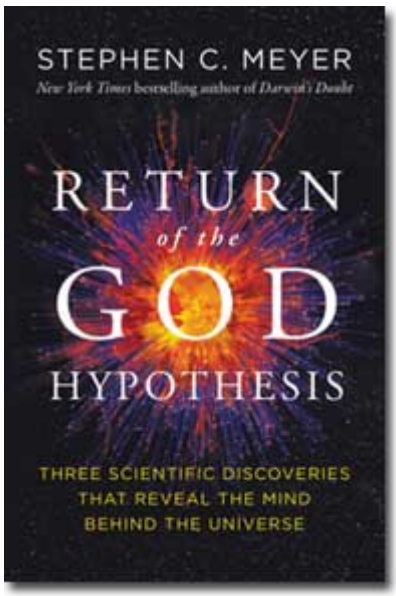
# ‘Return of the God Hypothesis’ for Regular People

*Dr. Ray Bohlin provides an overview of Stephen Meyer’s book* Return of the God Hypothesis, *looking at how recent scientific discoveries provide evidence for an intelligent creator.*

## Was There a God Hypothesis Prior to Scientific Materialism of Today?




In this article I give an overview of Stephen Meyer’s ***Return of The God Hypothesis: Three Scientific Discoveries that Reveal the Mind Behind the Universe*** {1}. The three discoveries are first, the discovery in the 20th century of the Big Bang Model for the origin of the universe, second, the continuing discovery of the extreme fine-tuning of a universe that is friendly toward life, and third, the grand amount of genetic and cellular information needed for the origin of the first life and the Cambrian Explosion, where nearly all animal phyla suddenly appear with no ancestors.



But we need to cover a little history first. Meyer’s title is “Return of the God Hypothesis.” This implies that there was previously an accepted “God Hypothesis” in science. Then it was lost, and the time and evidence are right for that God Hypothesis to return. Early, Meyer quotes Richard Dawkins, “The universe we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil, no good, nothing but blind pitiless indifference.”{2}

So according to Dawkins, science has shown God to be superfluous.

This has been the position of most scientists since the late 19th century, when two authors detailed a long-standing warfare between science and religion. Most of the scientific community followed along to the present day.

But Meyer goes on to document that most if not all historians of science today agree that the Christian worldview greatly influenced, some say was even necessary for, the rise of modern science. Three key Christian concepts were, first, God's ability to choose what kind of universe He wanted to create. That meant that we can't just reason what nature *should* be like, we had to *discover* it. Second, nature is intelligible. Humans, being created in the image of God, could discover how nature operates (Romans 1:18-20). And last, human fallibility. Humans are sinful; therefore, one man's conclusions about the operation of nature must be subject to review of other scientists to ensure they are accurate. Christianity is the only worldview capable of developing modern science.{3}

So, what happened? Well, the Enlightenment happened where philosophers began to think only human reason is necessary or even proper to use in discovering the nature of humanity and nature around us. In the next section, I begin to investigate the three scientific discoveries that warrant a return of the God hypothesis.

## Scientific Discovery #1: The Big Bang

The subtitle of Stephen Meyer's book, ***Return of the God Hypothesis is "Three Scientific Discoveries That Reveal the Mind Behind the Universe***." Now we will look at the first of these discoveries, the Big Bang.

First, I know that some of our readers don't accept the concept of the Big Bang since they are convinced that our universe is much younger than 13.7 billion years. I understand your position, [please read my article "Christian Views of Science and Earth History at probe.org/christian-views-of-science-and-earth-history/] but let's look at this then as an argument you can use with an atheist to show that his own dating of the universe and the Big Bang requires a Mind.

In the early 20th century, scientists like Edwin Hubble began to observe that the universe was not static as previously accepted, but was actually expanding. It took several lines of evidence, more powerful instruments, and many astronomers and mathematicians to come to this conclusion. The novel result was thinking about running the clock backwards. If the universe is expanding now, if you go back in time the universe gets smaller and smaller. Eventually you get to a point where they say the universe was contained in a "particle" that was infinitely dense and occupied no space.

