

Apologetics Outreach: Challenging the Secular

3. Is God Logical?



When we examine the issue of moral relativity, we arrive at door or of truth. The whole issue of morality stems from the source of what is "True". What is truth? If truth is subjective then morality is subjective. If truth is objective then there are moral absolutes. Based on reality, it is logical to conclude truth cannot be subjective. Subjective truth would mean there is no truth and everybody is correct, which is not possible. Objective truth, the objective correspondence of what is real, means that truth corresponds to reality. The earth being sphere is reality, regardless, whether the world believes the earth is flat, the truth is the earth is a sphere. How did the earth come into existence? What is the cause of the universe? What is the objective truth for our existence? What is the "First-Cause"? How can such a question be answered?

To answer these questions, we need to start from what we know, the *first principles*, that which does not need to be proven. We know we exist, and we are aware of our existence. Because we can see children being born and ourselves getting older, it is logical to conclude there is a beginning, "A Cause", to our existence. There must have been a first human. We can also observe the same in the animal world. Animals are born and die; they too must have a starting point of existence. The necessity for "Cause" leads us to another "First Principle" the need for cause;

The principle of causality: Only being can cause being. Nothing does not exist, and only what exists can cause existence, since the concept of "Cause" implies an existing thing that has the power to effect another. From absolutely nothing comes absolutely nothing.¹

Every thing that comes to be must have a cause. If you take a candle and light it, it will burn for a limited amount of time until its potential energy is burned. The heat, the candle emits is similar to the heat the sun emits. The fact that the candle's energy source is finite demonstrates the need for cause. There was a cause for the candle and their will be an end to the candle. The heat emitted from the Sun is contingent (dependent) on the finite (limited) energy contained in the Sun.

This demonstrates the Sun is also finite, there was, a cause, for the Sun to exist. This principle is the same throughout the whole universe. The farthest galaxies emitting finite energy have a point, they were turned on, "A cause" for their existence.

Sir Francis Bacon (1561-1626) the father of modern science said, "True knowledge is knowledge by causes."² If the Universe is finite and had a beginning, then it would need to have a cause—if causality is a valid principle. A flaw in the causality principle would be equivalent to having a fatal crack in the foundation of science.³ David Hume, (1711-1776) the skeptic admitted, it is absurd to deny the principle of cause.



"I never asserted so absurd a proposition as that anything might arise without a cause."⁴

What is the Cause of the Universe?

For a finite universe to exist there needs to be a cause. This question is not a religious question, but a question about reality and truth. Based on the observable universe we know there was a time when the

¹ Geisler, Norman, Baker Encyclopedia of Christian Apologetics, First principles, pg. 251, Baker, 1999

² Francis Bacon, Novum Organum (New York:Bobbs-Merrill, 1960 ed) pg. 121

³ Geisler, Unshakable Foundations, Bethany House, 2001, pg. 74

⁴ David Hume, The Letters of David Hume, ed J.Y.T. Greig (Oxford:Clarendon,1932), 1:187

universe as we know it did not exist. What brought the universe into existence? Did the universe always exist? Did matter, space and time one day explode into existence? Did matter always exist? These questions have pondered scientist, philosophizer and theologian.

For those who are seeking evidence for the existence of God. The creation of the universe is one of the most powerful arguments. This is the Cosmological argument for the existence of God.

The Cosmological Argument

In the cosmological discussion the first question to be answered is, "Did the universe have a beginning?" What are the options?

- If the universe had a beginning, then it needs a first cause.
- Did the universe self-cause itself? In order to self-cause itself it would have to not exist (to cause existence) and exist (in order to be caused) at the same time. Therefore, this option is ruled out because it violates the "Law of non-contradiction".
- Did the universe always exist? As Carl Sagan believes, ("The Cosmos is all that is or ever was or ever will be"). Naturalist believe the universe either;
 - A. Came from nothing by nothing
 - B. Always existed.

Option A. is impossible, it not possible for nothing to produce something. So the option left is to accept that the universe always existed, option b.

Laws that affect the Universe:

1. The First Law (Law of Energy Conservation) states that energy can neither be created nor destroyed.
2. The Second Law (Law of Energy Decay) states that in a closed system, the amount of usable energy in the universe is decreasing." Entropy is the level of disorder in a system. A highly ordered system is in a low state of entropy. A disordered system is in a higher state of entropy.

Is the Cosmos running out of usable energy?

Cosmologists treat the universe as a gigantic heat engine with no external source of energy input. This means that the total amount of usable energy in the universe is fixed and is decreasing as time passes (nuclear fusion is occurring throughout the universe).⁵

This means that at some point the universe was at highly ordered state. According to the 2nd Law, the universe is expected to run out of usable energy.

