II. Personality 'B' Again

Dwell, for a bit of time, on the following recapitulation of that paradoxical notion of the distinction between a significantly imperfect, but presently typical

human personality of type "A," and a matured personality of type "B," a distinction which I had introduced in the preceding two components of this compound report. Restate that case, now, in the setting of the content of the immediately preceding chapter, here.

In the two preceding components of this compound report, I had identified two general categories of the relationship between the human mind's functional relationship to that universe which each among us inhabits. I had distinguished these two, as of optional personality types "A" and "B," respectively. The essential distinction was, that type "A" was premised on the view of experience from the standpoint of the person's presumptive belief in sense-certainty; whereas, the person

who has been matured into the quality of type "B," assumed that the human senses are, essentially, merely akin to "meter readings," or, "instrument readings," shadows cast by developments, rather than being the actuality of the subject which remains to be treated. It is the way we must read such "meters," which determines whether or not our *interpretation* of sense-experience is efficiently real (type "B"), or, perhaps, a delusion in one

sense or the other (type "A.").

To discover what does, or does not deserve to be treated as the "Classical," "B," case-type of this distinction, take the case from competent modern science, in which we emphasize the crucial role of *physical curves* (type "B"), rather than merely geometric ones (type "A"). In physical science, as in the cases of the physical curve, the catenary, of Filippo Brunelleschi, the thesis of Nicholas of Cusa's **De Docta Ignorantia**, or Leonardo da Vinci's relationship between the catenary and tractrix, Kepler's uniquely original discovery of universal gravitation, or, the principle of "least action" of

As the case of Helen Keller illustrates the point, our senseperceptions are merely the shadows cast upon those instruments through which we perceive reality. Here, Keller, with her teacher, Anne Sullivan, in 1898.

Pierre de Fermat, and the principle of universal physical least action of Gottfried Leibniz and Jean Bernouilli: each and all as distinguished from what were, relatively, the failed attempts of not only traditionally Euclidean geometries, but also the "non-Euclidean" geometries of such as N.I. Lobatchevsky and Jonas Bolyai (type "A"). In the course of my own development since my first rejecting belief in Euclidean geometry entirely during my adolescence, I had come, by early 1953, to the crucial outcome: the notion of adopting a physical, rather than what I already hated as an a-priori Euclidean or neo-Euclidean, formal curvature, as the essential distinction is to be recognized most clearly, beginning the opening paragraphs

Bernhard Riemann's 1854 habilitation dissertation.¹

^{1.} This is not to imply that Lobatchevsky's work was not brilliant and competent in its own way; as Gauss noted, the flawed discovery of Jonas Bolyai was professionally skilled, too. The point is, that as Gauss emphasized in his criticisms of such works as those, neither of those authors grasped Gauss's own concept of an actually *anti-Euclidean* geometry, the same concept later presented explicitly by Bernhard Riemann in his 1854 habilitation dissertation. A Riemannian geometry is a physi-

That much so far, in opening this chapter, I shall now recapitulate, and, after that, in the following chapter, amplify, what I have written within the two preceding sections of this triad of pieces with these just-presented considerations in view:

