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What Your Accountant Never Understood:
The Secret Economy

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A prefatory comment on the implications of the subject of the following report:

Fortunately, at least a relatively few leading talents among U.S. economists have understood certain essentials of "the how and why" of my uniquely successful record in economic forecasting, that since 1956–57, to the present date. Unfortunately, many other economists have not yet understood this. The root of the failures by the relatively larger number of economists, as shown by virtually all accountants, and all but a few leading economists, is that they are, essentially, worshipful victims of a widely taught delusion, known as **monetarism***: the worship of an imagined monetary "magic of the marketplace," their foolish belief in money as such.*

Therefore, the relevant questions include: "What is the secret? Why have most among the world's presently leading economists, been so stubbornly incompetent, for so long, in matters pertaining to forecasting of the medium- to long-term patterns of net, **physical-economic** *development, in both the relevant nation, and in the world at large? Why has the U.S. economy been in a trend of an actually measurable,* **physical-economic** *decline, actually, since the day after the death of President Franklin D. Roosevelt?"*

The related problem of the present U.S. Federal Government, is, essentially, the same presented by the case of the crazed Roman Emperor Nero: like Nero, our current President, Obama, is feared for the power he wields (however temporarily), although the policies of that British puppet and would-be quasi-emperor, Obama, would, if continued, doom the world as a whole, economically and otherwise. Thus, today, as long as Obama's ideology remains in office, the delusion called "monetarism" will have driven nations, even continents of the world, into the verge of a "lemming-like" self-destruction, as by, most notably the Democratic Party's sheepish majority in the U.S. Congress.

Baaa!

The consequent results experienced in today's trans-Atlantic economy, should suffice to convince those who are still sane, to reconsider those presumptions of British Liberalism which have sent the

U.S.A. and the European economies plunging, since mid-2007, into their presently accelerating state of physical collapse.

The U.S. economy could be saved, even at this late stage of its perilous decline, that through the application of the combination of a "Glass-Steagall" reform of the U.S.A., especially if combined with the same cleansing of other leading nations, by the Glass-Steagall method, when it is applied to create a return of leading other nations to a Franklin-Roosevelt form of fixed-exchange-rate system.

Thus, as the result of a decades-long process of virtual ridding of sane U. S. traditions from the practice of our U.S. government, the key to the possibility for saving the United States from total ruin now, is the fact that I have a decades-long record of being a remarkably successful physical economist, an economist for whom the subject of economics is a branch of physical science, rather than what is presented as the popular, monetarist delusions taught and practiced as a failed system of financial accounting masquerading as economics. I know what I am doing; therefore, I must warn, that your nation's survival depends on your understanding these differences now.

Introduction: 'On Mere Money'

The remedy for the world's presently onrushing economic collapse, lies, uniquely, in the replacement of the currently prevalent world monetary systems, by *a Franklin Roosevelt type of combination of Glass-Steagall standards for nations' credit systems within a global, fixed-exchange-rate system*. This can succeed, if the implementation of the reform is crafted from the standpoint of an actual, but still rarely taught, and little-known subject: *the physical science of political economy*.

That subject represents a body of actually scientific knowledge which presents, in a unique way, the systemic distinction of the human being from all the lower forms of life. The power of that knowledge, is the source of the effect of the distinction between what V.I. Vernadsky named "the Biosphere," and what he named "the Noösphere."

So, on the same subject of scientific method, as Albert Einstein had shown for the case of Johannes Kepler's uniquely original discovery of the principle of universal gravitation, as in Kepler's ***The Harmonies of the World***, all nature is "creative," in what Einstein identified as Kepler's *finite but unbounded universe*, (in other words, inherently an *anti-entropic, universal* process). This means that the individual human being is set apart from, and above all other forms of life, that by the human individual's potential for the role of willful human creativity in producing that special quality of anti-entropic effect which is to be recognized as mankind's willful quality of superiority over all other known living species.

In the real universe, money as such has no intrinsic value. Money is properly used, not as a standard of real economic value, but, as under our U.S. Federal Constitution, as a convenient medium of, not value, but, the conveying of a form of credit uttered by a sovereign republic, credit which is to be deployed to promote an effect which is intended to be identified as *increased net physical value per capita and per square kilometer of territory for the economy as a whole*. Money, when so defined, performs its proper function only through promoting increasingly productive, capital-intensive investment, per capita and per square kilometer, in both basic economic infrastructure, and in methods of production for the long-term development of the more highly productive, more advanced technologies, as since the mid-Seventeenth-century Commonwealth of Massachusetts operating under its Charter. This means developments which both (1) *must offset the effects of attrition*, and (2) *which represent, in effect, a method of discovery expressed as a physical net increase in the human species' expanded power to continue to exist into an unbounded future, as per capita and per square kilometer of relevant territory*.

In other words, the survival of humanity always demands an increase in the level of *energy-flux-density* deployed to the effect of accelerating the increase of the productive powers of labor, and, as the role of chlorophyll illustrates that point in the *upward development of the increased role of the relevant carbon* in the consumption by society. So, today so far, an increasingly silly trans-Atlantic society is disintegrating, that through a virtually mass-suicidal reliance on modes of power confined to low levels of energy-flux density, whereas, despite the follies of those British-controlled Russian influentials whose special interests are rooted, personally, among the contemporary financial pirates of the Caribbean, Russia (otherwise), China, and India, are exemplary of the relatively saner nations, as nations relying, more and more, upon nuclear and thermonuclear power, and vast complexes of modernized infrastructure, and comparable types of very high energy-flux-density sources of power.

That power of creativity on which a society's progress, and even survival, depends, is expressed most clearly in what can be identified as Classical forms of artistic composition, as this point is illustrated by the role of Albert Einstein's violin in the function of his often astonishingly great, creative-scientific powers, the same creative powers to be witnessed in the case of the adversaries of Einstein, as Einstein's work is to be contrasted there with that depravity known as modern *mathematical positivism*, a positivism typified at its worst by the followers of Bertrand Russell's operations based in the Cambridge school of "systems analysis."

Typical of the anti-scientific depravity of Russell's dupes, is the case of the Laxenburg, Austria-based International Institute for Applied Systems Analysis (IIASA). IIASA is typified by those notable adversaries of a competent modern science: the adversaries of the competent science which, is, itself, typified by the work of exemplary physical chemists such as the

U.S.A.'s William Draper Harkins, Russia's and the Ukraine's Academician V.I. Vernadsky, and their like.

Against that background in the matter of "energy policies," my heretofore unique, decades-spanning successes as a forecaster in the field of the branch of physical science known as "physical economy," have depended, essentially, on the impact, upon me, of the revolution effected by a great successor of both Johannes Kepler and Gottfried Leibniz, and also Carl F. Gauss, that Bernhard Riemann who has been the chief instigator of all of the most crucial of those qualitative improvements in scientific method which are notable historically since Riemann's famous, pace-setting, 1854 habilitation dissertation delivered at Germany's Göttingen University.

So, my exceptional success as an economist has depended greatly on the contributions such as those which are to be found in the work of some among the greatest scientific geniuses of the Twentieth Century, who are typified by such as Max Planck, William Draper Harkins, V.I. Vernadsky, and Albert Einstein, all of whom have depended upon those benefits of Riemann's revolution which are rooted in the conceptions of a modern physical science of not "mathematical physics," nor merely chemistry, but a physical chemistry. The work of these figures of science, is based upon that Riemannian revolution's relationship not only to the preceding work which had been accomplished by Carl Gauss, but is to be credited to the emphasis on the role of Classical artistic creativity by Riemann's teacher and immediate predecessor at Göttingen, who had also been Riemann's professor at Berlin, Alexander von Humboldt's special protégé, Lejeune Dirichlet.[1]

At the beginning, all of what have become my own, relatively unmatched successes in economic forecasting, were rooted in my early adolescent recognition of the intrinsic absurdity of what is known as Euclidean geometry. The need to supersede that reductionist system of ancient Euclid and comparable cases, by *a principle of physical geometry*, was, fortunately, first demonstrated for me, during my adolescence, in repeated weekend visits to the Boston, Massachusetts area's Charlestown U.S. Navy Yard. In these visits, my attention was caught, repeatedly, by the way in which the optimal geometry of physical mass, defined a

[1] Since scientific creativity respecting matters of scientific as well as Classical artistic essentials, is rooted in the faculties of Classical artistic composition of architecture, Classical painting, and Classical modes of poetry and music (as distinct from the worse than useless "popular" varieties of today) one must come to an understanding of the relationship of scientific creativity to the fundamental principles underlying Classical artistic composition, such as those of exemplars such as Abraham Kästner, Gotthold Lessing, Moses Mendelssohn, Johann Sebastian Bach, Wolfgang Mozart, Friedrich Schiller, Ludwig van Beethoven, and the circles of Moses Mendelssohn's grandchildren, which included Dirichlet's wife, Rebecca, and her brother Felix. Classical music and poetry are among the most critical sources of inspiration to creative scientific minds, such as that of Albert Einstein, out of the culture marked by the influence of Friedrich Schiller, in Nineteenth-Century Germany. This is contrasted to the methods of positivists, such as David Hilbert, and the sterility which is associated with positivist influences on science generally.

ratio of supporting structure to total mass, for ongoing cases of high-rise construction based on modern steel. The Eiffel Tower in Paris illustrates the same point, by posing the issue of such optimization in construction in a physical space-time defined in terms of the chronology of physical chemistry.[2]

The methods of long-range economic forecasting which have provided me the distinguishing, later successes of my work as an economist, were based on a perspective rooted, since early 1953, in my joyous adoption of the method represented by Bernhard Riemann's 1854 habilitation dissertation, a dissertation which is to be read as being the relevant consequence of the leading discoveries by Gottfried Leibniz. On this account, the opening two paragraphs, and concluding single sentence of that habilitation dissertation, are the most notable points of reference for summation of the essential approach to understanding his dissertation's revolution in modern physical science. Those three, selected paragraphs of the habilitation dissertation,[3] summarize the clearing away of the rubbish from the field on which the edifice of his profound contributions, based upon the remaining portions of that dissertation, onward, is erected.

As a Matter of Economy

Notably, my first formal forecast for the U.S. economy, was made, in the Summer of 1956, in the setting of my role as an executive of a consulting firm, during a time when I had forecast the near certainty of the outbreak of the most severe recession of the post-war period thus far, as to occur during the February-March 1957 interval, exactly as it did, in fact;[4] that deepest, prolonged recession of the post-war period up to that time, erupted at exactly that forecast point. Virtually all of my forecasts uttered later, have been of a medium- to long-term character, such as my 1966–1968 forecast of a highly probable breakdown in the existing fixed-exchange-rate system, by "about the end of the 1960s or the beginning of the 1970s."

The success of that latter method for forecasting, led to the crucial and celebrated Queens College debate between me and the noted Liberal economist Abba Lerner, on December 2, 1971, a debate whose essential features have marked the main lines of the course of the economic history of our United States, from that moment to the present day.

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[2] Filippo Brunelleschi's employment of the catenary as a principle of construction of the cupola of Santa Maria del Fiore**,** is an example of this from the roots of modern physical science.

[3] "On the Subject of the Hypotheses Which Underlie the Foundations of Geometry."

[4] None of my forecasts were ever premised on what is termed "statistical probability," but on specific elements of trends in adopted policies of practice. The relevant type of argument is: "this will probably happen, if a currently likely policy remains operative." Those who rely on such foolishness as, "On a scale of ten…" disgust me.

