

REDEMPTION

Is it the reason for Creation?

A photograph of a dark, narrow tunnel opening into a bright, sunlit room. The tunnel walls are dark and textured, possibly made of mud or stone. The room beyond is brightly lit, showing rough stone walls and a pile of hay or straw in the background. The floor is covered in dry leaves and twigs.

FRANK ARUNDELL

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COVER, Ancient dwelling,
Jericho Israel 2009, Photo by Frank Arundell III

F O R W A R D

The Dogmatic Constitution of the Church, known in Latin as *Lumen Gentium*, when translated means, “The Light of the Nations.” It is one of the principle documents of Vatican II. It was solemnly promulgated by His Holiness, Pope Paul VI on November 21, 1964, pretty much at the start of the 60’s and 70’s imbroglio. In the document, Chapter II describes the church as the “People of God” starting with Israel and continuing with the followers of Christ, those who “hear the word of God and keep it.” The gospel acclamation of Friday, week nine, in ordinary time, states with unconditional clarity, *“If anyone loves me he will keep my word, and my Father will love him, and we shall come to him”* (John 14: 23). It is interesting to note that with this particular saying, Jesus assigns the exchange of love between God and man to any individual person, rather than a people. One can assume that the person in this saying represents all of mankind, one individual at a time. Aside from Jesus himself being the objective Word of God, as the “Son of God,” the operative word for Jesus during his ministry was *love*. Love, always as act, i.e. Love God, love your neighbor, love your enemies, love one another etc. John the Evangelist says, *“God is love, and whoever does not love—does not know God”* (1 John 4: 8). In order to know God, or at least know of God, we are to understand that one must have Love in himself to exchange it with God and others. The question is, how do we get that “love,” and how do we know we have that essential internal Love.

When we finite creatures, the love-children of God, act out of love, we are indeed, acting like and with God, since the sum of all love *is* God, according to John. Creation, the primal act of Love, produced the forces that expanded and became light and subsequently life in an evolutionary manner. Love himself, the Father of evolution and all that resulted from it had a purpose

in his gift of being, which I shall call the actuation of “temporary reality” beyond his Trinitarian self. That purpose is the subject of this essay, Redemption.

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To redeem is to recover something that was pledged by payment or some other form of satisfaction; to buy back or regain possession of what was once owned.

To create, is the fact of making something, causing something to exist. The word create can be applied from an activity of bringing the universe into existence, to a child's chalk drawing on a piece of slate. Creation, properly used, is applied to things that had no material existence before an action, no factual observable presence or being. An idea, as a creation of the human mind, is an undefined product of thought until it is enacted in some way that can be sensed and understood in reasonable terms.

With man, ideas never develop in the mind out of nothing. They are formed from experiences; they come into existence from memory, mimicry, from intuition and instinct out of both the conscious and subconscious states of mind. They are generated by our biological and psychological processes and are governed by our cultural, moral and ethical proclivities, then set in motion by an act of the will, they become a material reality. Our ideas are original to each of us, but, since we are all made of the same stuff, one's ideas and actions may be similar in many respects to others.

Philosophy, is a system of rational enquiry into the truth of being, knowledge and conduct. Some philosophy based on false reasoning can generate opinions that are eventually seen to be untrue. This is the relativism of our day which leaves many with the understanding that there is no truth beyond what one sees for oneself. In this case, truth is simply what you want it to be. It's not difficult to sense arrogance in this idea. It is a perfect example of how the empiricism of hard science can draw contradistinctions with softer scientific inquiries into truth, i.e. that philosophy and theology say, cannot be proven by experience or experimentation. This slams the door on the probability of transcendence. To say, there is nothing beyond the proof of repeated experimentation, is to eclipse the mind to the light of philosophic and theological enquiries into the truth of ultimate being (DA sein), where there appears to be no empirical proof on hand. Indeed, hard science in many cases, goes beyond it's own understandings, especially in the subatomic world, to call certain unproven "truths" axiomatic; what some purely scientific minds would call scientifically natural. Much of science advances with a belief in unproven hypotheses, a faith in known probabilities. Empirical proof always awaits revision which generally comes in unexpected and spectacular ways. Many believe these "paradigm shifts," by way of human genius and chance are providential. Not unlike the insights of many of the philosophers of the Greek paideia, or the great prophets of the bible in their time. The path from being to becoming is ordinarily a slow one, yet, now and then, Copernican or Einstein like advances change the course of universal thinking. Things thought positively proven turn out to be completely wrong.

One of the latest huge shifts has become known as the Big Bang. A theory that says everything that *is*, started at t_0 from a primal atom and expanded in stages to the cosmos we know

today. Generally, the big bang concept has been accepted by most cosmologists and astrophysicists as scientific fact. This idea seems to bring some understanding of why there is something rather than nothing. However, since the the 1990s with the arrival of the Hubble Space Telescope, observations have been made that the distant supernovae were expanding more slowly long ago, than they are today. NASA puts it this way:

“So the expansion of the Universe has not been slowing due to gravity, as everyone thought, it has been accelerating. No one expected this, no one knew how to explain it. Something was causing it.”

“Eventually theorists came up with three sorts of explanations. Maybe it was a result of a long-discarded version of Einstein's theory of gravity, one that contained what was called a ‘cosmological constant.’ Maybe there was some strange kind of energy-fluid that filled space. Maybe there is something wrong with Einstein's theory of gravity and a new theory could include some kind of field that creates this cosmic acceleration. Theorists still don't know what the correct explanation is, but they have given the solution a name. It is called dark energy.”

“More is unknown than is known. We know how much dark energy there is because we know how it affects the Universe's expansion. Other than that, it is a complete mystery, but an important mystery. It turns out that roughly 70% of the Universe is dark energy. Dark matter makes up about 25%. The rest - everything on Earth, everything ever observed with all of our instruments, all normal matter adds up to less than 5% of the Universe. Come to think of it, maybe it shouldn't be called ‘normal’ matter at all, since it is such a small fraction of the Universe.”(1)

There are many other explanations for this phenomenon in cosmological circles, but there is one that is important and intriguing and that is the Higgs Field concept. The Higgs Boson is called the “God particle.” The following is from Wikipedia:

“The God Particle: *If the Universe Is the Answer, What is the Question?* Is a 1993 popular science book by Nobel Prize-winning physicist Leon Lederman and science writer Dick Teresi. The book provides a brief history of particle physics starting with the Pre-Socratic philosopher Democritus and continuing through Isaac Newton, Roger J. Boscovich, Michael Faraday, and Ernest Rutherford and quantum physics in the 20th century. Lederman said he gave the Higgs Boson the nickname “The God Particle” because the particle is “so central to the state of physics today, so crucial to our final understanding of the structure of matter, yet so elusive,” but jokingly added that a second reason was because “the publisher wouldn't let us call it the Goddamn Particle, though that might be a more appropriate title, given its villainous nature and the expense it is causing.”(2)

I am amused by this because a lot of serious minded people believe that understanding Higgs is the final blow to the destruction of faith in God. Finally, the “mind of God” will be laid bare.

“Researchers at the European Organization for Nuclear Research, or CERN, say that they have compiled vast amounts of data that show the footprint and shadow of the particle, even though it has never actually been glimpsed. Two independent teams of physicists are cautious after decades of work and billions of dollars spent. They don't plan to use the word

‘discovery.’ They say they will come as close as possible to a ‘eureka’ announcement without overstating their findings.”(3) With this and future findings, there will be little or no effect on a theological viewpoint of Creation. Most scientists are honestly delving into the puzzling processes of quantum cosmology to improve our understanding of how what is, became what it is, so that we can line up particle physics, as we said, with the classical Newtonian or Einsteinian models. On the other hand those who believe in Creation, in one way or another, are trying to improve our understanding of — why there is something rather than nothing. We can all be sure that there will be many more paradigm-shifts in the future helping to clarify the mysteries of deep space and the subatomic world, as well as the current conflicts regarding the theory of evolution between science and theology. The only enemy, as always, is ill will on both sides of what should be a common enquiry into truth, based on faith in a common teleology.

It should be added here that On December 10, 2013, two of the physicists, Peter Higgs and Francois Englert, were awarded the Nobel Prize in Physics for their theoretical predictions. Although Higgs's name has come to be associated with this theory (the Higgs mechanism), several researchers between about 1960 and 1972 independently developed different parts of it.

