



NeuroTheology

Brain, Science, Spirituality, Religious Experience



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Edited by Rhawn Joseph, Ph.D.

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THE MYTH OF THE BIG BANG: Cosmic Organic Clouds & Creation Science

by Rhawn Joseph, Ph.D.

Throughout the ages, and as is true today, some of what has passed for “scientific fact” has been based on faith and dogma; which is why the temple priests of science often protect the faith, and the status quo, by attacking and ridiculing those heretics who threaten to topple and shatter the altars of their idols. The dustbins of history are laden with discarded “scientific facts” and those who believed in them (Kuhn, 1970). Until the 16th century, it was a “fact” that the Earth was at the center of the solar system and the universe. Until the 19th century it was scientific “fact” that “rocks do not fall from the sky” and that meteors did not exist. Until the 20th century, it was scientific “fact” that interstellar space was permeated by a viscous “ether.” In the 1920s, articles and editorials appeared in leading scientific journals ridiculing those rocketeers who dreamed of soaring through space, explaining it was a scientific “fact” that rockets would be unable to propel themselves beyond the Earth because of the lack of atmosphere or air. Until the year 2000, it was a scientific fact that the speed of light was a constant and that nothing could travel faster than the speed of light.

And all these “scientific facts” have been proved false.

The history of science is a history of scientific revolutions, where established, authoritative scientific dogma finally crumbles from the weight of unwieldy, disconfirming evidence that can no longer be suppressed or ignored and which continues to grow until it completely undermines the beliefs and the authority of the ruling status quo. The history of scientific revolutions always entails a complete paradigm shift in scientific thought and belief; ushered in by those revolutionaries who dared to challenge the ruling authorities and the high priests of science.

In some respects, modern western science could be likened to a religion that consists of numerous cults and priesthoods--each claiming to possess the “truth.” Consider modern physics. Physicists have proposed over 50 different major theories to explain the origin and nature of the universe. Obviously they cannot all be correct. Indeed, by nature of the fact that there are so many theories should lead us to conclude that none of them are correct. Essentially, we have been provided with a multiple-choice theory as to the origin of the universe--multiple choices which should include: None Of The Above.

“Its the theory which decides what we can observe” -Einstein

Like most religions, many of those in the scientific community, particularly in the field of physics and astronomy, base their theories not on facts, but on faith and belief. Faith is no substitute for fact, which is why there are so many theories, and which is why most of these theories, including the most widely accepted theories, such as the Standard Model, are incompatible with one another and fail to explain or are unable to make accurate predictions about the very phenomena they are supposed to explain.

Consider, for example, the Standard Model of elementary particles, which is employed to explain how particles like electrons, muons, neutrinos and quarks interact, that is via three interacting forces: electro-magnetic, weak nuclear and strong nuclear. However, the Standard Model is flawed and serves at best as an incomplete explanation which does not explain, for example, the most well known force in nature: gravity. The Standard Model most also assume the existence of distinct forces and their carriers--the existence of which have not been shown, and which are posited to exist only in order to save the theory. The Standard Model cannot provide acceptable explanations for a surprisingly wide range of phenomena.

For example, why does the electron weigh as much as it does? Why do particles interact with a given strength and not any other? Why can an observer determine either the velocity or the position



of an electron, but never both? These values can be measured in experiments, but cannot be predicted by the Standard Model.

Consider, also, for example, general relativity and quantum field theory which offer differing predictions regarding the same events such as “black holes” i.e. the fundamental origin of their thermodynamic properties and their apparent incompatibility with quantum mechanics. General relativity and quantum field theory are in fact incommensurable.

Because of these and other shortcomings, physicists have proposed over 50 different theories including five different superstring theories—each requiring ten dimensions (nine space and one time). Nevertheless, even in regard to “string theory” (which is based on particle physics), each makes predictions that differ from the others.

Einstein’s old dream of a “unified theory” of fundamental forces has not been realized. Instead, we have multiple theories which often conflict, and which either cannot be tested or which are not supported by all the available evidence. Instead, theorists are forced to ignore most of the evidence, and instead pick and choose those fragments of “evidence” which are compatible with their theory.

THE BIG BANG, COSMIC CLOUDS, AND INTERSTELLAR PLANETARY NURSERIES

Many Western educated scientists religiously adhere to the theology of purposelessness as exemplified by the almost blind devotion to Darwinism and the belief in the “big bang” creation of the Universe. Darwin’s theory and neo-Darwinian evolutionary theory are also compatible with and supported by the mainstream scientific view as to the origin of the Universe; i.e., the “big bang.” The theory of the “big bang” in turn provides a theoretical framework that could explain the origin of those complex molecules that fell to earth, only to be cooked and randomly jumbled together in some organic soup, or perhaps swallowed and then spewed out of some undersea volcano in the form of a living, self-replicating molecule (de Duve, 1995; Gesteland, 1993; Woodward, et al., 1998).

Essentially, the theory of the big bang rests upon the notion that at first there was absolutely nothing. Nothing! Not even space! And then, inexplicably, this nothingness began to heat up and exploded, and out of nothing there was suddenly stuff. Or, another way of putting it: nothing happened. And, out of nothing flowed space, time, elementary particles, then protons, neutrons, electrons... the Universe and finally those molecules which would some day fall to earth. And, just as nothing gave rise to everything, non-life would give rise to all life including the generation of those scientists who believe in “nothing.”

More specifically, it is supposed within one trillionth of a second after the big bang—an explosion tens of billions of degrees hot—both matter and antimatter were created. In some scenarios, this resulted in an antimatter universe, and another universe consisting of matter.

In yet another scenario, since whenever matter and antimatter have contact, they instantly annihilate one another in flashes of pure energy, it is proposed that there was a slight imbalance such that there was slightly more matter than antimatter. Hence, within the one trillionth of a second after the big bang and after almost all matter and antimatter were destroyed—thus creating the cosmic microwave background radiation that permeates the universe—the fragmentary remainder of matter gave rise to this universe.

