III. Human Potential

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END THE FOLLY IN SENSE-PERCEPTION:

Metaphor!

by Lyndon H. LaRouche, Jr.

From the lifetimes of such as Heraclitus, through Socrates and Plato, as through Eratosthenes, and, as in modern times, from Filippo Brunelleschi, through Cardinal Nicholas of Cusa, and such of their followers as Leonardo da Vinci, and Johannes Kepler: the true mainstream of modern science had, thus, subsequently expressed itself in the ontological realities of what had been the Classical artistic principle of metaphor. Nicholas-of-Cusa successor Johannes Kepler's introduction of the demonstrated, metaphorical principle of vicarious hypothesis, has supplied the crucial basis for the competent practice of modern physical science, that, specifically, of Kepler's outstanding contributions to the creation of modern physical science, still today.

So much for the subject of those essential definitions. The practical issue which must be featured from that standpoint, is the fact, that human sense-perceptions, when considered as such, are merely shadows cast, mere shadows which the credulous folk substitute for "reality." That is done in place of that which is defined as truly efficient "substance." All efficient truth is located, ultimately, within the bounds of the effective intention of what is to be defined as metaphor; it is that efficient intention, when assigned to metaphor, as I have just defined it here, which is inherently, by its nature, the truly proper subject to be considered here and now.¹

The grave error which we must first consider in this report, is located in what is commonly recognized as the quality of error which is intrinsic to reliance on the notion of "sense perception as such." Such faith in "sense perception" is the typical root of an entire system of error, a type of error currently still deeply embedded in the customary general practice of sense-perception by populations generally. This custom must be strictly defined as a continuing sort of an active practice of "error," rather than the notion of being merely a particular lack of proper education. The corrected replacement for the mere notion of sense-perception, the replacement properly named "metaphor," is to be regarded as mandatory, for the reason that the correct view of the subject-matter had already been defined in certain known, ancient cultures. Those included cultures existing prior to the resurgence of a leading reductionist kind of depravity, a kind of resurgence which had become practiced under modern systems of oligarchical depravities such as the culture of the British empire-system, among other victims, still today.

Consider the most essential features of the relevant history of this matter of the foundations of modern science:

The revolutionary progress associated with the Fifteenth-century "Golden Renaissance," had reached its relatively highest rate of underlying scientific progress, under the globally extended influence of the referenced Cardinal Nicholas of Cusa (A.D. 1401-1464), during and beyond his lifetime. Cusa had been a most crucial thinker of his time, probably the most crucial of both his own lifetime and that of his immediate posterity from among the founders of modern science. Among his

^{1.} E.g., Shakespeare's character Hamlet wrote: "... Thus conscience does make cowards of us all; and thus the native hue of resolution is sicklied o'er with the pale cast of thought; and enterprises of great pith and merit, with this regard, their currents turn awry, and lose the name of action..."



"All efficient truth is located, ultimately, within the bounds of the effective intention of what is to be defined as metaphor," LaRouche writes. Leonardo's use of "sfumato" (seen as if through smoke) and "chiaroscuro" (light/dark), to convey ambiguity, i.e., metaphor in painting, are evident in his "Virgin of the Rocks" (Louvre, ca. 1480)

other leading achievements, Cusa was the founder of a systemic comprehension of that then newly-stated principle of physical science, an authority which is defined with precision in his De Docta Ignorantia (AD 1440), and, as this discovery by Cusa is reflected in the unique, existential principle of astrophysics, metaphor, which was to have been introduced as a discovery by Johannes Kepler.

While Cusa's seminal achievement in that and related matters, has been unique to modern science in all leading respects, his achievement must also be recognized as both a reflection, and a correction of the great earlier achievements of Plato and his circles. The significance of that part of the history of the European Renaissance for modern society today, is best typified by the unique achievements in physical science due to Johannes Kepler. Unfortunately, lately, despite the great achievement of the 1648 Peace of Westphalia, the extended practice of tyranny by the so-called "New Venetian party" of William of Orange, et al., had led modern Europe into the subsequent establishment of the British empire as an empire-in-fact, as under Lord Shelburne already in February 1763. Matters went onwards from that earlier imperial victory of his, to emerge, soon, as the modern British Empire launched by means of Shelburne's 1782 establishment of the British Foreign Office.