Roy Peacock, an expert in thermodynamics, wrote "A Brief History of Eternity" to show how discoveries in the universe along with the laws of thermodynamics show the universe is finite. He writes,

The Second Law of thermodynamics is probably the most powerful piece of legislation in the physical world. It ultimately describes every process we have ever discovered: it is the final Court of Appeal in any dispute relating to action and procedures, whether they are naturally generated or man inspired. It draws the conclusion that in our universe there is an overall reduction in order, a loss of available energy that is measured as an increase in entropy. So the available stock of order is being exhausted. Akin to the dying battery of a flashlight, useful energy is being dissipated into entropy after which none remains for use...For us to live in a universe in which the Second Law of thermodynamics holds, then, it must be a universe that has a starting point, a creation.⁶

Is there Evidence of a Finite Universe?

⁵ Geisler, Unshakable Foundations, Bethany House, 2001, Pg. 93

⁶ Roy Peacock, A Brief History of Eternity, Crossway, 1990, Pg. 106

The Radiation Echo:

Arno Penzias and Robert Wilson, two physicists at Bell Laboratories discovered the earth is bathed in a faint glow of radiation. They were awarded the Nobel Prize in 1978. Their data found this radiation was left over from the initial explosion of the beginning of the universe, commonly referred to as the Big Bang.

In November of 1989, a satellite named COBE, (Cosmic Background Explorer) was successfully launched into space with instruments aboard capable of measuring the radiation echo left behind from the Big Bang. In April 1992, the final summation of COBE's data was made public and hailed as unprecedented. Stephen Hawking, author of "A Brief History of Time", called the discovery, "The most important discovery of the century, if not all time."⁷

This affirms the universe had a beginning.

The Expanding Universe

Albert Einstein's General Theory of Relativity predicted that the universe had a beginning and is expanding in all directions. If we reversed the theory, there would be a starting point to the universe. This disturbed Einstein; his own theory demanded a starting point for the universe.

Robert Jastrow, founder of NASA's Goddard Institute for Space Studies and served for twenty years as its director wrote about Einstein's reaction in his realization of a finite universe:

Around this time, signs of irritation began to appear among the scientists. Einstein was the first to complain. He was disturbed by the idea of a Universe that blows up, because it implied that the world had a beginning. In a letter to de Sitter—discovered in a box of old records in Leiden some years ago—Einstein wrote, "This circumstance (of the expanding Universe irritates me," and in another letter about the expanding Universe, he said: To admit such possibilities seems senseless."....I suppose that beginning in time annoyed Einstein because of its theological implications.⁸

Based on Einstein's theory of general relativity, the universe is finite and expanding in all directions. Since 1919 this theory has been verified numerous experiments. Therefore, we can conclude the universe had a beginning. It is finite.

What Caused the Universe?

If the universe had beginning then it must have a cause. The Big Bang does not only involve the start of matter but also space and time. Matter, space and time are interdependent. The explosion of the universe was a highly orchestrated cosmic explosion with just the right mixture of gravity and explosive energy. John Polkinghorne, a theoretical physicist, and a colleague of Stephen Hawking, writes:

In the early expansion of the universe, there has to be a close balance between the expansive energy (driving things apart) and the force of gravity (pulling things together). If expansion dominated then matter would fly apart too rapidly for condensation into galaxies and stars to take place... (The possibility of our existence) requires a balance between the effects of expansion and contraction which at a very early epoch in the universe's history (The Planck time) has to differ from equality by not more than 1 in 10^{60} . The numerate (mathematical) will marvel at such a degree of accuracy. For the non-numerate, I will borrow an illustration from Paul Davies of what that accuracy means. He points out that it is the same as aiming at a target an inch wide on the other side of the observable universe, twenty thousand million light years away, and hitting the mark.⁹

"If the existence of the cosmos as a whole needs to be explained, and if it cannot be explained by natural causes, Then we must look to the existence and action of a supernatural cause for its explanation"¹⁰

Since it is impossible for nothing to produce something, something must have always existed as the "First Cause" of the universe. Furthermore, this First Cause must be eternal (outside of time, since time is part of the finite universe) and powerful enough to account for the origin and existence of the universe. This Cause must be knowledgeable, powerful and eternal.

⁷ Michael D. Lemonick, "Echoes of the Big Bang," Time, May 4, 1992

⁸ Robert Jastrow, God and the Astronomers (New York: W.W. Norton & Co. 1992)

⁹ John Polkinghorne, One World (London: SPCK, 1986), 57

¹⁰ Mortimer J. Adler, How to Think about God (New York: Macmillian, 1980) 131

The Design Argument (Teleological)

The beginning of the universe requires a "First Cause", because the universe has a starting point and is finite, the cause must be greater than the effect. In the same light, we know the existence of life also has a starting point. Matter is the building block of life, without matter, we cannot have life in this physical universe, as we know it. Therefore, the next question to be addressed is, "What is the origin to Life?"