Considered broadly and generally, following the big bang and the creation of molecules from nothingness, as well as the creation of space—for initially, as there was nothing, there was no space (at least according to the theory of the big bang)—some of the remaining molecules of matter froze and/or combined in space, perhaps in association with the hydrogen and helium that was also created by the big bang. Once they combined, these formed complex organic molecules, some of which may have even developed lipid membranes (Woodward, et al., 1998). Presumably, ten billion years later, these complex molecules eventually seeded the Earth.

It is noteworthy, however, that these latter events may also occur without the necessity of a “big bang.” The creation of complex organic molecules in space appears to be ongoing phenomenon. A big bang is not necessary to explain the creation of organic molecules.

More specifically, it is supposed, that after the big bang, and following the creation of stars, planets, and galaxies there were repeated cosmic collisions and supernova which dispersed all manner of debris into interstellar space—events which are ongoing and thus do not require a “big bang.” Cosmic collisions are commonplace, not only between meteors and planets, but entire galaxies.

The nature of this ejecta, however, differed and continues to differ depending on the type of stellar nucleosynthesis that created it, and those events which led to its dispersal; e.g., planetary collisions, supernova, planetary nebulae etc., (Scott et al., 1998; Woodward et al., 1998).

As is now well known, many different types of stellar debris, including those produced by planetary nebulae (dying stars) contain hydrogen, oxygen, carbon, and often sulfur, nitrogen and phosphorus (Williams, 1998). Yet, molecules of this sort may be quickly destroyed by interstellar shock waves, ultraviolet photolysis, and vaporization. It is supposed, therefore, that after the big bang, and/or following planetary collisions, and/or supernova, or planetary nebulae, etc., that these molecules coalesced thus forming dense protective molecular clouds which enabled them to survive the rigors of interstellar space (Scott et al., 1998; Williams, 1998; Woodward et al., 1998). In fact, it appears that these dense molecular clouds may have served (and continue to serve) as stellar nurseries, from which stars, planets, and galaxies were (and continue to be) formed. As the cloud collapses and the heavier central most elements fall together due to gravitational forces, and then combine together, they form stars and planets.

Figure 9. (Above) Two views of the Milky Way Galaxy which is a spiral galaxy centered upon a compact nucleus of stars. Like our solar system, the Milky Way Galaxy is in motion and in orbit. The Earth is located along one of the outer spirals of the Milky Way Galaxy, and it takes our solar system about 126 million years to orbit the Milky Way. According to one theory, the nucleus of the Milky Way consists of older stars, whereas newer stars, including our sun and solar system, are located along the outer spirals. However, recent evidence based on infrared photos provided by the Hubble telescope indicates that at the center of this nucleus is a star that glows with the energy of 10 million suns and which was formed only 1 million to 3 million years ago. (Below) The Sombrero Galaxy, M104. Compare with Sumerian conception of the Universe. Reprinted from Ferris, 1982; *Galaxies*, Sierra Club Books, San Francisco.

These molecular clouds/planetary nurseries—which have been repeatedly identified in the wilds of space—are believed to remain stable for millions if not hundreds of millions of years. In fact, in August of 1997, astronomers announced what they claimed to be an immense “planetary construction site” for new planets, just 450 million light years from Earth in the constellation of Taurus; i.e. a molecular cloud containing a dense, gas-rich rotating disc of material which is orbiting a young star, MWC480, and which is less than a few million years old.

According to Dr. Anneila Sargent, Director of the Owens Valley Radio Observatory, “We are seeing for the first time a place where conditions are perfect for the formation of planets like Jupiter or Earth.”

Although the MWC480 disc makes up only a fraction of the molecular cloud, its outer edge is more than 30 billion miles across, which is 10 times the distance of the planet Pluto from the sun. As

Figure 10. The Cone Nebula is a gaseous stellar nursery that has given birth to stars billions of years ago, and which is currently giving birth to additional infant stars.

Figure 11. *The Orion Nebula (=M42 = NGC1976) is a gaseous stellar nursery that is currently giving birth to infant stars. Double planetary nebulae. A collection of galaxies. A spiral galaxy NGC5364. A single galaxy (which may appear as a single star), may be comprised of tens of millions or hundreds of millions of stars—each of which may have its own solar system. Because NGC5364 lies well away from the plane of our own Milky Way galaxy, it can be seen with few intervening stars.*

to the origins of the disk, presumably it is the result of the gravitational collapse of those interstellar molecular clouds which formed the star itself.

These findings, of course, also negate the necessity of positing a big bang. In fact, recent evidence based on infrared photos provided by the Hubble telescope indicates that at the center of our Milky Way galaxy is a star that glows with the energy of 10 million suns and which was formed only 1 million to 3 million years ago. That is, within the center of our galaxy is a star and presumably a planet creating nucleus—which may have been created by a collapsing molecular cloud, and which may someday come to be ringed by planets.

Moreover, dying stars also provide the material for the creation of new molecular clouds and thus the formation of new suns and planets, including perhaps the seeds of life. In December of 1997, for example, NASA released photos taken by the Hubble telescope which revealed dying stars that were in the process of blowing off their outer atmospheres and veils of luminous gas including clouds of helium, hydrogen, nitrogen, oxygen and carbon, at high speeds hundreds of billions of miles into the far reaches of space; i.e. so called “planetary nebulae.”

Thus it appears that old stars are recycled, recreating the molecular clouds which gave birth to them and which will give birth to new suns and planets.

If there was no big bang, this process of recycling may have been ongoing for all of eternity.

ORGANIC MOLECULAR CLOUDS AND THE SEEDS OF LIFE

Life on Earth could not have emerged from an organic soup, or an undersea thermal event—at least on Earth. The necessary ingredients for the manufacture of life did not exist on the young planet. Nor was there sufficient free oxygen, and there may have been no free oxygen at all, which is an essential ingredient that makes up the structure of DNA. In fact, almost all the essential ingredients for the construction and manufacture of DNA, were nowhere to be found—at least on Earth—thus refuting any and all notions that Earthly life originated from non-life.