The British empire, as it was established then, is still the relevant party of world empire today—a role which the British monarchy shares currently with the same Saudi Arabia which has played a key role in the mass-killing of U.S. nationals in the so-called "9-11" incidents of 2001, and, later, the recent slaughter of U.S. diplomatic nationals in Libya.

Those recent murders, which have been prompted by the policy of practice of President Barack Obama, reflect the pattern of frauds which some have practiced

in the course of promoting such imperialist atrocities as a presently global prospect of general thermonuclear warfare. The presently immediate prospect of a war which would suddenly lead virtually, or actually to the threatened extermination of our human species, now demands an immediate institution of that specific quality of alternative order of global society, a quality, the which, by its very nature, eliminates the threat, but without destroying what we must now restore as the continued principle of the system of sovereign nation-states.

Those just stated facts, lead us now into the coresubject of the crucial matter so placed before us now: the matter of the little known, but truly knowable principle of the human mind. I explain, as follows.

I. The Principle of the Human Mind

The both conventional and also inherently mistaken, "popular" doctrine, which is familiar to us as the trust in "sense-certainty," should now become recognized correctly as having been obviously absurd in principle, as it had also been virtually universal on precisely that same account. That doctrine has been a generally accepted, if nonetheless wrong belief, which had been established about "as far back" as a current "popular opinion" respecting "text," has been enabled to reach, up to the present time.

Nonetheless, there had been significant, nobler exceptions to such misguided, or otherwise faulty opinions as those presently common among the broader strata of populations. I mean those exceptions among those rarer minds which had been developed to a higher degree, a degree associated with what had been commonly known, formally, as rooted in truly Classical modalities in music and poetry. Such had been the distinction of what was recognized as "a Classical form of implicitly sung poetry."

Now, to get to the root of the problem which we are considering here, we must now look deeper, much deeper. The problem which we need to address, is the absolute distinction of the human mind's essential functions, as contrasted to what is merely human sense-perception. On that account, we should focus attention on the considerable importance of examining the specific agreement to be reached on the definition of a truly universal notion of the exemplary quality of the efficiently

ontological existence of the human mind, as that quality was shared on behalf of an explicitly defined matter of agreement reached between the physicist Max Planck and his associate Wolfgang Köhler.

This unique principle respecting mind, which resides in the ontological basis of specifically human creativity, is therefore, now to be located by our human species in the functions of what are conveniently defined as trends toward "Classical artistic composition:" a function which also underlies man's ability to develop true discoveries of universal physical principle. The crucial principle is that to be located in the distinction of the functions of the true human mind, as distinct from the relatively superficial human practice of sense-perception. The crucial conception needed for that principled purpose, is that of metaphor when properly defined.²

There are certain complications to be mentioned here, such as what are called "asides," "asides" such as what are often identified as "ups and downs" in the known history, geographies, and varying cultures among civilizations. The principal types of systemic intellectual and related failures among peoples and their cultures, fall under the title of the effects of *oligarchism*, as such effects have been typified by the familiar historical cases of the Roman, Byzantine, Venetian, and the "New Venetian" (e.g., British imperialist) systems.

Since the Ouster of Bismarck

The most recent among the principally successive waves of depravities experienced by trans-Atlantic civilization, had been launched by the 1890 dismissal of Germany's Chancellor Otto von Bismarck from his office. The general sweep of cultural degeneration throughout the trans-Atlantic regions, for example, was set into motion immediately following the ouster of Bismarck, as was demonstrated by the British Prince of Wales' alliance with Japan for their war against China, and by the 1894 assassination of France's President Marie François Sadi Carnot.