Who could doubt that today our tireless interests are in unlocking, for all time, the remaining tightly held secrets of nature, hopefully, for the good of humanity. If not for that, at least for the fame and fortune legitimate discovery brings. Many scientists believe that the quirks of nature will be thoroughly understood, and that a Grand Unified Theory will finally prove the Deity untenable. We will then know everything there is to know. Humanity may survive as

machines in other parts of the cosmos when our universe becomes another casualty in space as the sun engulfs the earth and the planets.

Matter is simply condensed energy, what is, and always has been in one form or another. To consider the “big-bang” at t_0 leaves us with the unexplainable idea that before it there was *nothing*, and our finite minds cannot comprehend nothing. As a result, theoretical physicists must investigate new and daring concepts to prove that there had to be something before — what is now known as “the beginning.” At this point in history there are many and various models being offered to replace the singularity idea. Some of them proven mathematically, not withstanding the fact that the primal atom concept has been considered proven by recent observations.

When the ancient Greeks started digging in to nature they were not convinced atheists. They believed in a myriad of gods coming out of a mythical time before them. The first physicists were able to imagine much what we see, without all the exotic tools we work with today to uncover nature’s secrets. Along with a primitive understanding of matter, space, and time, their rational investigation of the truths and principals of being, knowledge, and conduct gave us philosophy. Socrates, Plato, and Aristotle are still part of the higher education systems in the great centers of learning throughout the world. We are taught the lessons of what it means to be human, to understand what ideas are made of, what is behind the concepts of substance, form and matter. The foundations of physics and metaphysics were firmly laid by them. They were followed by other great men and women, building on their investigations: Copernicus, Kepler, Galileo, Maxwell, Rutherford, Mendel, Darwin, Pasteur, Cure, Planck, Lamaitre, Einstein and thousands of others.

What is it in the human being that makes the individual persist beyond nature's observable boundaries and delve into the unseen mysteries she presents? What was it that had the first humans understand themselves as selves and bypass the instinct of their forebears? They had an adaptable, developing brain which became a *mind* surpassing all the creatures who had gone before them and among whom they lived. At this point in creation's natural history, certain creatures acquired a super-nature. They could look both inside and out, they could transcend themselves. With absolute freedom of will they were on the brink of controlling their environment — what was once being, with cognizance and understanding was now, *becoming*, by the continuing process of evolution. What had come out of creation was good. Is there is a synthesis here between creation and evolution? “While creation concerns the difference between something and nothing, the idea of evolution examines the difference between something and something else. Creation characterizes being as a whole, as being from somewhere else. Evolution, in contrast, describes the structure of being and inquires into the specific ‘from where’ of the individual existing realities.”(4) Humanity *is*, and at the same time *is becoming*, and so aside from how it all began, what we're looking at is the indisputable fact of a super-nature in human existence, far in advance of its nearest competitors for survival, at least on this planet.

While in high-school in the mid forties, I shall never forget the answer to the question: “Where did life begin?” The required answer was: “Life began in Mesopotamia, between the Tigris and Euphrates rivers.” I think it was a bit of a setup question because when studying the bible, we were given to believe that was where the Garden of Eden was located, the place where the first man and woman, our first parents, were kicked out for

eating the forbidden fruit from the “tree of good and evil.” I thought about that answer often while watching the war in Iraq on television. Naive though it may have been, it could turn out to be closer to the truth than science is willing to admit. The wonderful brothers and sisters that taught these marvelous metaphors were educated by others when they were twelve or fourteen with appreciably the same answer. In those days, even to consider Darwin, was not exactly prescribed by the hierarchy. The metaphor would have to do.

Unless you are a highly experienced theoretical physicist whose formulations go beyond the primal-atom, the big bang theory is proven well enough for most of us to call it certain. So far the alternative models such as the Plasma model or the Quantum models have not proved convincing. On the other hand, if we buy the “panspermia hypothesis,” that life began somewhere else in the cosmos after the big bang, and organic matter was delivered to earth by meteorites, we will have to wait to discover the “somewhere else” before that idea can be certified. Still, even that wouldn’t answer the core question. Let it suffice to say that: Life is the self sustaining process particular to an organism that manifests itself by metabolism, growth, reproduction and internal adaptation to its environment. (This is a summation of about a dozen or so definitions that can be found online.) So that’s life, as it is known, but we really haven’t solved the problem. Once we’re in an environment, we’ve thrown out initial *causality*. The insistent question remains: How and why did life begin? We have already briefly speculated on the where.

Can life be known by any other name? The answer is yes. We may call it being, an organic phenomena, or spirit. If being is the “fact of existing” or “existence itself,” that inference should be ruled out. Since an “organic phenomenon” would have

already taken place that inference goes the way of the term being. Spirit, the Latin word for breath, has many meanings but mostly to do with non-corporeal substance, rather than material substance. If spirit is called non-corporeal, i.e. with no “body,” or invisible, that doesn’t mean it’s not substance using the ontological hierarchy of Platonic and Aristotelian philosophy. Look at what is going on with electrons, protons, and neutrons, or for that matter, quarks or leptons, etc. We could say that these are, indeed, the primitive forces of life or spirit at work, *the fabric of life*. We can’t see them but their wonderful give-and-take is apparent only in the traces of their actions, their movements, their ups and downs, their spin, their coming into being and their disintegration. What is happening is an awesome reality. They refer us to the very forces of all of nature. Isn’t this exactly why we can say that we’re made of condensed energy, or to take it even further, made from the stuff of the stars? Realistically, *our life is spirit, and our spirit is life*. It is the essential reason we move, breathe, and have our being, specially *created* as a result of the big bang.

We should take spirit out of the realm of so called metaphysics, and out of metaphorical work as well. We should call it what it is — life. Spirit is our life and our life is spirit. As it turned out, we are a very special case. There is a line running from energy to matter to man in a supernatural order of things. With the presence of spirit and the process of evolution, all living things progressed. The tree of life branched out and as it did, one particular pathway, differentiated from all the others, became humanity. Progressing through the slow processes of adaptation and natural selection, it arrived at the specific point in time when a *brain to mind transformation* took place. The result was human beings. They got to know themselves as selves, while still living among their competition. Whether it was Africa or the land between the Tigris and Euphrates in present

day Iraq, no one knows for sure, but a continuous accumulation of wisdom (sapientia) has been the history of our trek through time ever since. I think it's fair to say that out of the complexity of the grand inflation, the processes of human life or spirit was sealed. I see a grand organizational display of quantum cosmological activity as spirit, as life. Not organic life as we know it, but the essence of life, the spark that produced organic life. It would take another 12 billion years for simple one celled organisms with a nucleus to show up and open the way to the hominids. This emergence from nature, "Crossing the Rubicon of anthropogenesis,"(5) took place about 500,000/250,000 years ago, according to the experts. That's when we inherited the super-nature of special creation.

With Plato's theory of Forms or Ideas, he offered us, through Socrates, the assertion "that nonmaterial abstract (but substantial) Forms or Ideas, and not the material world of change known to us through sensation, possesses the highest and most fundamental reality."(6) It would be presumptuous to claim that "ideas" are not real. Ideas are a product of the human mind and are made up of a conflux of previous mental input, sensations, feelings, and instinct, as well as the chemical and electrical workings of glands, brain, and nervous system. They become a practical reality when they are acted out in physical ways, as we have said earlier A human being is a holistic creature; a unity with inherent supernatural qualities as compared to *all* other living things. We can criticize Plato along with Aristotle and come, as they did, to a meeting of minds, but one is set to wonder where the idea of idea came from. How does one get to understand that what you see internally is more perfectly real than what you can see to touch? I think we need to ask the anthropologists that question as well as the philosophers. There is absolutely no doubt that our ancestors, after the brain to mind transformation and gene adjustments,

were able to think transcendently, the capability to think beyond the mundane became available to them. The special creation that was their particular gift and the spirit that animated them had come together. They slowly and finally reached a transformative stage to human beings who could think “thou.” Karl Rahner, the great theologian of Vatican II said: *“If we are seeking to find a place of encounter between man and the God who may reveal himself, this place is the transcendence of man in it’s specifically human character.”*

“Every man is more than the product of inherited traits and environment; no one results exclusively from calculable this-worldly factors; the mystery of creation looms over every one of us. *This would then lead to the insight that spirit does not enter the picture as something foreign, as a second substance in addition to matter; the appearance of spirit, means rather that an advancing movement arrives at the goal that has been set for it. Finally, it would have to be noted that, if anything, the creation of spirit is least of all to be imagined as an artisan activity of God, who suddenly began tinkering with the world.”*

“If creation means dependence of being, then special creation is nothing other than special dependence of being. The statement that man is created in a more specific, more direct way by God than other things in nature, when expressed somewhat less metaphorically, means simply this: that man is willed by God in a specific way, not merely as a being that “is there”, but as a being that knows him; not only as a construct that he thought up, but as an existence that can think about him in return.” (7) Meaning is woven into the fabric of creation.