In order to account for the missing necessary ingredients for the creation of life, many mainstream evolutionary scientists and astrobiologists assume that complex organic molecules, but not living things—fell to Earth, encased, perhaps, in the debris that bombarded this planet for the first 700 million years after it was formed. Once on Earth, and after the cessation of these bombardments, those complex organic molecules which survived began to collect together, perhaps as runoff from river estuaries, thus forming either a complex molecular “organic soup,” or a random collection of residue and organic sludge that was swallowed by the ocean and later spewed from a deep-ocean thermal vent in the form of living creatures (Brandes, et al., 1998; Holme, 1992).

Although a variety of scenarios abound (e.g., de Duve, 1995; Holme, 1992; Lamond & Gibson, 1990; Orgel, 1994; Rebek, 1994), involving for example, crystals, clay particles, or ribozymes (e.g., Gesteland, 1993; Unrau & Bartel, 1998), in general it is assumed that once these molecules collected together (either as an organic soup or in a deep sea thermal vent), they were subject to some electro-chemical, activating event, and became organized in a manner that would eventually give rise to life; a single celled organism—the only one of its kind.

Despite being unable to explain how these events transpired, it is generally believed that this single celled organism was somehow provided with DNA (deoxyribonucleic acid), RNA (ribonucleic acid), genetic instructions, cytoplasm, and a cellular membrane, and the capacity to extract energy and reproduce itself by producing RNA- or DNA-based duplicates.

Every creature and living thing, therefore, owe their existence to these chance occurrences where a multitude of organic molecules from outer space were randomly mixed together. These molecular collections not only sprang to life but survived and began to reproduce, eventually producing complex creatures including woman and man.

Specifically, following the big bang, it is presumed that these cosmic clouds (and those which continue to orbit between and within the innumerable billions of galaxies within this universe) may have also served (and may continue to serve) as nuclear wombs that generated and gave birth to the seeds of life. Since these clouds provide protection for the complex molecules they contain, they also absorb ultraviolet light and cosmic shock waves which in turn provides them heat and energy. These collective events are believed to engender the combination and creation of even more complex organic molecules (Scott et al., 1998; Woodward, et al., 1998). It is believed that within the womb of these molecular clouds, hydrogen, oxygen, carbon, sulfur, nitrogen and phosphorus are continually irradiated by ions, and are then combined thereby creating complex organic molecules, including polycyclic aromatic hydrocarbons (PAHs), as well as carbon grains, oxides, and carbon monoxide—seeds of life.

Although the above scenario is conjecture, as is well known, interstellar space is awash with carbon based organic molecules, whereas hydrogen, the stuff of life, is a major constituent of interstellar molecular clouds (Scott et al., 1998; Woodward, et al., 1998). Data provided by the Submillimeter Wave Astronomy Satellite and the Infrared Space Observatory have detected the presence of 75 interstellar molecules (50 organic compounds and 25 nitrogen-based molecules) including molecular oxygen, carbon, carbon dioxide, methane, ammonia, benzene, formic acid, acetic acid, methanol, polycyclic aromatic hydrocarbons, and silicate grains—molecules which can be used to build amino acids.

Moreover, water, carbon dioxide, and methanol have been detected in comets. Recent evidence also suggests that amino acid can be synthesized in comets and the deposited on Earth (Bada et al., 2001). In addition, over 70 different amino acids have been detected in various meteorites, acids which have been determined to be astrobiological in origin.

The universe has also been discovered to be sugar coated. That is, sugar molecules, i.e., methyl formate, acetic acid, and glycolaldehyde, have been detected in giant gas and dust clouds, including a gas cloud located about 26,000 light-years from the center of our own Milky Way Galaxy (i.e. Sagittarius B2). This is relatively close to a region where planets have also been discovered to be forming. This is significant in that glycolaldehyde (an 8-atom molecule composed of carbon, hydrogen, and oxygen) can combine with other molecules to form the more complex sugars such as ribose. Ribose is a building block of the nucleic acids, DNA and RNA. According to Dr. Jan Hollis of the NASA Goddard Space Flight Center in Maryland, “the discovery of this sugar molecule in a cloud from which new stars are forming means it is increasingly likely that the chemical precursors to life are formed in such clouds long before planets develop around the stars.”

Indeed, the chemical synthesis of complex organic molecules also occurs rather rapidly in different stellar environments, that is, within a few thousand years; at least according to results from the European Space Agency’s infrared space observatory (European Space Agency, 1/17/2000). Specifically, Bruce Hrivnak of Valparaiso University and Swun Kwok and Keven Wolk, from the University of Calgary, basing their results from a comparative analysis of infrared spectra, found that molecular signatures could be identified. They deduced that small organic molecules can evolve into complex organic molecules within a few thousand years. Kwok also argued that even amino acids could be generated and synthesized in these stellar environments.

Moreover, it has been proposed that the building blocks for DNA may have been generated within a collapsing interstellar cloud. According to Sandip and Sonali Chakrabarti, a cloud, seven light years across, and containing hydrogen, carbon, oxygen and nitrogen, and several other elements, could possibly create adenine, which is a DNA base, from hydrogen cyanide. According to the Chakrabarti, “DNA bases produced in the collapsing cloud could have contaminated the Earth.” However, only about 120 different molecules have been detected within these cosmic clouds, and less than a dozen have been detected which consist of 8 or more atoms.

Dworkin and colleagues (2001) have also synthesized self-assembling amphiphilic molecules in an environment designed to simulate the environments of dense interstellar molecular clouds. They report that a “complex mixture of molecules is produced by UV photolysis of realistic, interstellar ice analogs, and that some of the components have properties relevant to the origin of life, including the ability to self-assemble into vesicular structures... similar to those found in primitive meteorites.” They report that by creating a “very simple, yet astrophysically relevant, ice mixture (water, methanol, ammonia, and carbon monoxide),” they could produce “a very complex mixture of compounds, including amphiphiles and fluorescent molecules.”

Essentially, Dworkin and colleagues claim to have created “proto-cells,” and they did so by designing a vacuum chamber with a temperature of 441 degrees below zero Fahrenheit, similar to the frigid emptiness of interstellar space. They then subjected water, ammonia, carbon monoxide, carbon dioxide, and methanol with ultraviolet radiation to mimic the radiation that might be encountered in space. The radiation induced these molecules to form into membrane-like structures with lipid bilayers similar to the lipid bilayers that enclose living cells.

