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HAS GOD'S MYSTERY BEEN REVEALED TO MODERN SCIENCE?

Physicists believe that Olber's paradox and an expandlng universe theory of creation points to a radius of our universe which cah be timed. Do we as we look at the blackness between the stars at night see the primordial abyss from which our universe was created? Are we, indeed, looking at the beginning of time as we look at the space between the stars? Is our universe expending and is it bounded? If so, how will we avoid the "Big Crunch" of implosion as Dr. Stephen Hawking contemplates? The answers to these questions pose the most relevant issue because man's consciousness is imposed to learn the truth. The truth is the way to enlightenment.

Look at the experimentally assured duality of reality. Because we can imagine that spatially spherical symmetry of the universe Newton came to reflect that the limiting condition of the constant limit for 0 at spatial infinity leads to the view that the density of matter becomes zero at infinity. Einstein says it then follows from Poisson's equation $\nabla^2 \phi = 4\pi$ KP, that, in order that ϕ may tend to a limit at infinity, the mean density p must decrease toward zero more rapidly than $1/r^2$ as the distance r from the center increases. Einstein further states that there is a finite ratio of densities corresponding to the finite difference of potential between the center and spatial ∞. A vanishing of the density at infinity implies a vanishing of the density at the center.[1]

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David Hume believed most people naturally assent to the definition of a judicious and quite elegant poet who said, "Virtue (for mere good-nature is a fool) is sense and spirit with humanity."

Hume declares, " What pretentions has a man to our generous assistance or good offices, who has dissipated his wealth in profuse expenses, idle vanities, chimerical projects, dissolute pleasures or extravagant gaming? These vices bring misery unpitied, and contempt on every one addicted to them. " [2]

Then we have a need for an absolute normative ethics. I believe everyone has a sense of it, the need for the social element of contract and exchange. I ask then was it not an infinitely judicious Bertrand Russell who wrote Einstein in 1955, " If only man would remember his humanity, and forget the rest. " The need for the sense of the absolute, the infinity, is mathematical. Professor Dicke, who took Einstein's place at Princeton, said all mathematics breaks down to plus and minus infinities the instant before the big bang, the instant before creation, before Planck time 10^{-43} sec. after it all started. Professor Alan Guth of MIT says it all started with one primordial bubble that was dense and hot, one bubble among a sea of primordial chaos. Science believes that the universe is measured by time, with the expansion, but it is not. General Relativity says clearly the radius of the universe is independent of time.[3]

Einstein then admitted others thought he might be wrong A Russian mathematician, Friedman, in the 20's, accepted the first postulate of General Relativity but rejected the second. Science was determined to know what God knew about the universe, namely everything. In order for man to equate time with the radius of space he then chose a finite universe. It was easy to imagine a bubble-type universe, a spherically symmetrical one in which the average density of matter is everywhere the same and

different from zero, according to General Relativity. Descartes taught us there exists no space empty of field. It became necessary for science to accept that the field is ultimately explained in terms of ponderable masses, point–masses. In the nineteen–twenties, science proved the particle, the electron exhibited wave properties as well. The duality is assured, all nature shows the plus–minus, the duality of natural antithesis, of yes and no. All point-masses are filled then by point masses, or fields. The size of the structure depended upon its spatiality, or distance, to General Relativity. Einstein could accomplish this because the velocity of light is a natural constant, 3×10^{10} cm/sec. All symmetry reductions in physics seem to come to the speed of light and the Newtonian gravitational constant. Even the radius of the universe in Einstin's equation is a symmetry reduction of the speed of light, and the equation contains the Newtonian constant for gravitation. Spinoza teaches us that when science presumes quantity to be infinite the next step is to believe corporeal substance must be infinite. Hence it is then argued that corporeal substance cannot pertain to the essence of God. The reasoning is that substance suffers and God cannot; so God cannot be substance. The question of wonder about an unknowable entity becomes, then, non–existent. Yet is this not based upon the perception of reality to be of substance, knowable is ideal, in the abstract ? Therefore man has decided he can measure the universe without empirically measuring it. Does this action not fall apart from the realm of science, namely that which is knowable and empirically demonstrable. Hume would want substance and event repeated to make sure that perception of essence of the idea is itself intrinsically real.