“The earliest evidence of religious thought is based on the ritual treatment of the dead. Most animals display only a casual interest in the dead of their own species. Ritual burial thus

represents a significant advancement in *human* behavior. Ritual burials represent an awareness of life and death and a possible belief in the afterlife. Philip Lieberman states ‘burials with grave goods clearly signify religious practices and concern for the dead that transcends daily life.’ The earliest evidence for treatment of the dead comes from Atapuerca in Spain. At this location the bones of 30 individuals believed to be *Homo heidelbergensis* have been found in a pit. Neanderthals are also contenders for the first hominids to intentionally bury the dead. They may have placed corpses into shallow graves along with stone tools and animal bones. The presence of these grave goods may indicate an emotional connection with the deceased and possibly a belief in the afterlife. Neanderthal burial sites include Shanidar in Iraq and Krapina in Croatia and Kebara Cave in Israel. The earliest known burial of modern humans is from a cave in Israel located at Qafzeh. Human remains have been dated to 100,000 years ago. Human skeletons were found stained with red ochre. A variety of grave goods were found at the burial site. The mandible of a wild boar was found placed in the arms of one of the skeletons. Lieberman states: ‘Burial rituals incorporating grave goods may have been invented by the anatomically modern hominids who emigrated from Africa to the Middle East roughly 100,000 years ago.’” (8)

“To believe in creation means to understand, in faith, the world of becoming revealed by science as a meaningful world that comes from a creative mind. This already clearly delineates also the answer to the question about the creation of man, because now the foundational decision about the place of spirit and meaning in the world has been made: the recognition of the world of becoming as the self-actuation of a creative thought includes also its derivation from the creativity of the spirit, from the Creator Spiritus. In the writings of Teilhard de Chardin, we find the following ingenious comment on this

question: ‘What distinguishes a materialist from a spiritualist is no longer, by any means (as in philosophy, which establishes fixed concepts), the fact that he admits a transition between the physical infrastructure and the psychic superstructure of things, but only the fact that he incorrectly sets the definitive point of equilibrium in the cosmic movement on the side of the infrastructure, that is, on the side of disintegration.’ Certainly one can debate the details in this formulation; yet the decisive point seems to me to be grasped quite accurately: the alternative: materialism or a spiritually defined world view, chance or meaning, is presented to us today in the form of the question of whether one regards spirit and life in its ascending forms as an incidental mold on the surface of the material world (that is, of the category of existing things that do not understand themselves), or whether one regards spirit as the goal of the process and, conversely, matter as the prehistory of the spirit. If one chooses the second alternative, it is clear that spirit is not a random product of material developments but, rather, *that matter signifies a moment in the history of spirit*. This, however, is just another way of saying that spirit is created and not the mere product of development, even though it comes to light by way of development.”(9) To simplify—spirit or life did not come out of matter, but matter is the result of spirit.

How long have we been told by some of the greatest academics of all time that life began in an inorganic primordial soup? In 1953, a graduate student from the University of Chicago, Stanley Miller, announced that he had found the “building blocks of life” in an experiment he had been conducting. An eager media carried the story all over the world, finally, life was just a chemical reaction started strictly by chance. It took the scientific community about twenty years to retract that theory as an impossibility. There have been many

other hypotheses over the years suggesting the random start of life on earth, but so far none have won the day. Abiogenesis, the idea that life can be generated spontaneously from dead matter has long been a specialty of many scientists and creationists. Even Aristotle was half heartedly convinced this was possible. “Abiogenesis is only one area of research which illustrates that the naturalistic origin of life hypothesis has become less and less probable as molecular biology has progressed, and is now at the point that its plausibility appears outside the realm of probability. Numerous origin-of-life researchers, have lamented the fact that molecular biology during the past half century has not been very kind to any naturalistic origin-of-life theory. Perhaps this explains why researchers speculate that other events such as panspermia or an undiscovered “life law” are more probable than all existing terrestrial abiogenesis theories, and can better deal with the many seemingly insurmountable problems of abiogenesis.” (10)

By convention there is color, by convention sweetness, by convention bitterness, but in reality there are atoms and space. Democritus (400 BC).

The most famous atomist of all time would be right at home with today’s quantum cosmologists. He would have loved to have seen the traces left on the screen after smashing elementary particles together at near the speed of light, resulting in temperatures approaching the big bang itself. He, like Dr. Higgs, in a recent interview, would have also said “It feels good to be right.”

“Life Law,” generally dealing with Genetics, and therefore existing life, offered a closing sentence in an abstract which is provoking: “Much of life seems to be characterized by ad hoc,

ephemeral, contextual probabilism without proper underlying distributions. To the extent that this is true, causal effects are not asymptotically predictable, and new ways of understanding life may be required.”(11)

Like everything else in nature, the positive is accompanied by the negative as disintegration begins a little after creation. By 1931 we knew that the atom was not the smallest part of matter, but that there were smaller particles such as electrons and protons. The Neutron and Antimatter was discovered in 1932. “Experiments have shown a small but significant 1% difference between the amount of matter and antimatter produced, hints at how our matter-dominated existence came about.”(12) This seemed to prove to us, once again, why there is something rather than nothing. This is not to be confused with the presumed nothingness of “empty” space that was held to be basic for hundreds of years prior to about 1900, The ancient word “aether” inferred something existing in the space we knew along with Newtonian gravity. Only with relativity and the combination of space and time into space/time, and the discovery of dark energy along with the prospect of the Higgs field, do we know that space is filled with something rather than nothing.

We’ve come to a point where we need to deal with three considerations regarding causality or creation, that is, making something that had no material existence before an idea or an action. The three are as follows: One, Creatio ex Nihilo: Making something from nothing. Two, Creatio ex Materia: Making something from matter or materials. Three, Creatio ex Deo: God, making something from himself. Using the word make or making surely implies a maker in a general sense. It is here, where major differences appear among believers and nonbelievers, but it is important to look for commonality, since

we are all human beings of common ancestry, dialogue as well as a certain amount of bias, is inevitable. We all know that we can think transcendently. We all know that we tend to what is good and what is just, rather than what is corrupt and unjust. We all know that we tend to what is fair and beautiful rather than what is feckless and vile, what is loving rather than what is hateful or spiteful. We all know that if our mind is healthy we strive for order and a degree of perfection, and in our spirit or life, there is meaning and purpose. In the core of our humanity there is “heart” which ineluctably sides with empathy, sympathy and charity. For those who say that all these attributes are simply “relative values,” virtue, a proclivity toward the good has been blocked for reasons they themselves may not understand. Every infant entering this world senses what is good for her, like a flower that turns and opens to the sun. An awareness of the good is known — right from the start, ask any loving mother or father. A baby knows when tender loving care is missing. Conscience and the use of reason gravitates to truth on the familiar path from being to becoming, but with our freedom we can always choose otherwise.

Let’s take our three considerations one at a time and assume that the infinite is a reality, and not just a mathematical construct.

Creatio ex Nihilo

I’ve always thought that Karl Barth’s quote on time was a great capsulized grasp of infinity.

“All time bears within it that eternity by which it is dissolved.” There is one other quote which is apropos here, since it’s from Georges Lamatre, the Belgian priest who is considered, among others, the father of the big bang. From his paper, *The Primal Atom*, He wrote:

“We can compare space-time to an open, conic cup. . . The bottom of the cup is the origin of atomic disintegration; it is the first instant at the bottom of space-time, the now which has no yesterday because, yesterday, there was no space.”