The failures which may be fairly identified as those of my notable rivals in medium- to long-term economic forecasting, have been failures which usually occurred as a consequence of the typical monetarist's reliance on what continue to be inherently incompetent, "statistical" ("show me the money!") modes of so-called "market forecasting."

In seeking the blame for the failures of "market economics," put special emphasis on the disastrous performance of forecasts designed to conform to the ideologies of such followers of the notorious Bertrand Russell as the Professor Norbert Wiener and John v. Neumann, both of whom the famous mathematical positivist David Hilbert quite rightly threw out of Göttingen University's program for reason of their manifestly insufferable incompetence. The scientifically farcical work of John v. Neumann and Oskar Morgenstern on economy, is typical of the rubbish which was attacked on this account, during the late 1950s, as by me, and by such among my contemporaries of that time as Wassily Leontief. Such follies of those and other positivists drawn from the ranks of Bertrand Russell's radically positivist dupes, such as the dupes of the pseudo-scientific cult known as IIASA,[5] are typical of the lunacy respecting economic doctrines of practice, from the time of the death of President Franklin Roosevelt, to the present date.

What Must Be Said, Repeatedly

The typical failures of my contemporary, putative professional rivals' forecasting, reveal their blunders, as blunders which find their root in that empiricist presumption by the followers of Paolo Sarpi which permeates modern monetarist and social dogma. That is the dogma which is most frequently associated with the legacy of Lord Shelburne's lackey, and self-declared hater of our young United States, Adam Smith.

The error of Smith and his like, in particular, was not merely a mistake; it was, and remains, a malicious quality of error of conception, a misconception premised on the doctrine of the notorious Venetian scoundrel and founder of modern Anglo-Dutch Liberalism, Paolo Sarpi. Adam Smith stated his case for Sarpi's policy most precisely, in his 1759 ***Theory of Moral Sentiments***. After the inherent folly of contemporary Keynesians and their like, is taken into account, there is nothing notable in their productions which was not already implicit, as confessed Adam Smith dupe Karl Marx insisted on this, in the argument presented, axiomatically, in the relevant summary presented as an often cited, crucial, single paragraph in that ***Theory of Moral Sentiments***.

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[5] The Laxenburg, Austria-based International Institute for Applied Systems Analysis, which was spun off from the Bertrand Russell circles in the Cambridge school of systems analysis. Even positivists such as Germany's David Hilbert could not stomach such Russell-spawned wretches as those of the Russell cult of Professor Norbert Wiener and John von Neumann.

The incompetent, but nonetheless prevalent teachings of the modern Liberals on the subject of economy, such as those of the Physiocrats who followed the ***Tableau économique*** of Deer Park *habitué* François Quesnay and the British Liberal school, as throughout much of a globally extended modern history since, are those teachings based, seemingly almost universally, on that rule set by Paolo Sarpi, as restated in raw terms by Smith in that and other locations.[6]

With rare exceptions, it would appear that virtually almost everyone had been lured, so far, into believing in a so-called "physical" doctrine of what is, actually, a form of mere mathematics, a doctrine which is universally absurd, or worse, in the effects of its practice. That folly is to be recognized in a notion which is believed, because it is heard that it is to be believed by any who do not wish to be ostracized from the profession; such is the notion that prevails among a certain class of worshipful dupes who wish to be delivered personal benefits from the hand of predatory authorities in high places. So, it had become the custom of most economists, and their dupes, to tell one another the lie, over and over again, the lie that the proper rules of economy are mathematical-statistical in nature.

In Summary of this Introduction:

The properly decent role of money, is not that of defining "economic value," but as a medium of assigning uttered credit estimated at a fair approximation of anticipated net physical cost,[7] *in preliminary guess-work, not actual value. This notion of a political assignment of credit was introduced to the world in the guise of a notion from the mid-Seventeenth Century Massachusetts Bay Colony under the direction of Winthrop and the Mathers, that during a period prior to the British nullification of the Colony's charter.*

This conception of credit, which has been more or less unique to the intent of the United States' Federal Constitution since that time, whenever that law has been observed in practice, has been an essential distinction of the constitutional superiority of the American System of political-economy over the intrinsically imperialistic, monetarist systems of those nations of Europe which have operated under that recent influence of the British empire which has been expressed, especially, by the British monarchy's rapacious Inter-Alpha Group, since 1971, up through the present day.

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[6] Considerable effort has been expended in efforts to hide the sheer "kookishness" of the notorious Deer Park's familiar Quesnay. Quesnay did, indeed, describe some of that structure of the French economy which echoed the creation of a modern French economy under Jean-Baptiste Colbert, but Quesnay's rationale itself was an apotheosis of kookery, attributing the productive powers of labor to the magical powers inhering in the awarding of the title of nobility to the estate's proprietor.

[7] Including a charge, over incurred direct cost, for sustaining a justified rate of margin for progress of the physical economy as a whole.

Unfortunately, not only our own United States, but the world at large, is presently held in the grip of a deep plunge of the entire planet's physical economy into a general breakdown-crisis which emerged in that apparent form inside the United States itself, during the late Summer of 2007. This disaster was made possible by nothing more significant than widespread belief in what is taught to the credulous as economics, in schools, universities, and the popular press, still today.

Under the present trends, the trans-Atlantic economies, which are already plunging into what is not merely a terrible depression, but an actual breakdown-crisis comparable to that of Europe in the latter half of the Fourteenth Century, are doomed if present trends in policies are permitted to continue. Although the major nations at the Asian borders of the Pacific and Indian Ocean have a far saner policy, such as that of promoting nuclear power, rather than the radically low-energy-flux-density practices of those foolish representatives of the rapidly collapsing trans-Atlantic group, even the nuclear-power advocates among those nations lack the strength to resist the effects of any continuation of the presently accelerating breakdown-crisis operating in the trans-Atlantic region.

Without the scrapping of that Liberal form of economic policy typified by Adam Smith, there is no present hope for avoiding a rapidly accelerating plunge of the entire planet into a generations-long, planet-wide, New Dark Age for all humanity.

Therefore, the subject of this present report, is the set of principles required for guiding the needed change in choice of economic policy-making principles, a transformation from the presently failed, British-dominated, world monetarist system, to the credit-system of a physical economy in accord with the principles underlying the U.S. Declaration of Independence and the initial terms of the U.S. Federal Constitution.

I. The Science of Physical Economy

To introduce the reader to the core of the principles of a science of physical economy, consider the following.

Since the beginning of the Twentieth Century, the proper modern understanding of the physical principles which underlie a competent science of physical economy, has been most clearly expressed in terms of that development of a *specifically human* practice of *physical chemistry*,[8] as by such as, most notably, both Chicago's William Draper Harkins, and, in a more elaborated form, as premised on Academician V.I. Vernadsky's scientifically crucial elaboration of the notion of mankind's efficient role as a species in *an anti-entropically developing universe*. The latter development, that of Vernadsky, expresses the essential

[8] *N.B.* The *practice* of physical chemistry is specifically unique to human behavior—e.g., as by V.I. Vernadsky—and does not exist in the known universe otherwise.

characteristic of a universe which subsumes the three sub-spatial domains of the *lithosphere*, *biosphere*, and *noösphere*.

This experimental knowledge is premised upon the revolution in a science of physical chemistry which was introduced as being among the most crucial of the products of the influence of Bernhard Riemann's 1854 habilitation dissertation. This view has supplied the basis for relevant, essential discoveries of physical principle by such already noted, exemplary figures typified above by such names which I have already referenced repeatedly here, those of Max Planck, William Draper Harkins, V.I. Vernadsky, and Albert Einstein.[9] The best expression of that domain within which, and upon which the human creative powers act, is the notion of a universe defined by Einstein as Johannes Kepler's "finite, but unbounded universe," a definition, which, when considered today, includes the superior universality of an enveloping universal domain of *cosmic radiation*.

The completed picture of that science of physical economy, pertains to the characteristics of the intrinsically noëtic function of those sovereign, creative powers of the human intellect which supersede the more ordinary functions commonly associated with the human brain, functions of that higher form of existence, better identified as "the work of the human mind, rather than the mere brain," functions which, we should emphasize as being expressions of a willful quality of distinction, a distinction which sets the human species, with its noösphere, absolutely apart from, and above all other known species of the lithosphere and biosphere.[10]

Those, just listed, absolute, categorical distinctions of man from higher ape, define man as evidently supreme among known expressions of a universe which is that of what Einstein defined as Kepler's "finite, but unbounded" universe, a universe which is, already, itself, essentially noëtic overall. Any competent use of the term "humanism," pertains to the implications of this set of sundry considerations.

I repeat, for necessary emphasis: any competent approach to a subject of economy, is premised upon these foregoing considerations. These considerations are, in turn, subsumed by the relevant dynamics of the social relations among the persons composing society, as Gottfried Leibniz supplied a modern definition of the ancient concept of *dynamis*, or, in modern terms, Leibnizian *dynamics,* as this is also indicated, implicitly, in the conclusions respecting

[9] Notably, this list excludes the functionally corrupt schemes of those empiricists or positivists who are sometimes mistakenly included in such a list.

[10] The distinction of the human mind from the human brain, touches the principled distinction of a process of discontinuities, from one of particles. Admittedly, such distinctions do not exist in the opinions of those who have been drilled in the Liberalism of the followers of Paolo Sarpi; rather, such distinctions belong to the domain of *dynamics*, as the latter term was defined, originally and still uniquely to the present day, by Gottfried Leibniz as being an echo of the Classical "Greek" principle of *dynamis*.

social behavior set forth in the concluding paragraphs of Percy Bysshe Shelley's ***A Defence of Poetry***.[11]

The characteristic feature of socially relevant human behavior, is the development of human society through what are *ontologically noëtic* changes in individually motivated "mass behavior," as Shelley implicitly defines such a principle of human behavior in the concluding paragraphs of his ***A Defence of Poetry***.

These considerations, then present us with two issues as interdependent: **1.)** That the universe is creative, in and of itself; **2.)** That the inclusion of mankind in that universe, as being a consciously creative thinker and actor, provides the additional, unique factor of known *willful choice* lacking in other living species, the creative factor of what are to be distinguished as the specifically creative aspects of the human individual will, as *subsuming the actual development* of what may be otherwise defined as that universe. It is a quality which the existence of a developing set of individuals of humanity adds, uniquely, to change the universe as otherwise defined.

On that same point, the properly conceived, specifically human notion of a conflict between good and evil, is defined by considering the contrasting effects of the promotion or suppression of that benefit of human creativity which is typified, in effect, by the increase of the *applied energy-flux density*, per capita and per square kilometer, as expressed in the increased physical productivity of societies, per capita, and per square kilometer of territory.

Thus, for example, we must address the case of that fraudulent doctrine for geometry which is attributed to Euclid, a set of dogma which, like the argument of the hoaxster Rene Descartes, denies the existence of the role of increases in the equivalents of "energy-flux density," denials such as the so-called "environmentalist" dogmas adopted in many places today. That fraudulent notion typifies the influence of what is properly regarded, for its effect, as a virtually "pro-Satanic" form of evil.[12]

Thus, the issue just proposed in that manner, has the following, two interdependent aspects.

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[11] The popular use of the term "dynamics," which implies a percussive effect, in incompetent use for music, and otherwise, must be put aside, as intrinsically absurd, and as an effort to suppress the definition supplied earlier by Leibniz. Notably, the shift of the reading of the periodic table of Mendeleyev and his followers from the choice of the element or isotope as an object of reference within the updated "table," from the implied notion of the particle, to the singularity of a domain of cosmic radiation, is now the great leap needed for the next step of progress in elaboration of the deeper implications of Mendeleyev's great work.

