler, and by such of his followers in scientific method as the great physicist Carl F. Gauss.

*This self-critical view is rooted in what is implicitly astrophysics, in observing one's own creative processes in action, reflectively; so, as I shall emphasize here, it is also the key to the true meaning of the artistic imagination, as artistic imagination is the typical characteristic of scientific outlooks coherent with a sense of personal identity rooted in the concept of a "Type 'B'" method.* This is of critical importance for understanding the foundations of competent approaches to understanding the roots of any competent attention to the subject of the principles underlying a science of physical economy.

It is the discovery of the existence of universal physical principles, in that way, which has been required to develop the concept underlying all competent physical science. This is accomplished by forcing societies to cease depending on a depraved form of naive faith in



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the bare human senses as such, as the modern “behaviorists,” such as the evil Adam Smith, have done.<sup>2</sup> This

2. E.g., Adam Smith, **The Theory of the Moral Sentiments**, Chapter III ff.: “Of universal benevolence:” “... The administration of the great system of the universe, however, the care of all rational and sensible beings, is the business of God and not of man. To man is allotted a much humbler department, but one much more suitable to the weakness of his powers, and to the narrowness of his comprehension; the care of his own happiness, and that of his family, his friends, his country: that he is occupied in contemplating the more sublime, can never be an excuse for his neglecting the more humble department: that he must not expose himself to the charge which Avidius Cassius is said to have brought, perhaps unjustly, against Marcus Antonius; that while he employed himself in philosophical speculations, and contemplated the prosperity of the universe, he neglected the Roman Empire. ... But though we are entrusted with a very strong desire of those ends, it has been entrusted to the slow and uncertain determinations of our reason to find out the proper means of bringing them

distinction is the topical area of my immediate subject here.

Smith is a crucial target for criticism on this account, not because he was unique in his evil, he was not; but, because of his systemic role as being evil in respect to one of the two specific roles to which he was assigned by, and which he performed in the service of frankly Satanic Lord Shelburne's assignment of Smith: to wit, to seek the destruction of the freedoms of the English colonies in North America. This was a plot for which Smith was assigned, beginning 1763, on behalf of Shelburne's British East India Company, an initiative on which all truly effective forms of global evil have been spread, at least principally so, throughout the world since that time, up to the present instant these lines of mine are written here.<sup>3</sup> It is not what an individual does, as an individual, which is the root of the historical importance, for good or evil, to be attributed to him, or her, in science, or otherwise. Rather, this subject must be assessed from the vantage-point of *social dynamics*, as the crucially important closing paragraphs of Shelley's **A Defence of Poetry** identify this topic.

It is the discovery of a true scientific principle, or any other principle which affects the direction of the condition of society to kindred effect, and, which, therefore, distinguishes the individual who actually shapes history, from the virtual puppets who dangle and dance as directed so by the pulling of those strings of a common and prevalent ideology which holds their very souls in the captivity of their naive beliefs. Those exceptional individuals who have served as great discov-

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about. Nature has directed us to the greater part of these by original and immediate instincts. Hunger, thirst, the passion which unites the two sexes, the love of pleasure, and the dread of pain, prompt us to apply those means for their own sakes, and without any consideration of their tendency to those beneficent ends which the great Director of nature intended to produce by them." *According to certain disputable passages from Genesis, so spake the Serpent to Eve, in the Garden of Eden, as "serpents" in the form of such as Peter Orszag and Dr. Ezekiel Emanuel have spoken to President Barack Obama, or, their likeness had inspired Adolf Hitler before them.* Such is the root-doctrine of that intended copy of the old Roman Empire which informed the composition of that empire of Lord Shelburne which Adam Smith, Jeremy Bentham, and Edward Gibbon served with that same Pythian devotion. Such is the inherent bestiality of philosophical behaviorism.

3. It must be emphasized that Smith's **Theory of Moral Sentiments** was published in 1759, almost four years prior to Smith's personal commission by Lord Shelburne to spy against the Americans and French. Smith was selected by Shelburne for the quality of universalizing evil which he already embodied.

ers of principle, are of relatively unique importance for understanding any part of real history, because all social processes, and, indeed, all kinds of processes in the universe, are essentially *dynamic* (e.g. Platonic), rather than reductionist (e.g., Cartesian, behaviorist), in character. It is only by knowing how to overturn those false principles which fools, such as Euclid, have imagined to have been either "self-evident," or merely simple, that we are enabled to bring true human knowledge into play. Whether the exceptional such individual who does this, is an object suited better for either infamy or adoration, the principle of this subject-matter remains the same. It were more important to become such an exceptional individual of the "Type 'B'" category, than an emperor of a galaxy: one would hope, for the good of mankind. It were only required that one have the courage, even the sometimes astonishing boldness, to be just that, whatever the beckoning or menacing circumstances of the moment.

To that point, it is the introduction of the knowledge and use of a true universal principle, whether for good, or evil, which defines the dynamical character of all history, of man, as of the universe as a whole. It is action which shapes, or changes such dynamics, which is the actual shaping of the history of any particular phase of both a culture of mankind, and of the universe in its entirety.

To come to the kernel of the business assigned to this chapter of the report, the possibility of knowing the state of sense of personal identity which corresponds to a personality of "Type 'B'," as distinct from "Type 'A'," is a benefit of the historical process of successive discoveries, assessed by reference to a process by which at least some part of the human population has come to a knowledgeable command of his, or her own sense of an outlook on an imagined universe of the type which corresponds to the characteristic form of belief held by a "Type 'B'" personality.

In other words, animals are born and die as individual mortal members of the same assembly of living creatures. Human beings, when they are fully human in the intellectual sense, locate their identity in history, rather than as some creature whose efficient existence is limited to the span of its mortal existence in the flesh. Human individuals rightly locate their identity in such a fashion, that, what people become when born, already begins to embody the net accumulation of changes in culture which have endured, in one fashion or another, over many preceding generations, especially of that

language-culture. True ideas of principle do not appear as discrete events, but as the expressed process of out-growth of a long sequence, of many generations, encompassing the preceding developments in which the development and birth of that idea is situated *dynamically*. This is the principle of *dynamics* as revived, explicitly, during the decade of the 1690s by Gottfried Leibniz.

True ideas of principle fix the point of reality of our present, mortal existence, at some future destination, a destination chosen as a professional mountain-climber selects the peak which he has yet to climb up to the present time, perhaps which no one had reached earlier, perhaps a time, perhaps a destination lying beyond the span of the merely mortal form of his, or her existence. We must think in the future, to locate the true future meaning of present choice of a way of living, of working day by day. So did Nicholas of Cusa; so did the Christopher Columbus inspired by the proposal given by Cusa.<sup>4</sup>

Thus, we have:

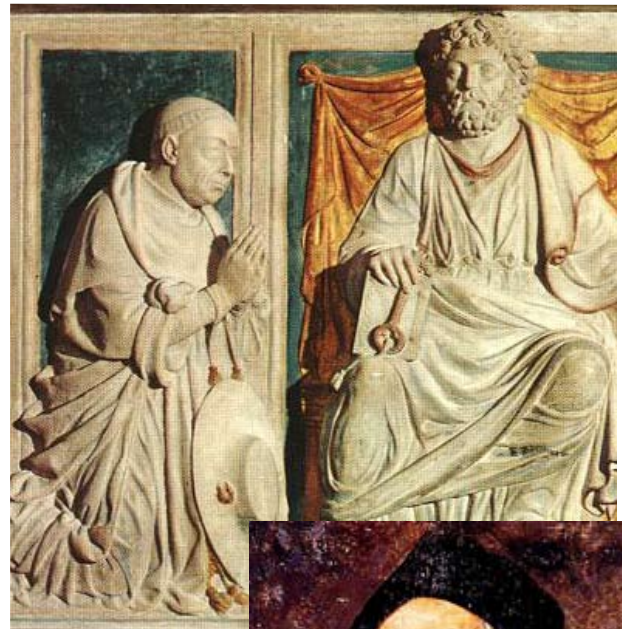
### **Cusa, Columbus & “The Mayflower”**

This distinction, of *dynamics*, as it also applies to social processes as such, as to physical science, can be made most clearly for one of those among us who dwells in the tradition of the process leading into the American Revolution, when, and if, he or she has gained the knowledge and relevant experience to recognize the systemic points of difference of the patriotic (anti-British empire) American citizen, from the somewhat contrary cultural outlook of the more typical case of even the present-day European.

