

Creation--Will It Stand the "Test of Science"?

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INTRODUCTION

There are two fundamentally different, and diametrically opposed, explanations for the origin of the Universe, the origin of life in that Universe, and the origin of new types of varying life forms. Each of these explanations is a cosmogony—an entire world view, or philosophy, of origins and destinies, of life and meaning. According to the theory of evolution, or as it may more properly be called, the **evolution model**, the Universe is self-contained. Everything in our Universe has come into being through mechanistic processes without any kind of supernatural intervention. This view asserts that the origin and development of the Universe and all of its complex systems (the Universe itself, living non-human organisms, man, etc.) can be explained solely on the basis of time, chance, and continuing natural processes, innate in the very structure of matter and energy. The famous Harvard zoologist, P.D. Darlington, made this very point in his book, *Evolution for Naturalists*: “The outstanding evolutionary mystery now is how matter has originated and evolved, why it has taken its present form in the universe and on the earth, and why it is capable of forming itself into complex living sets of molecules. This capability **is inherent in matter as we know it, in its organization and energy**” (1980, p. 15, emp. added). More than 200 pages later, and after having spent considerable time and effort examining the alleged evidences for evolution, Darlington commented:

It is a fundamental evolutionary generalization that no external agent imposes life on matter. Matter takes the forms it does because it has **the inherent capacity to do so**. This is one of the most remarkable and mysterious facts about our universe: that matter exists that has the capacity to form itself into the most complex patterns of life (p. 234, emp. added).

The second alternative and opposing world view is the concept of **creation**. According to the theory of creation, or as it may more properly be called, the **creation model**, the Universe is **not** self-contained. Everything in the Universe, and in fact, the Universe itself, came into being through the design, purpose, and deliberate acts of a supernatural Creator Who, using processes that are not continuing as natural processes in the present, created the Universe, the Earth, and all life on that Earth, including all basic types of plants and animals, as well as humans. As both evolutionists (see Wald, 1972, p. 187) and creationists (see Wysong, 1976, p. 5) have correctly pointed out, there are two and only two possibilities regarding origins. One or the other of these two philosophies (or models) must be true. That is to say, all things either can, or cannot, be explained in terms of a self-contained Universe by ongoing natural processes. If they can, then evolution is true. If they cannot, then they must be explained, at least in part, by extranatural processes that can account for a Universe which itself was

created. Even evolutionists acknowledge this point. Richard Dawkins of Oxford University (a devout evolutionist) has noted: "The more statistically improbable a thing is, the less we can believe that it just happened by blind chance. Superficially the obvious alternative to chance is an intelligent Designer" (1982, 94:130). Dawkins then explained why he believes no Designer exists—all the while admitting the inherent complexity of living systems and the tremendous improbability of evolution!

THE PLAUSIBILITY OF THE CREATION MODEL: THE PRINCIPLES OF CAUSALITY AND UNIFORMITY

The **function** of the Universe has to do with regular laws or principles of science that are experimentally reproducible and that therefore can be studied and observed (either directly or indirectly). This we call **operation science**. On the other hand, an understanding of the Universe includes some singular events, such as origins. Unlike the recurrent operation of the Universe, origins cannot be repeated for experimental testing. In the customary language of science, theories of origins (**origin science**) cannot be falsified by empirical test (if they are false) as can theories of operation science. How, then, can origins be investigated? Simply put, the best we can ever hope to achieve, scientifically speaking, is to render any idea regarding origins either **plausible** or **implausible**. By the very nature of the case, true falsification is not possible.

How, then, does one determine whether an origin science scenario is plausible? Very simply, the principles of **causality** and **uniformity** are used. By **cause** we mean the **necessary** and **sufficient** condition that alone can explain the occurrence of a given event. By **principle of uniformity** we mean that the kinds of causes which we observe producing certain effects today can be counted on to have produced similar effects in the past. In other words, what we see as an adequate cause in the present, we assume to have been an adequate cause in the past; what we see as an **inadequate** cause in the present, we assume to have been an **inadequate** cause in the past. Evolutionists have relied heavily on the principles of causality and uniformity in attempts to work out evolutionary scenarios of the alleged past. Thaxton, Bradley, and Olsen have addressed these points.

Consider, for example, the matter of accounting for the informational molecule, DNA. We have observational evidence in the present that intelligent investigators can (and do) build contrivances to channel energy down nonrandom chemical pathways to bring about some complex chemical synthesis, even gene building. May not the principle of uniformity then be used in a broader frame of consideration to suggest that DNA had an intelligent cause at the beginning? Usually the answer given is no. But theoretically, at least, it would seem the answer should be yes in order to avoid the charge that the deck is stacked in favor of naturalism.