The entire sweep of the interval from the 1890 ouster of Bismarck, through to the present moment of threatened global thermonuclear warfare, has been

^{2.} The currently, widely and wildly misdefined meaning assigned to the name of *metaphor*, is chiefly a product of a cultural degeneration which became embedded with the replacement of "Classical" by the decadence of trans-Atlantic "Romantic" and "Modernist" culture. See later comment on this here.



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Among the markers for the general sweep of cultural degeneration throughout the trans-Atlantic region, following the overthrow of Bismarck in 1890, was the 1894 assassination of France's President Marie François Sadi Carnot. Portrait of Carnot by Théobald Chartran.

along a persisting general track into what has been an essentially continuing and deepening cultural depravity. The assassination of President William McKinley, like that of Abraham Lincoln earlier, as like the death by exhaustion of President Franklin Roosevelt, and like the successive assassinations of President John F. Kennedy in 1963, and that, on June 6, 1968, of his brother Robert, had been prominent markers of sudden, but also long-ranging periods of declines in the moral and economic-political systems of the United States and certain leading other nations.

The more recent, precipitous, set of national and broader degenerations which has been marked by the cases of such as Presidents George W. Bush, Jr. and Barack Obama, has been expressed in the precipitous fall of the trans-Atlantic, British/Saudi-dominated sector of the planet into its steepest, and still accelerat-

ing collapse into a presently "new dark age" decline of the trans-Atlantic region. Unless President Obama were to be suddenly turned out of office, the darkest of all dark ages of mankind were presently diving into an accelerating descent into a planetary "new dark age," certainly that of the trans-Atlantic regions, but also beyond.

Once we have taken the matters identified in the immediately preceding paragraphs into consideration, we may then, as now, also take the consideration of the conflicting subjects of sense-perception and metaphor into a relatively sharp focus, now, as follows.

The True Principle of Metaphor

To understand these matters competently, it is indispensable that we now recognize the tradition which prompted Johannes Kepler to discover the functional principle of physical science which he had named vicarious hypothesis. It is also indispensable that we recognize the certain quality of equivalence of both Johannes Kepler's notions of vicarious hypothesis and metaphor. The distinction which those usages share, is to be recognized as implicitly emphasizing the incompetence of the attempt to attribute real existence to the experience of mere sense-perception as such. The argument which Shakespeare places on the lips of his Hamlet in the third act's "to be or not to be," or, as in the opening "chorus" of **Henry V**, are relevant examples reflecting the function of metaphor, rather than the inherent fallacy of a merely quantitative measure.

Stated otherwise, it is sense-perception (more insightfully marked as "sense-deception") which is the shadowy, relatively defective element in the process of human experience. It is the attempt to impose the notions of sense-perception upon populations as "a selfevident reality," which is the common source of error in any attempt to discover and establish an actually scientific practice. It is the lessening of the dependency on the apparent evidence of sense-perception as such, which implicitly "measures" an improvement in respect to the need to eliminate the quality of inherent error in the generality of the human experience. A closer examination of the general argument encompassing the content of Bernhard Riemann's habilitation dissertation, actually adopts that outlook which has been the implied point of his approach to the subject of mankind's practical relationship to the experiencing of the

universe through the functions of experimental senseperception.

It is more than merely useful, to consider those implications from the vantage-point of the work of Johann Sebastian Bach, Arthur Nikisch, and Wilhelm Furtwängler in Classical musical composition, as considered in opposition to the systemic silliness of the fallacy of mathematical "sense certainties." Add to that, the degrees of irrelevance of quantitative measurements with respect to the principles of Classical drama, thus including the role of the effectively efficient, qualitative meanings, meanings which are intrinsic to the specifically ontological content of drama or Classical poetry as such.

This category of considerations takes us from out of the limits inhering in the use of merely deductive methods, into the matter of foreseeing a future yet to be experienced. Highly notable, as within the context of this present report, is my own leading experience in certain scientific matters of forecasting which pertain to the ability to foresee a future development as expressing a specific kind of forecastable effects. This is, of course, my most notable achievement in matters of that general practice, in contrast to the usual failures inherent in statistical and related modes of an attempted economic forecasting of a systemically original development.