Is the same "First Cause" that caused the universe to explode into existence the "First Cause" of life as well? There are two competing origin of life models; the macroevolutionary model and the design model.

The macroevolutionary model states that life was self-generated from nonliving (inorganic) matter. Once the gap from non-life to life was bridged, the first living cell began to evolve by random changes (mutations) in its genetic information system, creating new characteristics that were not in the original organism.

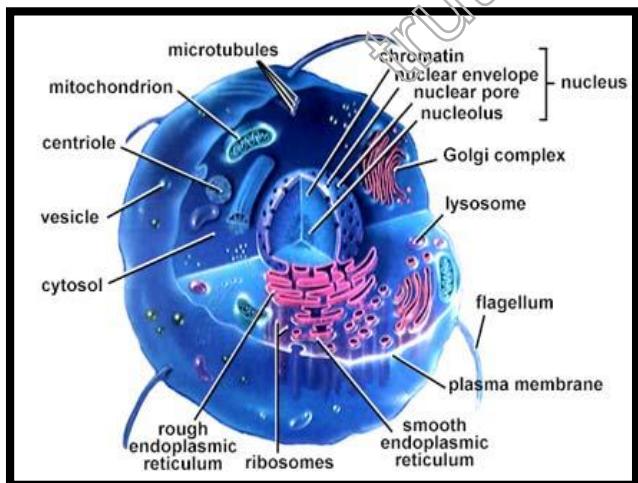
The design model states that non-life never produces life and that the first life forms were the direct result of super-intelligence.

How complex is a cell?

When Darwin wrote his theories of evolution in the mid-1800's the cell was a mystery. It was not until after WW II and the discovery electron microscopy, that new sub-cellular structures were discovered. Michele J. Behe, author of Darwin's Black Box, writes;

This level of discovery (of sub-cellular structures) began to allow biologist to approach the greatest black box of all. The question of how life works was not one Darwin or his contemporaries could answer. They knew that eyes were for seeing—but how, exactly do they see? How does the blood clot? How does the body fight disease? The complex structures revealed by the electron microscope were themselves made of smaller components. What were those components? What did they look like? How did they work?¹¹

To understand the complexity of a cell, Michael Denton, illustrates if a cell magnified a 1000 million times until its 20 kilometers in diameter what would we see. He writes,



What we would then see would be an object of unparalleled complexity and adaptive design. On the surface of the cell, we would see millions of openings, like the portholes of a vast space ship, opening and closing to allow a continual stream of materials to flow in and out. If we were to enter one of these openings, we would find ourselves in a world of supreme technology and bewildering complexity. We would see endless highly organized corridors and conduits branching in every direction away from the perimeter of the cell, some leading to the central memory bank in the nucleus and others to assembly plants and processing units. The nucleus itself would be a vast spherical chamber more than a kilometer in diameter, resembling a geodesic dome inside of which we could see, all neatly stacked together in ordered arrays, and raw materials would shuttle along all the manifold conduits in a highly ordered fashion to and from various assembly plants in the outer regions of the cell... Is it really credible that random processes could have constructed a reality, the

smallest element of which...a functional protein or gene—is complex beyond our own creative capacities, a reality which is the very antithesis of chance, which excels in every sense anything produced by the intelligence of man¹²

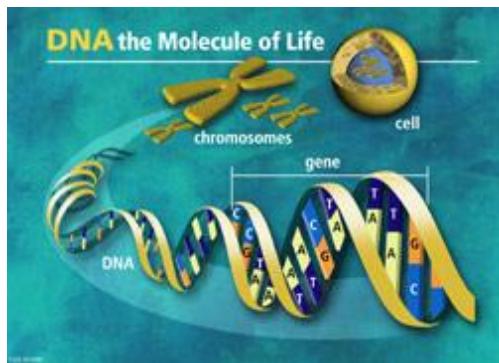
¹¹ Michael J. Behe, Darwin's Black Box: (New York: Free, 1996) pg. 10

¹² Michael Denton, Evolution: A Theory in Crisis (Bethesda:Adler & Adler, 1986) 328,342

How could the first cell come into existence? Was it time, chance and matter? On the other hand, was it the result of an intelligent designer, a “First Cause” of life? Darwin wrote,

If it could be demonstrated that any complex organ existed, which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down.¹³

According to Darwin’s criteria, his whole model of life falls apart. The cell is the smallest unit of matter considered alive...less than a 1/1000th of an inch in diameter.