According to these authors, “the ready formation of these insoluble compounds from photolyzed ices comprised of simple molecules suggests this process might be the source of their origin in meteorites, and that the delivery of such compounds by comets, meteorites, and interplanetary dust particles during the late heavy bombardment period may have played an influential role in the origin of life on Earth” as well as other planets.

As the membranes they generated were able to “grab onto other molecules that fluoresce under radiation,” these authors argue that these proto-cell membranes “might have been very useful on our



own early Earth when there was no ozone layer yet to protect the earliest forms of life from solar radiation. Those fluorescent molecules could have provided just the kind of sunscreen the organisms within the membranes needed to survive.”

Given the above, it might be assumed that the galaxies and planets formed by the collapse of these clouds would also be awash with the organic elements necessary for the formation of life, including lipid membranes and some of the base elements for the construction of DNA. The entire universe might be one vast organic soup, and every planet a potential breeding ground for life.

Unfortunately, given the subzero temperatures of space (i.e. 10 degrees above absolute zero), there probably would not be enough energy available to drive the chemical reactions necessary for adenine synthesis, much less DNA. These theories and the evidence presented above, also cannot explain the origin of DNA—at least on Earth. A single macromolecule of DNA is so incredibly complex, the notion that it might have been created in space or in an organic soup, is the equivalent of finding a computer on Mars, and positing that it was created by random chemical reactions within a underground Martian “organic sea.”

Moreover, the extreme temperatures that are engendered during the collapse and star formation, would destroy all complex organic molecules including adenine, with the possible exception of PAHs, microdiamonds, and aliphatic hydrocarbons (Woodward, et al., 1998). Planets formed in this manner, including the new born Earth, would be completely sterilized and would be dependent upon stellar debris in order to obtain the chemistry of life.

In fact, if the above collapsing cloud scenario is correct, not only would the Earth have been sterilized in the process of its creation, it would have been continually sterilized yet again by the immense heat generated during its initial 700 million years when it was incessantly bombarded by cosmic debris (Press & Siever, 1986). The new Earth was sterile and completely devoid of the complex organic chemicals necessary for life.

On the other hand, it has been argued that once the Earth had sufficiently cooled, that volatile, less refractory materials were transported to Earth via interplanetary dust particles and comets and thus contributed to the collection of organic material for the origin of life.

In fact, nearly 40,000 tons of organic carbon-bearing material rain down on the Earth yearly, the residue of meteorites and comets. Thus it could be argued that amino acids fell from the sky, were mixed together in an organic stew, and eventually gave rise to life on Earth, and that these essential elements were delivered by meteorites and the remnants of comets (Bada et al., 2001; Ehrenfreund et al., 2001). Life may have arrived on innumerable planets in this manner.

However, the first evidence of life on Earth appeared immediately following the cessation of that cosmic bombardment, 3.8 billion years ago (Mojzsis, et al., 1996). These living creatures were already quite complex and fully formed—they were not the product of an organic soup—at least on Earth. Moreover, evidence based on an analysis of meteorites from Mars indicates that fully formed complex life may have also appeared on the red planet at about the same time, 3.9 billion years ago (Gibson et al., 2001).

There simply was not enough time for life to form from an organic soup, given that complex life appeared immediately following the heating and sterilization of the Earth. As these creatures were already fully formed and quite complex, it therefore seems reasonable to conclude that life, that is, living cells (and their DNA) must have arrived on Mars, the Earth, and other planets from interstellar space, encased in debris—life that survived and then began to go forth and multiply.

THE MYTH OF THE BIG BANG

“In the interval between dissolution and creation, Vishnu-Cesha rested in his own substance, glowing with dormant energy, amidst the germs of future lives” —Hindu poem.

THE BIG BANG, GOD, & CHAOS

The theory of the big bang is problematic as it rests upon the premise that at first there was nothing and then there was an explosion and then there was stuff. Some theorists have recognized this position is rather untenable, and have modified the theory of the “big bang” by positing the initial existence of pure energy. Of course, the preexistence of “energy” also seems to refute the central tenant of the “big bang” which is at first there was nothing.

Nevertheless, according to this version of the big bang theory, this pure energy for some unknown reason became increasingly chaotic and exploded, thereby giving rise to an orderly expanding and uniform universe, where at first there was nothing but pure chaos, i.e. energy which contained not

nothing, but everything.

The notion of order emerging from chaos, including the condensing and creation of vast interstellar clouds, is a very old idea that was penned by the Sumerians over 6000 years ago. Moreover, the notion of “pure energy” has been likened by some Creation Scientists as being identical to the “Spirit of God”.

In fact, although the big bang theory is dressed up in the language of modern science, it appears to be a restatement of the theory of creation as presented by the ancient peoples of Sumer and in the first chapter of the five books of Moses:

“In the beginning God created heaven and earth”--Genesis 1.

Sages and wisemen over the ages have offered a variety of interpretations as to the meaning of the above passage. Some believe that god and the universe are as one and are inseparable from god, and thus the universe is eternal because god existed at the beginning.

Another view is that God could be likened to a carpenter who builds a house. The carpenter is not the house, and the materials for building the house existed prior to its being built. However, the carpenter, as builder, does not become a carpenter-creator-builder until he builds the house. This

Figure 12. Schematic illustration of the theoretical “Big Bang.” Reprinted from Ferris, 1982; Galaxies, Sierra Club Books, San Francisco. There are several major conceptions of the big bang, and one is that at first there was absolutely nothing, not even space, and then there was a big explosion which created molecules and thus the Universe. This notion could also be characterized as the “nothing happened” theory of creation. Another conception is that at first there was pure energy and then this energy exploded which caused a massive and exceedingly hot expansion, and then as this expansion cooled some of this energy froze into particles of molecules which later gave rise to stellar clouds, and then stars and planets.

view implies that God existed prior to creating the universe, and that the elements for creating the universe also existed a priori, but that the universe is not eternal, only its elementary parts. Likewise, it could be argued that God does not become God, i.e. the Creator, until he Creates which thus causes Him to become God, the creator. In this manner, God is self-creating and becomes God by creating the Universe, e.g. the big bang: “God said, let there be light, and there was light.”

