



# **NeuroTheology**

## **Brain, Science, Spirituality, Religious Experience**

**Edited by Rhawn Joseph, Ph.D.**

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# MYTHOLOGIES OF MODERN SCIENCE

by Rhawn Joseph, Ph.D

It has been declared that god is dead, that spirituality is an “opiate” for the people. And yet, there is a scientific, neurological, and genetic foundation for religious belief, spirituality, and paranormal phenomenon, including the experience of gods, demons, spirits, souls, and life after death. There are specific regions of the brain which become highly active when dreaming, during trance states, meditation, prayer, or under LSD, and which enable us to experience those realms of reality normally filtered from consciousness, including the reality of god, the spirit, the soul, and life after death.

It has been known for thousands of years that dream sleep, trance states, isolation, and food and water deprivation can enhance an individual’s ability to experience realms of reality which are normally filtered from conscious awareness. Under these conditions various regions of the neocortex and limbic system will become highly active, and even hyperactivated, such that what is normally filtered out is perceived. Under these conditions some claim to speak with god, others seek to transcend god, to achieve oneness with the spiritually sublime.

Limbic system structures such as the amygdala, hippocampus, and inferior temporal lobe have been repeatedly shown to subserve and provide the foundations for mystical, spiritual, and religious experience, and the perception, including the “hallucination” of ghosts, demons, spirits and sprites, and belief in demonic or angelic possession (Bear 1979; Daly 1958; Joseph, 1996, Mesulam 1981; Penfield & Perot 1963; Schenk & Bear 1981; Williams 1956). When these brain areas are hyperactivated, “religious” experiences are not uncommon.

Of course, there are some who might take this to mean that these experiences are nothing more than hallucinations produced by an abnormal brain. In some instances this is true. However, rather than due to some abnormality, religious experience and the seeking of spiritual nourishment is the norm and not the exception. It is this natural upwelling of spiritual emotion and religiosity which explains why despite decades of terror and suppression, totalitarian states such as Communist China, Cuba, and the former Soviet Union were unable and have been unable to crush spiritual and religious expression in their countries.

Belief in souls, spirits, the haunted house, and angels or demons, and the capacity to have mystical experiences, including the sensation of being possessed by gods or devils or hearing their voices, is world wide (Budge 1994; Campbell 1988, Frazier 1950; Godwin 1990; Harris, 1993; James 1958; Jaynes 1976; O’Keefe 1982; Malinowski 1948; Smart 1969; Wilson 1951). Humans have been demonstrating a belief in the spiritual world for over 100,000 years (Joseph, 1996, 2000a).

These historical and cross-cultural commonalities in religious and archetypal experience include viewing the sign of the cross with spiritual awe, and the experiences of demons and devils and hearing the voice of “God” or communing with the “Great Spirit,” as well as the many vestiges or incarnations of what has been referred to as the personal soul or “ghost.”

Some may argue, however, that from a strictly “scientific” perspective, there is no basis for religious and spiritual belief. And, there is no “god.”

According to some scientists, we are but random collections of molecules that emerged from an organic soup following the big bang creation of the universe, and we evolved following the generation of random mutations. There is no room for god or spirituality in these “scientific” equations.

Indeed, according to the popular press, and as preached by mainstream scientists, everything began with a big bang, and that at first there was nothing. Nothing! Not even space. And then, Kablooeey!!! there was stuff. In my previous publications I have referred to this as the “nothing happened theory of creation.”

We are also told that the scientific evidence refutes the notion of an “eternal god” because the universe is but 12 billion years young. And how do we know this? Because the most distant (detectable) stars that twinkle in the darkness of night are 12 billion light years away. Away from what? Relative to what? From where the Earth is now, they answer; a reply which has nothing to do with the



supposed big bang as the Earth is not located at ground zero—the location of ground zero is in fact unknown. And what of those stars which are so distant and which died so long ago, their light will never be detected?

Consider, for example, the recent findings of professor Ray Norris and colleagues. Relying on data provided by the CSIRO's Australia Telescope and the Hubble Space Telescope they 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 (Norris et al., 2001).

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 then stating that since he is 124 years old, humans have been on Earth for only 124 years.

If the age and antiquity of the universe is unknown, and if the "big bang" theory of creation is not supported by the scientific evidence, then it becomes impossible to exclude the existence of an "eternal god." Likewise, if the age of the universe is unknown, then the origin of life and each and every DNA molecule, and its storehouse of genetic information, may also have a pedigree which is incredibly ancient. This view is also compatible with the belief that life may have first been fashioned by "the hand of God."

### THE MYTH OF THE ORGANIC SOUP

And the Earth was without form, and void,  
and darkness was upon the face of the deep.  
And the spirit of God moved upon the face  
of the waters.... --Genesis 1.2

Darwin (1859), in the final paragraphs of "The Origin of Species" attributed the creation of life to "what we know of the laws impressed on matter by the Creator." The Sumerians who, 6000 years ago first wrote what became the Biblical version of creation, believed that those who claimed to be Gods were begotten in a manner no different from woman and man—from seeds of life which rained down from the heavens (Kramer, 1991).

About 2,500 years ago, Anaxagoras, a Greek philosopher, echoed this Sumerian thought: "The seeds of life," he wrote, "swarm throughout the cosmos." Anaxagoras, however, did not believe that the "seeds of life" were random collections of molecules, but actual seeds, containing within them the kernel for creating all life.

Others have embraced somewhat similar views (e.g., Hoyle & Wickramasinghe, 1977; Joseph, 2000), including Sir Francis Crick (Crick, 1981; Crick & Orgel, 1973), who was awarded the Nobel Prize (along with Watson) for discoveries regarding DNA. Specifically, Crick and Orgel (1973), proposed that it was time to "consider a new infective theory, namely that a primitive form of life was deliberately planted on Earth by a technologically advanced society on another planet." By contrast, Sir Fred Hoyle and Charles Wickramasinghe (1977, 1978), proposed that "about four billion years ago life arrived in a comet."