[12] Notably, that Philo of Alexandria also known as an associate of the Christian Apostle Peter, condemned Aristotle for asserting a doctrine which implied that God had suddenly become permanently impotent once the act of Creation of the universe had been completed. It was from that Aristotelean presumption that the notorious Friedrich Nietzsche composed the slogan, "God is dead."

On the one side, we have 1.) The effect of man's choice of increasing the equivalent of the energy-flux density represented by mankind's relevantly efficient forms of action upon the universe, and, 2.) The form in which the interaction occurs between the individual mind and the social process in which the individual's action and related influence is situated.[13]

The relationship defined as the interaction between these latter two considerations, is of the manifold character of both the ancient term *dynamis* and Gottfried Leibniz's introduction of the comparable modern conception of *dynamics*, as Plato, in the ***Parmenides***, in which he, for example, points out this type of notion which was adopted for modern physical science by Leibniz's famous attack on the thorough incompetence of the work of Rene Descartes and similar followers, such as the infamous Adam Smith's Ockhamite cult of modern Liberalism, *aka empiricism*, or, known otherwise as the cult of *positivism*, which was implicitly founded by the modern irrationalist Paolo Sarpi.

As Albert Einstein emphasized, in his appreciation of the genius of the great scientific discoverer of gravitation, Johannes Kepler, Kepler's universe is always finite, but never bounded, as this fact is consistent with the definition of *an inherently anti-entropic universe*. This means that both the abiotic domain, which is V.I. Vernadsky's *Lithosphere*, as also the *Biosphere*, and the *Noösphere*, are each and all inherently (anti-entropically) creative; but, only mankind's *Noösphere* is presently known as a *willfully* creative phase-spatial domain.

To illustrate a crucial point, take the following case to be taken as an example, from the attempted colonization of Mars.

For example, there are two cases in which the matter of the standard gravity experienced on the Earth's surface becomes a crucial practical issue for a mankind looking into our future existence within the Solar System. The *first*, is the difference between the gravitation to be experienced by mankind on earth and on the surface of Mars, and that, estimated at about one-third of that on the surface of Earth. The *second*, is the problem posed by considering the effect of what might be presumed to be the standard, nominally low gravitational field encountered in travel by human passengers through both Earth's surface and the field of cosmic radiation defined by the space traversed between Earth-orbit and the gravitation to be experienced on Mars' surface. This presumed, low "standard" gravitational field must be corrected for the presumably required approximation of an Earth-like gravitational field, if we are to consider travel by human passengers of the spacecraft.

So, the effect of cosmic radiation is presented for our attention when we consider the transport of human beings between departure and arrival in a Mars journey. We require synthesized intensities of the same biological effect as gravitation, which, in turn, suggests

[13] E.g., Plato's ridicule of the paradox of Parmenides. The Parmenides paradox is, notably, expressed by the intrinsic incompetence of all of the modern monetarists (e.g., the positivists).

ploughing through the field of cosmic radiation associated with the alternate acceleration and deceleration required for conducting such a mode for interplanetary journey by human passengers and crew.

These exemplary cases are to be situated in the same general class of challenges represented by the relationship between the level of development of infrastructure in Earth-based economies, and the net value in performance of production of the means of human individual life on Earth. We must place the two cases, development of infrastructure for physical economy on Earth, and the "infrastructure" required for human travel between Earth and Mars under the common categorical heading of "infrastructure." Therefore, we must apply the case for Mars-Earth travel as an example of the role of infrastructure in defining the productive powers of labor on an Earth-based economy.

That illustration has the broader significance of illustrating the point, in that, in the light of the projectable, ultimate unsuitability of the Earth orbit as a place for what might be presumed to be an indefinitely continued human habitation, we must foresee the need for future mankind's alternative choices of places for continued human habitation. Since the Solar system itself, will present threatened, kindred sources of difficulty in a distant future time, we must project the destiny of distantly future, successive generations of mankind accordingly.

As I have used illustrations, previously, as aids to insight into the principled nature of such foreseeable challenges, we must adopt a certain kind of moral perspective for the span of future mankind, henceforth. Essentially, this converges on the challenge of defining future "synthetic" environments within which mankind could live happily, despite the unsuitability of the "natural environment" of a certain planet's raw system otherwise.

This, of course, demands an increase, by increasing orders of magnitude, of the *energy-flux density* of society's practice, per capita, far, far beyond those presently at our disposal. We might say, that the work of Academician V.I. Vernadsky brings us to what a future mankind should experience as the sense of a preliminary, relatively primitive kind of advance in scientific knowledge and practice which must be admired today, as a forerunner of the kind of processing of accelerating development of the relative power of mankind, far, far beyond anything presently imagined. We must, therefore, improve our manageable scientific imagination of what those future powers of mankind must become, and, thence, discover what actually does, or does not exist as optimal remedies for the problems posed by our desires, as a species, for improvements within our future universe.

The first among the next steps in that direction will include the future of a return of musical practice to the standard of anti-Romantic, Classical composition from the range of Handel, J.S. Bach, Mozart, Beethoven, Schubert, and Schumann, through such as Brahms. This must

be done out of respect for the fact that it is the Classical principle of composition of poetry, music, drama, sculpture, and portraiture, which expresses and nourishes those creative mental powers, including discoveries of principle in the practice of physical science, from the domain of the imagination of the beautiful, the discoveries which are ruined by the habits of such wretchedness as the Romantics and modernists, and the ruin of physical science by the morally dead minds of the deductive/inductive mathematicians of the empiricists and their positivist schools.

The great issue of all aspects of science, including economy is the fact of the general ignorance, even among nominal scientists, of the existence of a universal principle which is named variously as anti-entropy, or "creativity," as appropriate for the domains of the universe generally, for all expressions of actually living processes, and the characteristic of all viable expressions of human cultures. Nonetheless, both the principle of creativity, and the distinction of its practiced expressions remain virtually unknown conceptions, even among scientists today, not to speak of economists generally today.

Most among our contemporary economists, and virtually all practice of financial accounting remain utterly ignorant in this matter, ignorant of a universal principle of both science and Classical artistic composition on which the successfully continued existence of society depends today.

II. The Secret of Real Economy

Some would caution me, that anyone writing to present a matter of scientific or comparable principle, as I do here, should state his case without "knocking" the claims of his putative rivals. However, as in such cases of scientific work as, for example, medical practice, or economics, one must not suppress reference to dangerous diseases. Such are the requirements for the subject here at hand.

Contrary to that ancient, Delphic creature, Aristotle, and equally contrary to the avowedly unprincipled empiricist (or positivist) dogmas of the modernist devotees of Paolo Sarpi, we must consider the entire universe known to mankind's experience as actually being inherently "creative" in principle, or, in technical terminology, *"anti-entropic*."

That means, that all species, whether life-forms or non-living, have come into existence as products of a universalizing process of *anti-entropy*; even what we usually consider as being the so-called inanimate species of existence, are dominated by the role of the force of what is qualitatively anti-entropy, in shaping their own existence. With mankind's appearance among the creatures of our planet, something absolutely new had been added to the repertoire, that something, the principle of mankind, which might have been copied from

the Mosaic first Chapter of ***Genesis***: *a principle of creative willful choice of the power of mankind's power for upward progress, through those new creations made possible by the principled characteristics specific to the human species. This is the concomitant of adopting that view of this matter which supplies us access to knowledge of that intention which properly underlies the proper notion of human spiritual immortality.*

This idea expresses a specifically human characteristic, but is also, nonetheless, often a systemically rejected notion today; but, despite all that, it is a conception which presents us with the quality which is specific to mankind: *the willfully anti-entropic characteristic attributable as being unique to the human species. Such is the very essence of all of mankind's willful progress in the quality of the intentions and achievements of the human social experience.* Any relative lack of relevant truly universal, scientific principle, such as that lack which is typified by the reductionism of both the Aristotelians and the positivists alike, typifies the source of that frequently monstrous incompetence which is often still guiding the economies, and also of most of the economists of the world still today.

That much said thus far, that purpose which lies behind this presentation of the concept of "The Secret Economy" which I make here, requires that we shift the basis of the discussion of this subject, up to a qualitatively higher order of conceptions: away from the prevalent folly of judging an attributed economic value to money, to reaching appropriate physical standards for judging the effect of the society's management of money itself.

Therefore, here, I have now switched our attention from economy defined by money, to a qualitatively higher order of conceptions, the physical conceptions which always determine the fate of nations in the longer span of developments. Those are physical conceptions, which are not visible to the mere senses, but are known from the vantage-point of the effects of what has been rarely understood among leaders of nations until now: *the effects of the distinctive, higher powers of the individual human mind.*

I now define that change from the sensory, to the sublime, in the following preliminary terms of "definitions" and the like.

What, Really, Is the Human Mind?

As Adam Smith effectively confessed the wickedness-in-fact of his system, by identifying it, as I note here, as according to the reading of his intentions, as in the most crucial passage within his 1759 **Theory of Moral Sentiments**, so, today, almost the entirety of present-day accountants, economists, and financial and business leaders, affirm their adherence to Smith's delusion. Presently, so far, only the rarest among today's specialists in economic affairs, show even a meager conception of the principled way in which real economies

actually function. The results of our accountants and also most putative economists, are to be recognized in the presently onrushing, global economic breakdown-crisis now at full tilt.

Thus, the presently overwhelming majority of certifiable economists, like the intellectually crippled accounting profession itself, presents us with by-products of that same old, widespread delusion embedded in Smith's own lunatic dogma.

So, because of just that habit often traced to Adam Smith, and also the failures of Smith's Marxist followers, the economy of the world today has been on a decades-long course of changes which are directed, in net effect, toward the presently onrushing, greatest collapse in all modern history, of the world's financial and physical economy, alike. Consider the case of Adam Smith in this light.

While Adam Smith's work itself, was a fraud from top to bottom, Smith was, therefore, only perversely "sincere" in his presenting that specific kind of delusion shared among such among his dupes as both an Adam Smith fanatic Karl Marx and our own Wall Street ideologues today. That is to emphasize, what Smith himself wrote in a crucial passage of his 1759 ***Theory of Moral Sentiments.***

To wit, we have the following passage:

> *"… Hunger, thirst, the passion which unites the two sexes, the love of pleasure, and the dread of pain, prompt us to apply [these desires] 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."*

Adam Smith, thus, presents us with what is, in fact, the widely accepted, but wickedly incompetent conception of "money," a folly which has been prevalent throughout the world affairs up to this present time.

The popular desire for money as such, or the equivalent, has been, thus, the kind of passion which attaches the typically suggestible, economics-ignorant devotees of Wall and Threadneedle Streets to the delusion that either the means called "money," or a notion of the kindred power to purchase and to consume, is the measure of the political system of values by which a nation, or nations, might be ruled presently. Hence, as history demonstrates: with most people, most of the time, the result is, that their tendency is, in effect, to impair the quality of judgment which might have otherwise made them fit to rule themselves.

Such a specific form of lack of judgment respecting the notion of "wealth," such as that of the dupes of Adam Smith, is more the cause of the moral and other disorientation of entire nations than anything else.

Such is the state of mental disarray shown by the supporters of President Barack Obama's promotion of mass-murderous healthcare and related economic policies in the U.S. Congress presently; what might be allowed as the most generous characterization of those misguided creatures in that body, is that they might be considered at least temporarily as "clinically insane." The result of this is, that the more that they themselves are virtually owned by their belief in what is sometimes termed "the magic of the monied market-place;" the more destructive of society generally, which their conduct becomes, in respect to even the subject-matters of what are presumed to be even simple economic facts.