It could be argued then, that god is not eternal, but only came into being at the “Beginning.”

In modern physics, “god” before He became god, could be likened to the chaotic pure energy which existed prior to the birth of the universe. It is thus through the agency of “god” that all things owe their existence, i.e. stars, planets, cosmic clouds, human beings, etc., including god. God, the Creator, is self-creating. And, just as time did not exist before the big bang, time did not exist prior to “god’s” creation of the universe. Because time did not exist, and since time is a creation of god/the-big-bang, then god/pure energy also existed in the absence of and outside of time; that is, as a timeless nothingness. Hence, we can say that god and the chaotic elements which gave rise to the universe are timeless and emerged from nothingness.

However, if time and god have a beginning, then “eternity” cannot exist. Likewise, we cannot say that “God or the universe is eternal” because “eternity” implies the existence of time and that time existed before the creation/big bang. Rather, we can say that god existed at the moment of creation, and that god became god simultaneously with creation. What this means is that god existed at the beginning of time, and that god existed at the beginning.

CREATION SCIENCE

SUMERIAN COSMOLOGY: A CHAOTIC NOTHINGNESS

Modern day “Creation Science” is rooted in the story of Genesis which in turn appears to be a retelling of the Sumerian tales of creation (Heidel, 1988; Kramer, 1991; Roux, 1992). Indeed, there is now a convergence of opinion that the story of Genesis, as retold in the Hebrew and Christian Bible, bears a striking resemblance to the “creation myths” penned almost 6,000 years ago by the peoples of Sumer—in what today is Iraq; stories still in fashion with the rise of the Babylonian state which had risen with the fall of Sumer (Roux, 1992).

Our knowledge of ancient Sumer comes from a variety of ancient texts, including epic tales, hymns, poetry, proverbs, prayers and incantations. Some of these texts are written in ancient Sumerian, others are Akkadian and Babylonian copies that were found in the ruins of palaces and temple libraries.

Sumerian cosmology, as to the origin of the Universe, in some respects resembles modern cosmology. For example, they imagined that at first there was nothing and because there was nothing, it had no name. Rather, all was chaos. Moreover, because there was nothing, “No gods whatever had been brought into being. Uncalled by name, their destinies undetermined.” However, rather than a pure absence, this nothingness was chaos (Kramer, 1991; Roux, 1992), a “commingling” of clouds (“mummu”), fresh waters (Apsu) and salt waters (Tiamat). And, out of this chaos came form, substance, and “An” the eternal heavens from which flowed the seeds of life; seeds which eventually fell to Earth and which also fell upon the planets of the gods, thus giving birth to the gods, the Anunnaki. “An begot the Anunnaki.”

CREATION MYTHOLOGY?

The concept of god, and the Biblical account of creation, is entirely compatible with the theory of the big bang. However, although there is obvious evidence for “energy” and interstellar clouds

Figure 13. Sumerian cosmology and conception of the universe. Reprinted from Kramer, 1981. History Begins at Sumer. The University of Pennsylvania Press. Pennsylvania.



that give birth to stars, planets and galaxies, the “scientific” theory of the “big bang” is not supported by the evidence. The theory of the big bang is refuted by the fact that the “uniformity” that is required in the distribution of matter, and the supposed ‘3 degree background radiation that is supposed to exist uniformly in all directions of the universe (as predicted and required by this big explosion), is not uniform. Rather, there are entire walls of galaxies spread at irregular intervals (Cohen et al., 1996), with the “older” and more distant galaxies clustered together rather than spread apart (Glanz, 1996).

The background radiation is also characterized by “density fluctuations” and other deviations which indicate the universe is not behaving in a fashion that would be expected from an inflationary explosion (Ferreira et al., 1998). According to one team of scientists (reviewed in Glanz, 1996) there are “clumpy structures as far as they could see, far enough to make theorists uncomfortable.” Why uncomfortable? Because these findings are incompatible with the theory of the big bang.

It has been repeatedly reported that a mysterious kind of antigravity energy, a “repulsive force permeates the universe, accelerating its expansion and sweeping distant objects unexpectedly far away” (reviewed in Glanz, 1998). There are entire rivers of galaxies flowing in directions that would not be likely if due to a big bang (e.g. Lauer & Postman -reviewed in Flamsteed 1995). And, so claims NASA, the universe is “flat” and is not expanding uniformly.

Of course, other scientists argue that the Universe is finite whereas some claim it is infinite. Others claim that it is concave; others say it is round and will someday begin to shrink. Yet others wonder if there are multiple universes consisting of numerous dimensions and subdivisions. According to “string theory” the creation of this universe is due to these subdimensions bumping into one another, thus creating the big bang or even numerous big bangs in different sub-dimensions of the cosmos those giving rise to multiple universes--a hypothesis that might best be described as the “gang bang theory of creation.”

STRING THEORY & THE MULTIVERSE

As reviewed in the September 2000 issue of the journal *Physical Review*, one of the central tenants of string theory is that at first there was nothing and that the nothingness exploded when it was hit by another nothingness. Nothing happened twice, therefore, and gave rise to the big bang.

According to string theory, before our universe (U-2) came into existence, another universe (U-1) collided with it, causing such incredible heat that there was an explosion and the nothingness became a searing soup of subatomic particles such that nothingness gave rise to everything.

This other universe (U-1) is believed to have existed in parallel with our universe (U-2) before our universe existed; that is, in one of the alternate dimensions. These two extra-dimensions bumped into one another causing the big bang.

According to string theory, our universe consists of more than 3 dimensions. Some physicists believe there may be more than 12 dimensions. However, not all these dimensions exist side by side, but as dimensions within dimensions.

For example, it is believed that sitting atop and between the 3 dimensions is an incredibly thin 4th dimension, which is sandwiched inside. It is this postulated 4th dimensions which some physicists believe is responsible for the “big bang” and the creation of our Universe,

It is argued that this 4th dimension collided with one of the walls of the 3rd dimensions thus causing an explosion and thus the big bang.