So, the meaning of our lives as citizens of our republic which dwells within the world at large, lies in our ability, whether American or European, to grasp the future meaning of the distant destination, in space, time, or both, on which we have chosen to be embarked.

It should be clear enough, that all good works by persons in current time, are not defined by what we happen to use up during our own lifetimes, but, rather, good results usually rely on anticipation of the

4. In Portugal, Columbus encountered the writings of Nicholas of Cusa outlining such projects of trans-oceanic cooperation with people on distant continents.



*A dynamic process was set in motion with Cusa’s design for the creation of a new civilization across the oceans, far from the reach of the European oligarchy; hence, the voyages of Columbus (above); and the later Mayflower (left) settlement in the New World. (Cusa is depicted in this relief, (top) to the left of St. Peter.)*

future outcome of those discoveries, that for the benefit of future generations of mankind; such is the option we should seek in the normal choice, a choice of that which we have chosen to become currently engaged in building, in our devotion to the future defined in this way. “What, child, do you intend to become when you are

grown up?” The trouble was, that most Baby-Boomers preferred not to think very much about the existential experience of either others, or even themselves, beyond a very, very short distance into their present future.

So, as I have indicated above, the most remarkable such distinction is that the development which became the United States, was a reflection of the influence of Cardinal Nicholas of Cusa’s design for crossing oceans to find the opportunity to develop the cultural heritage of European civilization in a place at some relatively great distance from that plague-like, imperialistic, oligarchical form of maritime tradition, which has prevailed in European cultures since the infamous Peloponnesian War. Christopher Columbus’ voyage, which was inspired by his knowledge of Cusa’s trans-oceanic perspective, pin-points the true origin, and deep-rooted historical character of what became our United States of America and its unique, constitutional system of political economy.

Unfortunately, the broader development of this project within the Americas as a whole, has been crippled, although more emphatically in other parts of the Americas, than in our U.S.A., until the U.S.A. itself had been plunged into decadence by approximately late Spring 1968. The similar expression of such a defect within the other modern national American cultures to our south, is to be blamed chiefly on the long, polluting reach into the other parts of the Americas by the combined actions of the Habsburgs, and their successors and masters, the British empire as Simon Bolivar, at the end of his life, in Colombia, described this British role in South America. The increase of the British brand of Venetian monetarist control over South America today, for example, is expressed by the ruinous interval of the British orchestration of that successor to the pre-1763 “Seven Years War” which became known as the Napoleonic Wars. Such were the wars which a foolish, narcissistically self-deluded Napoleon fought for, in fact, embedding a British imperial reign over all Europe, through creating a more successful version of a “Seven Years War,” under a foolish Napoleon Bonaparte’s new “Seven Years War,” the so-called “Napoleonic wars.” The result was a grip of the British Empire on continental Europe which was never successfully challenged in any part of Europe until President Abraham Lincoln had led the United States to victory over the British Empire and its London-controlled Confederacy puppets.

Every major war on this planet since 1865 has been an offshoot of the principal goal of the British Empire,

that empire’s desperate commitment to bringing about the ultimate destruction of our United States. Every war by the British empire, everywhere, since that time has been subsumed by the British obsession with bringing about the ultimate destruction of our United States, as is the British intent in deploying its puppet Barack Obama now. Similarly, there is no treasonous enterprise, such as the Wall Street rape of our national economic system, or the continued existence of Goldman Sachs itself today, which is not an exertion of that British intention now. The actual British war-guilt for every aspect of World Wars I and II, and the role, in seeking to nullify the 1648 Peace of Westphalia, by such unspeakable moral degenerates as former British Prime Minister Tony Blair, typifies the same issues posed by so-called “British Imperialism” today.

For example:

The fact to be emphasized in seeking to understand the present, global world economic breakdown-crisis in progress today, is that, as I have just indicated, above, the Napoleonic wars served, still later, as the true predecessor of a new “Seven Years War” launched from London, so-called “World War I” and London’s resumption of that as “World War II,” all combined occurring as a set of outcomes made possible by the combination of the 1890 ouster of Chancellor Bismarck and the 1901 assassination of U.S. President William McKinley.<sup>5</sup>

For example: McKinley had been killed by an assassin brought, from Europe, into a New York City safe-house controlled by British interests.<sup>6</sup> That imported assassin had been harbored for the purpose of this mission, by the greater New York City Anglophile oligarchy, thus bringing into the Presidency the actually treasonous Theodore Roosevelt (the nephew of a British agent in the Confederacy operations) and, also, the Woodrow

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5. Also highly significant was the June, 1894 assassination of France’s President Marie François Sadi Carnot.

6. The arrangements for preparing the assassination were made through the anarchist Emma Goldman who was, at the time, a controller of New York City’s Henry Street Settlement House. The assassin, Leon Czolgosz, had followed Emma Goldman to Cleveland, Ohio, where she delivered a rabble-rousing address. Thence, he went to Buffalo, to assassinate the President. The key figure in the connections of the Henry Street Settlement House at that time, was U.S. Vice-President Theodore Roosevelt, the nephew, and protégé of the James Bulloch who had headed the Confederacy intelligence service’s operations from within London during the Civil War, and who was the sponsor of Teddy Roosevelt’s political career. McKinley had been commissioned in military service to the republic during the Civil War.

Wilson of the Ku Klux Klan family tradition, who actually relaunched the Ku Klux Klan from what Teddy Roosevelt had renamed “The White House” during that Roosevelt’s own term as President.

Meanwhile, back in Europe, the persistent recurrence of parliamentary systems in Europe, and otherwise systems of law and traditions of social practice which are systemic flaws in specifically European cultures still today, is key for understanding the organic quality of difference in cultural world-outlook distinguishing U.S. republicanism from the pro-oligarchical relics of a European Liberal democracy still deeply corrupted by the legacy of Paolo Sarpi and of such among his notable followers as Abbe Antonio S. Conti and Voltaire, still today.

For related reasons which are illustrated with a certain excellence by what I have just identified as “the Columbus Principle” on which the existence of the United States has depended, it would be absurd to define the culture of the U.S.A. as peculiar in origin to itself. The culture of the patriots of our United States has been a branch of the European culture which has persisted since no later than Solon of Athens and such among Solon’s political heirs as Plato. The foundation of the cultures of the Americas is, virtually in its entirety, the effect of transplanting the seed of an already existing species of European culture to a habitat, across the Atlantic, which was a healthier place for its realization than in the relatively decadent, more emphatically pro-oligarchical habitats of Europe. However, it is also the case, that the afflictions of the worst “diseases” which the American cultural species has suffered, are the result of cultural “spores,” chiefly modern British imperialism, which have invaded the cultures of the American, bringing the moral diseases associated with the still persisting, pro-oligarchical cultural habits of “Old Europe,” such as parliamentary systems.