1. "What is the functional distinction between what I

cal geometry of a class of those geometries attuned to "living within" a physical space-time extended by continuing acceleration: not a merely formal geometry (e.g., reality as the plot of a trajectory from Earth, in Earth orbit, to Mars, in a Mars orbit, using a pathway defined according to a constant rate of acceleration-deceleration based on normal human requirements, that under the condition that the persons are within the vehicle, and are experiencing that trajectory, rather than experiencing it as if from the apparent world of "the outside observer"). Then, redefine the notion of the relevant tensor, as a physical concept, rather than merely mathematical, from a related, restricted notion of a physical, rather than a merely mathematical conception. The crucial consideration is, that a Riemannian geometry rejects that notion of so-called "completeness," as that subject was famously promoted by the positivist David Hilbert, an echo of the notion of "completeness" of Aristotle and his follower Euclid, as this notion had been attacked by Philo of Alexandria. The catenary-tractrix principle of Filippo Brunelleschi's and Nicholas of Cusa's follower Leonardo da Vinci, to be defined as the catenary was employed by Brunelleschi for the construction of the cupola of Santa Maria del Fiore, a notion of the catenary which was based, for example, on the funicular principle of a physical curvature, rather than a formal geometry, is an example of this. Nicholas of Cusa's De Docta Ignorantia is an illustration of this notion of open-ended, physical-geometrical physical principles, as distinct from merely formal (e.g., "completable," intrinsically entropic) geometries. So, Johannes Kepler's uniquely original discovery of a universal principle of gravitation, did not represent a mere product of his mathematical formulation for the effect of gravitation, and was not, therefore, merely something which might be fairly copied by plagiarists such as the patrons of an absurd Isaac Newton. These anti-Euclidean, physical geometries, such as Kepler's uniquely original discovery, earlier, as described in his New Astronomy, identified a principle which expressed the process of generation of the Earth's "elliptical" orbit ("equal areas, equal times"), based on the principle of Cusa's De Docta Ignorantia, rather than an orbit generated from the merely formal-mathematical construction of a formal ellipse. Notably, Cusa had already denounced the systemic fallacy of Archimedes' notion of the representation of the generation of a circle by quadrature. My emphasis in this footnote, is that the method of Brunelleschi and Cusa is also that of Leibniz, Gauss, Riemann, Max Planck, Albert Einstein, and Academician V.I. Vernadsky, as opposed to that of the formalists: formalists including that same, celebrated David Hilbert who recognized both Norbert Wiener and John von Neumann as fakers polluted by their Bertrand Russell pedigree. The same, widely accepted error of formal completeness was defended by my friend Pobisk Kuznetsov, who thus, on that occasion, defended the fallacy of closed systems otherwise underlying the fallacious dogma of thermodynamics of Clausius, Grassmann, Kelvin, et al. The deep-rooted, systemic difference in methods, so expressed, is to be traced to the functional difference between the qualitatively inferior, but more customary, quasi-Euclidean, pro-Aristotelean mental world-outlook typical of the "Type A" cases I treat here, as "Type A" is to be contrasted to the higher quality of mental life expressed by that "Type B" personality which is essential for living within a relativistic, "Type B" reality.

- have identified as a human mind operating as 'species' type which I have identified as Type 'A,' as distinct from Type 'B'?"
- "What is the qualitative difference, both scientifically and morally, between the two ways of thinking?"
- 3. "What is the difference in the definition of 'time,' separating the one (B) from the other (A)?"
- 4. "What is the specific quality of personal immortality attributable to Type 'B,' but which does not exist for Type 'A'?"
- 5. "What is the difference in quality between an ordinary society, associated with organization cohering with a Type 'A' sense of personal identity, and one of Type 'B'?"

I begin that account, now, with the following recapitulation of the points on this matter which I had introduced in the earlier sections.

Perception vs. Conception

As I have stressed, repeatedly, in the course of writing the three separate pieces of which this report is composed, the chief root-cause of the moral and related faults of human cultures of which we have knowledge up to the present time, is to be recognized as, that in those cases of which we have competent forms of relevant knowledge of those cultures, the essential fault lies in that brutish belief in sense-certainty which has dominated all of the cultures of which we possess the crucially relevant types of knowledge. That is to emphasize, that to the degree that the use of language among the generality of the population, implies that what the individual senses as an object is the reality of his or her experience, there is a large degree of moral failure in what passes for knowledge among the generality of the population of that culture.

The moral and practical distinction of the Type "B" personality from the more commonplace Type "A," lies here. I restate, and, then, enlarge upon what I stated in **The Rule of Natural Law**.