We know that in numerous cases certain effects always have intelligent causes, such as dictionaries, sculptures, machines and paintings. We reason by analogy that similar effects have intelligent causes. For example, after looking up to see "BUY FORD" spelled out in smoke across the sky we infer the presence of a skywriter even if we heard or saw no airplane. We would similarly conclude the presence of intelligent activity were we to come upon an elephant-shaped topiary in a cedar forest.

In like manner an intelligible communication via radio signal from some distant galaxy would be widely hailed as evidence of an intelligent source. Why then doesn't the message sequence on the DNA molecule also constitute *prima facie* evidence for an intelligent source? After all, DNA information is not just analogous to a message sequence such as Morse code, it is such a message sequence....

We believe that if this question is considered, it will be seen that most often it is answered in the negative simply because it is thought to be inappropriate to bring a Creator into science (1984, pp. 211-212, emp. in orig.).

Use of the principles of uniformity and causality enhance the creation model, for these are cherished concepts of scientific thinking. Albert Einstein once said that scientists are "possessed by the sense of universal causation." Causality confirms that every material effect has an adequate antecedent cause. The basic question, then, is this: Can the origin of the Universe, the origin of life, and the origin of new life forms best be accounted for on the basis of nonintelligent, random, chance, accidental processes? Are these **adequate causes**? Or, are these phenomena best accounted for on the basis of a Creator (i.e., an adequate cause) capable of producing the complex, ordered, information-relating processes we see around us? Which of these two is **more plausible**?

Both evolution and creation may be referred to properly as scientific models, since both may be used to explain and predict scientific facts. Obviously the one that does the better job of explaining/predicting is the better scientific model. However, by the very nature of how science works, simply because one model fits the facts better does not prove it true. Rather, the model that better fits the available scientific data is said to be the one that has the highest degree of probability of being true. Knowledgeable scientists understand this, of course, and readily accept it, recognizing the limitations of the scientific method (due to its heavy dependence upon inductive, rather than strictly deductive, reasoning).

In order to examine properly the two models, they must be defined in broad, general terms, and then each must be compared to the available data in order to examine its effectiveness in explaining and predicting various scientific facts. What, then, by way of summary, do the two different models predict and/or include? The **evolution model** includes the evidence from

various fields of science for a gradual emergence of present life kinds over eons of time, with emergence of complex and diversified kinds of life from “simpler” kinds, and ultimately from nonliving matter. The **creation model** includes the evidence from various fields of science for a sudden creation of complex and diversified kinds of life, with gaps persisting between different kinds, and with genetic variation occurring within each kind. The creation model denies “vertical” evolution (also called “macroevolution” – the emergence of complex from simple, and change between kinds), but does not challenge “horizontal” evolution (also called “microevolution” – the formation of species or subspecies within created kinds, or genetic variation). In defining the concepts of creation and evolution, an examination of several different aspects of each of the models demonstrates the dichotomy between the two. Placed into chart form, such a comparison would then appear as seen in Table 1.

Creation	Evolution
The creation model includes the scientific evidence and the related inferences suggesting that:	The evolution model includes the scientific evidence and the related inferences suggesting that:
I. The Universe and the solar system were created suddenly.	I. The Universe and the solar system emerged by naturalistic processes.
II. Life was created suddenly.	II. Life emerged from nonlife via naturalistic processes.
III. All present living kinds of animals and plants have remained fixed since creation, other than extinctions, and genetic variation in originally created kinds has occurred only within narrow limits.	III. All present kinds emerged from simpler earlier kinds, so that single celled organisms evolved into invertebrates, then vertebrates, then amphibians, then reptiles, then mammals, then primates (including man).
IV. Mutation and natural selection are insufficient to have brought about any emergence of present living kinds from a simple primordial organism.	IV. Mutation and natural selection have brought about the emergence of present complex kinds from a simple primordial organism.
V. Man and apes have a separate ancestry.	V. Man and apes emerged from a common ancestor.
VI. The Earth's geologic features appear to have been fashioned largely by rapid, catastrophic processes that affected the Earth on a global and regional scale	VI. The Earth's geologic features were fashioned largely by slow, gradual processes, with infrequent catastrophic events restricted to a local scale (uniformitarianism).

(catastrophism).	
VII. The inception of both the Earth and living kinds may have been relatively recent.	VII. The inception of both the Earth and of life must have occurred several billion years ago.
Table 1. The two models of origins (after Gish, et al., 1981)	

REVIEWING THE OPTIONS

Throughout human history, one of the most effective arguments for the existence of God has been the cosmological argument, which addresses the fact that the Universe (Cosmos) is here and therefore must be explained in some fashion. In his book, *Not A Chance*, R.C. Sproul observed:

Traditional philosophy argued for the existence of God on the foundation of the law of causality. The cosmological argument went from the presence of a cosmos back to a creator of the cosmos. It sought a rational answer to the question, “**Why** is there something rather than nothing?” It sought a sufficient reason for a real world (1994, p. 169, emp. in orig.).