However, there is a more fundamental issue underlying the aforesaid considerations:

### ***The Fundamental Principle***

The underlying principle in all of this and related matters, is that the systemic uniqueness of the human personality, relative to all other types of known living creatures, is that mankind is able to shape the direction of the development of the region he inhabits within the universe, as in the discovery and application of universal physical principles, as Kepler, for example, discovered a universal principle of gravitation, through his use

of the creative powers unique to the human individual. In this respect, man not only acts to alter the course of the universe in that degree, but, it is an essential principle of the science of physical economy, that man is acted upon, for better or for worse, by the universe’s own reaction to mankind’s willful changes in both the parts of the universe which we inhabit, and even beyond.

This is a fact which is only illustrated by the way a trained jet aircraft pilot might think about a space-pilot’s controlling role within the relativistic effects of a continuously accelerated/decelerated travel to Mars-orbit, a journey expressed as the experience of that space-pilot’s functioning in flight. Thinking of a human species living within the biosphere, and thinking of mankind as controlling the development of the biosphere, like thinking of man as an Earth-dweller as compared to man inhabiting the domain of the relativistic modalities of accelerated space-travel, correspond, in both comparisons, to two qualitatively different definitions of what are but relativistic phases of the same principle of mankind. Accelerated trajectories in space-travel is a nearer experience of true human nature, than growing paunchy as a contented (or, discontented) Earth-grubber.

This is not merely an illustration of my crucial point; it is my use of a relatively extreme case to convey a sense of those boundary conditions through which we are enabled to convey the characteristics of human existence, even as the embedded potential contained within a man whose experience is limited to walking from one place to another. To come to live in space, as travel between Earth and Mars, and dwelling there betwixt and between, requires that man change his environment to bring the condition of travel and Mars-habitation *into conformity with normal human requirements*. We must create “artificial environments” as the buffer between normal human requirements, as if on the surface of Earth, and an equivalent effect of human life for man under the conditions of travel and habitation in tolerable, and reachable parts of the Solar System with characteristics outside the standards of Earth’s surface.

We already do that in development of the Noösphere from primitive to modern physical-economics standards of human practice. Comparing that role of scientific-technological progress of cultures on Earth in recent centuries, to the new qualities of progress required for exploration of nearby Solar space, should be employed as a way of generalizing the concept of typical human progress in such a way that both of the com-

pared states are conceived as if they expressed a single principle of human development.

The means by which we must discover how to employ the effect of a successful extension of the idea of scientific-technological progress in those broader terms, will require the approach to virtually every-day mastery of discovered physical principles which are beyond usual classroom visions presently. So, what! Discovery is the fun of the game! It is the kind of game which really progressive human persons love to play, often even at the price of the explorer's great daring to risk his life. After all, what any of us really "gets out of life," is, in the long run, what we give to it.

Looking at the contrast of "Type 'B'" to "Type 'A'" will also help to make clear the implications of this point:

### **Principle & Phenomenon**

There are four crucial principles which must be considered as primary matters of reference in treating the subject of the human mind within the setting of the subject of physical space-time within our Solar system. *First*, is the principled distinction of subject-matters which are not considered as, apparently, the distinction of, or products of living processes (*the Lithosphere*). *Second*, is the principled distinction of subject-matters which exist for us only as either living processes, or as products of what had been living processes (*the Biosphere*). *Third*, is the principled distinction of the sensory functions of the mind of the living human individual, that as a biological phenomenon. *Fourth*, is *the creative powers—the powers of creative imagination—*of the individual human mind, as distinct from the animal-like capabilities of the living human body (the subject of the *Noösphere*): the phenomena of what is identified meaningfully as *the human soul*.

*It is only when the distinctions and interrelationships among all four of these categories are taken under consideration, that the notion of the individual human "soul" finds its real place in study of the efficient principles and effects to be considered in the context of physical science. This matter comes fully into play once the field of inquiry is shifted to the matter of efficiently extra-terrestrial roles of human life under conditions of relativistic interplanetary travel and social relations defined within the bounds of such terms of reference.*

Keep the fact of my statement of these as facts to be considered, here and now. I shall return, to qualify these distinctions, at the appropriate points of the develop-

ment of the following argument.

The first lesson which any person who would be a competent economist must now master, is the importance of rejecting the popular delusion, that mankind's inhabiting the planet Earth, or any particular territory within Earth, signifies the delusion that man is merely living within the bounds of nature. *Man, if he is productive, is changing his habitation, as by a higher authority than "nature" otherwise defined, that as if from above.*

*If his practiced culture is truly productive, man is depleting the richest of those practically accessible resources he employs as "natural resources," but, nonetheless, man must be constantly increasing the productive powers of labor, per capita, and per square kilometer of relevant territory, such that the typical individual is more productive, and richer, with the new, relatively poorer resources, than with the relatively richer, earlier resources.*

In the known history of cultures, this increasing of net productivity per capita and per square kilometer, is associated with a long-wave trend toward increase of *the relative energy-flux density of the modes of heat-work employed*, moving upward from the poorest quality of general resource, such as sunlight impinging on what is conventionally classified as our planet's surface, to the improvement of the net energy-flux density accomplished as the work of chlorophyll and the related role of increased use of that carbon atom which plays such a crucial role in the possibility of life, especially human life. We progress from burning of trash, to charcoal, to coal, to coke, to petroleum and natural gas, and then the leap into the much more powerful energy-flux densities of nuclear and thermonuclear power. *It is the increase of the application of a certain energy-flux density, per capita, as distributed, in one or several particular portions, per square kilometer of territory, which is not only the only principled course for the improvement of the condition of human life, but without such increases in energy-flux density, human life on this planet must necessarily deteriorate, ultimately to the point of a large degree of genocide against the planet's population as a whole.* A contrary policy, such as those of today's neo-malthusian fanatics, such as the World Wildlife Fund's Prince Philip, et al., would be clearly, and criminally, insane in its effects.

In fact, we have already entered such a phase of degradation.

Take the case of potable water as illustration. We are presently drawing down previously existing stocks of



USDA/Jeff Vanuga

*We are drawing down stocks of potable water at such rates today, that a global ecological catastrophe for mankind is threatened, without the use of nuclear-fission and thermonuclear-fusion sources of the power needed to ensure a suitable freshwater supply for even the existing level of population. Here, handline sprinkler irrigation in Yuma, Ariz., 2002.*

current sources of potable water at such rates that we are already moving toward a global ecological catastrophe for mankind, unless we change current trends by a very large-scale rate of increase of the use of nuclear-fission and thermonuclear-fusion sources of the power needed to ensure a suitable fresh water supply for even the existing level of population. The notion that present ground-level sources of solar and wind “power,” or sources of potable water, could meet human needs, is sheer lunacy. In any case, the world is currently in a global-cooling phase, headed toward, and already within the beginning of a cooling period such as those experienced during the late Eighteenth and early Nineteenth centuries, all contrary to the widespread lies currently spread among the credulous by the incredible.

Every change in patterns of land-use since the middle of the 1960s, has been fairly described as worse than merely insane in its effects on present society, with even much worse effects if this nonsense is permitted to be continued during the decades immediately ahead. We must increase the physical productive powers of labor, per capita, and per square kilometer of territory at a fairly high rate, even for the purpose of providing socio-economic stability of the existing trends in population globally.

The general formulation to be brought into play here, is that the development of the preconditions of human life, depends upon the action of the Biosphere upon the Lithosphere, to the effect of generating the preconditions required for progress in the condition of human life. Mankind must manage this relationship, both to reap the harvest of the Biosphere, but, also, to increase man’s power of action, per capita and per square kilometer, such that we shift the emphasis away from relying upon the relatively depleted formerly richer fossil remains of the product of the Biosphere, by increasing the *physical* productivity of mankind, per capita and per square kilometer, that at such rates that the net result is increased productivity per capita and per square kilometer, despite the obligation for using increasingly poor qualities of natural resources to the

effect of increasing the net physical output of product per capita and per square kilometer.