Of course, if there are other dimensions, and if this theory is true, this raises the possibility that there may be more collisions as well as collisions in the past, and thus more explosions and even more “Big Bangs” all of which gives rise to multiple universes each created by a “big bang” —which is why I refer to this as the “Gang Bang” theory of creation.

“String” theory requires the existence of at least 10 dimensions, seven of which are believed to be curled up in regions of space so tiny that they have not yet been detected. It is the proposed existence of these additional dimensions which some argue account for the weakness of gravity, which is believed to leak off into at least one of these “extra” dimensions.

Gravity is amazingly weak, at least as compared with all other natural forces. Consider: A small magnet can easily overcome the downward gravitational pull of the entire planet and pick up a nail. According to University of Washington scientists, Heckel and Adelberger: “Gravity is the only way to see these extra dimensions but the very weakness of gravity has meant that there was no way to test the theory,” said Adelberger. “No one had ever detected that gravity even existed at distances less than a millimeter...if the extra dimensions exist they must be smaller than 2/10th of a millimeter.”



ETERNAL CYCLES OF CREATION & DESTRUCTION

The ancient Hindus, Buddhists, Babylonians, Sumerians, and peoples of ancient Mexico and Central America, believed that the universe is characterized by periods of rebirth and destruction, that creation and destruction occur in cycles--religious theories which do not require a "big bang."

Princeton physicist Paul Steinhardt and Neil Turok of Cambridge University, have also argued that space and time may not have begun in a big bang, but may have always existed in an endless cycle of expansion and rebirth. They propose that in each cycle, the universe refills with hot, dense matter and radiation, which begins a period of expansion and cooling. After 14 billion years, the expansion of the universe accelerates, as astronomers have recently claimed to have observed.

After trillions of years, the matter and radiation are almost completely dissipated and the



Figure 14. Schematic illustration of the "three-Universe Big Bang" cosmology proposed by J. Richard Gott III of Princeton University. Reprinted from Ferris, 1982; Galaxies, Sierra Club Books, San Francisco. In this conception, the big bang gave rise to three universes. Our Universe consists of matter and time runs forward, whereas another universe consists of anti-matter and time flows backward. In the Tachyon Universe everything moves faster than the speed of light. The theory of alternate universes, has recently been supported by findings based on an analysis of radio waves from 160 distant galaxies (Nodland & Ralston 1997). That is, light travels at different speeds and directions in different regions of the universe and rotates, corkscrew fashion. Although these findings do not support the theory of the big bang, which requires uniformity, Nodland speculated that the creation of the Universe may have been asymmetrical, and that another universe may have been created where light rotates in the opposite direction. "A universe with an opposite twist."



expansion stalls. Then it begins to shrink rapidly causing it to heat up and gather energy. An energy field that pervades the universe then creates new matter and radiation, which restarts the cycle.

This new theory attempts to sidestep the major problems with the standard big bang model, that is, how did the universe originate? If there was a big bang, what caused it?

In yet another theory, the universe exists as two infinitely large parallel sheets, separated by a microscopic distance, i.e. a fifth dimension, that is not apparent to us. These sheets are expanding in all directions, releasing all the matter and energy they contain at which point the fifth dimension begins to collapse and the sheets meet and “bounce” off each other thus causing a “big bang” after which the two sheets again move apart and release matter which cools and coalesces into stars and galaxies as in our present universe.

This “fifth dimension,” it is argued, may also be the depository of all the missing anti-matter, or the so called “dark matter” which physicists believe exists but which they cannot find.

Of course, by nature of the fact that so many scientific “experts” cannot agree, should in-itself be an indication that what we are dealing with is a theory that few scientists can agree on. Essentially, we have been provided with a multiple-choice theory as to the origin of the universe--multiple choices which should include: None Of The Above.

THE AGE OF THE UNIVERSE

The theory of the big bang, including estimates as to the age of the universe, are dependent upon the false assumption that light always travels at the same speed and in a straight line. That assumption is false (Nodland & Ralston, 1997; Wang et al., 2000).

Astronomers claim they can estimate the distance of each galaxy by its brightness or apparent size. The fainter and smaller a star appears, compared to other stars, the farther away it must be. But again, away from what? Some astronomers have tried to explain this logic by using the example of a car approaching in the distance: the farther away the car, the fainter its headlights appear.

The problem with this reasoning is that stars do not give off the same amount of light. Consider the headlights example. What if that car was equipped with aircraft landing lights. The incredible brightness would fool an observer into believing the car was almost upon them, when in fact it was incredibly far away. Not all headlights are created equal.

In the 1920's astronomer Edwin Hubble presented data which he argued proved that the more distant a galaxy is away from Earth, the faster it appears to be moving away. This hypothesis has given rise to the claim that the universe is expanding. One of the problems with this theory is that it is again based on Earth as ground zero. Ignoring this problem, many astronomers have decided that the age of the universe could therefore be guessed at by determining the distance of the most distant stars as based on the nature of the light given off by galaxies which are believed to be the most distant. But again, distant from what? Relative to what? And what about those stars who died so long ago, or are so far away, they have not been detected?

The age of the universe has also been guessed at based on the supposed ages of certain stars. Using this as a measure, astronomers have guessed that the age of the universe must be between 10 - 15 billion years. For example, when a star has burned up most of its hydrogen, it expands and becomes a “red giant.” When a “red giant” is detected, astronomers can make guesses as to how long it has been in existence, and thus guess its lifetime, and thus guess its age, and then, based on its estimated age, determine the age of the universe. If the star is 12 billion years old, then the universe must be 12 billion years old. This is equivalent to finding the oldest man in Russia, and stating since he is 124 years old, humans have been on Earth for only 124 years.

Physicists and astronomers are often forced to employ the most naive forms of logic to support their theories. They must ignore much of the evidence and pick and choose only what seems compatible with their theories. Many, in fact manufacture “evidence” which they “factor in.”

Consider, for example, Kenneth M. Lanzetta of the State University of New York at Stony Brook, who claims that “star formation took place early and very rapidly. Star formation was 10 times higher in the distant early universe than it is today,” and that this first outburst of star formation took place about a half billion years following the big bang.