The Universe exists and is real. Atheists and agnostics not only acknowledge its existence, but admit that it is a grand effect (e.g., see Jastrow, 1977, pp. 19-21). If an entity cannot account for its own being (i.e., it is not sufficient to have caused itself), then it is said to be “contingent” because it is dependent upon something outside of itself to explain its existence. The Universe is a contingent entity since it is inadequate to cause, or explain, its own existence. Sproul has noted: “Logic requires that if something exists contingently, it must have a cause. That is merely to say, if it is an effect it must have an antecedent cause” (1994, p. 172). Thus, since the Universe is a contingent effect, the obvious question becomes, “What **caused** the Universe?”

It is here that the Law of Cause and Effect (also known as the Law of Causality) is tied firmly to the cosmological argument. Scientists, and philosophers of science, recognize laws as “reflecting actual regularities in nature” (Hull, 1974, p. 3). So far as scientific knowledge can attest, laws know no exceptions. This certainly is true of the Law of Cause and Effect. It is, indisputably, the most universal, and most certain, of all scientific laws. Simply put, the Law of Causality states that every material effect must have an adequate antecedent cause. Just as the Law of the Excluded Middle is true analytically, so the Law of Cause and Effect is true analytically as well. Sproul addressed this when he wrote:

The statement "Every effect has an antecedent cause" is **analytically true**. To say that it is analytically or formally true is to say that it is true by definition or analysis. There is nothing in the predicate that is not already contained by resistless logic in the subject. It is like the statement, "A bachelor is an unmarried man" or "A triangle has three sides" or "Two plus two are four...." Cause and effect, though distinct ideas, are inseparably bound together in rational discourse. It is meaningless to say that something is a **cause** if it yields no **effect**. It is likewise meaningless to say that something is an **effect** if it has no **cause**. A cause, by definition, must have an effect, or it is not a cause. An effect, by definition, must have a cause, or it is not an effect (1994, pp. 172,171 emp. in orig.).

Effects without adequate causes are unknown. Further, causes never occur subsequent to the effect. It is meaningless to speak of a cause following an effect, or an effect preceding a cause. In addition, the effect never is qualitatively superior to, or quantitatively greater than, the cause. This knowledge is responsible for our formulation of the Law of Causality in these words: Every material effect must have an **adequate** antecedent cause. The river did not turn muddy because the frog jumped in; the book did not fall from the table because the fly lighted on it. These are not adequate causes. For whatever effects we observe, we must postulate adequate antecedent causes—which brings us back to the original question: What **caused** the Universe?

There are but three possible answers to this question: (1) the Universe is eternal; it always has existed and always will exist; (2) the Universe is not eternal; rather, it created itself out of nothing; (3) the Universe is not eternal, and did not create itself out of nothing; rather, it was created by something (or Someone) anterior, and superior, to itself. These three options merit serious consideration.

Is the Universe Eternal?

The most comfortable position for the person who does not believe in God is the idea that the Universe is eternal, because it avoids the problem of a beginning or ending and thus the need for any "first cause" such as God. In fact, it was to avoid just such a problem that evolutionists Thomas Gold, Hermann Bondi, and Sir Fred Hoyle developed the Steady State Theory. Information had come to light that indicated the Universe was expanding. Dr. Hoyle suggested that the best way to try to explain both an expanding and eternal Universe was to suggest that at points in space called "irtrons" hydrogen was coming into existence **from** nothing. As hydrogen atoms arrived, they had to "go" somewhere, and as they did, they displaced matter already in existence, causing the Universe to expand. Hoyle suggested that the atoms of gaseous hydrogen gradually condensed into clouds of virgin matter, that within these clouds new stars and galaxies formed, etc.

In his book, *Until the Sun Dies*, astronomer Robert Jastrow noted that “the proposal for the creation of matter out of nothing possesses a strong appeal to the scientist, since it permits him to contemplate a Universe without beginning and without end” (1977, p. 32). Even after evidence began to appear that showed the Steady State theory to be incorrect, Jastrow suggested that “some astronomers still favored it because the notion of a world with a beginning and an end made them feel so uncomfortable” (1977, p. 33). Dr. Jastrow went on to say:

The Universe is the totality of all matter, animate and inanimate, throughout space and time. If there was a beginning, what came before? If there is an end, what will come after? On both scientific and philosophical grounds, the concept of an eternal Universe seems more acceptable than the concept of a transient Universe that springs into being suddenly, and then fades slowly into darkness.

Astronomers try not to be influenced by philosophical considerations. However, the idea of a Universe that has both a beginning and an end is distasteful to the scientific mind. In a desperate effort to avoid it, some astronomers have searched for another interpretation of the measurements that indicate the retreating motion of the galaxies, an interpretation that would not require the Universe to expand. If the evidence for the expanding Universe could be explained away, the need for a moment of creation would be eliminated, and the concept of time without end would return to science. But these attempts have not succeeded, and most astronomers have come to the conclusion that they live in an exploding world (1977, p. 31).