The disturbing aspect of such forecasting abilities, is the fact of the inherent trend of failures inherent in the use of both deductive methods and standards which are, specifically, systemically calculable, retrospectively, but not by deductive, or comparable attempts for discovering the future. All such apparent anomalies share the seemingly nominal characteristics specific to metaphor, and the method of ordering of development within the process of composition represented by Johann Sebastian Bach's two sets of **Preludes and Fugues**, as represented by Wilhelm Furtwängler later.

II. The Question of the Future

As I have emphasized immediately above, the essential distinction of that competent insight, which separates such insight from that folly which is inherent in deductive methods, is a matter of a reality to be discovered through the means of a qualified approach to a

foreseeing of the future-as-such, as inherently a determinant of the present.³

J.S. Bach's method, as typified by his work in the two sets of Preludes and Fugues, has the "hearable" implications of a system reflecting the evolutionary emergence of the future. Otherwise, the performance of the work produced by a great composer of music might be considered "pretty," but not, therefore, as really truthful in the effect of its required performance as a generator of actually physical-scientific progress in the human condition. In proper Classical composition, we require actually creative solutions designed by the intentions of the relevant Classical composers and performers, intentions which must be experienced as such an ordering by the inventor's specific experience of what is, for him, or for her, as the relevant performance of the future, and that as if instinctively. In brief, it is that perception of the future, or the lack of a real future, which determines the outcome of the present.

That, when stated summarily, is, and remains at the root of my exceptional, registered successes as a forecaster of economic and related processes.

My relatively unique career as a successful fore-caster, typifies, in the most crucial respects, the essential distinction of the developed potentialities of the human mind, from the failed human methods which conform to the inherent implications of the commonplace, methodologically deductive commitments. The issue which I impose, inherently, in presenting that statement here, is the matter of the urgently needed appreciation of the quality of intention which generates the coming-into-existence of those fundamental principles themselves, the principles which must shape the development of society for the actual shaping of any successful quality of a presently intentional course of understanding the future of history, and, therefore, also, what will have become, ironically, the new "past history" of mankind.

When these facts are considered from the standpoint of modern American-European experiences, the available "cultural" evidence is, that the stultification of the higher intellectual abilities of what may be considered

^{3.} This is the potentially essential distinction of man, systemically, from higher orders of species of beasts. A person may be more or less capable of reacting to the products of actually creative mentation, but tends to be usually "blocked" against forming independent insights of this specific quality as of a species of "what is yet to become." Hence, the implicitly sub-human depravity of the British imperialist system, like all preceding empires as such.

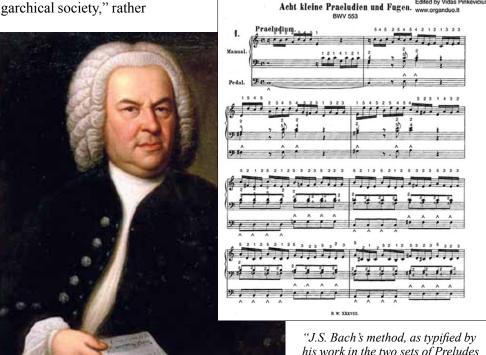
the "educated" strata of today, reflects a known characteristic of the existence of "oligarchical society," rather

than that of mankind in our species' true nature.

Consider the Consequences

The standard "upper class," often called the "oligarchy," regards those assigned to the lower class as being merely "practical," rather than systemically "cognitive." Ironically, this division of society between "the ruling classes" and "the underlings," which tends to induce an "upper class" which cultivates its own stupidity as a social class, has the effect of a partition which should remind us of "aristocrat versus serf"-such as the virtual

serfs of London's former Wall Street puppet, President Andrew Jackson. On this account, in the social history of the population of our United States, since the assassination of President John F. Kennedy, and, thus, since the assassinations of that President and his brother, Robert, there has been an ever more brutish reign of "Wall Street's oligarchical pretensions," a moral and intellectual decadence of the privileged "youth," a decadence which has steered the deepening intellectuallyimmoral quality of the academic "Sixty-Eighter." Since the puppets of British agent Aaron Burr and an ageing Burr's puppet Andrew Jackson, that Wall Street trend has generated the consequent moral and related, further degenerations among social classes—as in the case of that which has led the trans-Atlantic nationalities into their present, actually decadent impulse for cultural selfextermination, as exhibited by the so-called "environmentalist" degenerates.