We know now the universe had a beginning. Astronomers and cosmologists had assumed the universe was static and existed for eternity. This conclusion was disturbing to some astronomers. Some rejected the Big Bang for philosophical reasons not scientific. Mathematician Sir Arthur Eddington said,

> "Philosophically, the notion of a beginning is repugnant to me. . .. I should like to find a genuine loophole."{4} "We [must] allow evolution an infinite time to get started."{5}

Edmund Whitaker wrote what many were thinking: "It is simpler to postulate creation ex nihilo—divine will constituting nature out of nothingness."{6}

And finally, Robert Jastrow wrote, "For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream.  He has scaled the mountains of ignorance; he is

about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries."{7} So, God creating matter and energy out of nothing explains the Big Bang, where any naturalistic idea simply cannot explain the evidence.

## Scientific Discovery #2: The Fine-tuning of the Universe for Life

Let us now turn our attention to the second of the discoveries in Stephen Meyer's book, the fine-tuning of the universe for life.

This has also been referred to as the "Goldilocks Universe," meaning a lot of things turned out to be just right for the universe to be friendly to life. For instance, you may be aware that there are four fundamental forces in the universe: gravity, electromagnetism, and the strong and weak nuclear forces. Each of these forces is expressed as an equation that contains a unique constant, and each one could have had a range of values at the Big Bang.

Meyer reveals that the gravitational constant alone is fine-tuned to $1/10^{35}$—that's one chance in 100 billion trillion trillion. The other three constants are also fine-tuned, but even further, the constants are also fine-tuned in relation to each other. This adds another number of at least 1 part in $10^{50}$.

Meyer had the opportunity to hear Sir John Polkinghorne at Cambridge during his doctoral work in the history and philosophy of science. Polkinghorne used an illustration of a universe generating machine with numerous dials and adjustable sliders, each representing one of the many cosmological fine-tuning parameters.  Any slight change in the dials and adjusters of these parameters would render a universe hostile

to life in any form. Polkinghorne would later say in an interview that a theistic designer provided a much better explanation than any materialistic hypothesis.{8}

Later, Meyer shows that including entities such as entropy and black holes, the odds of generating a life friendly universe are in this context 1 part in 10 to the power of 1 followed by 122 zeroes.{9} It would take several lines to write this number. This is an insanely impossible number to be arrived at by chance.

Nobel-Prize-winning physicist Charles Townes said, "Intelligent design as one sees it from a scientific point of view, seems to be quite real. This is a very special universe: it's remarkable that it came out just this way."{10} This intelligence is perfectly consistent with the God of the Bible.

## Scientific Discovery #3: Genetic Information for the First Cell

In this section I'm discussing the third scientific discovery; the need for complex specified genetic information for the first cell and new groups of organisms throughout time.

In Darwin's time, the first microscopes were being used and cells could be seen. Of course, scientists understood little of what they were seeing. Most of the cell appeared to be filled with something called protoplasm, a jelly-like substance that was thought to be easily derived from combining just a few substances. I've often said that if Darwin knew of the amazing complexity and the need for information storage, processing and regulation, evolution would have never been offered as a chance process.

Now we understand that the need for information to compose the first living, growing, and reproducing cell, is enormous. The

first cell needed DNA to store information, specific proteins and RNA to produce additional proteins for the cell to function, and a controlled means to copy DNA accurately.

For instance, life uses 20 different amino acids to link together to form proteins, the workhorses of the cell. The number of combinations of two amino acids is 400. A four amino acid stretch has 160,000 different combinations. A small protein of "just" 150 amino acids has $10^{195}$ possible combinations. But how many of these could be a protein with some function? Just one in every $10^{77}$ sequences.