What does Jastrow mean when he says that “these attempts have not succeeded”? In a comment that was an obvious reference to the fact that Hoyle’s “creation of hydrogen out of nothing in irtrons” violates the First Law of Thermodynamics, Jastrow noted:

But the creation of matter out of nothing would violate a cherished concept in science—the principle of the conservation of matter and energy—which states that matter and energy can be neither created nor destroyed. Matter can be converted into energy, and vice versa, but the total amount of all matter and energy in the Universe must remain unchanged forever. It is difficult to accept a theory that violates such a firmly established scientific fact (1977, p. 32).

In his book, *God and the Astronomers*, Dr. Jastrow explained why attempts to prove an eternal Universe failed. “Now three lines of evidence—the motions of the galaxies, the laws of thermodynamics, and the life story of the stars—pointed to one conclusion; all indicated that the Universe had a beginning” (1978, p. 111). Jastrow—who is considered by many to be one of the greatest science writers of our time—certainly is no creationist. But as a scientist who is an astrophysicist, he has written often on the inescapable conclusion that the Universe had a beginning. Consider, for example, these statements from his pen:

Now both theory and observation pointed to an expanding Universe and a beginning in time.... About thirty years ago science solved the mystery of the birth and death of stars, and acquired new evidence that the Universe had a beginning (1978, pp. 47,105).

And concurrently there was a great deal of discussion about the fact that the second law of thermodynamics, applied to the Cosmos, indicates the Universe is running down like a clock. If it is running down, there must have been a time when it was fully wound up. Arthur Eddington, the most distinguished British astronomer of his day, wrote, "If our views are right, somewhere between the beginning of time and the present day we must place the winding up of the universe." When that occurred, and Who or what wound up the Universe, were questions that bemused theologians, physicists and astronomers, particularly in the 1920's and 1930's (1978, pp. 48-49).

Most remarkable of all is the fact that in science, as in the Bible, the World begins with an act of creation. That view has not always been held by scientists. Only as a result of the most recent discoveries can we say with a fair degree of confidence that the world has not existed forever; that it began abruptly, without apparent cause, in a blinding event that defies scientific explanation (1977, p. 19).

The conclusion to be drawn from the scientific data was inescapable, as Dr. Jastrow himself remarked:

The lingering decline predicted by astronomers for the end of the world differs from the explosive conditions they have calculated for its birth, but the impact is the same: **modern science denies an eternal existence to the Universe, either in the past or in the future** (1977, p. 30, emp. added).

The evidence states that the Universe had a beginning. The Second Law of Thermodynamics, as Jastrow has indicated, shows this to be true. Henry Morris correctly commented: "The Second Law requires the universe to have had a beginning" (1974b, p. 26). Indeed, it does. The Universe is not eternal.

Did the Universe Create Itself Out of Nothing?

In the past, it would have been practically impossible to find any reputable scientist who would be willing to advocate a self-created Universe. George Davis, a prominent physicist of the past generation, explained why when he wrote: "No material thing can create itself." Further, Dr. Davis affirmed that this statement "cannot be logically attacked on the basis of any knowledge available to us" (1958, p. 71). The Universe is the created, not the creator. And until very recently, it seemed there could be no disagreement about that fact.

However, so strong is the evidence that the Universe had a beginning, and therefore a cause anterior and superior to itself, some evolutionists are suggesting, in order to avoid the implications, that **something came from nothing**—that is, **the Universe literally created itself from nothing!** Anthony Kenny, a British evolutionist, suggested in his book, *The Five Ways: St. Thomas Aquinas' Proofs of God's Existence*, that something actually came from nothing (1980). Edward P. Tryon, professor of physics at the City University of New York, agreed when he wrote: "In 1973, I proposed that our Universe had been created spontaneously from nothing, as a result of established principles of physics. This proposal variously struck people as preposterous, enchanting, or both" (1984, 101:14). This is the same Edward P. Tryon who is on record as stating that "Our universe is simply one of those things which happen from time to time" (as quoted in Trefil, 1984, 92[6]:100).

In the May 1984 issue of *Scientific American*, evolutionists Alan Guth and Paul Steinhardt authored an article on "The Inflationary Universe" in which they suggested:

From a historical point of view probably the most revolutionary aspect of the inflationary model is the notion that all the matter and energy in the observable universe may have emerged from almost nothing.... The inflationary model of the universe provides a possible mechanism by which the observed universe could have evolved from an infinitesimal region. It is then tempting to go one step further and speculate that **the entire universe evolved from literally nothing** (1984, 250:128, emp. added).

Therefore, even though principles of physics that "cannot be logically attacked on the basis of any knowledge available to us" preclude the creation of something out of nothing, suddenly, in a last-ditch effort to avoid the implications of the Universe having a cause, it is being suggested that indeed, the Universe simply "created itself out of nothing."