That means that the big bang did not happen at a “point” in infinity, since there can be no point in infinity. This is an open question of cosmology. “Note that the question of being infinite is logically separate from the question of having boundaries. The two-dimensional surface of the Earth, for example, is finite, yet has no edge. By traveling in a straight line one will eventually return to the exact spot one started from. The universe, at least in principle, might have a similar topology; if one travelled in a straight line through the universe perhaps one would eventually revisit one's starting point.

If, on the other hand, the universe were not curved like a sphere but had a flat topology, it could be both unbounded and infinite. The curvature of the universe can be measured through multipole moments in the spectrum of the cosmic background radiation. As to date, analysis of the radiation patterns recorded by the WMAP spacecraft hints that the universe has a flat topology. This would be consistent with an infinite physical universe. The Planck spacecraft launched in 2009 is expected to record the cosmic background radiation with 10 times higher precision, and will give more insight into the question of whether the universe is infinite or not.” (13) The question then becomes: If the universe is infinite and had no beginning, what is the big bang all about? What is *outside* of the expanding cosmos, more space? A forever nothingness in all directions? Is past, present and future one thing? When Planck reports, we'll know more. A full report is expected in 2013. In the meantime let us continue our enquiry.

I believe we need to grasp the reality of the incomplete standard model, using all the knowledge we have accumulated since 1900 and assume the scientists are correct in their findings. Time and space began 13.7 billion years ago from a primal atom *ex nihilo*, or out of some previous but yet unknown matter or energy, by God, or by chance. If the question of being infinite is separate from the question of having boundaries, and the big bang theory is correct, the universe can be measured by its extension into an unknown. In that case it would be wrong to call that “unknown” infinite, since the more the universe expands, it is taking up more space in the infinite, which would be impossible since the infinite is not space. An infinite physicality is not logically possible, and chance is always a fifty-fifty proposition. We can think of infinity as a before-the-big-bang and, with faith, as an attribute of God until some other determination can be made. If as a result of creation God produced all that is, that would also have to include chance as well. When Lamaitre spoke before the British Association of the Advancement of Science he said:

“If I had to ask a question of the infallible oracle. . . I think I should choose this: ‘Has the universe ever been at rest, or did the expansion start from the beginning?’ But, I think, I should ask the oracle not to give the answer, in order that a subsequent generation would not be deprived of the pleasure of searching for and finding a solution.”

Everything that has been searched for so far, seems to me, to be falling in line with what Genesis is inferring, what John’s Prologue is saying, and what the anthropologists have been telling us for years about the first humans. The existence of God has been obvious to man since the brain to mind transformation. The Creator, for Thomas Aquinas, after

Aristotle, is the “prime mover.” Thomas gave us reasoned answers in his masterwork, the Summa Theologica, supporting the idea of Ex Nihilo. The Catholic Catechism says it best:

“*The desire for God is written in the human heart.*”(14) It continues with this:

The human person: with his openness to truth and beauty, his sense of moral goodness, his freedom and the voice of his conscience, with his longings for the infinite and for happiness, man questions himself about God's existence. In all this he discerns signs of his spiritual soul. The soul, the "seed of eternity we bear in ourselves, irreducible to the merely material," can have its origin only in God.

The world, and man, attest that they contain within themselves neither their first principle nor their final end, but rather that they participate in Being itself, which alone is without origin or end. Thus, in different ways, man can come to know that there exists a reality which is the first cause and final end of all things, a reality "that everyone calls God." Man's faculties make him capable of coming to a knowledge of the existence of a personal God. But for man to be able to enter into real intimacy with him, God willed both to reveal himself to man, and to give him the grace of being able to welcome this revelation in faith.(so) the proofs of God's existence, however, can predispose one to faith and help one to see that faith is not opposed to reason. (15)

Supernatural man, the one of special creation, enlightened with the gift of a human mind, understood that he was participating in the Spirit, or the life of the Creator, a participation he knew of even in earliest times. Later we would call that participation — grace. Man knew, inherently, of his dependence on an awesome power beyond himself. “The clay became man at that

moment in which a being for the first time was capable of forming, however dimly, the thought 'God.' The first Thou that—however stammeringly—was said by human lips to God marks the moment in which spirit arose in the world.” (16) The existence of God is not self evident. Were that the case, we would not be free. The *idea* of God and our dependence on him *is* self evident, it is inherent. A response to that idea rests with every individual. We are given to seek the absolute. Without that supernatural propensity there would be no science and no religion. Man is relentless in his search for means and meaning

Creatio ex Materia

We appear to be living in three dimensional space with the irreversible arrow of time running from the past through the present to the future. The time we use to count the seconds, minutes and hours is currently thought to have begun at the big bang. Isaac Newton, though knowing nothing of the big bang, agreed with this system where events are sequenced and measured. This is the “Newtonian time” that has permitted space exploration and most scientific experimentation.

“According to the Hindu theory of creation, time is a manifestation of God. Creation begins when God makes his energies active and ends when he withdraws all his energies into a state of inactivity. God is timeless, for time is relative and ceases to exist in the Absolute. For the Hindu, the past, the present and the future coexist in him simultaneously. God creates the cycle of time, in order to create divisions and movements of life and sustain the worlds in periodic time frames. God also uses time to create the 'illusions' of life and death. It is time, which is accountable for old age, death and dying of his creations. When we overcome time, we become immortal. Death is not the end of the line, but a gateway to the next cycle, to birth. This is also true of the universe itself and

akin to the cyclic patterns in the rhythms of nature.” (17) “Lord Śiva said: ‘My dear son, I, Lord Brahmā and the other devas, who move within this universe under the misconception of our greatness, cannot exhibit any power to compete with the Supreme Personality of Godhead, for innumerable universes and their inhabitants come into existence and are annihilated by the simple direction of the Lord.’ (Bhagavata Purana 9.4.56) After separating the different universes, the gigantic universal form of the Lord, which came out of the causal ocean, the place of appearance for the first puruṣa-avatāra, entered into each of the separate universes, desiring to lie on the created transcendental water. The concept of multiverses is mentioned many times in Hindu Puranic literature, such as in the Bhagavata Purana.” (18)

There are many parallels in the Judeo/Christian Creator to the Hindu religion. One can see that the idea of multiverses goes back a long way before quantum cosmology. With the arrival of general relativity, where space and time were combined into space-time, we know that space and time can be manipulated depending on the speed of light. Theoretical physicists who agree with the philosopher Parmenides that nothing can come from nothing, have always been busy coming up with hypotheses beyond Lamatre’s primal atom. Two of those physicists are Paul Steinhardt and Neil Turok.

They suggest “the Big Bang was the result of a collision between our three-dimensional world and another three-dimensional world less than the width of a proton away from ours—right next to us, and yet displaced in a way that renders it invisible. Moreover, they say the Big Bang is just the latest in a cycle of cosmic collisions stretching infinitely into the past and into the future. Each collision creates the universe anew. The 13.7-billion-year history of our cosmos is just a moment in

this endless expanse of time...The hidden dimensions and colliding worlds in the new model are an outgrowth of the superstring theory, an increasingly popular concept in fundamental physics... In order to make it work, theorists have to assume that space isn't merely three-dimensional, the way it appears to our puny human senses, but rather that it has up to 10 spatial dimensions.” (19)

I have seen concepts that suggest up to 26 dimensions in space. Another prerequisite would be that both space and time are infinite. This model would certainly fulfill the requirements of *creatio ex materia*.

“David Spergel, a Princeton astrophysicist and a member of the WMAP satellite research team, agrees. ‘Cosmology has to be tied in with superstring theory sooner or later,’ he says. ‘There are several ideas out there competing with inflation, and they may all turn out to be wrong. But I'd say this one has the best chance of being right.’ If it is, we need to rethink our place in the universe—in fact, we need to rethink the universe itself. In the ekpyrotic view of reality, everything that astronomers have ever observed is just a speck within the higher dimensions, and all of history since the Big Bang is but an instant in the infinity of time. This view of creation is far grander than the universe of traditional cosmology or the universe of the Bible.” (20)

What of the Judeo/Christian God in this enormously complex scenario? Would he just be another version of Lord Brahma and the other divas, or doesn't he fit into this ekpyrotic reality at all? In this concept all is matter. Some form of matter has to have always existed, in other words there was never not something or something moving. Whether it was wiggling strings, or the giant filaments of the plasma model, etc., one need not, ever again, wrestle with “nothing.” Quite a relief for

those whose consciences could not permit an unseen Prime Mover, besides the difficulty of believing something physical could be infinite. It is clear though, that time and space had to be infinite to support the theory, and that it needed to be cyclic. In the case of multiverses one could say that anything cycled most definitely infers a beginning. The problem that “hellish” mathematics pervades the entire concept is admitted by its proponents, but that doesn’t make it impossible, at least in my view. Supernatural man is indomitable. Where does the God of the Christians and Jews fit into the string theory? Could it be that since he is Spirit and *not* matter he is in a “parallel infinity” on the flip side of infinite matter, and that it is *he* who keeps the continuum going? Is that any more preposterous than ten or twenty-six dimensions of “infinite space?” There are those of us who think that anything is possible with the “Creator of heaven and earth and all things, visible and invisible.” “Material infinity” does not lose determinacy or dependency. Science knows that with matter, “always there” is not a possibility.