This also requires that we increase the power of productivity of mankind, per capita and per square kilometer. This can be accomplished only through, chiefly, emphasis on increasing the level of expressed human creative intelligence of the population, in physical terms, and the creating of superior products by that means.

The included general implication of this, is that the net capital physical intensity of the economy, per capita and per square kilometer, will increase more rapidly than the increase of direct productivity. This also means that the “life-span” of the relevant capital improvements will be increased, at the same time that the capital-intensity of what is consumed per capita and per square kilometer is also increased. In that sense, man’s society—mankind’s economy—must become increasingly synthetic, relative to the rate of current consumption of what is being currently produced as useful product otherwise.

This process, which must be fostered, if mankind is to survive even within the bounds of this planet, when that process is described as I have just indicated, signifies that humanity is approaching a required point of



combined increase of productivity and capital-intensity, on Earth itself, such that this trend toward such compounded rates of physical-capital intensity and related productivity, is moving us toward the practical urgency of launching a society within the immediately more convenient regions of the Solar system, in which space travel will become increasingly economical. We are moving, in the longer term, toward man in our galaxy.<sup>7</sup>

The question to be asked is: how is this possible? What is the assured source of increase of human physical productivity, such that mankind is capable of generating physical-scientific progress at the rates which my descriptive set of ratios, just given here, implies?

This brings us now, again, to the crucial matter of the “Type ‘B’” personality.

### “Type B,” Restated

When the newborn person is released from the womb, with the consequent effect of something resembling the unpacking of the contents of a crate which contains the latest new creation delivered from the factory, the bawling, naked individual thus unleashed upon society, is delivered and presented, more or less complete, with certain accompanying, essential attachments commonly identified as “the senses.” The ignorant person would tend to believe, that what these instruments, the senses, transmit, as a kind of image, to the human mind, is the image of reality.

Not so: the great principled discoveries of science show us that these so-called senses do not present us with a direct image of either the principles, or objects which control the real universe of our experience, but, are, rather, merely the essential items of instrumentation delivered, as accessories, more or less intact, with the arrival of the infant. This becomes clearer and clearer to the scientist as mankind develops new, “artificial senses,” like added attachments, to present the human mind with subsidiary “senses” intended to reflect changes around us which are either too large, or too small in scale, for the human individual to observe directly, or have been crafted to present us with shadows of reality which do not fit specific categories for

which the original package of human sense-perceptual equipment was intended to measure the relevant intended effect to be observed.

So, as I have emphasized at earlier points in this present report, our senses do not show us the reality outside our skins; they show us a shadow cast by the reality. We—our mind—can not “see” directly what has cast that shadow; we must craft an image in the human mind which experimental methods can prove to be the shadowy “other” image presented to natural or synthetic, sense-perceptual instruments.

The most essential work of the individual human mind, on this account, is that of adducing what science identifies as universal physical principles, such as Kepler’s uniquely original discovery of universal gravitation, or the principle of *dynamics* as brought onto the modern stage by Leibniz, and developed more richly by such followers of Bernhard Riemann as Albert Einstein and V.I. Vernadsky. By aid of the application of these discovered principles, we are enabled to explore the panoply of shadows known as normal and artificial sense-perceptions in, for example, a competent form of progressive development of modern physical science.

Thus, we have the two types of mentality to which I have referred, repeatedly, in this report: Type “A” and Type “B.” The first, “A,” is presented by the case of the naive believer in sense-certainty, who blunders repeatedly, by clutching at those gritty shadows which the more simple-minded citizen has mistaken for the objects which have cast the shadows. The credulous dupes of Paolo Sarpi, such as Locke, Adam Smith, and Jeremy Bentham, are nasty versions of the expression of this fault, victims victimized by beliefs resembling the Type “A” case generally. As Adam Smith emphasized his own streak of evil, as in the passage which I excerpted, above, from his **The Theory of the Moral Sentiments**, he is typical of the vicious incompetence of the behaviorists and kindred empiricists of the Type “A” variety generally.

We, on the other hand, must learn to act effectively on the objects which we can not sense directly, by striking toward those unseen objects whose presence the shadows have betrayed. We must act as if we could actually see the force of the *dynamics* which controls the apparent objects in motion: *dynamics* as Percy Shelley sums up the matter in the closing paragraphs of his **A Defence of Poetry**. We must strike at the unseen object, which we can not sense directly, but which we can adduce, efficiently, as the efficient presence lurking to

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7. Cf. Marsha Freeman, **Krafft Ehrlicke’s Extraterrestrial Imperative** (Burlington, Ontario: Apogee Books, 2009). The development of the physical economy on the Moon, as preparation for man’s venture to more distant, Extraterrestrial, goals, must be clearly understood as a precondition for man’s development of our sites for man on other planets.

attack us from his place under cover of sensory darkness. Our power to do exactly that, hit the unseen enemy on his flank, is always the task immediately before us, whether the enemy is hunger, disease, popular misery generally, or a vicious mortal foe of the welfare of mankind.

“What flank!?” we hear some silly fellow calling in from the back of that room wherein we are speaking. “What is this? Voodoo? I believe what I can touch!”

The power to act efficiently against the ostensibly unseen, is the specific genius which most clearly distinguishes thinking adult men and women from the monkeys caught in a Malaysian farmer’s monkey-trap. The agency on which this wondrous and absolutely indispensable capacity depends, is what is called “the imagination.” The principal expression of this faculty of the human mind is Classical poetry and its integral feature, vocal well-tempered counterpoint. The essential function performed by this faculty is *Classical poetic-musical irony*. The highest degree of refinement of this faculty of the actually creative mind, has been developed on the basis of the system of well-tempered counterpoint launched by the Johann Sebastian Bach whose influence produced all truly great musical compositions and their performance from J.S. Bach himself through the last principal works of Johannes Brahms, such as his great **Vier Ernste Gesänge** and his Opus 120 pair of clarinet sonatas.

This is the unique quality of the achievements of Wolfgang Amadeus Mozart, especially from the time of his deep steeping in the work of, especially, Johann Sebastian Bach, as in Mozart’s association with the Sunday events at the Vienna salon of former diplomat at the court of Friedrich der Grosse, Gottfried van Swieten,<sup>8</sup> and of the greatest giant since Bach himself, Ludwig van Beethoven, or the related, massive output of Franz Schubert, or the related genius of Giuseppe Verdi, even taking notice of the otherwise ungodly hater of Jo-

8. Bernhard Paumgartner, **Mozart Leben und Werk** (1940, 1991).



*Dante Alighieri's epic poem, the Commedia (Divine Comedy, 1308-21) created the beautiful Italian language, while his De Monarchia (1312-13) established the foundations for the modern nation-state. Dante is portrayed in this painting by Domenico di Michelino (1465), with his poem: Hell, Purgatory, and Paradise are shown, with Brunelleschi's dome on the Cathedral of Florence, depicted, anachronistically, on the right.*

hannes Brahms, the wildly Romantic admirer of the fervently Satanic Richard Wagner and Franz Liszt, the Hugo Wolf of his Mörike and Goethe Lieder.