Naturally, such a proposal would seem—to use Dr. Tryon's words—"preposterous." Be that as it may, some in the evolutionary camp have been willing to defend it. One such scientist is Victor J. Stenger, professor of physics at the University of Hawaii. In 1987, Dr. Stenger authored an article titled, "Was the Universe Created?," in which he said:

...the universe is probably the result of a random quantum fluctuation in a spaceless, timeless void.... So what had to happen to start the universe was the formation of an empty bubble of highly curved space-time. How did this bubble form? What **caused** it? Not everything requires a cause. It could have just happened spontaneously as one of the many linear combinations of universes that has the quantum numbers of the void.... Much is still in the speculative stage, and **I must admit that there are yet no empirical or observational tests that can be used to test the idea of an accidental origin** (1987, 7[3]:26-30, first emp. in orig., second emp. added).

Such a concept, however, has met with serious opposition from within the scientific establishment. For example, in the summer 1994 edition of the *Skeptical Inquirer*, Ralph Estling wrote a stinging rebuke of the idea that the Universe created itself out of nothing. In his article, curiously titled "The Scalp-Tinglin', Mind-Blowin', Eye-Poppin', Heart-Wrenchin', Stomach-Churnin', Foot-Stumpin', Great Big Doodley Science Show!!!," Estling wrote:

The problem emerges in science when scientists leave the realm of science and enter that of philosophy and metaphysics, too often grandiose names for mere personal opinion, untrammelled by empirical evidence or logical analysis, and wearing the mask of deep wisdom.

And so they conjure us an entire Cosmos, or myriads of cosmoses, suddenly, inexplicably, causelessly leaping into being out of—out of Nothing Whatsoever, for no reason at all, and thereafter expanding faster than light into more Nothing Whatsoever. And so cosmologists have given us Creation *ex nihilo*.... And at the instant of this Creation, they inform us, almost parenthetically, the universe possessed the interesting attributes of Infinite Temperature, Infinite Density, and Infinitesimal Volume, a rather gripping state of affairs, as well as something of a sudden and dramatic change from Nothing Whatsoever. They then intone equations and other ritual mathematical formulae and look upon it and pronounce it good.

I do not think that what these cosmologists, these quantum theorists, these universe-makers, are doing is science. I can't help feeling that universes are notoriously disinclined to spring into being, ready-made, out of nothing. Even if Edward Tryon (ah, a name at last!) has written that "our universe is simply one of those things which happen from time to time." ...Perhaps, although we have the word of many famous scientists for it, our universe is **not** simply one of those things that happen from time to time (1994, 18[4]:430, emp. added, parenthetical comment in orig.).

Estling's statements set off a wave of controversy, as was evident from subsequent letters to the *Skeptical Inquirer*. In the January/February 1995 edition of that journal, numerous letters were published, discussing Estling's article. Estling's response to his critics was published as well, and included the following observations:

All things begin with speculation, science not excluded. But if no empirical evidence is eventually forthcoming, or can be forthcoming, all speculation is barren.... **There is no evidence**, so far, that the entire universe, observable and unobservable, emerged from a state of absolute Nothingness. Quantum cosmologists insist both on this absolute Nothingness and on endowing it with various qualities and characteristics: this particular Nothingness possesses virtual quanta seething in a false vacuum. Quanta, virtual or actual, false or true, are not Nothing, they are definitely Something, although we may argue over what exactly. For one thing, quanta are entities having energy, a vacuum has energy and moreover, extension,

i.e., it is something into which other things, such as universes, can be put, i.e., we cannot have our absolute Nothingness and eat it too. If we have quanta and a vacuum as given, we in fact have a pre-existent state of existence that either pre-existed timelessly or brought itself into existence from absolute Nothingness (no quanta, no vacuum, no pre-existing initial conditions) at some precise moment in time; it creates this time, along with the space, matter, and energy, which we call the universe.... I've had correspondence with Paul Davies [a British astronomer who has championed the idea that the Universe created itself from nothing—BT] on cosmological theory, in the course of which I asked him what he meant by "Nothing." He wrote back that he had asked Alexander Vilenkin what he meant by it and that Vilenkin had replied, "By Nothing I mean Nothing," which seemed pretty straightforward at the time, but these quantum cosmologists go on from there to tell us what their particular breed of Nothing consists of. I pointed this out to Davies, who replied that these things are very complicated. I'm willing to admit the truth of that statement, but I think **it does not solve the problem** (1995, 19[1]:69-70, emp. added).