"J.S. Bach's method, as typified by his work in the two sets of Preludes and Fugues, has the 'hearable' implications of a system reflecting the evolutionary emergence of the future."

The Bach Circle (18th c.)

Nothing demonstrates the truth of my warning in a better way, than the case of the Boston-New York City-Philadelphia-Chicago-California-et alia university types known as "The Sixty-Eighters." The typification of that particularly depraved "class" and its effects on the society's culture-in-general, has been the actually rabid, "stomach-turning" quality of the "greenie subculture" whose pathological roots are located in the effects of the domination of the United Kingdom on post-Charles de Gaulle Europe, by the spawn of France's Mitterrand's monetarist pestilence.

The roots of the degeneration in Europe since the 1763 "Peace of Paris," are located most readily in the immediate aftermath of the influence of Lord Shelburne since that time, and also well past that time, through his 1782 establishment of the British Foreign Office. Shelburne's influence over circles associated, as "seriously confused and other" corruptible ranking strata, from among the leadership of the U.S.A.'s victory as a sovereign reigning republic, was a crucial factor in the histories of the periods of disorienting the government of the U.S.A., as presently, in the recent periods of Presidential elections, as now. However, this evidence can not be competently appreciated, until

^{4.} During the midday hours following the assassination of Robert Kennedy, I intervened to prevent Mark Rudd and his followers from mobilizing their intended plan to celebrate the assassination of that Presidential candidate. A leading member of that group of my adversaries, acceded to my warning that such an action by Rudd's crew would have aroused the contempt of the population generally.

Riemann's Crucial Insight

From Bernhard Riemann's habilitation dissertation, On the Hypotheses Which Lie at the Foundations of Geometry, translated by Henry S. White, in David Eugene Smith, ed., A Source Book in Mathematics (New York: Dover Publications, 1959):

It is well known that geometry presupposes not only the concept of space but also the first fundamental notions for constructions in space as given in advance. It gives only nominal definitions for them, while the essential means of determining them appear in the form of axioms. The relation of these presuppositions is left in the dark; one sees neither whether and in how far their connection is necessary, nor *a priori* whether it is possible.

From Euclid to Legendre, to name the most renowned of modern writers on geometry, this darkness has been lifted neither by the mathematicians nor by the philosophers who have labored upon it. The reason of this lay perhaps in the fact that the general concept of multiply extended magnitudes, in which spatial magnitudes are comprehended, has not been elaborated at all. Accordingly I have proposed to myself at first the problem of constructing the concept of a multiply extended magnitude out of general notions of quantity. . . .

[In conclusion:] This path leads out into the domain of another science, into the realm of physics, into which the nature of this present occasion forbids us to penetrate.

due consideration has been given to the global factors traced directly from "the New Venetian party" of William of Orange and the success of that heritage in Shelburne's imperialist influence and its consequences in what was to become a British-empire-in-fact, as in the February 1763 Peace of Paris, through his role of leadership during, and beyond the generality of the 1790s and the Napoleonic wars.

Once the individuals have taken into account such matters as those just referenced above, it should become clear, and also clearer to them, that we must subject ourselves to a sense of the need for a profoundly systemic change in modern conventional notions of the passage of what we denote as "time." The

following considerations are now crucial.

'Just in Time'

The crucial point to be considered here and now, is lodged within the following fact.