As the case of Helen Keller illustrates the point rather nicely, even without quite proving it scientifically, our sense-perceptions are merely the shadows cast upon those instruments which are delivered with us as we are delivered from the womb: what our senses enable us, eventually, to perceive as presumed objects, are essentially shadows cast upon those original scientific-experimental instruments known as our given powers of sense-perception. Thus, as in all applications

of scientific and related kinds of instruments which have been created, *post partum*—and to some significant degree, even earlier, for similar purposes, by mankind, it is only through what is sometimes identified as "crucial-experimental forms of cognitive methods," that we gain an efficient insight into the significance of the reality which lies behind the relevant sense-experiences projected as shadows upon the screens of our imaginations.

In the meantime, we have added scientific instruments, and their approximation, to the originally given repertoire of our native-born methods for expanding the variety of instruments which supplement the given human sense-organs' role, especially in our efforts to explore the universe of the domains of the extraordinarily small or large, alike. By the accumulated assortment of combined means of these types, we are able to construct experiments, or conjure up their effective likeness, which define the way in which variously estimable, or even crucial experiments, present the objects of senseperception to us in a fresh, appropriately transformed way. Rather than defining relations by objects, we now, either define the existence of objects by relations, or have such opportunities placed within our reach. This latter type of improvement is the basis for the ability of some persons to think in terms of dynamics, such as those of Gottfried Leibniz (or the ancient Pythagoreans and Plato before him), as contrasted with the intrinsic incompetence of the view of the universe implicitly presented by Rene Descartes and his followers.

Thus we have, on the one hand, a state of the individual mind in which objects define relationships, as by Descartes, and the contrary outlook, that of the dynamics of Nicholas of Cusa's **De Docta Ignorantia**, the work of his follower Leonardo da Vinci, Johannes Kepler, Pierre de Fermat, Gottfried Leibniz, Abraham Kästner and his followers Gotthold Lessing and Moses Mendelssohn, Friedrich Schiller, Shelley, Carl F. Gauss, the brothers von Humboldt, J.F. Herbart and Bernhard Riemann, Albert Einstein, and Academician V.I. Vernadsky, all of whom represent the standpoint of *dynamics*, *rather than a naive interpretation of "sense certainty."*

Heretofore, both within this present report, and on other occasions, I have repeatedly emphasized the distinction between competent scientific practice and empiricism, as being expressed in the fact, that the empiricist (a.k.a., "behaviorist") sees a principle as being "proven" in terms of a mathematical formulation, whereas the competent scientist regards a competent

mathematical formulation as expressing a "footprint-like" effect of a proven, or what is suspected to be a provable universal principle.² As I have emphasized earlier, the correct view of the work of Johannes Kepler in discovering the universal principle of gravitation, as this is viewed by Albert Einstein, is that while Kepler presented the mathematical formulation for the effect of gravitation later copied by the advocates of the disgusting Isaac Newton, Kepler's gravitation is, as treated by Einstein, a universal principle whose action defines the universe as finite,³ but whose action is also expressed in Kepler's uniquely original application of this discovered principle to the local domain of our Solar System.

The essential feature of Kepler's discoveries is that he is, as a follower of Brunelleschi and Cardinal Nicholas of Cusa, among the founders of the modern European conception of dynamics. Although the formal introduction of dynamics to modern science was supplied by Gottfried Leibniz during a series of works supplied by him during the 1690s, that conception was already implicit in the greatest achievements of modern European science since Cusa, even prior to Leibniz. Pierre de Fermat is among the most relevant examples of this, for his role in prompting Leibniz and Jean Bernouilli's work in defining a universal physical principle of least action. Equally significant is the fact that Leibniz's introduction of this conception of dynamics, explicitly, to modern European science, was, according to Leibniz himself, a reflection of the dynamis of the ancient Classical Greek science of the Pythagoreans and Plato, and also such ancient notables as the great Eratosthenes.