This is an interesting turn of events. Evolutionists like Tryon, Stenger, Guth, and Steinhardt insist that this marvelously intricate Universe is "simply one of those things which happen from time to time" as the result of a "random quantum fluctuation in a spaceless, timeless void" that caused matter to evolve from "literally nothing." This suggestion, of course, is in clear violation of the First Law of Thermodynamics, which states that neither matter nor energy may be created or destroyed in nature. Further, science is based on observation, reproducibility, and empirical data. But when pressed for the empirical data that document the claim that the Universe created itself from nothing, evolutionists are forced to admit, as Dr. Stenger did, that "there are yet no empirical or observational tests that can be used to test the idea...." Estling summarized the problem quite well when he stated: "There is no evidence, so far, that the entire universe, observable and unobservable, emerged from a state of absolute Nothingness."

Ultimately, the Guth/Steinhardt inflationary model was shown to be incorrect, and a newer version was suggested. Working independently, Russian physicist Andrei Linde, and American physicists Andreas Albrecht and Paul Steinhardt, developed the "new inflationary model" (see Hawking, 1988, pp. 131-132). However, this model also was shown to be incorrect and was discarded. Renowned British astrophysicist Stephen W. Hawking put the matter in proper perspective when he wrote:

The new inflationary model was a good attempt to explain why the universe is the way it is.... In my personal opinion, **the new inflationary model is now dead as a scientific theory**, although a lot of people do not seem to have heard of its demise and are still writing papers on it as if it were viable (1988, p. 132, emp. added).

Later, Linde himself suggested numerous modifications and is credited with producing what now is known as the “chaotic inflationary model” (see Hawking, 1988, pp. 132ff.). Dr. Hawking performed additional work on this particular model. But in an interview on June 8, 1994 dealing specifically with inflationary models, Alan Guth conceded:

First of all, I will say that at the purely technical level, inflation itself does not explain how the universe arose from nothing.... Inflation itself takes a very small universe and produces from it a very big universe. But inflation by itself does not explain where that very small universe came from (as quoted in Heeren, 1995, p. 148).

Science is based on observation and reproducibility. But when pressed for the reproducible, empirical data that document their claim of a self-created Universe, scientists and philosophers are at a loss to produce those data. Perhaps this is why Alan Guth lamented: “In the end, I must admit that questions of plausibility are not logically determinable and depend somewhat on intuition” (1988, 11[2]:76)—which is little more than a fancy way of saying, “I certainly **wish** this were true, but I could not **prove** it to you if my life depended on it.” To suggest that the Universe created itself is to posit a self-contradictory position. Sproul addressed this when he wrote that what an atheist or agnostic

...deems possible for the world to do—come into being without a cause—is something no judicious philosopher would grant that even God could do. It is as formally and rationally impossible for God to come into being without a cause as it is for the world to do so.... For something to bring itself into being it must have the power of being within itself. It must at least have enough causal power to cause its own being. If it derives its being from some other source, then it clearly would not be either self-existent or self-created. It would be, plainly and simply, an effect. Of course, the problem is complicated by the other necessity we’ve labored so painstakingly to establish: It would have to have the causal power of being before it was. It would have to have the power of being before it had any being with which to exercise that power (1994, pp. 179,180).

The Universe did not create itself. Such an idea is absurd, both philosophically and scientifically.

Was the Universe Created?

Either the Universe had a beginning, or it did not. But all available evidence indicates that the Universe did, in fact, have a beginning. If the Universe had a beginning, it either had a cause or it did not. One thing we know assuredly, however: it is correct—logically and scientifically—to acknowledge that the Universe had a cause, because the Universe is an effect and requires an adequate antecedent cause. Henry Morris was correct when he suggested that the Law of

Cause and Effect is “universally accepted and followed in every field of science” (1974b, p. 19). The cause/effect principle states that wherever there is a material effect, there must be an adequate antecedent cause. Further indicated, however, is the fact that no effect can be qualitatively superior to, or quantitatively greater than, its cause.

Since it is apparent that the Universe is not eternal, and since likewise it is apparent that the Universe could not have created itself, the only remaining alternative is that the Universe **was created** by something, or Someone, that: (a) existed before it, i.e., some eternal, uncaused First Cause; (b) is superior to it—since the created cannot be superior to the creator; and (c) is of a different nature, since the finite, contingent Universe of matter is unable to explain itself (see Jackson and Carroll, n.d., 2:98-154). As Hoyle and Wickramasinghe have observed: “To be consistent logically, we have to say that the intelligence which assembled the enzymes did not itself contain them” (1981, p. 139).

In connection with this, another fact should be considered. If there ever had been a time when absolutely **nothing** existed, then there would be nothing now. It is a self-evident truth that nothing produces nothing. In view of this, **since something does exist**, it must follow logically that something has existed forever! As Sproul observed:

Indeed, reason demands that if something exists, either the world or God (or anything else), then **something** must be self-existent.... There must be a self-existent being of some sort somewhere, or nothing would or could exist (1994, pp. 179,185 emp. in orig.).

Everything that humans know to exist can be classified as either **matter** or **mind**. There is no third alternative. The argument then, is this:

1. Everything that exists is either matter or mind.
 2. Something exists now, so something eternal exists.
 3. Therefore, either matter or mind is eternal.
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- A. Either matter or mind is eternal.
 - B. Matter is not eternal, per the evidence cited above.
 - C. Thus, it is mind that is eternal.