Competent insight into crucial developments occurring in the future, depends upon the developed capability of the forecaster to have predetermined the content of the action by means of which foreknowledge of the "tensions" reflecting the future, changes the present course of events. There are, shall we say "obviously," two considerations to be taken into account. First, the ability to define a change in principle from the present, into the future as acting to change the present. In considering this notion, we find that in the method of composition employed in Johann Sebastian Bach's sets of preludes and fugues, we have an explicit expression of the way, as through the means of the composition of the fugues, in which the composer's foreknowledge of newly created sensed precursors of pre-determination of the future state, transforms the principles of action.

That typifies the primary approach to understanding a physical principle's effect in its changing the meaning of the conception of an actual future. This is, in the first instance, also the relevant principle of the actually "Classical" composition, which puts

the "Romantic" or "Modernist" into systemic opposition to the actually Classical. In the second instance, this refers to the actuality of the process of the discovery of a new universal physical principle. Restated: this means that all discovery of a future principle of the universe, actually changes the universe, as mankind changes man himself.

In principle, this concept had been restated, implicitly, in what has been, essentially, a most forceful way, in Bernhard Riemann's powerfully inspiring 1854 habilitation dissertation. It is also expressed forcefully in the known history of the evolution of living species generally, but most clearly in the upward evolution of the creative power in the evolution of species—and, the power unique to the characteristic existence of our

human species' intentional power to change the universe which we inhabit, as no other known species has been enabled to do so. However, we are able to demonstrate that nature of what is specifically uniquely human creativity, as by means associated with the work of Nicholas of Cusa, most emphatically in his **De Docta Ignorantia**. We are empowered, thus, to create what is otherwise defined as an extension of creativity itself.

This is the same power associated with Classical modes of human artistic creativity: we demonstrate the principle of creativity through the action of creating a change in what we believe we know concerning the universe. In other words, Classical artistic composition and evolution of the universe to higher states of existence, are comparable abilities.

III. The Actual Science of Economy

Respecting the fundamentals of the progress of mankind stated this far: we, as a uniquely self-evolving, human species, are confronted essentially with two, successively combined, qualitatively ontological distinctions of our species: (1) a fact which should have carried our attention far beyond the notions of, first, the mere fact of an ontological principle of life as such; and, (2) the uniquely higher quality of existence of the unique class of phenomena represented by the noëtic potentials specific to what we identify as the human mind. These two distinctions, taken into account, in turn, and, then, combined, must present us with the evidence of the existence of a distinguishable universal principle, which, once duly considered, represents for us, as human beings, a principled phenomenon of selfcreativity per se.

What, therefore, is the significance of mankind's development of what had been, previously non-existent capabilities for the present succession of mankind's ability to cultivate a development both on the planet Mars, and respecting the prospect of defeating deadly threats lurking in the space marked out between the range of Mars and Earth? Shift attention from the mere fact of these prospective developments, by rising to the level of the subject of the upward process of ontologically distinct notions of a process of development which, of necessity, had subsumed these developments. Mankind is distinguished as a species, by the option of

transforming itself anti-entropically, as no other known species could do.

We do not merely develop those of our powers which are intrinsically noëtic processes; we transform ourselves, ontologically, into evolved beings which have been made potentially capable, in themselves, of what had not been possible for the existence of our species earlier. We, respecting us, are the first known case of an actually self-creative form of living species; we are not merely qualitatively different as a species; we represent a higher order of self-evolution for our species than any other definition of life known to us heretofore: we are, inherently, a willfully creative species which must undergo successive phases of evolution into successively higher qualities of what we may identify as our evolving species. That is our essence, whenever we do not demean the very meaning of our existence, a meaning which is that of expressing our existential need to impel ourselves to rise, again and again, to a quality above and beyond all other living species known to us at any present time.

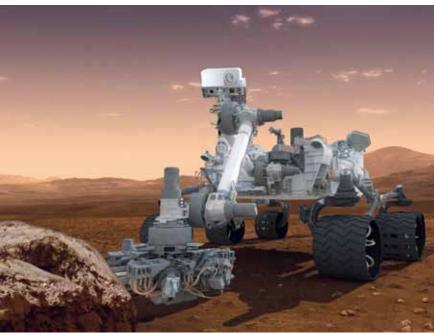
Were there any reason to suspect that we are less than what I have just described our species to be here, that result were a result of nothing as much as our qualitative self-degradation as members of our species.