So, as the ***New Testament*** reported that the Christian Apostle Peter once denied a certain essential truth in fact. He did so in a way which should remind us of certain members of the U.S. Congress, and others, who are, unfortunately, not saints, but who, nevertheless, would simply deny the truth actually known to them, not only pending the moment the proverbial cock had crowed thrice, but through the presently darkening night of civilization.

Consider the case of the Seventeenth-century Massachusetts Bay Colony for as long as it was still free of a direct British dictatorship of its internal economic and associated affairs. Consider that Commonwealth's development and use of its own currency for credit.

This success was continued until the point in time that that practice was suppressed by the British tyrants who came in to ruin matters there. *A political system of currency is necessary, but, only, when it is used as a system of credit, rather than being degraded, economically, into a system of assumed value.*

I emphasize the qualitative difference between the presumed economic value often represented by mere money, and real value as expressed by physical economy. *Whereas, monetary systems pretend to measure the value of physical wealth by the notion of money, any competently designed economies today would assess the usefulness of a currency, by the standard provided by what are the intrinsically physical values which can be adduced, best, today, from the standpoint of such paragons of a truly anti-positivist physical chemistry, such as Dmitri Mendeleyev, Max Planck, William Draper Harkins, Academician V.I. Vernadsky, and Albert Einstein.*

The contemporary developments in the direction of reviewing Mendeleyev's principle for the periodic table from the relatively more advanced standpoint of a universal system of cosmic radiation, typify the approach which must be developed for a deeper insight into the principles of physical economy today.[14]

Consider some historical examples on background, beginning with the case of Charlemagne:

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[14] *Cf.* Peter Martinson, "Toward a New Periodic Table of Cosmic Radiation," ***EIR***, Vol. 37, No. 16, April 23, 2010.

France's Charlemagne had defined the precedent for modern systems of economy. This was expressed in such forms as his great physical-economic census, his system of local national government in crucially significant regional capitals, and his development of his revolutionary systems of inland waterways.

Charlemagne's reforms served as the precedent for the development and role of the great internal systems of rivers and canals, which provided the crucial steps toward modern European economy and the application of the same reform within our United States. Those inland waterways prepared the leap toward the revolutionary U.S. trans-continental railway systems, first, inside the United States, and, in turn, the transcontinental rail systems of Eurasia.

Now, the prospect of the combined effect of magnetic-levitation mass-transport systems and rail, which will connect the principal continents of the world, would render most ocean transport of freight technologically obsolete, because the modern successor of ordinary internal rail transport will have rendered much of ocean freight-transport technologically, and, therefore, economically obsolete.

Changes such as those, illustrate a general principle which will be expressed in future development of certain nearby Solar-system locations, such as our Moon and Mars, when they will have come to be considered, sooner or later, as having come to be considered, later, as within the bounds of our presently still young, new century's plausible instances of work and habitation. Typical problems to be overcome for the purpose of human transport and dwelling in nearby Solar space—and, later, beyond, must look to such future developments already foreseeable for later in the present century; we should then recognize that the development of basic economic infrastructure had always been a needed creation of what is required as an "habitable" development of a "synthetic," rather than a presumably "natural" environment for the enhancement, or even the possibility of human life and practice at some time in the existence of our human species.

For example: look back to the approximately hundred-centuries' interval of the Earth's last great glaciation. While some part of the human population had remained mired in the habits of life of some fixed, relatively narrow regions free of glaciation, great trans-oceanic maritime cultures were also developed. The requirement of a stellar mapping for navigation for the existence of maritime cultures, gave us the stellar notion of the efficient existence of a functional form of an ontologically actual universe, as echoed by such residual artefacts as the great pyramid of Giza, and by the physical science of *Sphaerics* known to the so-called Platonic long cycle and to the Pythagorean predecessors of Plato.

So, similarly, the fact of man's ancient knowledge and evidence of use of a fireside, as "fire" has been a crucial proof of the existence of the ancient distinction of man from ape, and that

of "humanism," since no later than the bestial-like depravity of the mythical Zeus's proclamation against such physical-science expressions of human progress as the power of nuclear fission and fusion. Man as a creator in the likeness of the great Creator, is expressed by humanity's creation of the "artificial environments" we sometimes call "infrastructure," on which both the progress, and even the merely continued existence of civilized society depends.

Evil is thus typified by the attempted denial of certain forms of required human progress, such as denial of those measures which define the higher powers of improved basic infrastructure. Always, such progress depends upon mankind's increased power through the effects of what may be generally defined as needed increases in the energy-flux-density of the resources of applied, human-controlled power, as has been the case beginning with the discovery of improved forms of fire, such as the mandatory standard of nuclear-fission and thermonuclear fusion today, together with the progress of astronomy in the direction of man's exploration and prospective colonization in our planet's nearby space.

So, as we develop the means for satisfaction of those production requirements on the Moon which are needed to prepare mankind's escape to other planets and star-systems of our galaxy, from the present, prison-like bounds of Earthly habitation, we must include the need to meet the challenge of lower-ranking fields of gravitation, and the challenge of acceleration-deceleration in interplanetary flight to, and residence on Mars. Thus, we must do for interplanetary Solar space, what the great ocean-going mariners of the last great period of glaciation did in discovering astronomy as a practiced science, together with what Charlemagne did for the development of inland economy in Europe, with what we did in our initial development of the territory of North America, what we did in launching the concepts of transcontinental railway transport in North America, and with what must now be done in our commitment to a virtually continuous global system of transport and related infrastructure, beginning with the development of the Bering Strait railway tunnel. Thence, we must now go on to development of our Moon, and, thence, to conquer the mysteries of transport through the larger domain of cosmic radiation, as for transport to and from and habitation on Mars.

That much said in the course of this present chapter of the report thus far, I would consider us prepared to plunge directly into the proverbial meat of the goals which I am now in the process of setting before us in this report.

Economics & the Human Mind

In my response to two successive, concluding questions presented to me at the May 8 webcast, I touched upon the most crucial of the underlying principles governing the successful functioning of the higher orders of the human mind. What I reported there, then,

did not yet cover the fuller range of what has continued to be virtually unknown territory for most people, even most well-educated ones. However, what I stated on that subject on that occasion, did touch on the outlines of principles underlying the successful employment of the creative powers of knowledge of the human mind.

The reader's point of departure from this point as it will be considered in the next chapter of this present report, onwards, should also be a reference to the celebrated, and often bitterly contested ***Parmenides*** dialogue of Plato. For that reason, the problem to be considered there, is, thus, best outlined as follows.

At first estimate, as I proceed there, the human individual's knowledge of the universe he, or she inhabits, including even his, or her own skin, depends upon what is identified as our system of sense-perceptions. Yet, when we might attempt to understand the universe around us, even that which sense-experience presents as within us, none of those species of sense-perceptions, if considered one-by-one, presents us with a provably accurate set of facts about the real world which we might believe that we inhabit. Yet, at first estimate, all that we might believe that we know from such an organization of experience itself, does not yet show us the truth or falsehood of that experience of particular choices among sense-perceptions as such.

Such is the root of the ignorance of all such followers of both Euclid and the Paolo Sarpi of the modern Liberalism of today's empiricists and positivists. All scientifically competent claims to knowledge must be sought in other ways.

The most useful demonstration of this point which is to be found for modern society, is that presented by two famous students of the works of those founders of modern physical science known to us, first, as the Florentine "Golden Renaissance's" Filippo Brunelleschi who discovered the physical principle of the catenary as the means employed to construct the otherwise practically impossible cupola of Florence's Santa Maria del Fiore, and, second, the related, much broader discovery of the essential principle of all competent modern physical science, by Cardinal Nicholas of Cusa. Among Cusa's most notable followers, are included, both the Christopher Columbus who adopted Cusa's injunction to cross the oceans to discovered continents, and the Leonardo da Vinci who presented the function of the tractrix from the catenary-tractix relationship; but, the most crucial discovery since the work of Cusa, was the founding of all competent subsequent progress in physical science, by Johannes Kepler.

Two features of the process by which Kepler developed his uniquely original discovery of universal gravitation, are chiefly to be considered on this account here. First, *the principle of the elliptical planetary orbit*s; second, *the universal principle of gravitation*. The first of these two, is to be considered as the precedent which prepared the way for the latter discovery. All the essential discoveries of these principles which were reported in finely elaborated detail,

and, in large degree presented in England, by Kepler's writings, before the hoaxster Isaac Newton had made his silly, and since shown, factually, to have been fraudulent claims in all principled matters of the subject of modern science.[15]

The crucial feature of Kepler's work to be emphasized at this moment, is that his uniquely original discovery of universal gravitation can be employed by us today, as showing how we are enabled to escape from that unlit dungeon of the human mind which many among us impose upon ourselves as the habit of reliance on mere sense-perception. It was through Kepler's ironical juxtaposition of the harmonic organization of the Solar system to the contrasted visual notion of an array of Solar planetary orbits, that he was enabled to solve the riddle for which he has been praised by Albert Einstein: Einstein's judgment of Kepler's work, that Kepler presents us with a universe which is always finite, but never bounded.

To come now quickly to the matter of the significance, for all modern science, of what I have just written here respecting Einstein's grasp of Kepler's genius in these matters, compare Kepler's uniquely original discovery of universal gravitation, by comparing Kepler's achievement with that of Dmitri Mendeleyev's definition of physical chemistry's conception of the organization of the periodic table of elements. Or, presently, with the recognition that we must go further, to follow the combined achievements of Mendeleyev and V.I. Vernadsky, and as also the related achievements of Einstein and other leading founders of modern forms of anti-reductionist physical chemistry.

As Kepler's discovery of the principle of the Solar system illustrates this point, it was Kepler's successful resolution of the otherwise inescapable contradiction of the visual and harmonic sense of the ordering of the composition of the Solar system, which exemplifies the freeing of the human mind from the prison-like boundaries of a system of separated individual types of sense-perceptions.

No human sense-organ, nor scientific instrument, presents us with a truthful representation of our experience of the universe. It is, rather, the conjunction of mutually contradictory kinds of sense-perception, both those given us at birth, and those supplied as scientific instruments, which leads us to the discovery of relatively universal experimental truths.

Not merely that. The great fallacy of customarily believed notions of economy today, is the popular delusion to the effect of the presumption that the value of the products of human endeavor could be reduced to such an intellectually and morally degraded sort of misrepresentation of social realities, a misrepresentation of the type which would tend to

[15] No actually factual proof of anything contrary to what I have just written on this matter has ever been presented, or proven in any way. There are only professors and other opportunists who have chosen to "sing bad tunes for their suppers." Unfortunately, such opportunists are abundant among academics still today. Despite them, historical facts of science remain facts.

prompt us to presume that statistical monetary phenomena are a tolerable measure of relative economic value. On that account, Adam Smith's and today's "Gospel according to Saint Lucre" is truly a worship of filthy lucre, and even much worse than that, as the history of so-called "money-economy" attests so richly. A moral standard of scientific, rather than monetary truth, is required, instead.

Such considerations as these just presented by me here, point to the crucial significance of Plato's **Parmenides** for the training of the competently developed scientific mind today. In brief: true science begins with the mastery of the contradictions inherent in what are otherwise inherently false, simple interpretations of what we know through raw sensual experience, one at a time.