But also, new groups of organisms appear suddenly throughout the fossil record. Nearly all large groups of animals, or phyla, appear in the Cambrian explosion. Animal and plant phyla rapidly diversified in at least 13 more explosions within phyla and classes into new classes, orders and families with no precursors, from flowering plants and winged insects to mammals and birds. All these explosions would require massive amounts of new genetic and developmental information.

The evidence supports the need for an intelligent designing mind to create all the needed information. Minds create information all the time. Natural processes simply can't do it.

## Do These Three Evidences Point to Theism?

The three discoveries discussed in Stephen Meyer's book, ***Return of the God Hypothesis: Three Scientific Discoveries that Reveal the Mind Behind the Universe*** are the Big Bang, the extreme fine-tuning of the laws of physics to provide a life-friendly universe, and the necessary complex and specified information for the origin of life and the progression of complex life-forms through the fossil record.

But where does that leave us? Do these discoveries warrant a

return of the God Hypothesis? Meyer examines four different worldviews to ask, would the universe we have, be expected by any of these worldviews? He uses a scientific approach called "the inference to the best explanation."

So, given a universe that is not only friendly toward life but contains living organisms, which worldview would best explain this universe? He begins with scientific materialism. Materialism has no explanation for the beginning of the universe. There was no matter or energy before the beginning, so matter and energy cannot account for the beginning of the universe. Moreover, for the origin of complex specified information needed for life, naturalism has no answer. In fact, only theism posits an entity, God, that has the causal power to produce genetic information.

Let's move to pantheism. Pantheism does not propose a personal God but an impersonal god. This "god" is one and the same with nature. Then pantheism suffers the same fate as naturalism in that the beginning can't be explained by what doesn't exist yet, matter and energy.

But what about theism and deism? To explain the notion of a beginning, an entity outside the universe is required. Both theism and deism propose a transcendent, intelligent agent, God. Both can explain the beginning and the fine-tuning. But what about the appearance of complex specified genetic information on the earth? Deism and many forms of theistic evolution require a front-loaded beginning: all the information for life was present at the beginning and natural laws took over from there—God did not intervene. But how was this information retained over billions of years until life arose on earth? And natural laws simply can't produce complex specified information. Deism and theistic evolution won't work. Only theism remains.

On pg. 298, Meyer states, "As one surveys several classes of evidence from the natural sciences—cosmology, astronomy,

physics, biochemistry, molecular biology, and paleontology—the God Hypothesis emerges as an explanation with unique scope and power. Theism explains an ensemble of metaphysically significant events in the history of the universe and life more simply, more adequately, and more comprehensively than major competing metaphysical systems."

## Notes

1. Stephen Meyer, *Return of the God Hypothesis* (New York: HarperCollins, 2021).
2. Richard Dawkins, *River Out of Eden* 133, quoted in Meyer, *Return of the God Hypothesis*, 14.
3. *The Soul of Science: Christian Faith and Natural Philosophy* (Wheaton, IL: Crossway Books, 1994) by Nancy Pearcey and Charles Thaxton.
4. Arthur Eddington, "The End of the World: From the Standpoint of Mathematical Physics" *Nature*, vol. 127 (1931) p. 450.
5. Arthur S. Eddington, "On the Instability of Einstein's Spherical World," Monthly Notices of the Royal Astronomical Society 90 (May 1930): 672. Quoted in Hugh Ross, *'A Matter of Days: Resolving a Creation Controversy*(Kindle Locations 484-485). RTB Press. Kindle Edition.
6. Cited in Robert Jastrow, 1978. *God and the Astronomers*. New York, W.W. Norton, p. 111-12.
7. Jastrow, *God and the Astronomers*. p. 113-114, 116.
8. *Return of the God Hypothesis*, p. 143-144.
9. Ibid., p. 150.
10. Bonnie Azab Powell, "'Explore as Much as We Can': Nobel Prize Winner Charles Townes on Evolution, Intelligent Design, and the Meaning of Life," *UC Berkeley NewsCenter*, June 17, 2005, www.berkeley.edu/news/media/releases/2005/06/17_townes.shtml. Cited in Meyer, *Return of the God Hypothesis,* p. 146.