Using the Hubble Space Telescope, Lanzetta took pictures of galaxies he believes to be 14 billion light-years away from where the earth is now. According to Lanzetta the farther back the telescope looked, the greater the star-forming activity was. “Star formation continued to increase to the very earliest point that we could see.” In other words, Lanzetta observed evidence of star formation in distant galaxies. Lanzetta then takes a giant mental leap and concludes that “We are seeing close to the first burst of star formation,” which took place 500 million years after the big bang.

How did he arrive at these figures? Like most astronomers and physicists, he deduced the existence of missing “facts” and then factored in the missing facts so as to “discover” exactly what his theory predicted—a common and widely accepted practice in the realm of mainstream western “science.” Lanzetta used 12 different light filters to separate colors and then relied on the intensity of red to establish the distance to each point of light—that is, the distance from the earth and NOT the distance from the supposed big bang. And then, using images of nearby star fields as a universal average for stellar density and intensity he was then able to “conclude” that 90 percent of the light of the very early universe was not detected by the Hubble telescope. However, this missing light, actually only exists as theory, and the fact that he could not find the light, disproved the theory. Nevertheless, because the existence of “missing light” is predicted by theory, this then justified his factoring in the “missing light” in order to show that the peak of star formation came just 500 million years after the big bang.

Estimates based on light are often proved wrong, Consider the fact that astrophysicists Wil Van Breugel and Wim DeVries, of Lawrence Livermore National Laboratory reported in 2001, that a galaxy near the Big Dipper (STIS 123627+621755), which was supposedly the most distant galaxy in the universe, is not so distant after all. As I have argued here and elsewhere (Joseph, 2000) “red shifts can become blue shifts;” and in this current study, it was found that STIS 123627+621755 no longer displays the red shift formerly observed by other astronomers. Hence, rather than 12 billion light years distant, this galaxy is now believed to be 9.8 billion light years away from the Earth, and is probably a small dwarf galaxy.

Currently, via the assistance of the Hubble telescope, astronomers have been able to detect galaxies that they believe to be a little over 12 billion light years distant (though others claim 14 billion or even 18 billion)—findings which assume uniformity in the speed of light and which ignore relativity. Although Esther Hu who detected some of the most distant of all currently detectable galaxies has also reported that “we’ve already got some candidate objects that are even further away,” the light from the more distant and aged stars may have winked out of existence so long ago that they will never be detected.

In fact, professor Ray Norris and astronomers relying on data provided by the CSIRO’s Australia Telescope and the Hubble Space Telescope have announced they have detected stars that were so far away, they had not previously been detected. According to these astronomers, this new data pushes back the origin of the universe “by a long way,” though how far, is unknown, as modern day telescopes cannot collect enough light to pin down their distance.

These problems, where distant galaxies are discovered to be relatively near, and where physicists must manufacture data in order to arrive at their preconceived findings, are conveniently ignored by the “scientific establishment” who remain committed to the theory of the big bang. Indeed, in commenting on Lanzetta’s work, another astronomer, Storrie-Lombardi said that with improved telescopes that can see further into space, we will someday be able to see into the Dark Era, the time before there were stars. “We are getting close to the epoch where we can not see at all,” she said.

I would dare say that these astronomers already “cannot see at all” as they have plucked out their eyes in order to blind themselves to the truth: The age and the origin of the universe is unknown.

Astronomers based these predictions on a number of false assumptions about the nature of light and radio waves. For example, findings based on the analysis of radio waves from 160 distant galaxies indicates that radio waves alter their trajectories and move in relation to an axis of orientation running through space. According to Dr. Borge Nodland of the University of Rochester, and Dr. Joun Ralston of the University of Kansas, this axis of orientation differs in different regions of space and determines how light travels and the speed and direction at which it travels in different regions of space. These radiations rotate, like a corkscrew as they move through space, and undergo a complete rotation every billion miles.

This axis is different in different regions of space; running one way, for example, toward the constellation Aquila and another way toward the constellation Sextans (Nodland & Ralston, 1997). What this means, according to Dr. Nodland, “is that not all space is equal” and that “light travels at different speeds” in different regions of the universe—findings which are completely contrary to the uniformity predicted by the theory of the big bang. Moreover, because light changes speed, this also makes it impossible to determine the distance or age of distant stars, based on the speed of light.

It has also been demonstrated that light can travel faster than the speed of light (Wang et al., 2000), and can arrive before it is transmitted. As based on experiments conducted by Wang and colleagues, it was concluded that “a light pulse propagating through the atomic vapour cell appears



first at the exit side” such “that the peak of the pulse appears to leave the cell before entering it.”

In fact, light not only travels at different speeds in different regions of the universe, but at different speeds in this solar system and above the planet Earth—which is also inconsistent with the big bang requirement of uniformity so as to make predictions regarding the big bang and the creation and age of this universe. Specifically, it was discovered and reported by Unran Inan (a professor at Stanford) at the Annual Meeting of the American Geophysical Union, in September of 1996, that flickering lights and glowing rings that are commonly detected high above thunderstorms, expand faster than the speed of light. This phenomenon is set in motion by a bolt of lightning striking the ground which causes electromagnetic pulses to race upward and to expand at an exceedingly rapid rate, thus creating an upward expanding bubble-like glowing ring. When the ring strikes the ionosphere this causes it to expand faster than the speed of light. Hence, not only is the speed of light not a constant, but the speed of light is not a limiting factor in speed of movement.

Other astronomers have attempted to sidestep these problems by ignoring them, and by providing dates as to the age of the universe based on the average age of those stars whose light still shines in the darkness of night. Again, this is equivalent to locating the “oldest man” living and then concluding, based on his age, that humans have lived on Earth for 130 or so years. That a distant star is estimated to be 12 billion years in age, provides only as estimate as to how long stars might “live” before dying. Again, what of those stars that died so long ago, their light can no longer be detected?

THE BIG BANG, RELATIVITY, AND THE PARADOX OF THE TIME MACHINE

The theory of the big bang and all notions as to the age of the universe are based on the false and ignorant assumption that we are able to detect the most distant galaxies and the oldest galaxies the likes of which may be so distant, or which ceased to exist so long ago, that they simply cannot be detected by those instruments currently available.