Therefore, next, we must take into account the difference between what most people, mistakenly, believe that they know from the brain's relationship to sense-perception as such, as compared with the more advantageous, higher standpoint of the mind's superseding the "level" of sense-perceptual experience through reaching the standpoint of universal physical principles, such as that I have often pointed toward by references to Brunelleschi, Nicholas of Cusa, Kepler, Gottfried Leibniz, Bernhard Riemann, *et al.* The latter of the two contrasted vantage-points, sense-perception versus the superseding vantage-point, is that which I emphasized in the two concluding replies to questions referenced above.

III. Dynamis: Your Brain, or Your Mind?[16]

It[16]should be no news to any among you, that the great majority among presumably literate citizens of Europe and North America, still, today, in particular, associate the location of the individual's personal identity, mistakenly, within the domain of sense-certainty.should be no news to any among you, that the great majority among presumably literate citizens of Europe and North America, still, today, in particular, associate the location of the individual's personal identity, mistakenly, within the domain of sense-certainty.

That notion is associated with what is often a pathological quality of belief in, alternately, the choice among variable money-prices of objects, or the object identified with a relative value measured in terms of some specific kinds of objects, or experiences. The problem with that fact is, that as long as that traditional notion of standard for behavior persists, nations and their populations remain far worse than poorly equipped to cope, emotionally, or otherwise, with the kind of already terrible, and worsening physical-economic situation in which they live, under the wildly galloping, worsening world crisis of today.

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[16] *Cf.* Leibniz, G.W., ***Specimen Dynamicum*,** in Loemker, L.E. (ed.), ***Philosophical Papers and Letters*** (Kluwer: Dordrecht, 1989).

The custom of associating values of widely assorted types with money-values, is the notable result.

The root of this kind of self-inflicted danger to the credulous believers in such money-systems, either as a society, or, of some class of the members of societies, is that they continue, stubbornly, to associate human identity of persons with the reductionist's notion of the human brain and the experiencing of its presumably associated sensory apparatus.

That kind of assumption is the prevalent, grave error in the presumption, on which the folly of what is still generally accepted as "axiomatic" notions of value, is premised. Such are the presumptions on which most of today's economists and popular opinion, alike, have still been premised, often to obviously disastrous effect.

This pattern has been the known case since the inland imperial systems of the ancient Middle East, up through the global maritime empires of modern time. With the shift to maritime systems centered in the Mediterranean, in particular, a new, maritime pattern has become dominant in the European and trans-Atlantic cultural experience, over the millennia since the Trojan and Peloponnesian wars, in the world at large today: the dominant influence has become those imperial maritime traditions centered, in origin, within imperial forms of maritime cultures, a sometimes kaleidoscopic-like evolution which has come to be centered, since Europe's "Thirty Years' War," in the emergence of the British Empire, up through the present date these lines are written.

Against that background, consider the naivety of the credulous, respecting those historically relevant, proper, higher functions of the human mind which they have failed to learn to control; they remain unable even to recognize the existence of those usually obscured, but available means, by aid of which they might regain control over the crisis-ridden destinies of their nations, and of themselves. So, since the Trojan and Peloponnesian Wars, what has become the dominant role of what we call European civilization, has been the handiwork of empires which have ruled their world through orchestrating murderous wars and conflicts, such as the follies of Europe's Thirty Years' War and Seven Years' War, and two so-called "World Wars," and such as the utter folly of President Obama's Afghan War, and the prospective attack by a London-puppet Israel against Iran, all wars with kindred effects among the befuddled ranks of subject nations and peoples.

The irony of this historical situation has been, that both the brain and associated sensory apparatus which are expressed by the adoption of such systems of values, even the presumed relative values of human beings, are considered as being merely sense-objects in and of themselves.

For example, consider the history of Europe and the U.S.A. *since the death of U.S. President Franklin Roosevelt, whether the assessment, from time to time, has been that the U.S.A. appeared to be in a state of growth, or recession, the fact is, that when value is measured in the trends over this entire interval, the physical-economic level of the U.S. economy has been consistently in a continuing process of measurably long-term physical-economic decline!* Thus, for example, there has been a continuing net decline in the physical-economic basic economic infrastructure of the U.S.A. since approximately 1967–68, a decline, such as that under British Prime Minister Harold Wilson's two terms, as masked for the edification of the pitiably credulous by the fraudulent doctrine of "creative destruction" which has been taught to the silly by Joseph Schumpeter.

The crucial proof which should have warned economists that the presumption behind that still popular opinion about money, is an error, is to be recognized in the evidence, respecting the Leibnizian principle of dynamics, supplied by a set of cases from both physical scientific knowledge, and from the Classical artistic composition which such celebrated poets and composers as England's Percy Bysshe Shelley identify in the concluding part of Shelley's own ***A Defence of Poetry***.

That is the same point made by Gottfried Leibniz, over the course of more than several crucial works uttered on this specific subject-matter during, chiefly, the 1690s, in the course of his defining the only rational meaning given by anyone, to the subject of the role of *dynamics* as presented by him in defining the actual principles of modern physical science.[17] The best choice of an illustration of the principle commonly expressed by these given cases, is Albert Einstein's characterization of Johannes Kepler's uniquely original discovery of the principle of gravitation, as in Kepler's ***The Harmonies of the World***.[18]

The issue which I have posed here in the opening remarks of this present chapter, is not the possibility of taking advantage of some trick to be learned in school, or, by some correspondence course, or a gain of influence in society through a series of U.S. "Dale Carnegie" sessions. To avoid yet another round of such follies as those which I have just referenced, the higher powers of the human mind which might be made the common prowess of human beings generally, must be recognized by aid of the special form of scientific argument which I shall now preface in the course of this present chapter.

The Gravity of a Kepler Discovery

That said, therefore, now come directly, from the immediately foregoing, introductory discussion in this chapter thus far, to the crucial, underlying question to be posed to all

[17] *Ibid.*

[18] Notably, exhibiting the characteristics of a system which is, in respect to all its internal revolutions, akin to the funicular curve (catenary) on this account, *always universally* finite, but not externally bounded.

economists: *What remains of a valid discovery of a universal physical principle of the universe, at a time when the physical brain of the unique individual discoverer of that universal principle no longer exists within this contemporary universe?* To begin this chapter's exploration of that matter, turn to the example of Johannes Kepler's uniquely original discovery of the general principle of gravitation, treating this as a point of departure, from which the reader should be able to build up an understanding of the notion of the relevant principle of physical economy which this question poses.[19]

Begin that exploration, most appropriately, as a matter of background, with the implications of the discoveries by Kepler for all competent expressions of modern physical science, still today. Out of this examination of the facts of the matter, find the answer to the question: *What is the human mind, really?*

During the recent period of several earlier years, relevant fresh exploration of Johannes Kepler's discovery of the principle of universal gravitation, had been re-examined by our association in a more thoroughly rigorous fashion than is to be found elsewhere in the usually recommended, contemporary scientific literature on that subject today. That was accomplished during a several years span of rigorously scientific reports produced by, chiefly, two successive team-efforts, each covering a phase of the subject from the premises of our Round Hill "basement"-area.[20] The first stage of that discovery by Kepler, had led to defining the physical principle of "equal areas, equal times" governing the elliptical pathway of the orbits of Mars and Earth. That study prepared the way for the more challenging second task, in which the team defined the physical principle of general gravitation, step by step, exactly as Johannes Kepler had already succeeded in doing.

Among other benefits, this work on Kepler's own original discovery also showed, for example, why the erring reductionist Pierre-Simon Laplace had not only failed the course, but, worse, had ended up with his terribly embarrassing failure expressed by his being mired in his infamous "three-body" paradox.

Laplace's error on this account, had been his blundering, systemic failure to accept the already existing, unique solution represented by the already available scientific knowledge of Kepler's unique successes in the discovery of gravitation. That is the discovery by means of which Laplace might have avoided a great embarrassment to his reputation. Even still today, Kepler's proven discovery is not only unique, but has also been a solution in the continuing

[19] See my extended replies to the concluding two questions of the May 8, 2010 LPAC Webcast, for a relevant complement to the argument presented here.

[20] Very few from among the Twentieth-century physical-science university graduates, even from among the ranks of leading academic specialists in physical science, have ever actually worked through that material in a competent way as my relevant associates' "basement team" had done. The case of an attempted, but caught-out counterfeiting of the basement team's work, is notable on this account.

tradition of such founders of all competent modern science as Cardinal Nicholas of Cusa, respecting the foundations of modern physical science generally. Study of this case of the failure of Laplace, helps us to understand more clearly the political reasons why Kepler's discovery of gravitation presented in Kepler's ***Harmonies***, is not grasped competently by the positivist tradition to the present day.[21]

Laplace's state of intellectual, ontological numbness, was no mere matter of an academic oversight. Laplace, like Abbé Antonio S. Conti earlier, or Jean le Rond d'Alembert, Voltaire, Leonhard Euler, and others of similar bent, such as Laplace's accomplice Augustin Cauchy,[22] was a fanatical follower of the radical cult of Paolo Sarpi's Ockhamite Liberalism, and a key figure in what emerged later as the promotion of the Nineteenth-century Liberals' cult of mathematical positivism. Whereas, competent modern physical and related science was generated by such pioneers as Brunelleschi, Nicholas of Cusa, Johannes Kepler, Pierre de Fermat, Leibniz, Jean Bernoulli, by the Ecole Polytechnique of Gaspard Monge and Sadi Carnot, and by Carl F. Gauss, and Bernhard Riemann.

As Albert Einstein emphasized, it had been Kepler's comprehensive discovery in ***The Harmonies*** which has provided the seminal foundation of competent physical scientific method since that work by Kepler, such as the uniquely original discovery of the calculus by Leibniz, and the development of the principles of elliptical systems by leading contemporaries of Carl Friedrich Gauss. It was such followers of Cusa and Kepler as Gottfried Leibniz, Abraham Kästner's pupil Carl F. Gauss, Lejeune Dirichlet, and, especially, Bernhard Riemann, who established those foundations of the modern science traced to such outcomes as those of the work of Max Planck, Albert Einstein, and the principal founders of modern physical chemistry, such as Dmitri Mendeleyev, William Draper Harkins, and Academician V.I. Vernadsky. It is that latter "school" in modern physical science which is

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[21] There are still leading universities in the world today, in which the corrupting influence of a miseducation of leading professors of physical science, especially the positivist fanatics, still teach their students wildly reductionist gibberish on the subject of Kepler's great discoveries.

[22] With the final military defeat of Napoleon Bonaparte, the military hero of France's defense against the occupying Habsburg coalition, had been "the author of victory" and candidate for President of France to supersede Napoleon, Lazare Carnot. Carnot was replaced, on orders from the British and Vienna Congress occupation authority of the Duke of Wellington. As a by-product of this set of actions by Wellington, the world's then leading scientific institution, the Ecole Polytechnique was taken over by British-sponsored agents Laplace and Cauchy, and the leaders of French science, Monge and Carnot were not only expelled, but the scientific training program was taken over and polluted by the occupying alien forces. As a result, the Alexander von Humboldt who had been a fellow-member of the Ecole with Lazare Carnot, came to science's rescue, by unleashing the effort to move the legacy of the original Ecole to Germany, during the late 1820s. Under this arrangement the patriots of the Ecole continued their work through cooperation with the international circles, including leading U.S.A. science circles themselves associated with such outstanding figures as Alexander Dallas Bache, and closely tied to Carl F. Gauss and Alexander von Humboldt.

prominent in any principal argument to be made on the principal subjects addressed directly, or implicitly, in the course of this present report.