©2022 Probe Ministries

# Does God Exist? A Christian Argument from Non-biblical Sources

*Probe founder, Jimmy Williams, looks at evidence for the existence of God from multiple, non-biblical sources. He demonstrates that God's creation speaks to his creator. The important apologetic discussion forms the foundation for a complete biblical understanding of God and His purposes.*

 *This article is also available in Spanish.*

**Metaphysical Options**

Most will agree that the most basic, fundamental question concerning existence is not that *nothing* is here, but rather that *something* is here. I am a part of some kind of *reality.* I possess a consciousness, an awareness that something is transpiring, unfolding, happening. And you and I are part of it. The reality borne out of our personal observation and experience is that we are participants in a space-time universe which is characterized by a *series of events.* The mind naturally asks the question, "What is it?" Where did it come from?" Did the *cosmos,* what we see, simply come into being from nothing, or has this material universe of which we are a part always been here? Or is something or someone which transcends this material universe responsible for bringing it into existence and us with it?

All of these questions relate to the philosophical concept of *metaphysics.* Webster defines it thusly: *"That division of philosophy which includes ontology, or the science of being and cosmology, or the science of fundamental causes and*

*processes in things."*{1} When we seek to answer these basic questions, then, we are thinking *"metaphysically"* about the origin and the causes of the present reality. And at this basic, fundamental level of consideration we really are left with few options, or possible answers, to account for or explain the universe. The three potential candidates are:

**(1) Something came from nothing.** Most reject this view, since the very idea defies rationality. This explanation to account for the universe is not widely held. Kenny remarks: *"According to the big bang theory, the whole matter of the universe began to exist at a particular time in the remote past. A proponent of such a theory, . . . if he is an atheist, must believe that the matter of the universe came from nothing and by nothing."*{2} Since nothing cannot produce something by rules of logic (observation, causality), something is *eternal* and *necessary*. Since any series of events is not eternal (thus a contradiction), there is, therefore, an eternal, necessary *something not identical* to the space-time universe.

**(2) Matter is eternal** and capable of producing the present reality through blind chance. Carl Sagan stated this view clearly when he said, "All that ever was, all that is, and all that ever shall be is the Cosmos."{3} This second view has spawned two basic worldviews-*Materialism* (or Naturalism) and *Pantheism.* Both hold the premise that nothing exists beyond matter. Materialism therefore is atheistic by definition. Pantheism is similar but insists that since God does not exist, nature is imbued with "god" in all its parts.

**(3) God created the universe.** This view, *Theism*, holds forth the assertion that *Someone* both transcends, and did create the material universe of which we are a part. There are *no* other logical alternatives to explain the *cosmos*. Christians, of course, embrace this third view, along with all other theists, as the most reasonable explanation for what we find to be true of ourselves and of the world. Holding this view is not simply a statement of blind faith. There are sound and rational

reasons for preferring this view over the other two. Theism is therefore a reasonable idea. In fact it is more reasonable to believe that God exists than not to believe He exists. Theologians have posed several lines of "proof" to argue for God's existence. These arguments, while not *proving* the existence of God, do nevertheless provide insights that may be used to show *evidence* of His existence.