What I have, thus, just summarized this far, respecting the uniqueness of human creativity, is to be considered in contrast to the characteristics of all other known species. This brings our conscience into conflict with previously accepted, erroneous notions of the specific nature of our human species, in absolute contrast to all other known instances.

It is the irony of this specific situation, which distinguishes the principled nature of "Classical artistic composition" from that, inherently, virtually sub-human depravity of what passes for "popular opinion." In other words, in the terms of fair approximations, the phenomenon which is to be properly regarded as human Classical-artistic creativity, exists *consciously* only in a willfully higher ordering of existence, ontologically—a virtual, ontological, probably ever-continuing process of virtual species-jumps—a higher order than any other known species of life otherwise defined. We must recognize ourselves as representative of what should always be (or should have been) a self-creating evolution of our apparently unique species. I.e.: "specifically human self-creativity."

We must cease to rely on the popular foolishness of thinking of man as a species which "might" evolve; we

are properly destined to be fulfilled in the purpose of our existence as a virtual succession of evolutionary transformations, by means of which to rise to relatively higher qualitative states of existence across successive generations: once we were intentionally and eternally oriented to an upwardevolving succession of generations, a series of qualitative ordering of the upward self-evolution of the human mind. The human species' innate intention in existing, is distinguished by its uniquely destined reliance on the discovery of what are, in effect, intentional successions of successively higher noëtic states of existence: ever higher energy-flux density of the species' existence. The failure of mankind to evolve to that progressive effect, expresses a willful, or quasi-willful failure in our species' behavior.



NASA/JPI

The defense of Earth from asteroids and other space objects will become possible with the extension of man's sensorium, through instruments such as the Mars Science Laboratory Curiosity rover, seen in this artist's concept from NASA.

Consider the pending development of our species, thus, against the already existing evidence of mankind's relatively immediate destiny as mankind's necessary mastery of Mars and other places from which we must now muster the defense of Earth against menacing natural satellites and comets.

Let us, therefore, now re-examine what I have written here this far, proceeding from the just-stated, higher order of conceptions.

Beyond a Thermonuclear Defense of Earth

The present standpoint for defining the role of mankind within, and beyond the Solar System, has been expressed by the role of Dr. Edward Teller in respect to both the Strategic Defense Initiative (SDI) and the related subject-matter of defense of life on Earth from collisions with all potentially dangerous debris, such as satellites, "floating" within "space."

Apart from a limited potential for human visits to Mars, mankind's prospective near-term visits are not the leading priority for human activity on that planet. What has been demonstrated, in principle, for man on Mars, so far, is the more immediate potential for the use of higher orders of successor instruments to "Curiosity," such as instruments for the kind of defense of Earth against "natural satellites" adopted as a long-ranging

mission-assignment by the late Dr. Edward Teller. This means the extension of the successful design of a mission-orientation for military strategic defense on Earth, to a higher mission of systemic defense against the vast panoply of both "natural satellites" and the far more menacing comets among known objects within Solar space at large.

The immediately interesting considerations feature a certain prospective benefit for mankind which has been brought into consideration by the success of "Curiosity." The establishment of the placing of operating systems on Mars now, brings our perspective closer to the prospect of placing operating systems more advanced than "Curiosity" typifies, into the means for setting into place on Mars, controllable operating systems, which have an obvious mission assignment for assisting the defense of mankind on Earth in ways not otherwise feasible. The fact that systems on Earth and Mars, respectively, are "in communication" at the speed of light, should be coming to be recognized as useful to mankind on Earth in many, largely obvious ways, including "reciprocal assistance" in "diagnosing and directing" operations needed for discovery of, and actions against threats from roaming satellites threatening Earth. This is of particular importance for defense against comets.