That much said, now return to focus attention on the crucial methodological feature of Kepler's solution for the defining of the Solar multi-planetary system.

The History of the Issue

The key to that discovery, as Kepler laid out the case in a thorough fashion within his ***The Harmonies***, is Kepler's emphasis on the ironical, systemic conjunction of *two, contrasted human sense-organisms, sight and the harmonics of sound,* a conjunction which was the unique basis for the original discovery of universal gravitation as made, initially, by him.

It must be emphasized, that Kepler never, as some have alleged, repudiated, but only superseded the starting-point of his initial hypothesis respecting the Solar system's organization, in noting that the ordering of the planetary orbits with respect to the Sun strongly suggested the provisional hypothesis that the ordering corresponded to the series of the Platonic solids. Rather, he had discovered, in the course of his **The Harmonies**, that no single sense-organ could define the set of orbits, but only a systemic contrast of vision to the harmonical order of hearing. Kepler refined his reading of the Platonic ordering by his later discovery of a still higher physical principle which answered the question: "Why were the planetary system's orbits arranged in this way?"

To sum up the problem which this fact of the originality of Kepler's discovery poses for the contemporary reductionist fanatic among academics, as for others, the issue is, still today, the menacing combination of the succession of Kepler's two central discoveries respecting the organization of the Solar system. This role by Kepler, represents, still today, an implicitly fatal blow against the reputations of the two principal rival systems of world-outlook, the first, that of Aristotle (and his follower Euclid) and the second, that of the founder of modern empiricism and positivism alike, Paolo Sarpi. This is the Sarpi from whom all generally accepted, but utterly incompetent notions of principles of economy in use today have been derived, such as that of Adam Smith, of the Russian IIASA dupes of Bertrand Russell's school of Cambridge "systems analysis,"[23] and, of the positivist fanatics, who insert the numbness of their intellects into the idea of number.

The History of the Conflict

The history of the conflict between the followers of Brunelleschi and Cusa, on the one side of modern science, and the modern batches of empiricists and positivists collected under the banner of the image given to the actually silly, and fruity, but extremely unfruitful Sir Isaac

[23] E.g., IIASA (the Laxenburg, Austria International Institute for Applied Systems Analysis).

Newton, is a reflection of that cultural revolution, known as modern Liberalism, led by Paolo Sarpi and his Leporello of pseudo-science, Galileo Galilei. Typical of the opposition to these hoaxsters of Sarpian Liberalism was the case of Pierre de Fermat, whose original discovery of the principled implication of refraction, had an additional, crucial outcome in the later collaboration of Gottfried Leibniz with Jean Bernoulli in developing the principle of universal least action.

The principal targets for initial attempts at destruction of existing science by the circles of Sarpi and Galileo, were the circles of Nicholas of Cusa and Cusa's follower, that great giant intellect among the followers of Cusa, Johannes Kepler. The setting of this attack is located in the coincidence of the span of the births and deaths of Kepler (1571–1630) and Sarpi's virtual "Leporello," Galileo (1564–1642), respectively. Not only were the two cases historically parallel, but Galileo's relationship to Kepler was that of spying against him in Sarpi's interest, using Kepler's active correspondence, on the subject of music, with Galileo's father Vincenzo, a coincidence which afforded a spying Galileo Galilei the opportunity to spy on Kepler for the purpose of launching an attack intended to contribute to discrediting him by aid of frauds perpetrated against Kepler's scientific achievements, as this was done by Galileo himself in his capacity as an leading agent of Paolo Sarpi.

The larger significance of these developments is rarely understood, even among relevant professionals today. In point of fact, the issues were posed, on the one side by the great Renaissance scientific revolution launched, most notably, by Brunelleschi and Cusa, and by Cusa's followers, and, on the opposing side, was the modernist Liberalism of Paolo Sarpi. Isaac Newton was, essentially, merely a concocted, pseudo-scientific hoax created in the interest of the Liberalism of Sarpi and his lackey Galileo. The connection was that maintained through the adoption of Galileo follower and fanatical Cartesian, the Abbé Antonio S. Conti notorious for the creation of the ill-deserved scientific reputations his own lackeys, such as Isaac Newton and the hoaxster and Leibniz-hater Voltaire.

We shall return to the subject of Kepler's significance for the study of the deeper principles of the human mind, in the next chapter of this present report.

The Root of Modern Political Economy

Now, proceed to re-examine the definition of the actual human mind from the standpoint of the most relevant aspects of physical science, especially a physical science of economy. The following, interpolated information, on background, is essential for providing the setting of the argument to be made respecting what may be titled "A View of the Real Human Mind in the Real World of Today."

In any well-known history of a European civilization's new attempts at science since the death of Plato, the notion of science is to be recognized as centered on a conflict among three mutually exclusive alternatives in choice of underlying, presumed universal physical principles, as follows.

The first member of this designated series, taken from that relative antiquity, is the Delphic cult of Aristotle; the second, in opposition to the Aristotelians, is best identified as represented by the work of the Florentine Renaissance of Filippo Brunelleschi and Nicholas of Cusa; whereas the third, is that of the irrationalist school of Paolo Sarpi and of the set of his radically reductionist, nominally empiricist or positivist followers. The mutual differences among these three categories, are not matters of approximation; they are essentially systemic.

Nevertheless, it is to be both noted and emphasized, that Brunelleschi and Cusa, taken as representing successors in working through the development of a single experimental conception, represented an escape from the decadence of, in particular, what had long been the Aristotelean school, to return to not only a return to the most advanced scientific outlook of the pre-Aristotelean science of the Pythagoreans and their like, such as that of Plato, but, also, to bring on a qualitative advance in respect of underlying principles of physical science which went beyond the noble achievements of some of the pre-Aristotelean thinkers.

The crucial, common point of distinction of both the work of Brunelleschi and that of Cusa, had been the coincidence of their discovery of the essential content of modern European science, which was the discovery, initially by Brunelleschi, of the use of the principle of what would come to be understood as the catenary (or, "*funiculà*"), as a critical principle of feasibility in construction, a discovery by Brunelleschi whose fulsome recognition would be specific, later, to the combined achievements of Gottfried Leibniz and his collaborator Jean Bernoulli. For our purposes at this immediate point in this report, it is sufficient to enter the following note on the subject of the catenary, the principle on which Brunelleschi depended for the feasibility of the construction of the cupola.

The catenary is to be recognized as *a physical curve*, as distinct from the ordinary, *a-prioristic* reading of the curves known to Aristotle or Euclid, or the relevant failure of Sarpi's advocate Galileo.[24] The earlier mystery, prior to the work of Leibniz, as associated with the attempts to define what came to be known as the catenary, was itself an essential by-product of the incompetence of the influence of the *a-prioristic* presumption of such as Aristotle and the Euclideans, the presumption that geometric forms, therefore, should be defined as an

[24] The fraudulent, and utterly failed attempt to identify the catenary by devotee of Paolo Sarpi, Galileo, is notable as an exhibition of the systemic incompetence of the methods of the modern empiricists. All my own early insights into physical science date from a relevant set of experiences at the age of 14–15. Thereafter, I always regarded Euclidean geometry as being intrinsically incompetent on these premises.

expression of a form extended to "infinity."[25] Gottfried Leibniz, working in the beginning of the Eighteenth Century, introduced a crucial difference, to the effect that the catenary belongs to *a physically finite, but unbounded* domain of action. Hence, the origins and the authority of the Leibniz-Bernoulli principle of least action.

Although that distinction was unique to Leibniz and his immediate associates, especially the associate Jean Bernoulli, the yearning for the same principle had been expressed already in the work of both Brunelleschi's design of the cupola for Florence's Santa Maria del Fiore, and in Cusa's principal scientific works beginning with his ***De Docta Ignorantia***. The discovery of the physical principle, which was also expressed by the catenary, was not the only relevant feature of the great impact of the successive achievements of Brunelleschi and Cusa at that time; rather, that principle typified the world-outlook spread by such as Brunelleschi and Cusa, that as reflection of the setting of the work of the great ecumenical Council of Florence. This set of conceptual foundations for both modern science and for the design of the economy of the modern form of sovereign nation-state, was spread from Cusa, explicitly, through such as France's Louis XI, England's Henry VII, and Christopher Columbus, and through such followers of Cusa as Leonardo da Vinci, and Leonardo follower Niccolò Machiavelli.

The combined effects of the works of science and related statecraft of Brunelleschi and of Nicholas of Cusa, expressed the inclusion of principles of organization in statecraft which had never existed within post-Plato European civilization earlier. The effect of the revolutionary change expressed, chiefly, by the impact of the work of Cusa, produced a specific kind of effect which is best symptomized by the innovations in military and related statecraft featured in the writings of the follower of Cusa's follower Leonardo da Vinci, and the participant in the defense of the sovereign republic of Florence, Niccolò Machiavelli.[26] This revolution in statecraft which found its concentrated expression in the work of Machiavelli, stood as a great strategic rock against which the reactionary forces of the Habsburg tyranny had wrecked themselves in the course of the storms of religious warfare of the persistently recurring, 1492–1648 orgy of religious and related warfare.

The results of this had included the catastrophic failure of the Council of Trent. That failure, which was, in effect, chiefly the failure of the older ("Aristotelian") party of imperial Venice. a failure expressed as the practical political-strategic outcome of the Council of Trent. This was the failure which cleared the pathway for the rise of the new design of Satanic forces from within that oligarchical party of Venice then led by Paolo Sarpi. The popular name for that evil, New Venetian Party, still today, is the Anglo-Dutch variety of Liberalism presently

[25] Galileo's claim to have discovered the secret of the catenary was simply a fraud.

[26] Leonardo not only understood the catenary, as Galileo never succeeded in this, but defined the catenary-tractrix function.

typified by the British empire of today, that currently under the typical guise of the Queen's banker Lord Jacob Rothschild, *et al.*, as typified by the implicitly bankrupt, presently hyper-inflated Inter-Alpha Group.

There are, of course, original features in the development of that British Empire of today, but, at the same time, that British Empire is only a new variant among a series of imperialisms defined as a product of the same system of a maritime cultural form of originally Delphic, Mediterranean-centered imperialism which emerged from the ruin of ancient Greece in the Peloponnesian War.

With the birth of what became the British Empire, as through the course of the British East India Company's triumph through its organization of the leading nations of continental Europe into a "Seven Years' War," every effort to free the peoples of Europe from that recurring continuation of the British Empire, has failed until now, despite what proved to be the temporary defeat of the British Empire by President Franklin D. Roosevelt's United States. Roosevelt's successor, Churchill-steered and Wall Street-controlled President Harry S Truman, like Andrew Jackson earlier, betrayed the United States to the cause of British imperialism. The British empire made concessions to the American principle for the purpose of retaining its power during difficult times, but, since the successful assassination of the obstacle to British imperial power known as President John F. Kennedy, the British Empire has, in fact, dominated the world as a true imperial power from about February 1968 until the present date.

Only poor dupes, on the way to becoming slaves, believe in the mere fiction of a "U.S. imperialism" today. "Wall Street," the only evidence which might be claimed as evidence of a "U.S. imperialism," was never, since 1763, other than a British imperial parasite sucking the juices of Manhattan, as also many other locations from around this planet, all on British imperialism's behalf. Usually, those who argue that the U.S.A. is imperialist, turn out, on closer scrutiny to be branches of Threadneedle Street themselves, or, simply dupes of the tradition of the Karl Marx who had worshipped Adam Smith almost as a pagan god.