Indeed, as the new-born Earth was lacking all the essential ingredients for the formation of life, such as oxygen, phosphorus, etc., and since the theory of the "organic soup" is not supported by the scientific evidence, then we must conclude that life either fell from the sky, embedded in cosmic debris sheared off from ancient, life-bearing planets, or, it was created by intelligent beings, i.e. "god" or "gods."

Not only was our young planet lacking the necessary life-promoting elements, but even by the most optimistic of estimates, there was not enough time for even the simplest of single celled creatures, and their DNA, to spontaneously or gradually emerge from the dust of the Earth (Folsome, 1979; Horgan, 1991; Hoyle, 1974).

Since the Earth was first formed as the presumed product of an accretion disc comprised of various elements orbiting the new born sun, it would have been sterilized by the tremendous heat generated during its creation. All complex organic carbon based molecules would have been de-

stroyed, with the exception of microdiamonds and similar substances. And as our planet was continually bombarded with extraterrestrial debris, it was again sterilized due to the tremendous heat generated by this incessant pummeling.

The surface of the planet in fact melted. Not only was the planet twice sterilized such that all complex organic molecules would have been destroyed, but as it began to cool it was then covered by yet additional debris that continued to repeatedly slam into it until perhaps 3.5 billion years ago (Press & Siever, 1986). It was during this cooling off period, during which the planet was still being bombarded, that the first evidence of life appears, some 3.85 billion years ago (Mojzsis et al., 1996). And these were not simple life forms, but chemically complex, photosynthesizing and oxygen and calcium secreting creatures.

If life were to appear on a desert island, we would assume it simply washed to shore or fell from the sky. The Earth too is an island, swirling in an ocean of space, and up to 40,000 tons of material falls to Earth yearly.

Given that the surface of the young Earth was entirely extraterrestrial in origin, consisting of material left over from the formation of this solar system, as well as material ejected from other solar systems, it is reasonable to conclude that the life that appeared, some 3.85 billion years ago, was also extraterrestrial in origin. Indeed, cell theory, and the very nature and complexity of DNA demands an extraterrestrial origin.

Consider the many thousands of different molecules that make up a single cellular creature and which perform an incredible variety of chemical reactions in concert with that cell's other molecules and their protein (enzyme) products (Strachan & Read, 1996; Watson et al. 1992).

Consider, single cellular microbes are comprised of over 2,500 small molecules (e.g. including amino acids consisting of 10 to 50 tightly packed atoms), macro-molecules (proteins and nucleic acids) and polymeric molecules (comprised of hundreds to thousands of small molecules) all of which are precisely jigsawed together to form a single complex organism. The tiniest and most

Indeed, a single macro-molecule of DNA is composed of hundreds of thousand, and in many cases, millions of micro-molecules which in turn contain all the necessary information for creating an embryo or a complex adult body. There is nothing random about the organization or expression of DNA.

Nevertheless, and as will also be discussed, the prevalent, mainstream view is that life emerged from non-life, and that DNA arose from non-DNA, when the necessary precursor elements fell from the sky and were randomly mixed together in an organic soup, or were spewed out from an undersea volcano and then gradually or spontaneously combined thus creating life. It is noteworthy that all attempts to create life have utterly failed, no matter how sophisticated the experiment, or how closely its design mimics the early environment of the Earth. Indeed, the “organic soup” concept of spontaneous (or gradual) generation has been repeatedly debated, and repeatedly disproved, for centuries.

As summed up so memorably by Sir Fred Hoyle, “spontaneous generation is about as likely an occurrence as the assemblage of a Boeing 747 by a tornado whirling through a junkyard.” However, in the case of the new Earth, there was no “junkyard.” The proverbial organic alphabet soup was missing not only DNA, but the phosphorus and oxygen necessary for the creation of DNA. Life could not have emerged from non-life—at least not on Earth.

That life did not originate on Earth can also be concluded based on the nature and organization of DNA. A single macromolecule of DNA is so incredibly complex, the notion that it was randomly assembled in an organic soup is the equivalent of discovering a computer on Jupiter and then arguing that it was randomly assembled in the Methane sea.

Indeed, there is absolutely no scientific evidence to support the hypothesis that life on Earth emerged from an organic soup, or was randomly fashioned within an undersea thermal vent. As the only source for DNA is DNA, and as DNA could not have originated from an organic soup—as the necessary ingredients did not exist on Earth—then life on Earth, and its DNA, either arrived here from other planets, contained in the massive debris which had rained down from the sky for the first 700 million years after the Earth

**Figure 2.** (Above right) *The full moon as seen from the Earth. Note major impact sites, especially that which fractured the surface of the northern hemisphere. Fossilized bacteria found in 3.5 billion year old chert in Western Australia. Photos and drawings by J. W. Schopf.*

**Figure 3.** (A) Depiction of the double-stranded antiparallel helix structure of DNA. (B) Depiction of the double helix with base pairs. Reprinted from Strachan & Read, 1996, *Human Molecular Genetics*. Wiley, New York.

was formed, or it was first fashioned by a superior intelligence: the hand of “god.”

And, if life was created by “god” or if the seeds of life swarm throughout the cosmos, then some of these “genetic” seeds have fallen to Earth and on other planets including Mars. Indeed, evidence of extra-terrestrial life has been discovered on a variety of meteorites jettisoned from other planets, as well as on the moon. Life has not only repeatedly appeared on other planets, but has done so long before the Earth became a twinkle in god’s eye. Indeed, the “seeds of life” may have in fact been created by “god.”

Of course, these views are completely contrary to Darwinism. As first proposed by Darwin, and as is accepted by most mainstream scientists, life on earth first emerged and was fashioned in an organic soup.