## The Cosmological Argument

This argument centers around the concept of *causality.* Every event has a *cause,* and that includes the universe. It had a beginning. There was a time when it was not, and a time when it was:

> An **infinite** number of real parts of time, passing in succession and exhausted one after another, appears so evident a contradiction that no man, one should think, whose judgment is not corrupted, instead of being improved, by the sciences, would ever be able to admit it." (emphasis mine){4}

Hume is here arguing that time and space are *not* infinite, not eternal. If this is true, the universe, which is an "effect," had a *cause.* Robert Jastrow comments,

> "The most complete study made thus far has been carried out . . .by Allan Sandage. He compiled information on 42 galaxies, ranging out in space as far as six billion light years from us. His measurements indicate that the universe was expanding more rapidly in the past than it is today. This result lends further support to the belief that the universe exploded into being."{5}

He goes on to say:

> "No explanation other than the big bang has been found for the fireball radiation. The clincher, which has convinced almost the last doubting Thomas, is that the radiation

> discovered by Penzias and Wilson has exactly the pattern of wavelengths expected for the light and heat produces in a great explosion."{6}

Jastrow also concludes the universe is dying:

> "Once hydrogen has been burned within that star and converted to heavier elements, it can never be restored to its original state. Minute by minute and year by year, as hydrogen is used up in stars, the supply of this element in the universe grows smaller."{7} "Astronomers now find they have painted themselves into a corner because they have proven, by their own methods, that the world began abruptly in an act of creation to which you can trace the seeds of every star, every planet, every thing in this cosmos and on the earth. And they have found that all this happened as a product of forces they cannot hope to discover."{8}

Some have argued that an *infinite regress* of causes may not be logically possible. They say the universe is not a "whole" that *needs* a single cause, but rather that it is "mutually dependent" upon itself! Mutual dependence misses the point. The real issue is why there is an *existing* universe rather than a *non-existing* one. Reality and rationality suggest that every event has a cause. Whole series of events must have a cause as well (since the whole is the sum of the parts). If all the parts were taken away, would there be anything left? If we say *yes*, then God exists (i.e. an eternal necessary being that is *more* than the world. If we say *no*, then the whole is *contingent* too, and needs a cause *beyond* it (God).

We will conclude this section with an examination of perhaps the most often-asked question concerning the cosmological argument, "*Where did God come from*?" While it is both reasonable and legitimate to ask this question of the universe which we have just examined, it is irrational and nonsensical to ask that same question of God, since it implies to Him characteristics found only in the finite universe: *space* and

*time*. By definition, something eternal must exist *outside* this space/time continuum. The very question posed reveals the inquirer's fallacy of reasoning from within his *own* space/time context! By definition, something *eternal* must exist *outside* both time and space. God has no beginning; He ***IS!*** (Exodus 3:14).

## The Teleological Argument

This second argument for the existence of God addresses the order, complexity, and diversity of the cosmos. "Teleological" comes from the Greek word *"telos,"* which means "end" or "goal." The idea behind the argument is that the observable *order* in the universe demonstrates that it functions according to an *intelligent design*, something undeniable to an open-minded, intelligent being. The classic expression of this argument is William Paley's analogy of the watchmaker in his book *Evidences.* If we were walking on the beach and found a watch in the sand, we would not assume that it washed up on the shore having been formed through the natural processes and motions of the sea. We would rather naturally assume that it had been lost by its owner and that somewhere there was a watchmaker who originally designed and built it with a specific purpose in mind. Intelligence cannot be produced by non-intelligence any more than nothing can produce something. There is, therefore, an eternal, necessary intelligence present and reflected in the space-time universe.

Until about five hundred years ago, humanity had no difficulty in acknowledging God as the Creator of the natural order. The best explanation saw Him as the divine Designer who created it with a purpose and maintained all things by the word of His power (Hebrews 1:3; Colossians 1:17). But the rise of modern science initiated a process we could call the "demythologizing of nature," the material world. Superstition and ignorance had ascribed spirit life even to forest, brook, and mountain. Things not understood scientifically were routinely accepted

to be unexplained, supernatural forces at work. Slowly, the mysterious, spiritual factor was drained away as scholars and scientists replaced it with natural explanations and theories of how and why things actually worked. After Copernicus, human significance diminished in the vastness of the cosmos, and it was felt only time and research, not God, would be needed to finally explain with accuracy the totality of the natural order. The idea of a transcendent One came to be deemed unnecessary, having been invalidated by the new theory of natural selection.