The Empire, Slavery, & the Mind

The victors among the warring tribes of Africa often sold the selected, surviving portion of their defeated rivals into slavery. The surviving portion of the modern victims of this Africa practice's captives was transported, on the initiative of the victors in those internal wars of Africa, to the coasts of Africa, where the captives were sold to such as the Spanish, Portuguese, Dutch and British traffic in slaves, an enslavement which had begun with the delivery to port-areas of those Africans who had been enslaved by other Africans, and then delivered to the coastal ports founded by European slave-traffickers, ports whence the

surviving assortment of captives was transported, still as slaves, to such destinations as the Atlantic coasts of the Americas.

Thus, the fact that the enslaved victims of this process had been brought into slavery to the Anglo-Dutch, Spanish, and Portuguese by Africans, does not diminish the degree of criminality of those Habsburg and related oligarchical interests who shipped the victims to a condition of enslavement in the Americas, much of this being done for the profit of the Anglo-Dutch, British Empire which controlled this Atlantic trafficking in slaves which had been conducted by the lesser oligarchs of Britain's system of imperial reign over the Nineteenth Century Spanish and Portuguese monarchies.

It should not be seen as our purpose here to account for much more than the following essential fact of that matter of the origins of the slavery within North America prior to President Lincoln's victory.

The growing Americas market in such trans-Atlantic traffic in African slaves, was prompted largely by the fact that the indigenous tribes of the Americas were usually ill-suited for use as a slave-class in the Americas. The significance of the African slave was that he

had been a product of the dynamics of a systemic form of customary practice of the violence of enslavement within relevant parts of Africa itself.

This was the influence under which African slaves temporarily adapted to submission to slavery in an Americas where the African had no roots, where the indigenous American tribes, such as the case of the literate culture of the pre-Andrew Jackson, Cherokee nation, were not as well suited for a system of slavery. The process of the subsequent liberation of the slaves in our U.S.A., the liberation from the British empire's authority over the continuing Spanish and Portuguese traffic into slavery within our republic, was, therefore, shaped largely by a powerful lurch toward personal freedom within our own republic itself, a struggle of various sorts, but one rooted in the emergence of the American cultural climate of intellectual freeing of the former slave. It was the slave's desire for children of marriage, combined with the indispensable role of President Abraham Lincoln's dedication to a victorious war against Lord Palmerston's British imperialism for defense of the U.S. republic, which secured the indispensable freeing of the slaves in the only way it could have occurred, as Frederick Douglass understood, violently, that by the action of our Federal Republic against the British system of trans-Atlantic slavery.

The principle which I have invoked in presenting this example from the history of mankind's effort for freedom from enslavement of man by man, is to be found on a still deeper level, in the principle named *dynamics* (e.g., *dynamis*) by Gottfried Leibniz, or what is the same

principle of dynamics illustrated in the concluding summary in Percy Bysshe Shelley's **A Defence of Poetry**.

This return to the subject of *dynamics* now brings our attention back to our principal subject in this report, the distinction of the higher functions of the human mind from the undeniably indispensable, but qualitatively inferior functions of the human brain.

IV. The Empire & Your Mind

It is sufficient, and also justified, that we should tend to limit the scope of this present report to the examples of the essential, clinical facts bearing on the history of the birth and evolution of what can be efficiently classed as a Mediterranean-rooted European civilization, as known since both the fall of Babylon and the rise and decline of the Persian Empire. However, we can not overlook certain essential features of the development of a Mediterranean offshoot of an Atlantic maritime culture which rose to power out of the misty past of the Mediterranean empire, nor should we overlook certain up-river developments, such as those of the Nile, within the territory of what was to become either a European culture, or nearby-Asia cultures which were established, largely, by what are appropriately identified as "the Peoples of the Sea." We must include the cases of the Nile, Mesopotamia, the Indian Ocean, and the Black Sea offshoots, such as the Hittites of Anatolia, and of maritime cultures, such as that of the Sumer which was initiated by "Peoples of the Sea," that during no less than the several millennia preceding Homer's Trojan War.

What has emerged out of the background of maritime cultures from a succession of several millennia preceding the Peloponnesian War, has been the legacy of the domination of an emerging Mediterranean-centered civilization out of an ancient oligarchical system of actual, or virtual slavery, or "serfdom." This was a system whose essential features had been consistent with that myth of the Olympian Zeus, a myth which is to be associated with the hierarchical form of oligarchical tyranny depicted by Aeschylus' ***Prometheus*** trilogy, a record which is not inconsistent with the images evoked for the scholar by the relevant chronicles of Diodorus Siculus.

My own approach to the study of the principles of the human mind, has brought some among us to a view, here, of that history, a view which I identified within a preliminary outline of the matter in the course of the preceding chapter, and which I now examine more critically in the present one.

The most characteristic, and defining fact about human cultures, as distinct from those of those types of lower than human forms of life which include the mammals generally, is that the human genotype is potentially, consciously, and uniquely *creative* in a sense of those matters which are consistent with the scientific-technological factors of a qualitative, willful

succession of changes in the willful behavior of our species itself, a quality of change which is lacking in all other, known species, including those of animal life generally. For example: consider the crucial fact of the uniqueness of mankind's willful use of fire. Or, consider the uniquely original discovery of the principle of gravitation by Johannes Kepler, as Kepler's work was clarified by Albert Einstein on this account, as a "water-tight" choice of relevant example of this distinction.

In the use of the term "creative" by me here, as this was referenced at some length within the preceding chapter, I mean the power of the human species to bring about *willfully ordered*, qualitative increases in the potential relative population-density of the human species, as no other known species of living creature has proven itself able to accomplish such intentional changes as those to be seen in the potential of our own species, as, for example, by even a single individual's single true discovery of a universal principle. The natural potential for the healthy development of an individual personality, is that which is so defined as being the implicit quality of a "demi-god," that in the particular sense of the quality assigned to man and woman by the opening chapter of ***Genesis***.

However, at the same time, it is notable that common practice among known societies, has included the application of a general prohibition against the option for using such a creative power by any member of those so-called "lower social classes" who is not explicitly authorized, as if by a "laying on of priestly academic hands," to have access to the actual knowledge of even free use of such creative potentials. Thus, there has been the legendary, symbolic banning of the "use of fire" by the Olympian Zeus of the Prometheus trilogy, a ban which illustrates the dominant habit of practice of virtual slavery, or serfdom, imposed upon the greatest relative number of members of society, just as the "Babylonian priest-hoodlumism" of today's "environmentalist" cults, such as that which British Prince Philip's World Wildlife Fund prescribes as the urgently demanded practice of relative genocide, world-wide, today.

Against the background of those considerations which I have outlined immediately above, let us now present the principal subject of this report, "the creative powers specific to mankind," under the title of the search for the true identity of what we might wish to identify as the ordinary quality of future "Promethean Man." I do not mean the childish fantasy of a "Superman," but, rather, what should come to be recognized as a specifically healthy mental type of creative intellectual capability of a type of ordinary human individual, an increased capability to be foreseen as emerging during the coming few generations, bringing us an ordinary man and woman of the type who is preparing, now, through self-development, for man's initial conquest of nearby Solar space by the time of the close of the presently young century.

The presently relevant evidence to that intended effect, is clear to me. Such an accomplishment is a feasible one within the range of what should be becoming typical of the closing decades of this present century. Keep that thought in mind, as we now proceed to develop the crucial point which I introduced briefly during part of the preceding chapter.

That said, turn back to the subject of the human mind at the point in the preceding chapter where I had left off: "What really is the human mind?"

That said, we return to the relevant point on the subject of creativity which we left off during the course of the preceding chapter.

The Real Human Mind

The problem I posed there, was the fact that the mental objects which we regard as sense-perceptions, are not a gallery of portraits of the real universe, but are more in the nature of shadows cast by that universe. As the case of Kepler's unique discovery of the principle of universal gravitation illustrates the problem to be considered; man's actual knowledge of the universe itself is limited to those kinds of crucial experimental proofs which treat the mutually contradictory experience of two or more respectively distinct sense-experimental experiences as clues to the actually functional object which had cast the relevant shadows of sense-perception.

This point in fact is made clearer through mankind's use of man-made instruments, such as microscopes and telescopes, as surrogates for sense-perception, instruments used as supplementary aids to access to experiences which the given human senses as such fall short of comprehending. In brief, we do not "see" the object which corresponds to sense-perceptual experience; we "see" what is experienced as a shadow cast by that which is the source of the experience. I repeat: what we actually "see," is not the experienced object, but a shadow cast on the mind by the presence of the actual object. What we must train ourselves to "see," is not what we tend to regard as an object in physical space-time, but, rather, the cause of a shadow which is cast upon the mind as the experienced reality: a *singularity*, rather than a "real object."

We must retrain our habits of thinking to enable us to conceptualize the "real object," to recognize it as the substance which is responsible for our experience of the mere shadow the naive observer had regarded, mistakenly, as an experienced "real" object of sense-perception.

So, in better-informed sorts of physics-language, we are enabled to experience the reality of a singularity in a field of "cosmic radiation." When we have trained our minds to do this successfully, our conscious mind enters an efficiently ontological state of awareness which is distinct from the realm of shadows which the naive mind treats, mistakenly, as if those shadows were a reality defined by mere sense-perceptions as such.

For example, consider the presently oncoming kind of change in experimental perspective with respect to the Mendeleyev periodic table. Nothing that we do in this way actually violates the evolved notion of the Mendeleyev view of the field; there is a degree of preserved correspondence between a periodic table emphasizing images of presumed material particles, and the "corrected" view, that of the singularities lying, primarily, within the universal domain of cosmic radiation. What we lose in making that change in point of mental view, is little more than what is now revealed to us as having been a habituated, relatively childish belief in the virtually tangible existence of "empty space."

In that fashion, our thoughts have now truly entered the domain of physical relativity. It is a step which seems to be only like putting a toe in the water, but the essential principle of the change in point of view is sufficiently clear, if lacking the sense of an experience comparable to that of actually swimming through the cosmic radiation which fills up what is mistaken for "empty" interplanetary space, that of future mankind sometimes traveling at relativistic speeds.

Lest some suspicious reader might suspect a bit of sleight-of-hand in all this which I have just presented here, think back to those ancient, ocean-going mariners who discovered a lawful unity, of a type useful for trans-oceanic navigation, in the area presented by the persistently changing night-time sky, by allowing for such changes as those associated with the long Platonic cycle, which came to the attention of such as a Bal Gangadhar Tilak's consideration of the Vedic calendar, as in his ***Orion***.

There is no actually "empty space" in the actuality which naive observers may regard as the imagined space distinguishing the visible bodies attributed to the night-time sky from one another. For example: we must consider the role of magnetic fields as shown by certain singularities arising from the use of the equivalent of the compass in even what might be considered as pre-historic transoceanic navigation, as reflected in the known ancient cycles of the long-wave periodicity of the migrations of the North magnetic pole.[27]

The fact which I intend to emphasize in the course of these present remarks, is the effect of the change in conceptual standpoint, which I have just presented. Instead of treating the images associated with sense-perception as "the real world," we locate the experience of the real universe in the act of not only viewing sense-perception as presenting us with a shadow cast by reality; but, we must locate access to knowledge of reality in the person's consciousness of the fact that the sense-perceptual domain is merely a shadow cast by the real

[27] For the sake of your powers of imagination, think back to the implications of a plausibly Phoenician, or comparable maritime culture's relic from trans-Atlantic navigation to be currently dated to as recent a time as from about four thousand years ago, to North Salem, New Hampshire, a site which my wife and I had examined, back in 1982.

universe which he, or she actually inhabits. We do not actually "see" ourselves; but, rather, we see the experienced, projected shadow of that universe which we actually inhabit.