### **Modern European History**

To understand the modern European Classical Renaissance, we must steep ourselves in the echoes of Dante Alighieri, and the consequences of that rise of modern European civilization which was centered around the process leading, explicitly, through the martyrdom of Jeanne d’Arc at the hands of the heathen Normans’ inquisition, into the great ecumenical Council of Florence and the contribution to the founding of the modern sovereign nation-state by both Nicholas of Cusa’s **Concordancia Catholica** and the birth of modern science by Cusa’s **De Docta Ignorantia**. Despite the pro-satanic religious warfare launched under the leading role and associated provocations by the Habsburgs from 1492 through 1648, the launching of the modern nation-state premised on the central influence of Nicholas of Cusa, and the 1648 resuscitation of European civilization through the intervention of such

as Cardinal Mazarin and his associate Jean-Baptiste Colbert, have defined the platform on which all of the great accomplishments of modern European civilization have depended, essentially.

During those historical intervals of modern European history, from the birth of the Fifteenth-century Renaissance at the great ecumenical Council of Florence, through the high points of the history of our U.S. constitutional republic, the driving force for the progress of civilization has centered, since February 1763, on the initiative which produced the unique form of constitutional, republican self-government of our own United States. However, from the death of President Franklin Roosevelt, and the accession of his accursed successor, Harry S Truman, the world has been, in net effect, on a generally, net downward course, both culturally and in terms of physical economy. The root-cause of this post-April 12, 1945 moral and related decline of the U.S. republic, from the relatively high point which had been represented by the Presidency of Franklin Delano Roosevelt, was essentially the destruction of Classical artistic culture by the modalities of the Frankfurt existentialists and the pro-satanic Congress for Cultural Freedom (CCF). The root of this decadence was fostered, in a large degree, by the attack on competent methods of physical science led by the logical-positivist current associated with the mechanics of Ernst Mach and the more wildly fanatical, ivory-tower positivism of Bertrand Russell's Russell-Whitehead **Principia Mathematica**<sup>9</sup> and of the school of such as those, Norbert Wiener and John von Neumann, justly expelled, by David Hilbert, from Göttingen, on well-founded charges of systemic incompetence.

While the obvious target of the irrationalists of the positivist schools was the uprooting of competent methods of physical science, it was the concurrent launching of the attempted extermination of the Bach-Haydn-Mozart-Beethoven-Schubert-Brahms legacy of competence, especially since the rise of the popularity of the cult of Liszt-Wagner, but, emphatically, the modernist attack on Classical artistic composition, which has been the principal influence responsible for the ruin of earlier competence in physical science.

This new attack had been launched largely with the publications of the *Critiques* of Immanuel Kant, who had not dared to publish his frauds until both of the great pair of Abraham Kästner and Moses Mendelssohn

9. For which Whitehead justly blamed Russell.

were deceased, and, as the degeneration of culture was continued beyond Kant, by the founder of the modern conception of the fascist state, Prince Metternich's correspondent (and agent) G.W.F. Hegel. For our immediate purposes here, the crucial issue is the efforts to uproot the legacy of J.S. Bach, Mozart, Beethoven, Lessing, Mendelssohn, Schiller, Shelley, and the brothers von Humboldt, under the circumstances created by the stunt of the fall of the Bastille, the Jacobin Terror, and the rise and reign of Napoleon Bonaparte on the continent of Europe. The crucial aspect of this culture warfare, was the rise of what is known as Nineteenth-century Romanticism of such as the founders of that 19th-century Romantic school of law, G.W.F. Hegel, and Karl Savigny, that out of which modern European fascism was to emerge, especially with the added introduction of synarchism in circumstances defined by the British agent better known as Napoleon III.<sup>10</sup>

The core of all this destruction of the role of reason in modern European culture, was the attack on the principles of Classical composition in poetry, and the relationship of such poetry to Classical musical composition and Classical drama. What happened at the close of World War II, on both sides of the Atlantic, was the destruction of Classical poetry and its expression as Classical musical composition.

The crucial point to be considered here and now, is that the influence of that power of creativity whose products we encounter in the most notable achievements of physical science, is that domain of the creative imagination, through whose "chemistry" the power of creative insight is supplied to what were otherwise morally dead mathematics. The power of musicality expressed as Classical poetry, is the faculty of the creative imagination which produced the great, original scientific insights of impassioned amateur violinist Albert Einstein's wonderful assaults on the domain of the unknown in the practice of physical scientific investigations.

10. This fact respecting former British policeman Napoleon III is of crucial importance, in the respect of the grave error of Germany's Wilhelm I in evading Chancellor Bismarck's understanding that Germany (then, Prussia and its German allies) must make peace with France, once the British agent Napoleon III were toppled. Otherwise, a continuation of embittering warfare between Germany and France would play into what Bismarck understood as being British imperialist hands and intentions. So, it was the ouster of Bismarck by the foolish puppet of the Prince of Wales Edward Albert, the Prince's nephew Wilhelm II, and the similar folly of Edward Albert's other nephew, Russia's Nicholas II, which led to the ruin of Germany, and the life of Czar Nicholas, under the leadership of the foolish Wilhelm II.



EIRNS/Stuart Lewis

*LaRouche's late friend Norbert Brainin, the lead violinist of the legendary Amadeus Quartet, shown here performing with pianist Günter Ludwig, understood the principle of playing "between the notes": "It comes from the soul, rather than the literal score...."*

There is an aspect of Classical musical performance, which is stunningly prominent in the conducting of that friend, and sometime member of the Berlin Jewish musical community, Wilhelm Furtwängler, and in the exemplary work of my late dear friend of the Amadeus Quartet, Norbert Brainin, which, as it is sometimes said, gets "between the notes" in a way corresponding to the Classical principle of the "comma," which no mere music school could achieve. It comes from the soul, rather than the literal score, or the mere vocal mechanics of the singing voice of the man-made Classical instrument, such as the greatest still-surviving violins.

We may come to recognize this in the performances of the greatest performing artists which have been delivered "on a good day." There is nothing pertinent to either attempts at simple imitation or to that shameful lewdness called "Romanticism" in such performances. It comes, as it might be said, not from the reading of the score, nor the pretentious appetites of the ego of the performer, but the soul.<sup>11</sup> The sound is not irrelevant, it is relevant only as it serves the purpose of the inherent creativity expressed as an idea which transcends all sound as such. This feature common to Classical poetry and performance of Classical musical composition, is termed, as by such as William Empson,<sup>12</sup> the domain of

11. Should we praise the singer in opera for the delicious color of green with which he had painted his face before coming on stage?

12. I.e., William Empson, **Seven Types of Ambiguity** (1947). My own

Classical irony, a notion of irony identical in principle with the definition of the role of the physical principle of the "infinitesimal" in Leibniz's discovery of a higher expression of the calculus during the span of the 1690s.

### ***The Root of the Leibniz Infinitesimal***

What I have now presented, thus far, repeatedly, at several points in the course of this trilogy on physical economy, is not uniquely original to me in terms of any among the more broadly defined essentials of that matter. What I have done which is actually original to me in that toward which I have pointed here thus far, is a fruit of my critical insight into the deeper practical, *subjective* implications of this knowledge for the practice of a science of physical economy. This is the aspect of the matter of economics on which all varieties of

the heretofore generally adopted schemes for representing economic processes have failed, that systemically.

The essential distinction between animal ecology on the one hand, and human physical economy, on the other, is those creative powers which do not exist among any lower form of life than mankind, but are found only in the accumulated, vast, willful increases in the potential relative population-density of the human species, as the best periods of the development of what became our U.S. republic illustrate the case. This subjective power of the human mind is the one and only cause for the increase of that potential relative population-density which is unique to the human species among all other forms of living creatures. This specific creative power, unique to members of the human species, is the one and only principle underlying the increase of the potential relative population-density of any successful social organization among members of the human species.