### DNA & THE DEATH OF DARWINISM

Darwin’s theory cannot account for the origin, organization, and expression of DNA, or the evidence of progress in the fossil record.

Darwin’s theory of evolution emphasizes “random variations” and he and his acolytes deny any evidence of design or progress. Harvard paleontologist S. J. Gould (1988, p. 319) described the notion of “progress” as “noxious.”

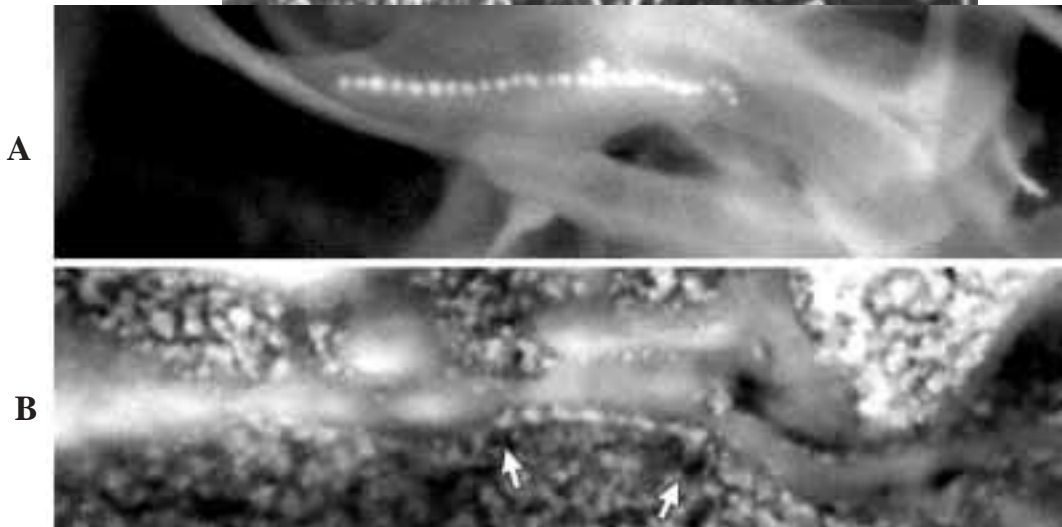
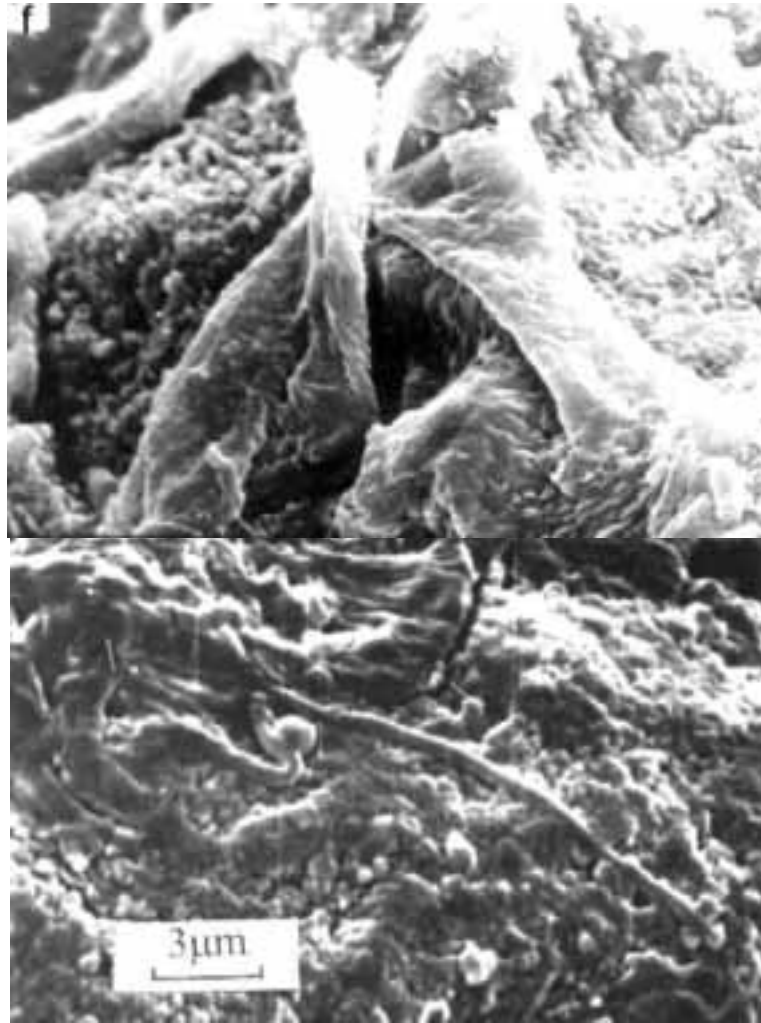
As argued in the text, *Astrobiology* (Joseph, 2000), Darwin’s theory is refuted by genetics, as well as the fossil record. There is nothing random about the expression or organization of DNA, or the progressive metamorphosis of increasingly complex and intelligent species. Although Darwin’s theory can account for “variability” it cannot explain progress including the progressive growth and encephalization of the brain. The brain has not become more variable, but progressively more complex. In fact, not only does the fossil record and the evolution of the body and the brain clearly reveal progress and a step-wise sometimes leaping progression which has led from simple celled creatures to woman and man, but the human genome represents a culmination of that progress.

Contrary to Darwinism, and as the evidence increasingly indicates, the metamorphosis of life has been genetically predetermined and precoded, has unfolded in accordance with specific genetic plans and DNA-based instructions, and has been striving (and still striving) toward fulfilling specific genetic goals. Just as the DNA of an embryo is genetically programmed to produce a fetus, neonate, infant, child, and an adult, the first life forms on this planet contained the DNA for producing all manner of life, including woman and man.