Or, to reason somewhat differently:

1. Everything that is, is either dependent (i.e., contingent) or independent (non-contingent).
2. If the Universe is not eternal, it is dependent (contingent).

3. The Universe is not eternal.
4. Therefore, the Universe is dependent (contingent).
 - A. If the Universe is dependent, it must have been caused by something that is independent.
 - B. But the Universe is dependent (contingent).
 - C. Therefore, the Universe was produced by some eternal, independent (non-contingent) force.

In the past, atheistic evolutionists suggested that the mind is nothing more than a function of the brain, which is matter; thus the mind and the brain are the same, and matter is all that exists. As the late evolutionist of Cornell University, Carl Sagan, said in the opening sentence of his television extravaganza (and book by the same name), *Cosmos*, "The Cosmos is all that is or ever was or ever will be" (1980, p. 4). However, that viewpoint no longer is credible scientifically, due in large part to the experiments of Australian physiologist Sir John Eccles. Dr. Eccles, who won the Nobel Prize for his discoveries relating to the neural synapses within the brain, documented that the mind is more than merely physical. He showed that the supplementary motor area of the brain may be fired by mere **intention** to do something, without the motor cortex (which controls muscle movements) operating. In effect, the mind is to the brain what a librarian is to a library. The former is not reducible to the latter. Eccles explained his methodology and conclusions in *The Self and Its Brain*, co-authored with the renowned philosopher of science, Sir Karl Popper (see Popper and Eccles, 1977).

In an article—"scientists in Search of the Soul"—that examined the groundbreaking work of Dr. Eccles (and other scientists like him who have been studying the mind/brain relationship), science writer John Gliedman wrote:

At age 79, Sir John Eccles is not going "gentle into the night." Still trim and vigorous, the great physiologist has declared war on the past 300 years of scientific speculation about man's nature.

Winner of the 1963 Nobel Prize in Physiology or Medicine for his pioneering research on the synapse—the point at which nerve cells communicate with the brain—Eccles strongly defends the ancient religious belief that human beings consist of a mysterious compound of physical and intangible spirit.

Each of us embodies a nonmaterial thinking and perceiving self that "entered" our physical brain sometime during embryological development or very early childhood, says the man who helped lay the cornerstones of modern neurophysiology. This "ghost in the machine" is responsible for everything that makes us distinctly human: conscious self-awareness, free will,

personal identity, creativity and even emotions such as love, fear, and hate. Our nonmaterial self controls its "liaison brain" the way a driver steers a car or a programmer directs a computer. Man's ghostly spiritual presence, says Eccles, exerts just the whisper of a physical influence on the computerlike brain, enough to encourage some neurons to fire and others to remain silent. Boldly advancing what for most scientists is the greatest heresy of all, Eccles also asserts that our nonmaterial self survives the death of the physical brain (1982, p. 77).

While discussing the same type of conclusions reached by Dr. Eccles, philosopher Norman Geisler explored the concept of an eternal, all-knowing Mind.

Further, this infinite cause of all that is must be all-knowing. It must be knowing because knowing beings exist. I am a knowing being, and I know it. I cannot meaningfully deny that I can know without engaging in an act of knowledge.... But a cause can communicate to its effect only what it has to communicate. If the effect actually possesses some characteristic, then this characteristic is properly attributed to its cause. The cause cannot give what it does not have to give. If my mind or ability to know is received, then there must be Mind or Knower who gave it to me. The intellectual does not arise from the nonintellectual; something cannot arise from nothing. The cause of knowing, however, is infinite. Therefore it must know infinitely. It is also simple, eternal, and unchanging. Hence, whatever it knows—and it knows anything it is possible to know—it must know simply, eternally, and in an unchanging way (1976, p. 247).

From such evidence, Robert Jastrow concluded: "That there are what I or anyone would call supernatural forces at work is now, I think, a scientifically proven fact..." (1982, p. 18). Apparently Dr. Jastrow is not alone. As Gliedman put it:

Eccles is not the only world-famous scientist taking a controversial new look at the ancient mind-body conundrum. From Berkeley to Paris and from London to Princeton, prominent scientists from fields as diverse as neurophysiology and quantum physics are coming out of the closet and admitting they believe in the possibility, at least, of such unscientific entities as the immortal human spirit and divine creation (1982, p. 77).

In an article titled "Modern Biology and the Turn to Belief in God" that he wrote for the book, *The Intellectuals Speak Out About God* (for which former United States President Ronald Reagan wrote the preface), Dr. Eccles concluded:

Science and religion are very much alike. Both are imaginative and creative aspects of the human mind. The appearance of a conflict is a result of ignorance. We come to exist through a divine act. That divine guidance is a theme throughout our life; at our death the brain goes, but that divine guidance and love continues. Each of us is a unique, conscious being, a divine

creation. It is the religious view. It is the only view consistent with all the evidence (1984, p. 50, emp. added).