Money as such, has nothing to do, intrinsically, with such potential for increase of sustained potential relative population-density in any society. Therefore, the only competent object of policy-shaping by the U.S.A. or any other nation, or group of nations, under the pres-

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encounter with this book was my purchasing it from the counter of a bookshop down the street from the Boston public library, in that year. I quickly wrapped myself inside it, with repeated readings during the several weeks which followed. Some of it was new to me with the acquisition of that text; more important for me was what it opened up for my deeper understanding. That writer was truly a great talent.

ent conditions of an onrushing, planet-wide, general physical-economic breakdown-crisis, is to subordinate the creation and use of money as being merely a useful form of credit, a form of credit which is absolutely subordinated to physical-science-driven increases in the potential relative population-density and physical standard of living of society. This is a form of physical margin of gain which can be effected solely through increases, typified by the general reliance on increase of the use of nuclear-fission power in the applied energy-flux density of the economy, per capita and per square kilometer. Any policy contrary to that, presently, would be implicitly criminal mass-insanity in its effect.

Otherwise, the relevant principles of science themselves were, otherwise, already known in bare essentials of method of work in the domain of a science of physical economy, to many of the greatest scientists since the relevant ancient Egyptians and Hellenes, such as the ancients Archytas, Plato, and, later, Eratosthenes. It is the subjective view of these matters which is, so far, essentially unique to me here, and which is crucial for society now.

The first topic to be considered here, as to matters of a science of physical economy which are to be discussed among us here and now, are best approached from the starting-point of Gottfried Leibniz's uniquely original discovery of the calculus.<sup>13</sup> Let me begin that discussion of the principles underlying any competent

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13. Newton discovered nothing of more importance than that which he expressed, as a member of the British parliament, as his perception of the need to please "open a window" in those stuffy quarters. He did not even plagiarize what is claimed for him; the plagiarism was done by others, and served as if on a platter with an attached notice containing his name. On the actual historical record, all that was taken from Newton's own chest of scientific papers, from his only active academic field, was black magic. The original plagiarism of Kepler crafted in Newton's name, was taken essentially from published works of Kepler circulating in English, in England, during that time. The fraudulent claim for the calculus was concocted by the Paris-resident Venetian Abbe Antonio S. Conti who launched the swindle under the rubric of his suggestion that the work of Rene Descartes be reworked in English for the purpose of creating an English Descartes who would be credited, fraudulently with Leibniz's already well known discovery. It was the same Conti, working in concert with Voltaire, who launched the now traditional lies about Newton's claimed discovery of the calculus mouthed by bread-bought scientists seeking secure employment, still today. The project was run through the course of the Eighteenth Century, through such devotees of this hoax as "Three-body" Laplace and Laplace's "Rigoletto," the plagiarist Augustin Cauchy. As to the relevance of my observations on such account, one must not overlook the fact that such scientific frauds as those have served as the foundations for the failed dogmas of leading economics practice today.

science of physical economy with my own earlier reaction to Leibniz, as I have referred to that on numerous public occasions. I rephrase that discussion here from the vantage-point of this special kind of discussion of "Type B" versus "Type A."

From the start, as I have said, about everything I have published about my own classroom and related experience, has been premised on the following included considerations:

I had never accepted the Euclid I encountered in a secondary school classroom scheduled under the title of "Plane Geometry I," then, or later. As I have reported on numerous earlier occasions, I had developed my own ideas about geometry before my first encounter with geometry as a classroom topic, ideas I developed during a few family visits to the Charlestown Navy Yard in Boston, Massachusetts during the early, through middle 1930s. My most relevant experience there, was my interest in witnessing certain constructions in progress at that place, constructions which convinced me that the ability of a structure to carry its weight required striking an optimal balance between the respectively distinct dimensional qualities of the mass and the shape of the supporting parts of the structure.

*That was the birth of my concept which I came to recognize, later, and to the present day, as an anti-Euclidean physical geometry.* The most crucial subsequent development in my outlook, was that prompted by Riemann's 1864 habilitation dissertation, in my jubilation at encountering the opening pair of paragraphs presented there, and, more significantly, for reasons which should be obvious to those who know me, the concluding sentence.

In other words, when I had entered the classroom on my first day in a Geometry I classroom, I was already convinced that the function of geometry was to discover how to optimize the relationship of the respective shape and mass of the supporting structure. When it came time for me to speak there on that day, I said so. Many among my silly classmates giggled. Of course, I was nonetheless, absolutely correct from a standpoint of real physics, but not according to the standard of the notions of formal-mathematical completeness attributed to Euclid. I shall return attention to the most crucial implications of that a bit later here.

That confrontation with a silly, but still popular sort of prevalent classroom convention, turned out to be one of the greatest advantages of my life in my becoming a physical economist: my ability to think scientifically

was, thereafter, never crippled, as most of my fellow-students then, or later suffered, by the commonplace, particular, pandemic-like effect of actually believing in Euclidean geometry. That was what attracted me to Gottfried Leibniz during my teens, and ever since, as to Bernhard Riemann's famous 1864 habilitation dissertation, later, and to my contentious relations with some leading scientists, over the matter of Johannes Kepler's astronomy, later on. That is the point of reference for what I say here and now. That is how I came to be, subsequently, as today, a leading physical economist of the world, in fact, today: probably, the world's leading economist now. That advantage, largely gained by my being less misguided in such matters than nearly all my relevant contemporaries, is what had brought me to an impassioned preoccupation with Leibniz beginning the concluding two years of my secondary education.

Unfortunately, even despite the great advances in modern physical science which have appeared in modern civilization otherwise, the typical classrooms of the world, up to the present time, have never been freed of what European cultures have known as that regressive dogma of Aristotle expressed as the so-called *a-priori* presumptions of Euclidean geometry. This pseudo-scientific, traditionally Aristotelean *a-priorism*, is otherwise to be recognized as the systemically misleading notion of "completion," as that subject was famously treated, from a positivist standpoint, by the celebrated Göttingen scientist David Hilbert, as at the beginning of the Twentieth century. That notion of "completion" has presumed the bounding of the possible practice of mankind by some set of what are assumed to have been deductively demonstrable *a-priori* assumptions, presumptions sometimes differing from bare-bones Euclid, as in the case of Lobatchevsky's and Jonas Bolyai's assumptions, but akin to the soph-



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*The key to all of Leibniz's most notable accomplishments, is, that he was a thinker in a "Type B" mode, as seen in the fact of his practice, from even his early years.*

istry of Euclid, as expressed otherwise by deductively demonstrable *a-prioristic* assumptions of mere mathematics as such.

Despite such assumptions of the mere mathematicians, the progress of science demonstrates the contrary to be true. The root of the typical systemic errors of the mere mathematicians, such as the delusion of a "zero-technological growth," proceeds by ignoring the fact of the discovery of new physical principles which seem to "bound" previously known physical-mathematical systems through new discoveries of relatively higher physical principles, as Albert Einstein's rather famous, Riemann-based argument to this effect expresses that notion, and, similarly, the discoveries of the great Academician V.I. Vernadsky of Russia and Ukraine.

As in the case of Johannes Kepler's uniquely original discovery of the principle of universal gravitation, as documented in his **The Harmonies of the Worlds**,<sup>14</sup> systemically competent physical-science practice is systemically *anti-entropic*, not only in expressed product, but in respect to the principled, "Prometheus Unbound" conception of science itself. Zero-growth such as that of literature's **Prometheus Bound**, was always essentially a doctrine taught by slave-masters to their willing slaves.

The best presentation of the systemic features of the distinctions which I have just identified here, involves the discussion of the contrast of "Type 'B'" minds to those of "Type 'A'."