Ironically, the same science which took God away then, is bringing back the possibility of His existence today. Physics and quantum mechanics have now brought us to the edge of physicality, to a place where sub-atomic particle structures are described by some as spirit, ghost-like in quality. Neuro-physiologists grapple with enigmatic observations suggesting that the mind *transcends* the brain! Psychology has developed an entirely new branch of study (parapsychology) which asserts that psycho-spiritual forces (ESP, biofeedback, etc.) actually function *beyond* the physical realm. Molecular biologists and geneticists, faced with the highly-ordered and complex structures of DNA, ascribe a word implying "intelligence" to the chaining sequences: the genetic *"code."* And we have already concluded that astrophysicists have settled on the "big bang" which seems to contradict the idea that matter is eternal, and, huge as it is, the universe appears to be finite. Whether we look through the microscope or the telescope it becomes more difficult in the light of experimental science to hold to the old premise that such order and complexity are the products of blind chance. The old naturalistic assumptions are being critically reexamined, challenged, and found to be unconvincing by many of today's scientists. Dr. Walter Bradley, Professor Emeritus of Mechanical Engineering at Texas A & M University states the case:

> "Discoveries of the last half of the 20th century have brought the scientific community to the realization that our universe and our planet in the universe are so remarkably unique that it is almost impossible to imagine how this could have happened accidentally, causing may agnostic scientists to concede that indeed some intelligent creative force may be required to account for it."{9}

Areas of reconsideration include cosmology and the origin of life, essential elements of design and their recognition, the minimal requirements for a universe to support both life of any type and specifically complex human life, why these requirements are met in our universe, and requirements for a place in that universe uniquely met by planet earth. All of these remarkable features of our world are being reevaluated and point toward intelligent design.

## The Moral Argument

This argument for God's existence is based on the recognition of humankind's universal and inherent sense of *right* and *wrong.* (cf. Romans 2:14,15). No culture is without standards of behavior. All groups recognize honesty as a virtue along with wisdom, courage, and justice. And even in the most remote jungle tribes, murder, rape, lying, and theft are recognized as being wrong, in all places and at all times. The question arises, "Where does this sense of morality come from?" C. S. Lewis speaks of this early on in his classic work *Mere Christianity.* He calls this moral law "The Rule of Right and Wrong"—"a thing that is *really there*, not made up by ourselves."{10} For years Lewis struggled against God because the universe to him seemed unjust and cruel. But he began to analyze his outrage. Where did *he* get the very ideas of *just* and *unjust*? He said, "A man does not call a line crooked unless he has some idea of a straight line."{11}

He goes on to suggest that there are three parts to morality. Using the analogy of a fleet of ships on a voyage, he points

out that three things can go wrong. The *first* is that ships may either drift apart or collide with and do damage to one another (alienation, isolation: people abusing, cheating, bullying one another). The *second* is that individual ships must be seaworthy and avoid internal, mechanical breakdown (moral deterioration within an individual). Lewis goes on to point out that if the ships keep having collisions they will not remain seaworthy very long, and of course, it their steering parts are out of order, they will not be able to avoid collisions! But there is a *third* factor not yet taken into account, and that is, "Where is the fleet of ships headed?" The voyage would be a failure if it were meant to reach New York but actually arrived in Buenos Aires (the general purpose of human life as a whole, what man was made for)![{12}]

The human conscience to which Paul refers in Romans 2 is not found in any other animal—only man. The utter uniqueness of this moral compass within humans, along with other exclusively human qualities (rationality, language, worship and aesthetic inclinations) strongly suggest that man not only has a relationship *downward* to animals, plants and earth, but also a relationship *upward* to the God in Whose image he is. As we saw God's great power and intelligence expressed in the first two arguments, we also see here that this sense of morality, not known in the world of nature, comes from the Great Law Giver Who is Himself in *character* the "straight line" (righteous, just, holy) against which all human actions are measured.