In the center of the cell is the nucleolus composed of deoxyribo-nucleic acid (DNA), protein and ribonucleic acid (RNA). DNA combined with proteins is organized into structural units called *chromosomes*, which usually occur in identical pairs. The DNA molecule form the infrastructure in each chromosome and is a single, very long, highly coiled molecule subdivided into functional units called *genes*. A gene occupies a certain place on the chromosome and contains the coded instructions that determine the inheritance of a particular characteristic or group passed from one generation to the next. The Chromosomes contain the information needed to build an identical working cell.

Cells serve two functions to provide a framework to support life and to make copies of themselves. They do this by having a communication system between the nucleolus and the rest of the cell. Inside the nucleolus is located all the information need to function, replicate and repair the cell. Only now is this incredibly complex system of cell communication becoming known.

In the same way a software program uses binary code, combining 0 and 1 to communicate programs throughout a computer system the cells uses the combination of four nitrogen-containing bases to communicate inside the cell. (Adenine (A), Thymine (T), Cytosine (C) and Guanine (G)).

Molecular biologists classify it as equivalent to a written language but not by analogy.

The statistical structure of any printed language ranges through letter and frequencies, diagrams, trigrams word frequencies, etc., spelling rules, grammar and so forth and therefore can be represented by a Markov process given the states of the system.....It is important to understand that we are not reasoning by analogy. The sequence hypothesis applies directly to the protein and the genetic text as well as to written language and therefore the treatment is mathematically identical.¹⁴

The cell has a language of its own, fully equipped with rules that govern how it communicates. This cellular communication system has been shown to have a one-to-one correspondence with our own communication systems.

The genetic code is composed of four letters (Nucleotides), which are arranged into sixty-four words of three letters each (triplets or codons). These words are organized in sequence to produce sentences (Genes). Several related sentences are strung together and perform as paragraphs (Operons). Tens of thousands of paragraphs comprise chapters (Chromosomes), and a full set of chapters contain all the necessary information for a readable book (Organism).¹⁵

The possibility of life coming into existence on its own requires two elements time and probability. David Foster illustrates the problem with a deck of 52 playing cards.

¹³ Charles Darwin, *On the Origin of Species* (New York:NAL Penguin Inc., 1958)

¹⁴ Hubert P. Yockey, “Self Organization, Origin-of-life Scenarios and Information Theory,” *Journal of Theoretical Biology*, Vol. 91 (1981):16 A Markov process is a phrase used to in the discipline of statistics It concerns itself with analyzing a succession of events within certain parameters. Named after Andrei Markov (1856-1922)

¹⁵ Lane P. Lester and Raymond G. Bohlin, *The Natural Limits to Biological Change* (Grand Rapids, Mich: Zondervan, 1984)

Specificity is the measure of the improbability of a pattern which actually occurs against a background of alternatives...Let us imagine that there is a pack of 52 cards well shuffled and lying face-downwards on a table. What are the chances of picking all the cards up in a correct suit, sequence starting with the Ace of Spades and working downwards and then through the other suits and finishing with the Two of Clubs?

Well, the chance of picking up the first card correctly is 1 in 52, the second 1 in 51, the third card 1 in 50, the fourth card 1 in 49 and so forth. So the chance of picking up the whole pack correctly is Factorial 52.

As one chance in... (About) 10^{68} this number is approaching that of all the atoms in the universe.

- Number of seconds back from now to the estimated date of the Big Bang is 4×10^{17} (10^{18})
- Number of atoms in the universe: 10^{80}
- Number of photons in the universe: 10^{88}
- Number of stars in the universe: 10^{22}
- Number of wavelengths of light to traverse the universe $2 \times 10^{33.1616}$

The astronomers Fred Hoyle and Chandra Wickramsinghe placed the probability that life would originate from non-life As one $10^{-40,000}$ and the probability of added complexity arising by mutations and natural selection very near this figure.¹⁷

To believe that life could have come from non-life would require an incredible amount of faith.

The information content of the brain expressed in bits is probably comparable to the total number of connections among the neurons—about a hundred trillion, 10^{14} , bits. If written out in English, say, that information would fill some twenty million volumes, as many as in the world largest libraries. The equivalent of twenty million books is inside the heads of every one of us. The brain is a very big place in a small space¹⁸

When we examine the complexity of life and the improbability of life developing from non-life, we are forced to come to the conclusion that a Super-Intelligent Designer is the source for life.

¹⁶ David Foster, *The Philosophical Scientists* (New York: Dorset, 1985)

¹⁷ Lane P. Lester and Raymond G. Bohlin, *The Natural Limits of Biological Change* (Grand Rapids, Mich, Zondervan, 1984) 86

¹⁸ Carl Sagan, *Cosmos* (New York: Ballantine, 1980), 230