14. There is, admittedly, an extremely useful ambiguity to be considered in adopting an English-language title for this work by Kepler. Does he mean the worlds, or the Solar system (implicitly) as a whole, as a "world"? I prefer "worlds," but I also emphasize that adherence to the indicated ambiguity itself is perhaps the most useful transliteration, pedagogically.

## The Case of “Type ‘B’”

The contrast between the more popular view, of a “Type A” outlook, and my own choice of “Type B,” came about, originally, in that way. That is the key to my agreement with Leibniz since that time. The key to all of Leibniz’s most notable accomplishments, is, that he was a thinker in a “Type B” mode, as to be seen in the fact of his practice, from somewhere in his early years. We who have accepted the “Type B” mode as reality, readily share certain affinities. Sharing this view helped me greatly in understanding how Leibniz thought, and, later, Riemann. That development within me had already fascinated me in my hours spent on study of primary writings on the subject of relativity, during my many hours spent in the reading room of the Boston Public Library during those years before and, briefly, after war-time military service. The fuller implications of this “hit me” a few years later. It was that, combined with my induction into management consulting through my father’s activities during the earlier and later 1940s, which led to my very independent views, differing with him, in these matters later on.

Despite the centuries separating our respective lifetimes, I came to know some essential things, bearing on a science of physical economy, about Leibniz and Riemann very well, especially those aspects which bear on what I say here on the specific subject of a science of physical economy. I say this baldly, so, here and now, because this permits me to cut short, to essentials, that which I present here as my explanations of certain preliminaries which I must introduce at this present juncture.

What I have to say here and now, about the coincidences between the thinking of Leibniz and Riemann and what came to be my own, is rooted in the fact we, and also quite a number of others, were all rooted in adopting what I shall outline here, soon, below, as virtually a “Type B” outlook on the universe. Essentially, on this account, insofar as the discussion touches a science of physical economy, I can say confidently that Leibniz and I think alike in such matters as these; if you wish to understand either of us, or also that aspect of Riemann’s work bearing on matters of physical economy, take that into consideration; it will simplify matters greatly, especially respecting the matter of the Leibniz infinitesimal which I address in these immediately following pages.

To avoid any misunderstanding of what might be taken as my particular claims on this account, my rela-

tionship to the work of those scientists is located essentially within the bounds of the generally underlying principles of the matter. I say that in the sense that Johannes Kepler’s discovery of a universal principle of gravitation was not a mathematical formulation as such. The mathematical formulation which he introduced in its form, was the footprint which the principle of universal gravitation left behind, as this was emphasized by Albert Einstein, and was understood as *a relevant footprint left upon mathematics*, but was not as the empiricists have insisted, the principle itself. The distinction, as by V.I. Vernadsky, among the principled categories of the Lithosphere, Biosphere, and Noösphere is another illustration of just such a significance of the ontological distinction of universal principles from the mere footprints expressed in related, merely mathematical formulations.

Once we have accepted the evidence that the impressions which we may associate with sense-perception are shadows of reality, as that shall be defined by me, here, from a “Type B” standpoint, rather than self-evidently what they might appear to be, we avoid all of the principal, usual blunders which the Eighteenth- and Nineteenth-century cowards such as Abraham de Moivre, Jean le Rond D’Alembert, Leonhard Euler, Joseph Lagrange, Pierre-Simon Laplace, and the sometime plagiarist Augustin Cauchy perpetrated.<sup>15</sup> All of these listed personalities committed intentional frauds, and did so in defense of the fraudulent claims against Leibniz by those devotees of the cult of the black-magic specialist Isaac Newton whose reputation was virtually molded out of something less dignified than mud, by such as Abbe Antonio S. Conti and his accomplice Voltaire.

Those frauds were frankly motivated, as those hoaxsters themselves argued for this view, by the intent to discredit Leibniz’s definition of the “infinitesimal” of the Leibniz calculus. The fact that Leibniz was uniquely correct on all points, is the key to competent practice respecting the history of physical science from his lifetime to the present day, just as those who deny the originality of Johannes Kepler’s original discovery of the principle of universal gravitation, are either fools, hoaxsters, or simply people who have learned to sing for their academic suppers.

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15. Cauchy adopted a paper by Niels Abel as his own. He was suspected of this by leading scientists who knew Abel’s work and Cauchy’s own, but the plagiarism was not proven until an auditing of Cauchy’s files turned up the original copy of the Abel work, neatly filed and noted in Cauchy’s collection.

The most crucial significance of that set of historical facts here, lies in the ontological implications of Leibniz's identification of the infinitesimal of the calculus as being real, but real only in the sense of being a shadow of the physically efficient reality it expressed. Leibniz had, you see, like Bernhard Riemann and certain others later, what I have classified, in this report, as a "Type B" mind. It was those who believed in sense-certainty, those exhibiting the characteristics of "Type A" minds, who had failed to grasp the underlying reality of the way in which our universe is organized. It is later, as our thoughts turn into the personal exploration of nearby physical space-time, as to Mars' orbit, that the crucial importance of this distinction comes to the fore.

However, this is not a matter limited to space-exploration; it is, also, already the crucial issue underlying the reasons for the presently onrushing general breakdown-crisis of the world's economy as a whole.

### **"Type B" & the Infinitesimal**

If, as I have emphasized above, as also in the preceding parts of this trilogy, the naive perception of sense-experience is a shadow of reality, rather than reality itself; so, if we seek to portray that sense-experience in customary mathematical terms, how could such a mathematician point toward a reality which is anything but what he must believe exists only as a shadow of reality? Pose that question in the light of Nicholas of Cusa's rejection of Archimedes' pretending to account for the generation of a circle by the method of quadrature, or the comparable challenge presented in treating Kepler's discovery of the generation of the Earth's elliptical orbit in the "non-linear" terms of "equal areas, equal times," rather than any implicitly Euclidean, merely mathematical notion of an ellipse.

As I have emphasized during earlier sections of this present trilogy, the ontological distinction of ideas formulated in "Type A" terms of "sense-certainty," from actually physical, non-linear ideas coherent with "Type B," is that the truly competent scientist, or Classical artist, regards sense-impressions as being merely shadows, or "footprints" of reality. The distinction is approximately the same as that of formal mathematical images, from the image of physical curves, such as the catenary function, and the like. The "Type A" mental state experiences the shadow as the reality; the "Type B" mind sees the shadow as just that, and then seeks the mental-physical image of that which corresponds to the casting of the shadow. Thus, the systemic distinction

between *merely formal* and *actually physical* conceptions such as universal physical principles, such as Kepler's discovery of universal gravitation as a principle of the physical space-time of Kepler, Leibniz, and Riemann, rather than what Leibniz demonstrated to have been the mere sense-perception of silly empiricists such as Descartes.

Such is the distinction of the infinitesimal of the Leibniz calculus. The empiricist image of physical experience, such as that of Descartes, Abraham de Moivre, D'Alembert, Lagrange, Laplace, Cauchy, and the Cartesians and Newtonians, generally, et al., leaves no place for the reality of a universe whose existence is composed of *the quality of physically efficient change*, the quality of *true ideas*. Hence, the *infinitesimal* of the Leibniz calculus, like the notion of the principle of physical least action generally, expresses the physically efficient presence of a universal principle of action, a principle which is physically efficient, but which does not exist in the presumptions of a Cartesian or like domain of the "Type A" mentality.