The theory of the big bang, and in fact all current estimates as to the age of the universe, are also refuted by and fall prey to “the paradox of the time machine.”

Consider: If you were to step into a time machine and go back 1000 years in time, you would not reappear on the exact same spot on Earth 1000 years ago, but gasping for breath in outer space as the Earth, our solar system, and this galaxy are in motion and were not in this spot 1000 years ago. Likewise, those distant stars whose 12 billion year old light are just now arriving on Earth, reflect not where these stars are now, but where they were 12 billion years ago and only from the vantage point of where the Earth is now—and where the Earth is now is not ground zero for the supposed big bang. These stars were 12 billion light years distant from this specific spot in the Universe 12 billion years ago. Twelve billion years ago they were already 12 billion light years away from this location and were already 12 billion years old.

As this particular spot is not ground zero, that distance means absolutely nothing except that 12 billion years ago these stars were 12 billion light years away from this location, and this particular spot is not ground zero for the big bang. Nor is ground zero located in the spot where the most distant stars are located now. The location of ground zero is unknown.

If we chose a location 12 billion light years in the opposite direction and make our age estimates from this location, these stars suddenly become 24 billion years in age, and so on. Distance and thus age estimates based on distance and the location of an observer, are entirely relative and become meaningful only if we can identify a ground zero or starting point and this information simply does not exist.

Moreover, these distant stars have had an additional 12 billion years to move further away from the spot they were in 12 billion years ago. They may have moved in a different direction all together, as not just planets, but solar systems, and entire galaxies are in orbit. Our solar system, for example, takes about 126 million years to make a complete orbit of the Milky Way—which means in 60 million years it will be headed in the opposite direction.

What goes around, comes around, and entire galaxies can change direction. “Red shifts” (indicating an object is speeding away) can become “blue shifts” (and “blues” can become “reds”) and what appears to be expanding will later appear to be contracting as its orbit takes it first away from, and then back toward this galaxy and our solar system which is also in orbit.

To be blunt: Although theories and speculation abound, we do not know the age of the universe or how it came into being though it is apparent that galaxy forming molecular clouds are abundant in interstellar space. Rather, what the evidence indicates is that the cycling and recycling of material that comprises and creates planets, stars, and complex organic molecules, may have been ongoing for all of eternity, which also raises the possibility that the universe is infinite and that life may have roots that extend interminably into the long ago.



INFINITY, ANGELS, GHOSTS & THE MULTIVERSE

The big bang model of the universe, has been developed to explain a wide range of observations about the cosmos. Because no single theory can explain these observations there are numerous models.

A major element of one of the current models accepted by most mainstream scientists, is the theory of “inflation,” which posits a period of hyperfast expansion that occurred within second after the big bang. This inflationary period was proposed in order to explain what astronomers incorrectly believed was evidence for a tremendous “smoothness” and homogeneity. We now know that the universe is not “smooth” and that the universe is not expanding uniformly. The universe is clumpy.

Physicists have thus been forced to tinker and adjust the standard theory and to add additional theoretical elements to support a flawed theory. For example, “dark energy” has been proposed to account for the recent discovery that the supposed expansion of the universe is supposedly accelerating—a finding that also refutes the Big Bang theory.

Because the universe appears to be expanding, this has contributed to age old arguments about the finite vs infinite nature of the universe. The question of a finite or infinite universe is one of the oldest in philosophy, science, and religion.

According to relativity, space is a dynamic medium that can be finite or infinite and which can curve in one of three ways, depending on the distribution of matter and energy within it. It is argued that space and thus the universe is spherical, or perhaps shaped like a flat-plain as predicted by Euclidean geometry, or concave, like a saddle as predicted by “hyperbolic” geometry.

In the standard view, the universe is believed to be finite and to consist of a positive curvature such that it curves back on itself to form a closed space of finite volume. If it is finite, then it will either continue to expand or it will implode depending on the density of matter within it. If the mass density were greater than a value called the critical density, gravity would eventually reverse the expansion, causing the universe to collapse into what could be called the Big Crunch. However, no one knows what the density of the universe may be.

If the universe is in fact curved and finite, it could also give rise to the illusion of infinity, as light might wrap around itself again and again. This possible illusion, created by a positively curved universe, could also create multiple images of each and every galaxy and every star and planet including the Earth. That is, the night skies may contain numerous images of our galaxy and solar system and the Earth, and these images, being conveyed by different curvatures of light, could depict the Earth and every galaxy at different stages of their evolution.

Because light travels at different speeds and in different directions, and because it can be split apart and thus travel from a source by using multiple paths and variable speeds, it is possible for an observer to see multiple images of each galaxy and to erroneously misinterpret these multiple images of a single galaxy as multiple and distinct galaxies in an endless space.

According to quantum theory, our universe is only a single tiny facet of an incredibly large multiverse. The theoretical multiverse is a highly structured continuum containing many universes, and these many universes are side by side, or inside one another, or are mirrors of or identical copies of each other, such that everything that exists in this universe has its counterpart, or rather, counterparts in at least a few of these other universes. In some other universes, what exists or has taken place in this universe differs by varying degrees or factors. In some universes, for example, Adolf Hitler may have won World War II. In yet others, President Kennedy and his brother were never assassinated. In yet others, humans may have never evolved.

When considered from the perspective of a continuous macrocosm each of these universes obeys the laws of classical physics. However, from a microcosmic scale, quantum mechanics the dominant force and each universe interacts with every other universe through a phenomenon known as quantum interference. Those that are close together, effect each other more strongly than those far apart. In other words, each and every particle in this universe, is effected by its counterpart in another universe. However, what this also implies is that every particle and its counterpart, form a trans-universe structure, such that a particle not only exists in this universe, but exists in other universes. That is, every particle and thus every piece of matter, including humans and human consciousness, exists inside as well as outside our universe, and, each and every counterpart, can effect its counterpart and influence its structure and behavior.

The theory of the multiverse could thus be used to explain the experience of life after death, the existence of heaven or hell, or the presence or experience of what some have interpreted to be demons, angels, and even gods.