I wonder what the nature of the dilemma has become. The enigmatic radius to a universe that has been timed in its existence, down to a relative infinitesimal of a second, has not

been timed. For is not time a function of charge and charge a function of mass. The extension of the substance of mass is knowable relative to the field of the perceptual coordinate system according to Einstein. Newton saw the particulate clearly, yet Newton knew of infinity too. Newton too accepted the duality, that balance created by $\pm$ 1. To Einstein the balance of the gravitational tensor g_{uv} depends upon $\pm$ 1, and Einstein let c = 1. [4]

Pythagorus saw that $0 = \infty$, so did Spinoza and Einstein.[5]

Philosophy asks science, " What happened before Planck's time, before that critical 10^{-43} sec. after the big bang started ?" I ask what meaning did time have before this universe had its present spatial extension ? Time is one of four dimensions to our sense of reality. We can't see past the stars because our senses have not been physically able to do so yet Olber's paradox and enigma is still an enigma because if we see blackness past stars as ' something ' then we are perceiving what is not an end. If we perceive the blackness as nothing then we must say we have perceived nothing. Having perceived nothing, that does not presuppose we see before time began. If we perceives nothing and we don't know where the boundary is between something and nothing, we can't possibly measure it with time. The reason is that time is relative to the perceiver; and perception is dependent upon the ponderable body of the corpuscle of light as well as the constancy of the velocity of light Philosophy wonders about Planck time 10^{-43}, this numerical symmetry reduction exponential factor, and konws that man does not know how a untiverse could go from 10^{-43} sec to $\pm$ infinity instantaneously. Philosophy knows man is an infinity concerned consciousness, and sees nothing. Philosophy knows there is an absolute sense to man's concern for right and wrong, good and evil. Einstein notes a strange difficulty with the current general philosophy of science·

The interpretation of the galactic line-shift discovered by Hubble as an expansion leads to an origin of this expansion which lies "only" about 10^9 years ago. Yet physical astronomy shows that it is likely that the development of the stars and star systems takes considerably longer. Einstein declares, "In no way is it known how this incongruity is to be overcome." Furthermore, "The theory of expanding space, together with the empirical data of astronomy, permit no decision to be reached about the finite or infinite character of space; while the original static hypothesis of space yielded the closure (finiteness) of space." [6]

John Locke said that whatever we consider as one thing, whether a real being or idea, suggests to us the understanding of the idea of unity. The philosopher wants to distinguish also the thing and the idea of the thing, the substance and the idea of substace. A Platonic Ideal of idea implies an infinity and a unity simultaneously, which implies a single coordinate system of objective reality. This gives the philosopher of science a sense of self and a sense of everything else. If one takes himself as a point-mass, one, compared to an infinite sea of other particulates, then the sense of enlightenment lends credibility to one being with everything. Consciousness may perceive the self as relatively nothing compared to everything else, simultaneously zero is equal to itself, one thing, which is also everything of itself, and has cognition of everything. Another way of saying it is to let peace equal nothing, complete harmony of self, total quietude; which is at once everything and itself, nothing.

The relativity of perception of what is and the sense of a boundary to our universe depend upon the reality of finiteness. However, we conceive the infinite and are not ideas as real things as ponderable bodies, as photons of light are corpuscular fields of probability matter. The duality of natural antithesis, the yes and no to everything ultimate gives man an open mind to the

unknown, gives man the path of philosophy of science. As we move in ascendence with a positive ontological status, in a teleologically dynamic way, we continue to wonder about the miracles yet to be accomplished by looking at our consciousness and objectively growing together.[6]

CONCLUSION

The enigma that is our universe is still open to question. Indeed, the questions remain the same while the answers change with perception as time flows inexorably to the infinite.

Olber's paradox remains exactly that – a paradox, incongruous with all explanations of an expanding universe whose outer fringe of star systems recede at speeds as fast as light itself. Einstein shows us clearly that the mystery of the expanse of night sky dotted by twinkling stars separated by an intrinsic blackness has not been revealed. The physical age of stars and star systems appears clearly to be greater than the 10^9 years derived from the galactic red shift of incoming light as was delineated by Hubble.

Are we not then forced to look at the general Theory of Relativity again, and reexamine the second postulate which states the radius of space is indpendent of time? Can we know then, without any existential doubt, that the Big Bang actually occurred?

Indeed, the wonder of Creation is just as immeasureably marvelous as ever, the enigma just as deeply rooted in a finite temporal perception as ever, the unknowable infinities of our universe as unreachable as ever. Yet must we pursue the growth of philosophy of science.

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NOTES

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2. D. Hume, "An Enquiry Concerning the Principles of Morals." Reprinted from the edition of 1777, Open Court Publisher 1966. p. 161.

3. A. Einstein, "Relativity", Bonanza Books 1961, p. 133.

4. A. Einstein, *Out of My Later Years*, Philosophical Library, 1955.

5. Baruch Spinoza, *Western Philosophy*, Edited by S. Cahn, Hackett Publishing, Indianapolis, 1977, p. 409; A. Einstein, *The Principle of Relativity*, Dover Publications 1952: *Relativity*, Bonanzo Books, N. Y., 1961, p. 134.

6 J. Jacobson, *The Secret of Life*, Philosophical Library 1933; J. Jacobson *Perspectivism In Art*, Philosophical Library, N. Y. C. 1973, p 124.