Creatio ex Deo or Creatio ex Dei

The translation of the phrase “Creation of God” does not exactly set up the issue to be discussed. I presume the meaning here is similar to the others, and what is said to be made, is made out of God, and not a creation of God or by God. So we will proceed on the basis that what is made, is made-of-God.

Although there are many, the two most well known proponents of this concept are Baruch Spinoza and Albert Einstein. Generally, it is what is known as pantheism. In the little booklet, *The Sabbath’s Bride*, I thought I had covered the subject fairly well. The idea came out of Plotinus and Neo Platonism. Philo of Alexandria, consistent with Stoic and

Platonic dualism taught the distinction between the perceptible and sensible world, i.e. that which the senses encounter, and the world of concepts which the mind encounters. Plotinus took it a step further and superseded the oneness of material nature and the oneness of intelligent nature to a “One” beyond both. During the age of the Reformation, Spinoza argued that there is one, and only one substance, and that substance is God. Deus sive Natura, God or Nature. He assimilated the causal relation to the relation of logical implication and depicted finite things as proceeding from infinite substance. Simply put, God and nature were interchangeable. For many, this is a poetic form of idolatry which denies a personal God, and, of course, needs to deny Jesus of Nazareth as the “Son of God.”

It's easy to see how Einstein and others could think as pantheists. They were busy all their lives probing the unseen reaches of nature. What many of them saw with their own eyes and a determined spirit, was indeed Deus sive Natura, not at all unlike what prehistoric man saw once he had attained his super-status after the brain to mind transformation. God's presence was unmistakably there, but as pure determinists, they could not see him any other way but in the beauty and simplicity of nature. That is why Einstein said he believed in Spinoza's God. The concept of Spirit made no sense to him at all, who will say he was entirely wrong? Aspects of the Creator is most easily seen in nature by most of us, or sadly, we may choose to ignore our transcendental capability and block out one of our most precious human characteristics. God may not be in the tea-rose but his work speaks for itself. When sperm unites with ovum, there is infinitely more than chemistry going on. Secularist or religionist, we are all bound to ask, where, why and how it all started.

I have suggested that every human being from the time of the brain to mind transformation has the knowledge of the existence of God, once he or she has understood the difference between good and evil by the use of reason and the awakening of conscience. Man is a special creation, he shares God's image and likeness in a thousand different ways starting with true freedom of the will. He is able to exchange love, that most illusive and important aspect of life in the spirit. He is cogently aware of the value of joy, peace, patience and kindness, as well as the necessity of prudence and the importance of justice. As Augustine said, the good was installed in us from the beginning. No other creature on earth has been able to live this supernatural existence. This is more than natural selection, this is supernatural selection. Much more than simply random adaptation. We have been moved along on a specifically guided pathway planned and carried out over billions of years for a purpose. If you prefer to think that man arrived at the given point of full cognizance through chance, the creator of all things is also the creator of chance. Man, it must be said, is the crowning glory of all that has ever come to be. Man was given this significant role in the history of time and space above and beyond all the other creatures for a reason he alone recognizes. He has been dependent on his Creator from the start. His success or failure on this planet, very well may be the reason for creation itself.

Once we are able to grasp the fact of a living God who is pure Spirit, who created all that is and whose will acts in the universe, we need to seek him out, we want to know him. If we believe he gave us the freedom of our super nature, it is our desire to love him as our Father. If we are able to conclude that he is the Ultimate Force behind every paradigm shift, past, present, and future, we naturally want to serve him. All mankind has truly known of these options through the

centuries. When you think about it we have really not been around all that long. Some 200k years or so is a drop in the bucket compared to the 13.7 billion years from “creation” which we’ve been able to measure back within infinitesimal seconds. Somehow, it doesn’t seem quite right to ask, “Why did he do this?” When we ask such a question we appear to negate our predominance in the grand scheme of things. You know . . . just another species of ape who, out of fear, adored rocks and rills, and who, by chance, became wiser than the others, dominated them, and for unknown reasons, exists primarily for power and self satisfaction. One, like all the others, whose life was generated from inanimate matter by a quirk of chemistry and whose end is really inconsequential. Not only that, but all reward is temporal, and most live the fairytale of the existence of a god of some kind. All the rest is simply sociology and ethics. The whole shebang is quite meaningless. If this sounds like the world you’re living in, you may be getting closer to being right!

Well, why did he do this? In a determinate world you’re required to provide proof, you need to run the experiment over and over and come out with the same findings every time. Faith doesn’t prove anything. Even though faith has been known to move mountains, faith is only the assurance of things hoped for, It is an understanding between God and the faithful. Just because someone hopes that there is absolute truth, that doesn’t prove anything. Faith is a confirming, phenomenal gift of the Spirit. So, why did he do this?

There is an answer. The great experiment of Homo Sapiens Sapiens is the answer. From the brain to mind transformation it is he who has been providing the proof century after century. Humanity itself, person after person keeps supplying the proof of the spirituality of being from the “mind of God.” Being,

which is continuously in the process of becoming. We have been enabled to see the intrinsic goodness of God in ourselves. True, many of us live in the darkness of a presumed absence of God within us, but we cannot erase the sure signs of the presence of an indomitable Spirit who is manifest in our desire for perfection, beauty, justice and truth. There is a necessity driving us towards the Absolute. We never seem to say “good enough,” we all tend to want better and best, more good not less. It is the Absolute Good we want, that is what we seek. If man himself is not proof enough of his Creator, much of science has no business looking for anything beyond itself, for it has a priori concluded that there is nothing “out there” except what it hypothetically predisposes to be there. Man is the proof of God, no more so than when he chooses good over evil and strives for perfection, he is responding to pure Love. He is a “child” of his maker.

In 1992 Paul Davies, a well known and accomplished physicist, concluded his book, *The Mind of God*, with this statement: “The existence of mind in some organism on some planet in the universe is surely a fact of fundamental significance. Through conscious beings the universe has generated self-awareness. This can be no trivial detail, no minor byproduct of mindless, purposeless forces. We are truly meant to be here.”(21) It isn’t as though Dr. Davies is telling us something new. Everybody knows that religion and science both hold their deepest understandings on the strength of faith in an outcome or a value. Keith Ward, a British philosopher and theologian has stated succinctly in a paper called: *God as a Principle of Cosmological Explanation*, that in a deterministic-causality model, the future can only unfold from what is already contained in the past. Nothing can happen indeterminately; everything is built on what has gone before. Those with an empirical frame of mind, cannot accept any explanation other

than the proven “brute facts” of a given situation. I have to presume that’s why Steinhardt and others are interested in proving that certain cyclic, physical circumstances gave us what exists today rather than “creatio ex nihilo.” I can only say, paraphrasing the late Christopher Hitchens, trying to prove a negative, that God is not only not great, but totally unnecessary.