The viewpoint which I have just, thus, identified, should not be considered as a recently crafted novelty. If we translate what I have written here into a rather well-known fact of what should be recognized as a Classical regard for a knowledgeable experience of history, what I have just written here is no different in substance than the ancient Classical Greek use of the term *dynamis*, or its modern expression as what Gottfried Leibniz named *dynamics*. As I have pointed out, repeatedly, this notion of *dynamics* is the same type of phenomenon which the poet Percy Bysshe Shelley presents as the phenomenon of changes in the characteristics of society's mass movements which he pointed out in the closing paragraphs of his ***A Defence of Poetry***.

Shelley's point stated otherwise, is: "Reality haunts our conscience!" This prescient sense of the reality of *dynamis*, or *dynamics,* a domain which we actually inhabit, is most bluntly expressed in what is often regarded as a mysterious force of sudden surges of mass social phenomena, such as the present revolt of the conscience of the greater mass of our populations against the tyrannical obscenities superimposed by current governing powers upon the accelerated worsening of the conditions of life of the vast majority of nations' populations. It also reflects those mental acts of what can be recognized as that genius of the greatest poets and scientists typically expressed as the ontologically distinct phenomenon of true metaphor, as the 1947 edition of William Empson's ***Seven Types of Ambiguity*** attempts to convey the notion of such a distinction of the sense of beauty to his readers, or as a true, but currently academically unpopular reading of Shakespeare, or of Friedrich Schiller, or the experience of Ludwig Beethoven's Opus 132, or Wolfgang Mozart's ***Ave Verum Corpus***, relies on this aesthetical concept in an essential way.

'All the World's a Stage'!

The most accessibly rigorous demonstrations of this principle, include the putative "magic" of the finiteness of the Classical theatrical stage. There is evidence to this effect in the work of Shakespeare, but, for obvious reasons, Friedrich Schiller's work is a more accessible source of fuller means of available evidence supporting the relevant argument.

A proper notion of the concept of tragedy does not require real heroes presented on stage. As Schiller emphasized, the body of the principal actors presented as characters on stage does not require the attempted selection of heroes for the presentation of the drama. Shakespeare's ***Julius Caesar***, ***Lear***, ***Macbeth***, and ***Hamlet***, and Schiller's ***Wallenstein***, are typical of a drama set within the actuality of a morally sick society, one without any true heroes actually performing leading stage roles. As Schiller taught, the hero is to be sought in the member of the audience, like the children in Wallenstein, who is inspired to become a true citizen

because of precisely the revelation of the brutally tragic development which pervades the active development of the drama on stage.

The implicitly sacred aspect of great Classical drama, or the like, is that the audience escapes the prison-like domain of rude sense-certainty, for a drama performed among the souls on stage. The unseen spirits of the real persons are materialized, as expressed in the form of the masks worn by souls on stage, all in the domain of the imagination. Yet, that domain of the imagination, is our real world, a domain of immortality, for which that which has the appearance of the flesh is worn as a shadow of reality, a mere mask. On the Classical stage, behind the masks, all souls are immortals, in a domain where mortal passions are the shadows, and the naked souls behind the masks are the reality.

The matter becomes more interesting when we extend such considerations as those to the domain of a physical science consistent with the Classical standpoint of such as Plato, Cusa, Kepler, Leibniz, Riemann, *et al.* In fact, the required standpoint is that of a physical science of national economy rooted in modern, anti-positivist or other anti-reductionist modes, as in a physical chemistry derived from the implications of Bernhard Riemann's revolution in physical science. The cases of Pasteur, Mendeleyev, Max Planck, Academician V.I. Vernadsky, William Draper Harkins, and Albert Einstein, are typical of this anti-reductionist (e.g., anti-positivist) school of a science of physical chemistry in physical space-time.

The point which I wish to emphasize at this moment, is the crucial role of the scientific imagination. I state that case as follows.

Man in the Mirror of Physical Space-Time

Henceforth, in the remaining portions of this report, we shall treat the domain of presumed sense-certainties, as a special kind of mirror on the wall of history. What that mirror shows us, is not an image of the real universe, but, rather, as Kepler's discovery of universal gravitation demonstrated, it shows us a certain quality of mere shadow of reality projected upon that special kind of image in a mirror which we tend to regard as being what we call the universe of sundry sense-experiences.

Let us name the most crucial of the concepts we must now employ for this purpose, as the notion of *God the Creator* in the image of man as a creative being, as distinct from all other species of existence. This simply means that we are studying the way in which the universe which we inhabit behaves, doing so from the vantage-point of the principled conception of man as made in the likeness of the Creator, a likeness defined by the virtue of our available power of insight into the implications of willful creativity itself. In other words, man, by nature, participates in the quality of willful choice of creating which is otherwise unique to the notion of a willful universal Creator.

Man is not a humble creature from those lower ranks presented to our senses as the Lithosphere and Biosphere. Man is both equipped, by nature, and therefore assigned to participate willfully with the Creator, as Philo of Alexandria rebuked the memory of Aristotle on this account; man is, to participate in the continuing process of universal creation. Man's behavior in the universe is therefore of the nature of a moral obligation to the future. We are designed to contribute, in a participating role, to the perpetual improvement of the universe which we inhabit, to make the universe, and ourselves, better.

V. On the Subject of Creativity

Specifically, our United States of America is now experiencing a kind of process which has been sometimes named "a mass strike." Among the poems which I composed many decades ago, while I was still a young adult, the central topic of a series of such now long-neglected compositions was what I expressed most emphatically in one such case, entitled "My Lyre," by reference to a certain quality of metaphorical ideas which pass like a silent breeze through the universe, "bending stars like reeds." A true "mass strike" is represented essentially by that type of breeze.

At a later point in my historical research, I considered the related phenomenon of that genius and curiously un-Marxist Rosa Luxemburg's notion of what she named "the mass strike," a concept which no German Social-Democrat or a like breed of avowed "materialist" could ever really understand in a competent choice of ontological terms of reference. In the English literature, good choices of poets considered for comparisons on the premise of this same phenomenon, are poets who are typified best by Keats and Shelley in their time, or, in German, by the sweep of Friedrich Schiller's genius and some of Heine's work, or by Shakespeare earlier. Notably, none of those poets were representative of the world-outlook of the followers of Paolo Sarpi's cult, the reductionist cult of that species of philosophical irrationalism which was the characteristic of British assets of such followers of Adam Smith as Marx and Engels, or the typical Wall Street-owned Liberal of today.

In Rosa Luxemburg's case, her relatively unique genius was expressed in that fact that she was the only relevant political economist of her niche in time who, like that U.S. State Department's historian Herbert Feis who affirmed her definitions in political-economy later, actually understood the actual substance and meaning of the term "imperialism." In fact, only very rare economists still today could present a competent case bearing on this subject-matter.

The only competent approach to removing the mystery from her peculiar competence in the matter of the "mass strike," is what must be presented from the standpoint of the immediately preceding chapter of this report. It is only from this same standpoint, that the

revolutionary character of the present global economic crisis can be competently understood. I must, again, emphasize the view of the nature of the human mind which I have introduced in that same chapter. The only appropriate technical term for treating such cases as this one, is Gottfried Leibniz's modern resurrection of the ancient Classical concept of *dynamis* as that principle of *dynamics* which must underlie any serious attempts at treating the specific type of the mass crisis in the U.S.A. and Europe today.

The key for understanding the point I am making here, lies in examining the ontological implications of that concept of the form of the *finite but unbounded* catenary-tractrix function which I have traced, in this present report, from origins located in the interactions between the discoveries for physical science principles represented by the work of Brunelleschi and Nicholas of Cusa, or, later, Johannes Kepler's discovery of the principle of universal gravitation. The argument to be made on that account, runs as follows.

The Sarpian reductionist's misconception of human interrelations is to be traced, usually, from the mistaken view of social relations as expressed primarily in terms of the ontological misconceptions of naive sense-certainty. Already, the ancient Classical conception of *dynamis*, proffered a corrected view of this matter. Archytas' unique solution for the duplication of the cube, was an accomplishment praised highly by Eratosthenes later; it is coherent with the state of organization of the processes of the human mind in which the concept of *dynamis*, or also Leibniz's concept of *dynamics* coheres. Our inner, actual existence, lies not in a scheme consistent with sense-perception; it lies, ontologically, in the domain of physical-space-time for which the sense-perceptual conceptions of the imagined perceptual domain of a separated space, time, and matter, are relatively mere shadows.

Do not be surprised unnecessarily! The real universe is "located" as an expression of relativistic physical-space-time, rather than space, time, and matter. In accord with those facts, let us seek to clarify the apparent paradoxes seemingly posed, by defining two respectively distinct domains, A and B. "A" is the real universe, where the essential actions actually are generated; "B" is the domain of those shadows which are cast upon the seemingly real world of "B" by action located within the real domain of "A."

Again, we must say, that the primary functions of the human mind lie within what the founder of modern dynamics Gottfried Leibniz defined, ontologically, as "the infinitesimal" of his and Jean Bernoulli's calculus, as opposed to the hoax promoted by the frankly silly reductionist, almost positivist mathematician's argument which Liberal convert Leonhard Euler adopted from Abbé Antonio S. Conti's school of Sarpian deceits. Such is the point of clearest separation of a competent physicist, such as Riemann followers Max Planck, Harkins, Vernadsky, and Einstein, from the intrinsically incompetent mere mathematicians of the contemporary positivist schools. There is no actually physical principle adopted among

the cults of the positivist school of the heathen followers of Paolo Sarpi and his intellectual offspring of today.[28]

The very fact of the phenomena of "the mass strike" constitutes crucial "experimental" evidence of the nature and effect of the principled distinction of that so-called "mass strike" phenomenon which Percy Bysshe Shelley summarized in the concluding paragraphs of his ***A Defence of Poetry***. The principle so expressed also belongs to the category of those systemic forms of Classical irony which are familiar from all great works of artistic composition and the like.

The same principle of irony is also the essential distinction of all competent representation of the appropriate performance of all the competent musical compositions of the Classical composers who followed the model of Johann Sebastian Bach, through Beethoven, Schumann, and Brahms. These works, and their like expressed as principles of poetry and drama, or the only suggested eyes of Rembrandt's bust of Homer contemplating the fatuous Aristotle, are typical of the expressions of true Classical irony which are the hallmark of the creative expressions of the human mind.

The outstanding expressions of those implications are met in the way in which such Classical expressions of true irony may "move" the souls of a mass of the population, as the ordinary citizens of the U.S.A. now express their contempt for, and sense of betrayal by those elected members of Congress whose actions evoke a presently rising tide of rage in the overwhelming majority of the citizens of the U.S.A., and elsewhere, today. It is a growing majority now moved to speak with that higher power of the mind which appears to most spectators as "some miraculous organ," whose breath "bends stars like reeds."

In the prefatory remarks which opened this report, I wrote: "The U.S. economy could be saved, even at this late stage of its perilous decline." It should be clear, in the conclusion of this report, that the entire economy of the planet could also be saved, provided that the U.S. acts appropriately to lead the way. It is less a matter of what you think, than how.

[28] This is probably best clarified by focusing attention on the positivism of Göttingen's David Hilbert (also a positivist) rather than the utter degenerates, such as that pair of Bertrand Russell devotees Norbert Wiener and John von Neumann, whom Hilbert bounced out of Göttingen on grounds of systemic scientific incompetence.