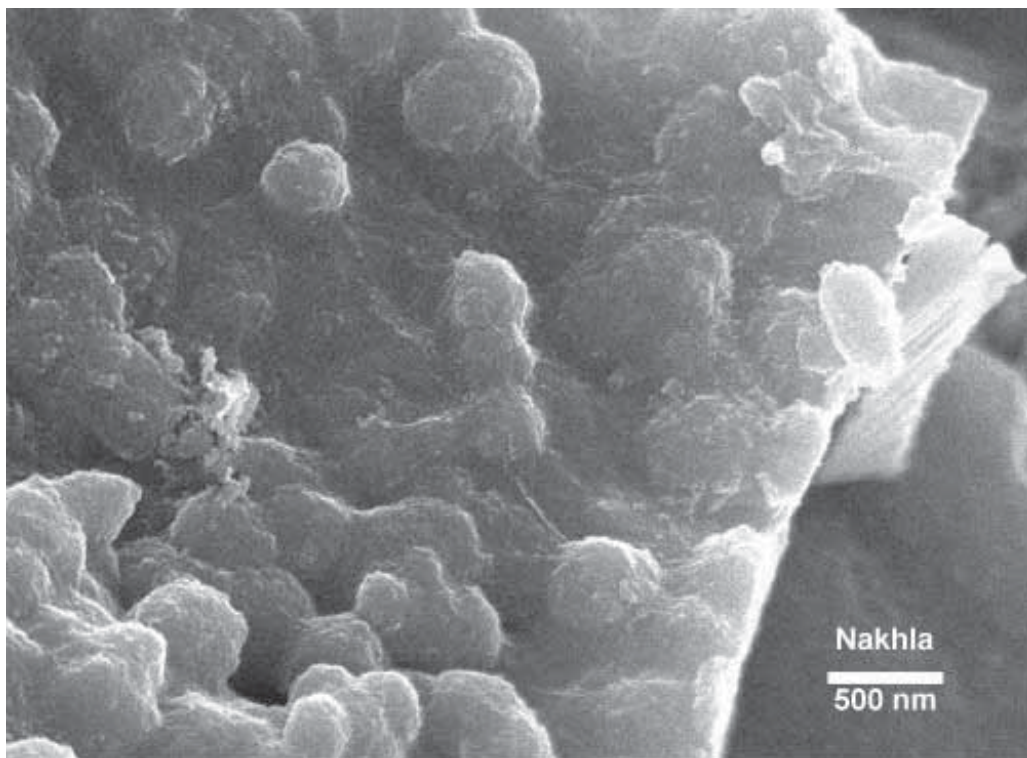
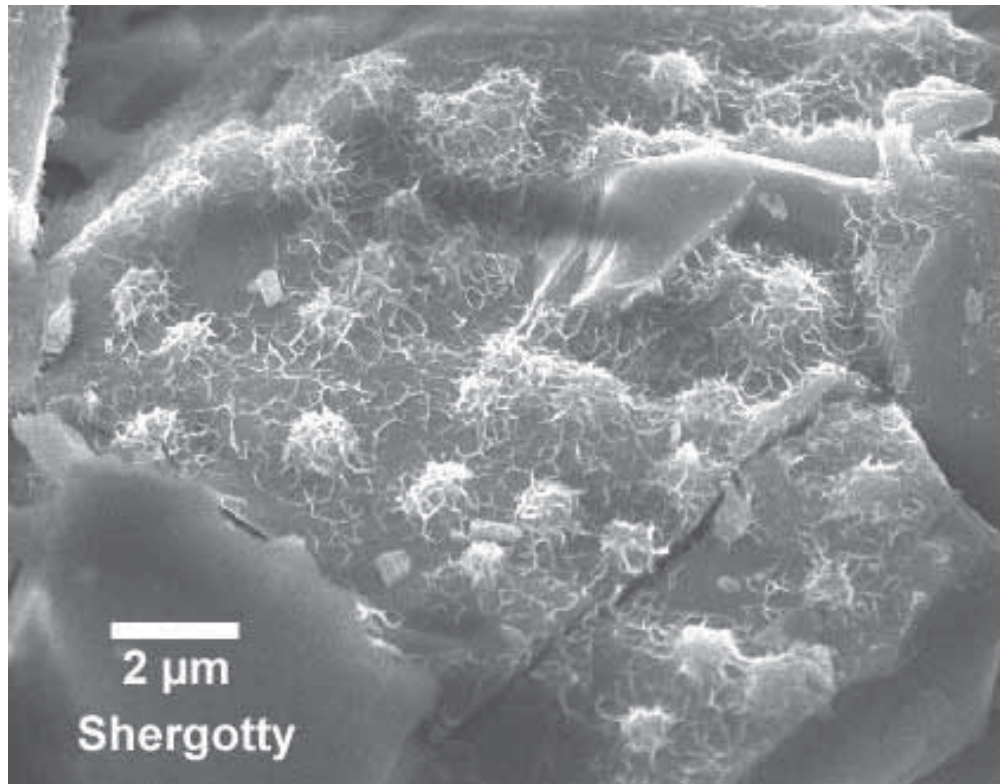
Life has not “evolved” randomly, but in a step-wise, progressive, highly predictable, molecular-

**Figure 4.**  
*Murchison meteorite:*  
*Bacteriomorphic capsular fossil similar to colonies of cyanobacteria Gloeocapsa, (Zhumur & Gerasimenko, 1999).*

*Murchison meteorite:*  
*Branched bacteriomorphic structure analogous to cyanobacteria of the genus Mustigocladus, which are characterized by branching and different diameters of cells, (Zhumur & Gerasimenko, 1999).*



**Figure 5.** (A) Modern magnetotactic bacteria, showing a chain of magnetite crystals (B) Magnetite crystals and chains of magnetite crystals in the Martian meteorite ALH84001 The Martian crystals thus appear to be of bacterial origin. From NASA/Ames Research Center



**Figure 6.** Field emission scanning electron microscope image of spheroidal features in the Martian meteorites Shergotty and Nakhla which are similar to images of spherical features in bacteria-containing samples from Columbia River Basalt, from: Thomas-Keprta, et al., 2000.

clock like fashion. It is these “genetic clocks” which have enabled scientists to accurately predict when specific species first emerged on this planet. There are in fact, genes (e.g., *tim*, *mTim*, *hTIM*) and proteins which perform specific “clock-like” timing functions and which interact to form regulatory feedback loops, and which are highly regulated (Clayton et al., 2001). There is nothing random about the organization or expression of DNA (Caron et al., 2001; Courseaux & Nahon, 2001), the source of all variation.