So, accordingly, to the extent that the "Type 'A'" mentality regards mere mathematics as the reality, the actual physical principles of the universe are expressed as "imaginary." That is key to understanding the fully witting fraud perpetrated against Leibniz by Leonhard Euler. Euler's fraud, in that argument, was to avoid the silliness of de Moivre's belief in the "imaginary," by substituting the sophistry of an actually irrelevant point, that the existence of the Leibniz infinitesimal is really a matter of mathematical "smallness," rather than the existentially ontological. That is to emphasize that true universal physical principles, such as gravitation as discovered by Kepler, exist outside the illusory shadow-world of mere sense-certainty.

So, it is crucially relevant to be mentioned here, that the very silly Abraham de Moivre proposed to his companion D'Alembert, that the magnitudes associated with the differential of the Leibniz calculus be attributed to "imaginary" numbers, whereas the sophistry of their somewhat less silly ally, and witting hoaxster, Leonhard Euler, reduced the issue to one of "infinitesimal," merely mathematical smallness.

Ironically, de Moivre was right, if only grammatically, in employing the term "imaginary" to point to something which was, understandably, merely imaginary to a virtual dumb yokel such as de Moivre or D'Alembert; neither of those two had a competent conception of what this term "infinitesimal" meant in the



domain of physical reality. Both had it backwards. It is the world which is seen by the “Type A” mentality, which is merely a mathematical-like shadow of actual experience (“the imaginary”), whereas it is, most emphatically ironical, that it is the true imagination, such as that of Percy Bysshe Shelley, which embodies the real world of human historical experience, which is the source of the action on the historical process which touches reality, rather than merely the domain of sense-certainty.

### Back to Shelley, Again

*While mathematics does meet some essential requirements in society’s progress, no system of mathematics as such encompasses actual acts of efficient*

*human creativity. Creativity lies, indeed, in the domain of the human imagination.* This is shown most readily within the bounds of the domain of Classical modes of artistic creativity.

For example, the relative lack of rationality of members of society born, whether in Europe, or, in the Americas, after April 12, 1945, as compared to relevant leading figures of society born to the members of earlier generations still living at that time, is chiefly the result of the post-war promotion of the systemic irrationalism of cults such as that of the existentialist authors of the **Authoritarian Personality** and of the moral degenerates of the European Congress for Cultural Freedom (CCF), who produced the intellectual and moral degeneracy typical among those existentialist-leaning 68ers who set the pattern for the cultural degeneration in ideas and practice which the dominant currents among the “68er” generation (or, better said, “degeneration”) have come to represent as the dominant cultural standard of behavior for the virtual entirety of their presently still culturally hegemonic representatives in the U.S. Congress and elsewhere today.

In other words, just as Percy Bysshe Shelley wrote in the concluding paragraph of his **A Defence of Poetry**:

“... The persons in whom this power resides, may often, as far as regards many portions of their nature, have little apparent correspondence with the spirit of good of which they are the ministers. But even whilst they deny and abjure, they are compelled to serve that power which is seated on the throne of their own soul.”

Shelley referred, thus, still in 1819, to the period of cultural optimism associated with the rise of the American republic. The same principle of dynamics is encountered in the opposite type of cultural trend, such as the extremes of

## A Defence of Poetry

*From the essay thus-named by Percy Bysshe Shelley (1792-1822):*

[W]e live among such philosophers and poets as surpass beyond comparison any who have appeared since the last national struggle for civil and religious liberty. The most unfailing herald, companion, and follower of the awakening of a great people to work a beneficial change in opinion or institution, is poetry. At such periods, there is an accumulation of the power of communicating and receiving profound and impassioned conceptions respecting man and nature. The persons in whom this power resides, may often, as far as regards many portions of their nature, have little apparent correspondence with that spirit of good of which they are the ministers. But even whilst they deny and abjure, they are yet compelled to serve, the power which is seated upon the throne of their own soul. It is impossible to read the compositions of the most celebrated writers of the present day without being startled with the electric life which burns within their words. They measure the circumference and sound the depths of human nature with a comprehensive and all-penetrating spirit, and they are themselves perhaps the most sincerely astonished at its manifestations: for it is less their spirit than the spirit of the age.



moral decadence expressed by the characteristics of the existentialism of the “68ers.” Today, a comparably radical change in direction of culture has emerged, opposite to the trend in Europe and the Americas since late Spring 1968. A movement centered, most notably, among matured young women centered among such in their fifties today, is typical, as this stratum is conspicuous as a leading part of the rising tide against the frankly Hitler-like, fascist characteristics of the current Obama administration’s Larry Summers and the Hitlerian-like, pro-genocidal impulses of the members of the so-called “behaviorist”-economics riff-raff, of such echoes of the “Hitler T-4” riff-raff, as President Obama’s Ezekiel Emanuel.

Indeed, in all the better known aspects of human history, the same *dynamics* illustrated by Shelley’s argument which I have referenced in this report, prevails as the key to understanding the processes characteristic of cultures. This is the same notion of modern *dynamics* traced to the *dynamis* of ancient Classical Greece; it is the same notion of *dynamics* which Gottfried Leibniz expressed as a fundamental principle of any competent modern science. It is otherwise to be recognized as a general principle of all competent notions of natural law, whether as the natural law of physical-science practice, or the law of social processes and their history.

In the development of modern European civilization, for example, *dynamics* signifies the notion of universal law, both physical laws, and laws underlying cultures. The twofold character of this role of *dynamics*, as Leibniz defined modern *dynamics* during his relevant work during the decade of the 1690s, is most clearly expressed for both physical science and economy, as for cultural processes generally. In all respects, the leading role of human creativity, including physical-scientific creativity is located, not in mathematics, but in the dynamic role of that power of creative artistic imagination of Classical music, poetry, drama, and comparable expression of the Classical visual arts. The exemplary case of the role of Albert Einstein’s violin in inspiring his accomplishments in conceptions of physical science, is exemplary of these connections.

It is the destruction of the practice of the Classical artistic processes under the influence of post-Franklin Roosevelt existentialism, especially that destruction in Europe and the Americas, which has been the chiefly

determining influence responsible for the degradation of the economy of those parts of the world since the death of Franklin Roosevelt, and, most emphatically, since the assassination of U.S. President John F. Kennedy, which was clearly motivated by the attempt to eliminate President Kennedy’s refusal to accept the British intentions for a U.S. war in Indo-China.

In this connection, it is the notion of Classical poetic irony, which, despite the depravities of the **New York Times** style-book, is the key to locating the origin of physical-scientific and related creativity. It is that quality of the Classical-poetic imagination which is found only within Classical artistic composition, which has been the source of guiding inspiration for all actual physical-scientific and related progress. Thus, the spread of the radiated, pro-satanic cult of existentialism, such as the perversions of the so-called “Frankfurt School,” has been the chief cause of the leading incompetencies and explicit evils experienced by civilization during the “post-Franklin Roosevelt era” to date. It is the contrary, creative-artistic imagination typical of great Classical artistic composition, which is the active principle underlying the greatest achievements in practice of modern physical science. It has been the suppression of that factor, which has made possible the degradation of the human condition launched with the death of President Franklin Roosevelt.

Here, we encounter the essential distinction of man from ape, the expression of the creative powers unique to the human species, upon which all progress in civilization continues to depend. It is this subjective element in human nature which is the locus of true creativity, in physical science and otherwise, and thus of the absolute superiority of man over beast. This is the ultimate secret of success in economy; this is the indispensable function of Classical artistic culture, such as that of Abraham Kästner, Gotthold Lessing, Moses Mendelssohn, Friedrich Schiller, and Percy B. Shelley, which expresses the well-springs of the distinction of man from beast, including that of progress in physical science and economy. It is the loss of ties to such Classical culture, which is the usual root-cause of mankind’s depravity.

The attributable “secrets” of human individual creativity are to be found only in the focus on the subject of the “Type ‘B’” personality.