Most notable, is the fact that the principle of creativity, in both physical science as in Classical artistic composition, is located essentially in Classical art, rather than mathematical science as such. Thus, the greater part of the ruin of Twentieth-century European science occurred through the post-Franklin Roosevelt destruction of the practice and knowledge of Classical artistic composition in trans-Atlantic civilization launched by

^{2.} This was the issue of the brutish attack on Leibniz by the Eighteenth-century empiricists, such as Jean le Rond D'Alembert, A. de Moivre, Leonhard Euler, and J.L. Lagrange, and the continuation of that attack by Laplace and Augustin Cauchy. The attack was organized chiefly, beginning about 1714-1718, through a hoax organized by the Paris-resident Venetian (Padua) nobleman Abbe Antonio S. Conti in concert with Voltaire. Conti was an impassioned advocate of the discredited doctrine of Rene Descartes. Conti was intimately associated with Voltaire.

^{3.} but unbounded (e.g., anti-entropic).

sponsorship of the existentialists in general and the program of the European Congress for Cultural Freedom (CCF)—actually, the congress for cultural depravity, during the advent of the post-World War II decades. The creativity element in physical scientific progress, as in artistic progress, is centered outside all formal mathematics, in that Classical poetry and music which is the natural habitat of those expressed creative powers of the individual human mind which set the human being apart from, and above the beasts and existentialists alike.

Thus, what I have often referenced as the point of the concluding paragraph of Percy Bysshe Shelley's A **Defence of Poetry**, presents us a crucial insight into the function of *dynamics* generally. All great Classical drama, similarly, is to be experienced not as action among particular characters, but as the force of a *dynamical principle* which subsumes the force of a largely unwitting invisible hand of *dynamics*, which shapes the destiny among the foolish characters who see things only in terms of relations among individuals, as if pairwise, rather than "the force of destiny" which grips them as the apparent hand which the foolish characters on stage have refused to recognize as the agency of a superior will which shapes the outcome of the drama as a whole.

These dynamics, which do, in fact, generate the relationships among individuals and groupings in society are comparable, in effect, to belief in a choice of universal principle attributed to physical science. If the choice is in error, the society of the believers is to be punished, even ruined entirely, as the beliefs of the 68ers have impelled the present world society into the present, virtually terminal mode of self-destruction. So, it is the adoption of the "environmentalism" of such as Bertrand Russell and his follower, the World Wildlife Fund's Prince Philip, which has hurtled trans-Atlantic society into what has become the almost inevitable plunge of all humanity into the presently immediate global breakdown-crisis. It is only the exceptional individual, who not only sees the folly of this control of society by popular beliefs, but who has the determination to act to bring about the end of that mass-insanity gripping a nation, or nations, who is an exception to the "lemming-like" grip of a madness such as that which has controlled the U.S.A. as a social-political-economic system since early 1968. Only the individual who rejects the grip of "popular opinion" is capable of leading his or her society out of a virtually mass-suicidal plunge into a passage through Hell such as that oncoming at this moment of writing.

As Shelley emphasizes the other side of such social dynamics in his **A Defence of Poetry**, he wrote of a time in history when a great revival of culture was in progress, a time when even people of wicked inclinations were sometimes swept along by the tide of progress.

This view of Shelley's argument coincides entirely with that of Leibniz, and that not accidentally. The case of the role of Classical music in the creativity of Albert Einstein is fully consistent with this principle of creativity. It is in the application of the powers of the Classical imagination to the rigors of experimental tests performed as the work of physical science, that we have secured all the valid discoveries of those general physical principles, through aid of which the practical achievements of physical economy have been generated. It is only when we study the nature and related characteristics of the human mind, as through imposing a reciprocal discipline of the Classical scientific method of Plato and moderns such as the followers of Cusa in physical science, with the signal achievements launched by the fundamental discovery by Johann Sebastian Bach, that society has become equipped to reverse the terrible and disgusting degeneration of the culture and economy of the world's malpractice of what is called economics today.

This general type of distinction between two contrasted world-outlooks, presents us with the effect of those contrary viewpoints expressed as either *Type A*, or the *dynamical* standpoint of *Type B*. This is the same principle of dynamics reflected in the closing paragraph of Shelley's **A Defence of Poetry**.