Genes act on genes, turning them on or off. The environment also acts on gene selection, and on silent genes which exist prior to their activation. It is the interaction of the environment with the genome which determines which of these precoded traits and silent genes come to be expressed. DNA not only acts on itself, it acts on the environment and thus engineers and alters the environment, as is evident during the first billion years after the Earth was formed; e.g., through the creation of an oxygen rich atmosphere, which enabled oxygen-breathing creatures to “evolve,” and the secretion of calcium which promoted the metamorphosis of shells and the skeletal system, and so on. By acting on itself and by altering the environment, DNA creates a feedback mechanism, such that DNA seeks to engineer its own evolution.

The Earth too has evolved, its oceans, atmosphere, land masses, and climate systemically altered by DNA-based life forms that have lived and died over the course of the last 4 billion years.

Genes, and the traits and species they code for, have not “evolved.” They have been inherited from ancestral species, often as silent genes and as genes within genes. Introns (silent genes) contain genes-within-genes, and silent genes, and are the genetic engines of evolution. As compared to all other genomes so far sequenced, human introns have become larger and longer as compared, for example, to fly or worm, i.e., about 50 kb versus 5 kb (Birney et al., 2001). The protein-encoding exons, on the other hand, are roughly the same size. Exons are also conserved, showing up in previous species, often in the same exact location. Thus there has been an increase in the intron to exon ratio in the human genome which in turn is representative of the extreme importance of introns in human evolution and evolutionary change. Introns are “silent” genes and also contain genes-within genes which may be expressed in response to changing environmental conditions, as the environment acts

on gene selection. However, as DNA labors to genetically engineer and change the environment, it can be said that DNA (e.g. introns) are engineering their own evolution in accordance with genetic instructions inherited from those creatures who were among the first to appear on Earth--creatures which may have been intelligently designed, or whose ancestors first “evolved” on other planets.

Human genes differ from other species as they perform more complex and multi-tasking operations. The average human gene can make three to five primary protein products vs the genes of other species which create one or two proteins (Aravind et al., 2001; Birney et al., 2001). Humans produce more proteins that are classified as falling into more than one functional category (426 in human versus 80 in worm and 57 in fly). In consequence, “the human genome contains greater numbers of genes, domain and protein families, paralogues, multi-domain proteins with multiple functions, and domain architectures” (Aravind et al., 2001).

Although the mantra “random variations” is the basis for Darwinian theology, the human genome and vertebrate-specific protein domains and motifs have been created according to specific regulatory constraints, and have been built by rearranging preexisting components into a

**Figure 7.** (Above & next page) *Fossilized Martian bacteria discovered in Martian meteorite. NASA*

*Figure 7. Fossilized Martian bacteria discovered in Martian meteorite. NASA photo.*

richer collection of domain architectures (IHGSC, 2001). The genetic instructions and the genetic material for creating the human genome existed apriori. They did not randomly “evolve,” they were inherited.

For example, consider the so called “language gene,” known as FOXP2. FOXP2 existed prior to the evolution of language, and is found in the genome of other mammals, including mice, rats, dogs, cats, chimpanzees, and so on, but in a non-activated protein-protected form (Enard, et al. 2002). Specifically, the gene was first discovered, its in non-activated form, in a large London family who are incapable of speech. The gene was identified by Dr. Anthony P. Monaco of the University of Oxford. FOXP2 is believed to switch on other genes during the development of the brain thus giving rise to the neural circuitry which supports human language. However, Dr. Svante Paabo and colleagues at the Max Planck Institute for Evolutionary Anthropology, reported in the August, 2002 issue of Nature, that the same exact gene exists in a non-activated form, in mice, chimpanzees and other primates (Enard, et al. 2002). According to Dr. Paabo, the FOXP2 gene has remained largely unaltered during the evolution of mammals. However, in humans, this formerly silent gene became activated through changes in the shape of its protective protein coat. Protein prevents the activation of genes, and removal or alteration in the shape of this protein overcoat, allows for the gene to be activated.

Thus, the “language gene” did not randomly evolve through random mutations. It existed prior to the evolution of humans and prior to the evolution of language, albeit in a silent, non-activated state. The same can be said of those genes which give rise to religious and spiritual experience--they existed prior to their activation, and probably can be found in other species as is the case with tens of thousands of other “silent genes.”

Consider, in 1998, Rutherford and Lindquist demonstrated that “populations contain a surprising amount of unexpressed genetic variation that is capable of affecting certain” supposedly “invariant traits” and that changes in environmental conditions “can uncover this previously silent variation” (Rutherford & Lindquist, 1998 p. 341). Indeed, much of the genome is silent, and these silent genes, and these silent traits can be expressed by varying the environment and through other stresses including fluctuations in temperature, oxygen levels, and diet (e.g., de Jong & Scharloo, 1976; Dykhuizen & Hart, 1980; Gibson & Hogness, 1996; Polaczyk et al., 1998; Rutherford & Lindquist, 1998).