Another way of looking at it is with what Dr. Ward calls the teleological-causality model. “ For such a model, the future builds on the past by adding to it in a way which seeks to realize certain goals in the process of creation...It is consciousness which recognizes certain states as desirable, which accordingly sets certain goals of activity and which realizes these goals through continuing apprehended process.” Obviously, Keith Ward believes that, however the prime move was made, it was made out of infinity, by one self existent being of supreme perfection. He continues, “This flow towards the future is essentially directed to the realization of values, which are what give the temporal process intelligibility. Whitehead, (A.N. Whitehead, 1861-1947, *Process and Reality*) in my view, very helpfully emphasized the value of creative emergence and therefore of temporality, a value which gives much more positive reason for the creation of a space-time universe than the traditional account provided. He has given creaturely freedom and creativity a much more important place in the explanation of how things have come to be as they are; and he has suggested a form of causality which fits the facts of human experience quite well.” Dr. Ward closes his paper with this, “As modern science sprang from the context of Christian belief, so now it seems to be leading back to it’s roots, the apprehension of the physical cosmos as the visible expression of the ‘mind of God.’(22)

“The Mind of God” is an interesting concept. Using that phrase, we are intellectually modeling an omnipotent, omniscient, and omni-benevolent, spiritual being, after the processes of human mentality. The brain, of course, is part of the central nervous system where thought, understanding and where mind and intellect is centered. It’s the place where we reason, make judgements and freely will. Using this phrase, Stephen Hawking seemed to be attributing to a Supreme Being the very same attributes and processes with which we ourselves cognize. A quote from his book, A Brief History of Time, reads:

“Up to now, most scientists have been too occupied with the development of new theories that describe what the universe is to ask the question why. On the other hand, the people whose business it is to ask why, the philosophers, have not been able to keep up with the advance of scientific theories....However, if we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. Then we shall all, philosophers, scientists, and just ordinary people, be able to take part in the discussion of the question of why it is that we and the universe exist. If we find the answer to that, it would be the ultimate triumph of human reason--for then we would know the mind of God.”(23)

I’m sure that even without a new “complete theory,” Hawking knows that the discussion about the question of why we and the universe exist has been going on for a very long time. Many of the “answers” we are getting today seem to be a mathematical rehash of answers we have gotten long ago from the Hindus, the Hebrews, the Greeks, etc. We have long been able to recognize the mind set of God. The question is how ultimate can human reason get before becoming ultimate-absolute reason? Then, once we have attained that ultimate absolute reason, what shall our ultimate will decide to do with

it? The cycles of the Hindu, the linear time of the Jews and Christians as well as the theories of the Greek Atomists et al, have been used and tested as explanations and predictions long regarded as correct, and have been the basis for establishing the principles of order in the universe as man sees it. Who else is there to see it and make sense of it? If the cosmos, as we know it, is in the process from being-to-becoming, including man, science is an intricate part of that process and change is inevitable. Many times, change is not entirely explainable.

With one paradigm shift after another, we have been learning the meaning of existence. From man's first acknowledgement of the existence of the Deity and his ability to speak to him transcendentally, to a heliocentric local universe; to Newton's gravity and Einstein's relativity, human knowledge has been advancing in giant leaps. According to some scientific calculations, if time and space were infinite, the cycle for this particular universe will eventually meet its demise and be replaced by another. Then, what we know will matter very little in the multiverse model. Maybe the next folks will start all over.

On the other hand, if Lemaitre's primal atom theory is correct, which it seems to be, there was a beginning and there will be a final material end. In having a beginning, creation has "meaning." Every red blooded determinist knows, with regard to humanity, that at the very beginning, the given conditions were such, that nothing else but what happened — could have happened. Man will eventually come up with his "complete theory," and only then will he understand creation as an act of the Supreme Being, the Prime Mover. The "butterfly theory" will have been proven once again. It appears that creation, in all of its splendor, is specifically made for man, and that any deviation, even as slight as the stirring of a

butterfly's wings in the primeval forest, nothing would exist. The Prime Mover and his plan is the absolute necessity, and everything that is, has its dependency on him. Why would anyone not think that what is, came from the "mind of God?" Because they have not seen him! Except for the few who see him as nature or in nature, perhaps as the first humans did.

The Father, Creator, by his word, and from his own Spirit, freed us in his own image and likeness, and at the proper time instilled in us the desire for his Trinitarian self. There is also a univocity between us; he speaks our language, and we speak his. The healthy spiritual connection between God and us is carried on with ritual and prayer. When we speak to God, we address him in the transcendent spiritual state which we are fully capable of accessing; it has become a part of our being. With our inheritance from him regarding image and likeness, man is able to mentally couple his sensuality, known and experienced, with the simultaneous ability to transcend it. In today's quantum world who will say that a state of "prayer" between God and man cannot exist. The connection is programmed into the mind of man from the mind of God. As a unity of spirit and matter, the human agent fully participates in the Spirit of God if he so chooses, as well as in the created-nature in which he is integrated. Most of us know that humanity has one foot in heaven and the other on a banana peel, figuratively speaking. From the brain to mind transformation, man freely decided to choose self satisfaction rather than the free choice of good over evil. Reason, conscience and freewill are always available in the circumstances life presents. It would be a big mistake to think that God makes our choices for us. Faith helps direct our decisions and is born as a hint from the Spirit, an unequivocal sign every person senses at some point in his or her life. It could be called "born-again" in the spirit.

It was only 1,473 years between the birth of Christ and the birth of Copernicus. Although the Church had gotten very little wrong with regard to it's spiritual matters, they got a lot wrong with regard to political and scientific matters. They couldn't admit it for fear they would lose their temporal power which was considerable, particularly over the monarchs of the time. Putting the emphasis on power rather than love, the institutional church began losing the hearts and minds of the people as well as the support of much of the royalty, who would rather keep their wealth in their own treasuries to pay for exploration and conquest. Cultural and political elements against the church were rapidly growing across Northern Europe. Populations started to look past the Apostolic Mandate the church got from Christ, and were happy to have a reason to sever their ties with Rome. In 1517 when Luther posted his Ninety-five Theses on the door of the cathedral at Wittenberg, the clock was set for an open revolt, or reform, against "Holy Mother, the Church." He was 34 years old.

“At the heart of Martin Luther's argument in the Ninety-five Theses and in his later writings, was the belief that Christian salvation through personal piety requires a sense of contrition for sins and trust in God's mercy. Attending Church, pilgrimages, fasting and charity ("good works") alone did not earn salvation. Luther also attacked the sale of indulgences. The theses or propositions challenged the notion of selling indulgences not only as a corrupt practice, but also as theologically unsound practice.” (24)

The above clip doesn't begin to tell the whole theological story. The concept of Justification by Faith Alone (Sola Fide) was the crux of the differences. Luther went on, with the help of the German nobles to basically trash the doctrines of the early

councils. The differences brought on a counterreformation in which many needed changes were slowly made. Had the differences been reconciled early, in my opinion, Martin Luther would have been a saint of the Roman Church today, It is also my honest belief that Lutheranism and Catholicism will be reconciled shortly; five hundred years to late.

John Calvin was born in 1509; he was eight years old when Luther's theses was posted on the cathedral doors. In his interpretation of certain biblical inferences, it was primarily he who gave birth to predestination, a rigid theological determinism that later overlapped into the nascent science of the day. It landed a body blow to the "free will" of Thomas Aquinas, and Catholic teaching. To this day the determinate-indeterminate argument is still the central point of controversy in scientific, philosophical and theological arguments, mostly to do with free will in religious circles. It's a total throwback to the "Reformation's" predestination. God's black and white knowledge of who will win and who will lose, generally stressing omniscience rather than mercy. It must be kept in mind that Calvin was a lawyer. Newtonian Mechanics or classical mechanics, coupled with the idea of predestination, opened science to the understanding that all of our actions are not free, and with science, all actions and reactions can be accurately predicted. Newton's work was carried on by Pierre Laplace (1749-1827) who wrote what has become known as Laplace's Demon:

"We may regard the present state of the universe as the effect of its past and the cause of its future. An intellect which at any given moment knew all of the forces that animate nature and the mutual positions of the beings that compose it, if this intellect were vast enough to submit the data to analysis, could condense into a single formula the movement of the greatest

bodies of the universe and that of the lightest atom; for such an intellect nothing could be uncertain and the future just like the past would be present before its eyes.”(25)

“Modern science has shown that Nature is ordered, complex, mathematically tractable, and intelligible ‘all the way down,’ as far as our instruments and techniques can discern. Instead of notional ‘atoms,’ we have discovered the extraordinarily complex, beautiful, and mathematical “particle zoo” of the Standard Model of physics, hovering on the border of existence and intelligibility (as Aristotle predicted long ago with his doctrine of prime matter). Order, complexity, and intelligibility exists ‘all the way up’ as well. We see a teleological hierarchy and chain of emergence that continues all the way from quantized physics, to stable chemistry, to the nearly miraculous properties of carbon and biochemistry, providing the material basis for the emergence of life. Beyond this astounding order and intelligibility, we now know of the precise fine-tuning of the physical laws and constants that make possible a life-supporting universe. In short, the Nature we know from modern science embodies and reflects immaterial properties and a depth of intelligibility far beyond the wildest imaginings of the Greek philosophers. To view all these extremely complex, elegant, and intelligible laws, entities, properties, and relations in the evolution of the universe as ‘brute facts’ in need of no further explanation is, in the words of the great John Paul II, ‘an abdication of human intelligence.’