CONCLUSION

Scientifically, the choice is between matter only and more than matter as the fundamental explanation for the existence and orderliness of the Universe. The difference, therefore, between the evolution model and the creation model is the difference between: (a) time, chance, and the inherent properties of matter; or (b) design, creation, and the irreducible properties of organization. In fact, when it comes to any particular case, there are again only two scientific explanations for the origin of the order that characterizes the Universe and life in the Universe: either the order was imposed on matter, or it resides within matter. However, if it is suggested that the order resides within matter, we respond by saying that we certainly have not seen the evidence of such. The creation model not only is plausible, but also is the only one that postulates an adequate cause for the Universe and life in that Universe. The evolution model cannot, and does not. The evidence speaks clearly to the existence of a non-contingent, eternal, self-existent Mind that created this Universe and everything within it.

REFERENCES

- Darlington, P.D. (1980), *Evolution for Naturalists* (New York: John Wiley & Sons).
- Davis, George F. (1958), *The Evidence of God in an Expanding Universe*, ed. John Monsma (New York: G.P. Putnam's Sons).
- Dawkins, Richard (1982), "The Necessity of Darwinism," *New Scientist*, 94:130-132, April 15.
- Eccles, John (1984), "Modern Biology and the Turn to Belief in God," *The Intellectuals Speak Out About God*, ed. R.A. Varghese (Chicago, IL: Regnery Gateway).
- Estling, Ralph (1994), "The Scalp-Tinglin', Mind-Blowin', Eye-Poppin', Heart-Wrenchin', Stomach-Churnin', Foot-Stumpin', Great Big Doodley Science Show!!!," *Skeptical Inquirer*, 18[4]:428-430, Summer.
- Estling, Ralph (1995), "Letter to the Editor," *Skeptical Inquirer*, 19[1]:69-70, January/February.
- Geisler, Norman L. (1976), *Christian Apologetics* (Grand Rapids, MI: Baker).
- Gish, Duane T., Richard B. Bliss, and Wendell R. Bird (1981), *Summary of Scientific Evidence for Creation* [Part I], Impact #95 (El Cajon, CA: Institute for Creation Research).

Gliedman, John (1982), "Scientists in Search of the Soul," *Science Digest*, 90[7]:77-79,105, July.

Guth, Alan (1988), Interview in *Omni*, 11[2]:75-76,78-79,94,96-99, November.

Guth, Alan and Paul Steinhardt (1984), "The Inflationary Universe," *Scientific American*, 250:116-128, May.

Hawking, Stephen W. (1988), *A Brief History of Time* (New York: Bantam).

Heeren, Fred (1995), *Show Me God* (Wheeling, IL: Searchlight Publications).

Hoyle, Fred and Chandra Wickramasinghe (1981), *Evolution from Space* (London: J.M. Dent & Sons).

Hull, David (1974), *Philosophy of Biological Science* (Englewood Cliffs, NJ: Prentice-Hall).

Jackson, Wayne and Tom Carroll (no date), "The Jackson-Carroll Debate on Atheism and Ethics," *Thrust*, ed. Jerry Moffitt, 2:98-154.

Jastrow, Robert (1977), *Until the Sun Dies* (New York: W.W. Norton).

Jastrow, Robert (1978), *God and the Astronomers* (New York: W.W. Norton).

Jastrow, Robert (1982), "A Scientist Caught Between Two Faiths," interview with Bill Durbin in *Christianity Today*, August 6.

Kenny, Anthony (1980), *The Five Ways: St. Thomas Aquinas' Proofs of God's Existence* (South Bend, IN: University of Notre Dame Press).

Morris, Henry M. (1974), *Scientific Creationism* (San Diego, CA: Creation-Life Publishers).

Popper, Karl R. and John C. Eccles (1977), *The Self and Its Brain* (New York: Springer International).

Sagan, Carl (1980), *Cosmos* (New York: Random House).

Sproul, R.C. (1994), *Not A Chance* (Grand Rapids, MI: Baker).

Stenger, Victor J. (1987), "Was the Universe Created?," *Free Inquiry*, 7[3]:26-30, Summer.

Thaxton, Charles B., Walter L. Bradley, and Roger L. Olsen (1984), *The Mystery of Life's Origin* (New York: Philosophical Library).

Tryon, Edward P. (1984), "What Made the World?," *New Scientist*, 101:14-16, March 8.

Wald, George (1972), in *Frontiers of Modern Biology* (New York: Houghton-Mifflin).

Wysong, R.L. (1976), *The Creation-Evolution Controversy* (East Lansing, MI: Inquiry Press).

Originally published in *Reason & Revelation*, January 1985, 5[1]:1-4. Revised 2001.

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