For Example: Space-Time

The difficulties inhering in the intention to transport people, rather than mere baggage, across interplanetary intervals within Solar space, poses the problematic discussion of supplying a state of electromagnetic "1-G(ravity)," or functionally comparable environment within the system by which the passengers and crew are being transported. Once we had achieved and deployed that capability, we have changed the functional meaning of the term "human race" in a truly universal way. That is to say, once we have based the dynamic characteristic of human relations, on those of a Solar domain defined, dynamically, by a generalized capability for "One-G" acceleration in movement within even a por-

tion of the Solar System, we have changed the functional definition of mankind, and of human relations, absolutely. These relations, to the degree they can be achieved for mankind, are defined by the existence of relationships defined in terms of generalized "One-G" or comparable rates of constant acceleration with respect to both gravitation and magnetic fields. All humanity then becomes "people in space," rather than merely an Earth-bound species: hence, "Ad Astra!"

We will have transformed that enemy, which is an inability to be a race in space, into a friend, transforming a prison-like confinement to our planet, into a font of greater human freedom within astronomical space.

This transformation has other leading dimensionalities.

The ability to meet the challenges of both human interplanetary travel, and of the development of what were otherwise hostile habits among our destinations, depends upon a rule-of-thumb principle of competent present-day physical science known, for convenience, as qualitatively upward leaps in the *energy-flux density* of supplies of power employed (and, available). On this account, where the mastery of controlled nuclear fission brings us up to the level of entering the pre-conditions for human life in nearby Solar space, that as man, rather than mere objects, the realization of this initial break to freedom requires the mastery of the qualitatively higher orders of energy-flux density represented by controlled thermonuclear fusion.

Such are the initial, leading considerations posed by our reflections upon the matter as we have considered it here, so far. We have emphasized the positive factors. Consider the alternative: what happens to us if we do not make this upward leap to freedom from an Earthbound existence?

So far, in this chapter, I have emphasized the opportunities represented by changes in these specific directions. We must also consider as, perhaps, even much more urgent, what happens to mankind if we fail to develop in these directions.

"The Hounds At Our Heels!"

For such reasons, not only must we now abandon the vicious delusion known as "monetary value;" we must go over, entirely, to posing the notion of economic value as being essentially physical-economic value, as that notion of value must be situated in terms of processes defined, essentially, in terms of the interactive relationships among the Lithosphere, the Biosphere, and the Noösphere. We must begin the exploration of the meaning of a physical economy by subsuming that threefold process, by regard for what has been society's crucial margin of dependency, in physical-economic terms, on, first, the effects of relative depletion, not exhaustion, of the relatively richest concentration of those essential resources, in the normal course of mankind's combined growth of population and technological progress.

I explain, that living processes, by absorbing selected isotopes of elements from the array of the given periodic table into their life-processes, have provided mankind with deposits in which certain elements-isotopes are concentrated as residues of the Biosphere's existence. Mankind's productivity, per capita and per square kilometer, thus far, has depended to a large degree on the richest concentrations of those elements; the relative physical productivity of cultures, has depended upon access to relatively richer concentrations of isotopes accessed in this way. As mankind draws down the more readily available of the supply of the richest such deposits, the potential relative populationdensity of a culture would tend to collapse, unless the effective productivity of mankind per capita and per square kilometer of relevant territory, were increased to the effect of causing the potential relative population-density to increase, and to promote an increase in the rate of increase.

Thus, the shift of the minimal standard requirement from simple use of sunlight at its relevant lowest value (at the Earth's surface), to the advantage over bald sunlight represented by the work of chlorophyll, to man's burning of trash, to charcoal, to coal, to coke, to petroleum, to natural gas, and then to the leaps to higher qualities of energy-flux density of nuclear fission, and the early prospect of thermonuclear fusion, and the tantalizing subject of matter/anti-matter reactions, are the lawful requirements of endless scientific progress for any civilization which does not intend to destroy itself rapidly at this point of world history to date.