Further support has been provided by Dr. Martin Yanofsky, of the University of California, San Diego, who recently reported that he activated silent genes to produce flower petals from leaves. Specifically, Yanofsky and colleagues demonstrated that when they deactivated the sepallata (SEP) genes, flowers that normally consist of sepals, petals, stamens and carpells, were reduced to consisting only of sepals. Thus, the SEP gene is necessary for petals, stamens and carpells formation. Yanofsky et al., report that although the SEP genes are active in flowering plants, and silent in leaves and nonflowering plants, that they were able to activate these silent SEP genes, and in result, leaves were converted into petals.

Silent genes, therefore, can be activated to produce traits, including evolutionary advanced traits, that exist prior to their expression. However, silent genes can also act to engineer their own evolution,

the environment, or acting on other genes, thus giving rise to a step-wise progression, culminated, on Earth, with the “evolution” of woman and man.

It has engineered its own evolution and has been expressed over the course of “evolution” in a simple, clock-like manner (Joseph 2000). The organization and expression of DNA shows evidence of intelligent design. This intelligence belongs to every DNA molecule which relies on “genetic mechanisms” to genetically engineer the environment and its own evolution and genomic organization. This intelligence, as based on genetics, is indicative of intelligent design.

This argument, first detailed by Joseph (2000) regarding the “intelligent design” and expression of DNA, has been embraced by a number of distinguished geneticists. Dr. Gene Myers, chief computer scientist at Celera Genomics, who assisted in creating the map of the human genome published in *Science* and *Nature* in February 2001, is quoted as saying the architecture of DNA is so complex that “it’s like it was designed.” Tom Abate, a biotechnology reporter at the *San Francisco Chronicle*, imagined a headline reading: “Genome Mapper Sees Hand of God!” and then asked Dr. Myers: “Designed? Doesn’t that imply a designer, an intelligence, something more than the random bumping together of chemicals in the primordial slime?” Myers replied. “There’s a huge intelligence there. I don’t see that as being unscientific. Others may, but not me.”

The evidence increasingly indicates that intelligent life evolved from, and has as its source, intelligent life... which also leads to the possibility that intelligent life, represented, on this planet, in the form of modern humans, may continue to evolve and become more intelligent and more god-like. 90% of the human genome is silent and has yet to be expressed or activated. In fact, 50% of that DNA may well be devoted to the expansion and evolution of the brain--an evolutionary progression that would provide for a wider array of sensory and perceptual cognitive capability which might lead to the next stage in human evolution.

Experience acts on gene selection to activate silent genes and silent traits that exist prior to their expression. In the absence of specific experiences, those brain structures and neurons which subserve these experiences, die and atrophy (Casagrande & Joseph, 1978, 1980; Joseph, 1982, 1999a). The neurons generating these neurons remain silent and suppressed.

Because genes are activated by experience and complex genetic mechanisms, and as the brain evolved in response to environmental demands and experience, it would appear that humans have the capacity to have religious and spiritual experiences, because these experiences acted on the brain, thereby enabling humans to evolve specific brain structures which allowed them to participate in and experience the spiritually sublime.

Did the human brain have evolved the capacity to perceive and experience that which does not exist? That is the evolutionary significance of the evolution of the human ability to have religious and spiritual experiences? And, is this a rudimentary capability that has not yet fully evolved, or is it something more?

### OF INTELLIGENT LIFE

When you look up to the sky and behold the sun and the moon and the stars, the whole earth must not be lured into bowing down to them or serving them. These the Lord your God has made for the nations, but not for you, nor for your peoples...” -Deuteronomy 4.19

Earth is 4.5 billion years young, whereas the age and antiquity of the Universe is unknown. Earth was likely repeatedly contaminated with all manner of life, identical genetic material was laid down on innumerable worlds. Life has had ample opportunity to take root, and evolve on worlds similar and shockingly different from our own.

Earth is likely buzzing with life, and some of these life forms, these “seeds of life,” have been scattered into the abyss following impact shearings and cosmic collisions. As the first life forms appeared almost immediately following a 700 million year pummeling by all manner of celestial bodies, it is likely that at least a few of these seeds—and their DNA—fell to Earth, as we know it. If life can only be produced by DNA, then it would appear that these initial life forms were either natural in origin or created by the hand of god, or both.

### OF FANTASY

**Intelligent Life Evolution**  
There are billions of solar systems that are likely ringed with planets -many probably “designed” on this world,

it could be predicted that Life has emerged on at least a few of these planetary archipelagoes including creatures who long ago “evolved” in a fashion similar to woman and man.

On Earth, the leaping, branching, and step-wise progression which has led from multicellular creature to cartilaginous fish, to bony fish... amphibian, reptile, repto-mammal, therapsid, mammal, primate and woman and man, has taken place over the last billion years. Given that over 90% of human DNA is dormant and silent and as tens of thousands of silent genes (and almost 3 billion base pairs) have yet to be expressed, the likelihood is that evolutionary metamorphosis on this planet will continue well into the future. In fact, humans may soon begin to genetically engineering their own evolution, beginning with their own children, i.e. “designer babies.”

Likewise, given what has taken place on this planet over the course of the last billion years and the human-genetic potential which is yet to be realized, if similar DNA-based life forms exists elsewhere, then those who dwell in the more ancient corners of the cosmos may have genetically engineered their own evolution and may have evolved beyond modern humans billions of years before the Earth became a twinkle in God’s eye.... tens of billions of years before the first upright human emerged from the mists of time.

When we consider that the light from innumerable stars may have winked out of existence billions if not trillions of years ago, that there may be galaxies so distant their light cannot yet be detected, and as current estimates of the age of the Universe are based on detectable light and meaningless distances, the age of the Universe and the ancestry of life may extend interminably into the long ago.