“In terms of modern sensibilities, the intellectual culture of the West is dominated by a scientific mentality that seeks to explain qualitative and holistic realities by quantitative and reductive descriptions of the workings of their parts. Though the scientific program that gives rise to this

mentality has been quite successful in explaining the material basis for holistic realities, and in allowing us to manipulate natural things to our advantage, it fails to grasp the reality of natural things themselves. The unlimited application of the “scientific mentality” is scientism, the philosophical claim that the scientific method and scientific explanations can grasp all of reality. For many, scientism is accompanied by agnosticism or atheism.”

“In our innermost being, we moderns remain unsatisfied. Sooner or later we face an existential crisis, and recognize in our lives something broken, disordered, in need of redemption. The fact that we can recognize disorder, brokenness, and sin means that they occur within a larger framework of order, beauty, and goodness, or else in principle we could not recognize them as such. Yet brokenness and disorder are painfully present, and the human soul by its nature seeks something more, a deeper happiness, a lasting good. Consideration of the order and beauty in nature can lead us to a Something, the ‘god of the philosophers,’ but consideration of our incompleteness leads us beyond, in search of a Someone who is the Good of us all. Science will never make that quest obsolete.” (26)

I excerpted the above from a piece by Christoph Cardinal Schonborn, Archbishop of Vienna. The *beyond*, of which the Cardinal speaks, is programed in each one of us as human beings, but with our ultimate freedom of choice we can ignore what most of us think is fairly obvious. Faith in the Prime Mover is a matter of our sensitivity to dependence on the reality of the Absolute, our finite connection to an Infinite Creator. The living God of past present and future in whose Spirit we are able to recognize our life.

Paul Davies, in his wonderful book *The Mind of God*, again has given us a springboard, he says: “The laws of physics which underpin physical reality, are woven into a fabric of mathematics, itself founded on the bedrock of logic. The path from physical phenomena, through the laws of physics, to mathematics, and ultimately logic opens up the beguiling prospect that the world can be understood through the application of logical reasoning alone.”(27) Using the (non mathematical) bedrock of logic human beings, for hundreds of years, believed that the sun moved around the earth. In a similar way, a child on a merry-go-round doesn’t make the distinction between the spinning surroundings or the rotation of the platform. The “eternal truths” of the laws of physics, particularly with the uncertainty of quantum mechanics, may not be as eternal as many may think. Did we not get to where we are today by questioning previous “bedrock” logic? A lot depends upon the imagination of the physicist and the use of “infinity-math.” There is obviously much faith in science as well as in theology.

Max Planck, the father of quantum theory, was a theist and a Christian. In a lecture, *Religion and the Natural Law* (1937), Planck expressed a view that God is everywhere present, and held that: “The holiness of the unintelligible Godhead is conveyed by the holiness of symbols.” Atheists, he thought, attached too much importance to what are merely symbols... Planck saw the scientist as a man of imagination *and* faith... “Religion is the link that binds man to God. ...The respectful humility before a supernatural power, to which all human life is subject and which controls our weal and woe.” Though Planck did not believe in a personal God, he was no stranger to the Christ of the gospels. (28)

David Bohm (1917-1992), a notable physicist was the author of an interpretation of quantum mechanics positing that in his perception of order, primacy is given to ontological wholeness. The implicate order is inherent in the whole and not in the parts i.e. particles, quantum states, continua. “For Bohm the *whole* encompasses all things, structures, abstractions, processes; including processes that result in relatively stable structures as well as those involving the metamorphosis of structures or things. In this view parts are physical such as atoms and their subatomic particles, but they may also be abstract entities, such as quantum states.” (29) For Bohm nothing is fundamentally divided, separate or autonomous. I read Bohm’s hypothesis in the 80’s, and found it fascinating. It reminded me of the great mistake that Descartes made by suggesting the paradoxical separation of body and soul in man.

As everyone else, let us speculate about Creation. Let’s include in our speculation the Natural Law and all the laws of probability, the understanding of form and substances of the Greeks, and the Revelations of the ancient writers as well as the life, death and resurrection of Jesus Christ. We should include the determinism of Calvin and Newton, and the marvels of Planck’s quantum theory and Einstein’s relativity. When they are finally figured out to a degree of certainty, let’s also include the mysterious dark-energy and the Higgs boson. We cannot forget the super-nature of man in the process of becoming. Here we have a spectacular wholeness with many hidden variables but the *whole thing* seems to have purpose and meaning. Even the wildflowers on the highway and the smog suffocating Los Angeles belong. Though we truly know the difference between good and evil we can’t stop evil from taking it’s place on this cosmic journey. How could we exclude the probability of a Supreme Author in this universal happening; this movement to the end of a cycle, or of a

material end to all time and space, where *“the sun will be darkened, and the moon will not give its light, and the stars will fall from heaven, and the powers of the heavens will be shaken.”* (30)

There’s an unmistakable wholeness begging for a reason, but since human reason is not omniscient, ultimate causality is outside of reason’s ambit. Many of today’s scientific faculty has man inventing God. No one seems to ask these empirical thinkers what proof they have coming to that conclusion. There is no proof; it is pure speculation and perhaps a bit of wishful thinking. Since the transition from brain to mind, man has intuitively known that the Absolute is available to him, but in his self-centered state of brokenness and need, he could only depend on probability by accepting the assurance that the things he hoped for would be his. He may well have invented religion, but the image and likeness of the goodness he longed for was within him. From the most obscure peasant to the most accomplished scientist, this is their faith; hope for the Absolute who they intrinsically know exists and whose purpose will be fulfilled. That’s why the most primitive of human beings buried their dead with reverence, and with objects for the “afterlife,” they understood divination. Many of today’s modern humans, closing their minds to the gift of faith, find only anxiety and emptiness within.

Considering the phenomenal accomplishments apparent in the human race over the millennia, questions must be asked. Was creation determined a priori i.e., before space/time by a power beyond itself? Did it happen by chance? Was the super-nature, which man turned out to possess, his own doing; did he himself set the meaning and purpose of his own trajectory through time? It would be very difficult to deny that Homo Sapiens Sapiens does not possess a super-nature that is far in advance of

all other organisms on earth due to his transcendental and communicative powers. It may be that all three parts to the question above can be answered affirmatively. It is only by the combined use of faith (the laws of probability), and reason (the laws of nature), that we can come to a conclusion both scientifically and theologically about creation.

Using man as the main criteria and with a firm understanding that he did not create himself, a force outside the entire order of the universe, brought into being what *is*, as the Prime Mover. Abiogenesis, long submitted to be unequivocally false. Over billions of years what has been shown as secondary causes in nature within the laws of probability, things happen by chance. In the particular case of man, we have observed an unfailing order directed by what has become known as Providence; all the way through natural selection and genetic evolution to the brain to mind transformation. In the full and comprehensive process of evolution came the knowledge of good and evil, the power of transcendency, and freedom of the will, unique to man and no other creature, which enables him to choose, in conscience, his own end.