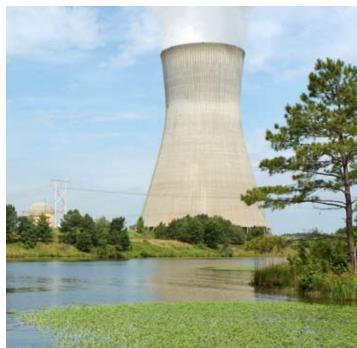
By the same inexorable logic, the security of mankind's continued existence depends upon shifting the hazard of our species' presently Earth-bound existence, from the confines of the surface regions of our planet, to human life in interplanetary space, and, thence, beyond, into our galaxy generally, and, then, beyond that. The achievements of the space-program since the beginning of its systemic development as a mission-orientation, during the 1920s, must be acknowledged by a program-



USDA/Bruce Fritz



Clockwise from top left: agriculture (sunlight, through the work of chlorophyll); a coal plant, Pittsburgh; an oil platform, Brazil; a nuclear plant, North Carolina. Thence, on to thermonuclear fusion, and the "tantalizing subject of matter/anti-matter reactions, the lawful requirements of endless scientific progress for any civilization which does not intend to destroy itself rapidly at this point of world history to date."



Courtesy: Progress Energy



matic commitment to this effect foreseen among relevant scientific thinkers since that time.

This viewpoint challenges the imagination of all truly thoughtful scientists and theologians respecting the notions of "Creator," "mankind," and human individual "immortality." This does not lead us away from the notions of **Genesis** 1, for example, but only clarifies the way that chapter of Genesis is to be read, as mankind rises out of an apparent state of relative brutishness, to the present outlook with which we are confronted by the combined notions of the limits of the prospects for human life confined to Earth, or even our Solar System, into humanity existing as humanity, still, as an inhabitant of our galaxy, and beyond that. Man made in the likeness of, and servant of the living Creator of the universe, acquires a certain far richer meaning, a nearer and nearer approximation of human existence's true meaning, not only as a species, but as expressed in that identity of the mind of the human individual which is the notion of the individual human "soul." The great mystery of it all changes its appearance, as if in the gradual clearing away of the mists, as seeing more clearly what had appeared as if "through a glass darkly."

What I have just outlined in that description, is no fantasy. From insight into the greatest works of Classical artistic composition—but, only Classical artistic composition—those among us who have enjoyed a witting, and experimentally validated experience of true creativity, see matters a bit differently than those who continue to be blinded by self-inflicted devotion to living as like blind worms, within the dark sack of grubby faith in sense-certainty.

That is not a "merely speculative" view of matters. All among us who have come to recognize what I have termed a "Type B" sense of personal, functional

identity, know this. The others, who do not recognize this, continue to live as children; the "Type A" personalities, who view reality with their power of intellectual vision blinded by refusal, as by the self-blinded men and women worshiping Euclidean geometry, refusing, thus, to open their eyes to human individual creativity.

It is through true human creativity, as this is only typified by the progress of society's intentions from the relative bestiality of evil Prince Philip's self-styled "environmentalists," that a sane mankind moves from reliance on lower forms of "energy-flux density," to higher ones, that the progress, even the continuation of civilized forms of existence, is made possible for humanity. It is here, as the role of higher energy-flux densities, such as those of nuclear-fission now, and the looming prospect of controlled thermonuclear fusion tomorrow, bring the future of man's rise from that state of risk of being a citizen of our fragile planet to man in the Solar system, and then the stars, that we become the true citizens of the real universe, out from such filthy hovels as the Anglo-Dutch Liberal imperialism of today.

In real-life history, the proverbial hounds are at our heels. We must move upward, along those pathways in nearby space, to desirable destinations along the relativistic highways which were being paved by the beautiful mind of that great lover of Classical musical composition, Albert Einstein.

Thus, these points now considered, we have been presented, in the preceding paragraphs here, with the kernel of the fundamental principle of that science of physical economy on which all future civilized existence on this planet now depends absolutely. That is the objective side of a science of physical economy; now we must consider the subjective side; here, the concept of "Type 'B" becomes crucial.