Given that metamorphosis on this planet has been characterized by an obvious step-wise, linear process of increasing intelligence, complexity and brain power, it could therefore be predicted that a similar process has occurred on those life bearing worlds similar to our own. However, as a progressive increase in intelligence and brain size and complexity is characteristic of life on this planet, and as up to 95% of the human genome is silent and has yet to be expressed (that is, on Earth), it can be predicted -at least from the perspective of a “Thought Experiment”--that aliens evolving in the older regions of the cosmos would probably have continued to evolve and undergo metamorphosis. They may have long ago genetically engineered their own evolution by manipulating their genes.

Again, as a “Thought Experiment” consider: These ancient ones who “evolved” billions of years before the Earth was formed may have long ago acquired new brain tissues and new layers of neocortex, and might be capable of processing sensory information which human brains may fail to even perceive much less comprehend.

For example, whereas humans have 6-7 layers (and several sub-layers) of neocortex, those who live in the older regions of the cosmos may have developed 8 or 10, or 12 layers which may be thicker and contain more neurons than their Earthly counterparts. And they may have experienced expansions in those areas of the brain, such as the frontal lobes, which are associated with foresight, judgment, planning skills, and the ability to form long term goals and anticipate multiple long term consequence. Indeed, the frontal lobes serve as the senior executive of the brain, and enable humans to consider multiple possibilities simultaneously while keeping yet other possibilities and their consequences “in mind.”

Consider: What might be the technological and scientific capabilities of a civilization a million years older than our own? What of a civilization that has had ten million, or a billion, or 20 billion years to seek technological perfection? They might seem as “gods” even if they were merely human.

And it can be predicted that these ancient ones might have evolved new brain tissues and additional layers of gray matter and neocortex... gaining intellectual and perceptual capabilities which provide not just a “6th sense” but a 10th sense, and so on, completely eclipsing all aspects of human cognition, perception, and intelligence.

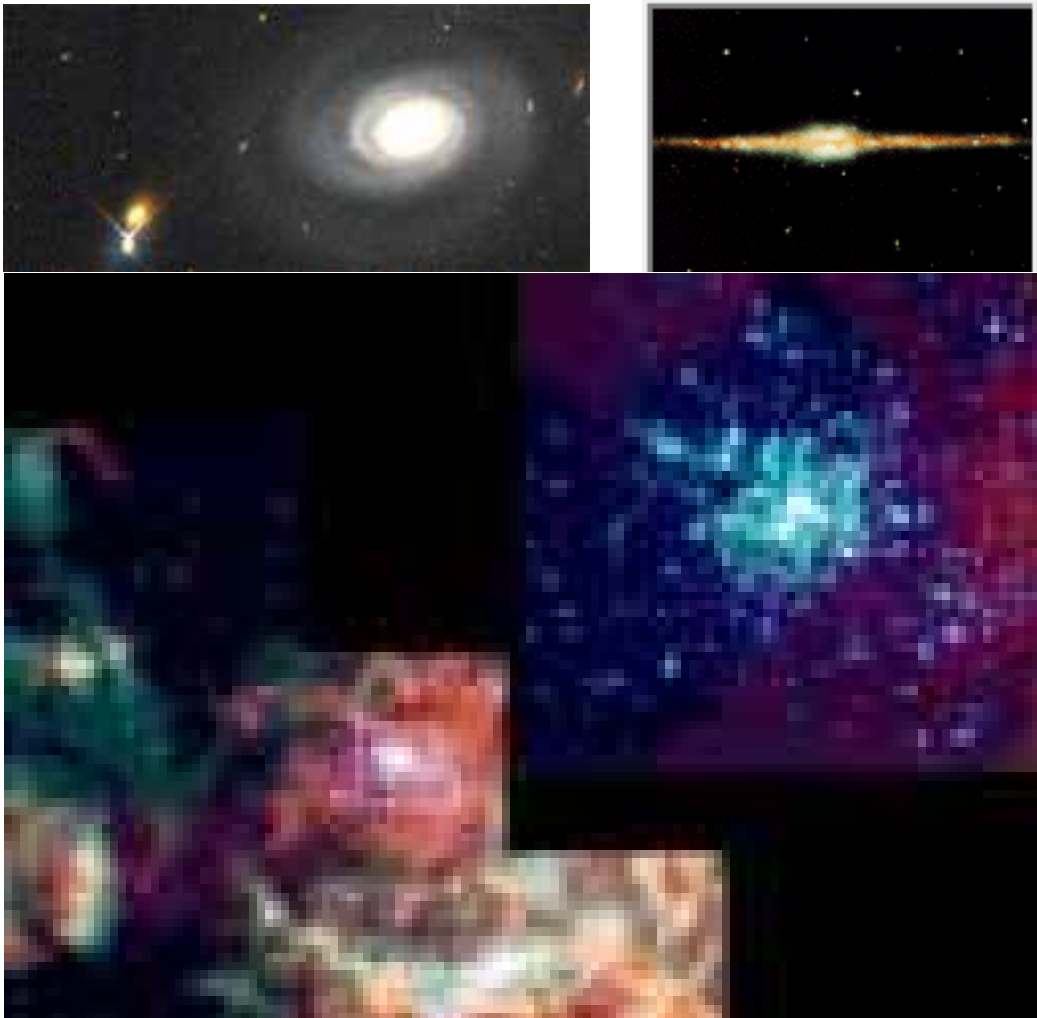
Consider, of the 3% of human DNA which is required to build a human being, 20% of that is used to create a brain, and another 30% of that DNA is expressed in the process of running and maintaining the brain (Brain, 1990). That is, 50% of the 3% of DNA which is coded, serves the human brain. Hence, since 97% of the 30,000 to 40,000 or more genes (and their 3 billion or more base pairs) that make up the human genome are repressed, up to 50% of that and thus perhaps as many as 25,000 repressed genes and over a billion base pairs of nucleotides may be available for future cerebral metamorphosis and expansion of the brain.