In one of the great lines from *Candide*, Voltaire wrote: *If this is the best of all possible worlds, what then are the others?* Throughout the history of mankind, it appears that we have made a colossal mess of things right from the start. In the famous “God of the Gaps” argument what ever is unexplainable scientifically is attributed to the God-of-the-gaps. Most scientists today see the “gaps” getting smaller and smaller, but when what is known starts filling in the gaps, what is being filled keeps getting more and more mysterious. *Henry Dumery*, a French philosopher and theologian wrote:

When one has begun with objectivism, it is necessary to finish with it. But in finishing with it, one conceives the Absolute as object and forfeits the right of affirming him as mystery.(31)

In the *Principia*, Isaac Newton, a deist and determinist held: *We know him by only his wise and excellent contrivances of things, and final cause: we admire him for his perfections; but we reverence and adore him on account of his dominion: for we adore him as his servants; and a god without providence, and final causes, is nothing else but Fate and Nature.*(32)

Stephan Hawking, in *A Brief History of Time* wrote: *In the hot big bang model ... the initial state of the universe would have to have had exactly the same temperature everywhere in order to account for the fact that the microwave background has the same temperature in every direction we look.* ... *“It would be very difficult to explain why the universe should have begun in just this way, except as the act of a God who intended to create beings like us.”*

“So long as the universe had a beginning, we could suppose it had a creator. But if the universe is really completely self-contained, having no boundary or edge, it would have neither beginning nor end: it would simply be. What place then, for a creator?”(33)

Obviously, to eliminate God from the equation, one needs to make “matter” infinite. Not unusual in a world where many *things* have become gods. Early man had much the same idea, and his ideas were quite real. It seems to me that until some other inductive reason comes along, Hawking’s first dilemma is quite correct, proven by his very own superior-nature. For what we know of God’s intents and purposes, it appears that man *is* the best reason for the fact of creation, considering the gifts of

life, and love; with the possibility of a happy ending depending on the best use of ones freedom. We have little choice but to love the Creator for his magnanimous act of Love on our behalf. In fact, we have been commanded by revelation and a heartfelt unity of Spirit, to love both God and each other, and that not doing so would pose a great spiritual risk. By spurning the Spirit within him and placing his total dependency on matter, man restricted his transcendency, his freedom. In calling infinite what is temporal and finite, he replaced the one infinite God with himself and his possessions. As a result, matter and it's disintegration became man's fate. The mercy of God was only known second hand as man continued to offer animal sacrifices, and the like, to satisfy an angry, jealous God, until the Incarnation; clearly, the most momentous witnessed event in the "brief history of time."

"The incarnation forms the once-and-for-all, supremely decisive moment of God's saving and revealing dealings (of 'life' and 'light' respectively) with the Jewish people, with all people, and with the whole cosmos. God is now disclosed in one, and only one, individual among men, born at a specific time (around 5 BC), and grew up in a particular place, Nazareth, of Galilee, Israel." (34) It was, and still is, the person of Jesus Christ, by his life, death and resurrection in fulfillment of the ancient texts, who took the guess work out of creation and the Creator whom he called Father. He was crucified as a criminal for sedition and for blasphemy, when he claimed, for all to hear, that he and the Father were *one*.

With about two-thirds of the worlds population Christian, one wonders why most of the popular volumes concerning the big bang or quantum cosmology speak profusely of God but hardly ever of Jesus. It must be mentioned, that those physicists with religious affiliations, such as Polkinghorn, Stroger at al,

mention Jesus only rarely. Perhaps, Jesus, who said he was *one* with the Father, must be considered only as the “redeemer” in theology. “The Word was with God and the Word was God,” according to St. John the Evangelist in the prologue of his gospel. The prime-mover, which was introduced by Aristotle and championed by Aquinas, is attributed only to the Father, from whom the Son “proceeded.” Still, creation is more readily associated with Father, Son and Spirit in Christian theology. Redemption is almost entirely associated with Jesus, but not without the Father and the Spirit. Creation and redemption is Trinitarian since there is only one God. Theologically, one cannot disconnect creation from redemption, nor the nativity from the resurrection.

Why would an Almighty and good God, the Absolute, bring into being a supernatural, Homo Sapiens Sapiens, that would positively need to be redeemed, i.e. “to be recovered by payment or some other form of satisfaction; to buy back or regain possession of what was once owned?” Was it a mistake to make something that the All Powerful knew before hand would become a failure on its own, while all acts are under his total control? Did the Almighty make a bad product? What was missing in these creatures so carefully made? In the vast array before us, could there be others living in other time frames, and if so, what is their condition concerning creation?

Now, freedom would not be freedom were it to remain under the control of an external force whose choices were restricted. Man discovered his gifts of freedom and transcendence, and well understood where they came from, which anthropology has literally uncovered for us. In the course of events he is said to have rejected the Spirit within himself, and lost the innocence of a “child” of God which every person inherently possesses as a recognition of the apparent and intrinsic “good.”

Yet, there is a shadow side to freedom without which freedom could never be known. The sub atomic world shows us this in the disintegration process. Even Richard Dawkins, no friend to spirituality, tells us that we are “prisoners of the selfish genes of our birth,” rebelling against the genetic lineage that determines us. (35)

Matter is born of spirit, not the other way around. Matter cannot be infinite, even cycles of regeneration always infer a beginning. This has been the crux of the argument between theism and atheism. What was brought back to man through Jesus’ life death and resurrection; what was recovered by the payment of his crucifixion, a return to the image and likeness of God for man. Jesus was “handed over” to earthly powers, as innocence paid for universal guilt. God, the Son was executed as all men, by all men, for all men. What was handed back to man was an understanding of exactly where his freedom had originated. The Lamb of God bought back what was once owned, man regained the Spirit he had rejected, and was promised eternity with the Father, Son and Spirit, following a good life. Something proto-man knew from the start. The direct, spectacular and historic connection of spirituality in the universe, is the “entanglement” between creation and redemption. This leaves redemption as the reason for creation from the “Mind of God”

Charles Fulton Oursler, an American playwright, journalist, editor and writer toured the Holy Land in 1935 with his second spouse. “On the journey home, Oursler started writing a book titled *A Skeptic in the Holy Land*. ‘I started out being very skeptical,’ he wrote later, ‘but in the last chapter I almost converted.’ He assumed that once the book was published, he would forget about religion, but perceiving the growing threat of Nazism and Communism, he found himself increasingly

drawn to Christian Ethics. Astounded at how little people knew about the life and teaching of Jesus Christ, he decided that he would write the story of Jesus and 'try to make it as interesting as a serial story in a popular magazine.' He would call it *The Greatest Story Ever Told*.

In 1943, Oursler was received into the Roman Catholic Church. The following year, his son was converted to the Catholic faith, and his wife returned to the faith the year after that. His daughter converted in 1948. *The Greatest Story Ever Told* was published in 1949. It was followed by *The Greatest Book Ever Written* in 1951, and *The Greatest Faith Ever Known*, completed by his daughter, April Oursler Armstrong, and posthumously published in 1953. The film, *The Greatest Story Ever Told*, based on Oursler's book, was released in 1965.”(36) The film was not a success. The well known critics panned it with scathing remarks, most of them said it was terribly boring. In 1965, the U.S. was deeply involved in Viet Nam and the struggle for civil rights. The box-office smash that year was *The Sound of Music*. “*Greatest*” cost 20 m to make and only grossed 12 m. By contrast, Mel Gibson’s *The Passion of the Christ*, 2004, grossed 370.2m. worldwide. Today, you can usually catch “*Greatest*” around Easter time, at three in the morning.

Apart from the commercial facts, this piece of trivia has interest for me because it seemed to have affected Oursler’s life and his family more than any thing else. What was supposed to be a Hollywood Spectacular, fell flat, though the book sales still hold up sixty-three years after it’s publication. What also is amazing, is that the Bible is the best selling book every year since the printing press was invented. In the U.S. six out of ten people read the Bible, if only occasionally. It is noteworthy though, that since 1980 the percentage has gone down from

73% to 59% according to Gallop. The story of Jesus Christ, is without a doubt, the greatest story ever told, in my opinion, it is the greatest *love* story ever told. I make that distinction simply because of the super-nature of Homo Sapiens Sapiens. The Father became one of us in Christ, for us to become one with him.

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The disciples went up to Jesus and asked, ‘Why do you talk to them in parables?’ ‘Because’ he replied, ‘the mysteries of the kingdom of heaven are revealed to you, but they are not revealed to them. For anyone who has will be given more, and he will have more than enough; but from anyone who has not, even what he has will be taken away. The reason I talk to them in parables is that they look without seeing and listen without hearing or understanding. So in their case this prophecy of Isaiah is being fulfilled: You will listen and listen again, but not understand, see and see again, but not perceive. For the heart of this nation has grown coarse, their ears are dull of hearing, and they have shut their eyes, for fear they should see with their eyes, hear with their ears, understand with their heart, and be converted and be healed by me.

‘But happy are your eyes because they see, your ears because they hear! I tell you solemnly, many prophets and holy men longed to see what you see, and never saw it; to hear what you hear, and never heard it.’

Matthew 13:10-17