Since increased complexity and progressive cerebral encephalization is characteristic of the evolution of brain-based life on this planet, the same could be expected on other complex-life bearing worlds. Consider, the Cro-Magnon peoples of the Upper Paleolithic had a brain that was 1/3 larger than modern humans (Joseph, 2000a).

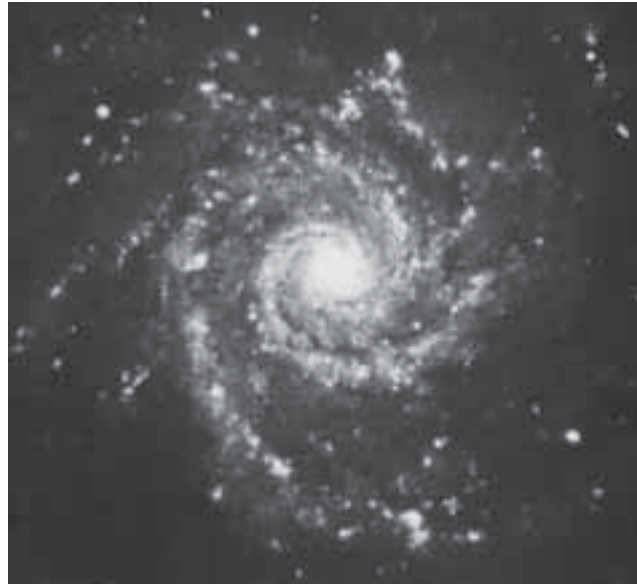
Given evidence of increased brain size in previous species of humanity, coupled with the as yet untapped genetic potential, then it can be predicted that those creatures evolving in the more ancient corners of the cosmos may have acquired more complex neuronal capabilities, as well as increased association and assimilation neocortical tissue, and may have evolved additional nuclei and layers of neocortex, exceeding the 6 to 7 layered neocortex that is characteristic of mammals and primates—and this may have transpired billions of years before the creation of the Earth. In fact, given the unknown antiquity of the universe, the brains of some exobiological organisms may consist of 8, 10, 12 or more layers of neocortex and greatly increased neocortical, perceptual, intellectual, and memory capacity, thus completely dwarfing the human brain in neuronal and cognitive ability.

Consider, what if these ancient ones long ago engineered their own DNA and thus genetically engineered their own metamorphosis and purposefully developed cerebral tissues that enable them to analyze, see relationships, or comprehend and manipulate phenomenon that modern humans cannot even conceive much less comprehend. These peoples, these ancient ones, would be as “gods” even if they were merely human.

*Can a lizard comprehend a man?  
Can a man comprehend a god?  
Who dares speak for God?  
Perhaps....  
....Even the gods have gods...*



*Figure 8. There are hundreds of billions of galaxies, each containing hundreds of billions of stars and suns, many probably quite like our own. (Bottom) The globular cluster M13. (Right & Below) M74 & M42, galactic stars (spiral galaxies) containig billions of stars and suns.*



Again, considered as a “Thought Experiment,” what might be the creative and intellectual potency of a being whose brain and civilization has evolved over tens of billions of years, who has likely engineered their own DNA, and who has 10 or 20 or more layers of neocortex —compared to those seven we call our own? From the perspective of those astrobiological organisms who evolved in the ancient regions of the cosmos, the human brain and mind may seem to be just one small step above a frog or a reptile; which, in many ways it is.

Conversely, the human ability to comprehend the intellectual, scientific and technological accomplishments and capabilities of an alien brain organized in this evolutionary advanced fashion, might be analogous to a lizard’s ability to comprehend a man. That is, the mental, intellectual, creative, and technological capabilities of creatures who began to evolve tens of billions of years ago, would lie well beyond human understanding. They would be as gods even if they were merely human.

Might this also explain the claims of the ancient Sumerians, Babylonians, Hebrews, Greeks, Romans, etc. that “God” and the “gods” looked and behaved like humans and possessed human attributes including egotism, jealousy, irrational rages... including perhaps a tendency to brag and to take credit for achievements not their own —such as the creation of the universe?

Or, could it be that an incredibly ancient, “superior” life form which lives or exists in a manner or physical dimension that is beyond our comprehension, may have been “playing god” and long ago fashioned this world, our Earth, our DNA and sewn the seeds of all life?

And, if humans are created in the image of the “Gods,” having descended, and ascended, from similar genetic seeds, and if evolutionary metamorphosis is an ongoing phenomenon, then perhaps we too possess the genetic potential to be as gods, to be as God, and the genetic potential to not only eat of the tree of knowledge, but to evolve beyond good and evil.

Again, it may well be that what is referred to as spirituality and paranormal and even so called “psychic” phenomenon, are but the leading edge of psychological abilities which have not yet evolved and thus represent the first rudimentary elements of neurological and functional capabilities which have not yet fully emerged and whose genetic potential remain locked away in those silent genes which have not yet been expressed and in brain tissue which still has the genetic potential to more fully evolve... like the “language genes” lying dormant in the genomes of mice, dogs, and chimpanzees.

Because the brain has evolved the capacity to act as a transmitter to god, and may well be continuing to evolve this emerging capacity, it may be that what is perceived and experienced are fragments of a spiritual reality that is beyond our ability to fully comprehend; for why would the brain evolve the capacity to experience something that does not exist?

It is the neurological, and genetic foundations for spiritual experience, and the fact that all humans possess a brain that is organized in a similar manner, coupled with the existence of this “spiritual reality” which also explains why humans have similar religious and mystical experiences, what Jung (1964) referred to as “archetypes.” Archetypes are inborn tendencies to dream of, and respond similarly to specific images and symbols and to experience a personal soul and presence of god. Humans have similar religious experiences because these experiences are real and are perceived in a similar fashion by the same regions of the brain. Each and every human is born with a brain and mind which serves as a transmitter to god.

Thus, again, it can be exper



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

**by R. Joseph**

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