## A Word about Atheism and Agnosticism

An *atheist* is a person who makes a bold assertion, "There is no God." It is bold because it claims in an *absolute* manner what we have stated above what is not possible: i.e., the existence or non-existence of God cannot be *proven* absolutely. It is also bold because, in order to make such an assertion, an atheist would literally have to be God himself! He would

need to possess the qualities and capabilities to travel the entire universe and examine every nook and cranny of it before he would ever qualify to hold such a dogmatic conclusion!

The most brilliant, highly-educated, widely-traveled human on earth today, having maximized his/her brain cells to optimum learning levels for a lifetime could not possibly *"know"* 1/1000th of all that *could* be known. And knowledge is now doubling by the years rather than by the decades or centuries of the past! Is it *possible* that God could *still* exist outside the very limited, personal knowledge/experience of one highly intelligent human being? Furthermore, before an atheist can identify himself *as* one, he must first acknowledge the very idea, or concept, or possibility of God so he can then deny His existence!

The Bible says that "he who comes to God must believe that He is. . ." (Hebrews 11:6). In other words, there is a "faith" factor relative to a belief in God's existence. But the dogmatic and bold assertion above is itself an expression of faith. It takes faith to believe God *is,* and it takes faith to say God *is not.* In my judgment, it takes even *more* faith for the atheist to believe in his position because he holds to his faith against overwhelming evidence to the contrary. Christians also affirm God's existence on the basis of faith, but it is a *reasonable* faith based on the true nature of the *cosmos*, not a *blind* faith.

Turning to agnosticism, Webster defines it as a position which states that "neither the existence nor the nature of God, nor the ultimate origin of the universe is known or knowable."{13} Here again is a bold statement: When the agnostic says, *"I don't know,"* what is really implied is "I can't know, *you* can't know, and *nobody* can know." Leith Samuel in his little book *Impossibility of Agnosticism,* mentions three kinds of agnostics: {14}

Dogmatic: "I don't know, you don't know, and no one can know."

Here is a person who already has his mind made up. He has the same problems as the atheist above—he must know *everything* in order to hold this position honestly.

Indifferent: "I don't know and I don't care." It is not likely that God would reveal Himself to someone who does not care to know: "He who has ears, let him hear." (Luke 14:35).

Dissatisfied: "I don't know, but I would like to know." Here is a person who demonstrates an *openness* to truth and a willingness to change his position should he have sufficient reasons. If such were the case, he would also be demonstrating what is true of agnosticism, namely, that it is meant to be a *temporary* path in search of truth which gives way to a more reasonable and less skeptical view of life and all reality.

"For since the creation of the world His invisible attributes, His eternal power and divine nature, have been clearly seen, being understood through what has been made, so they are without excuse." (Saint Paul, Romans 1:20).

"Only the fool has said in his heart, 'There is no God.' " (King David, Psalm 14:1).

**Notes**

1. *Webster's New Collegiate Dictionary* (Springfield, Mass.: G. & C. Merriam Co., Publishers, 1953), s.v. "metaphysics", 528.
2. Anthony Kenny, *Five Ways* (London: Routledge Kegan Paul, 1969), 66.
3. Carl Sagan, *Cosmos* (New York: Random House, 1980), 4.
4. David Hume, *An Enquiry: Concerning Human Understanding,* Great Books of the Western World, vol. 35 (Chicago: William Benton, 1952), 506.
5. Robert Jastrow, *God and the Astronomers* (New York: W.W. Norton,, 1978), 94-95.
6. Ibid., p. 15.
7. Ibid., 15-16.
8. Robert Jastrow, "A Scientist Caught Betwen Two Faiths,"

interviewed by Bill Durbin, *Christianity Today*, 26 (6 August 1982):14-18.
9. Walter L. Bradley, *"Is There Scientific Evidence for an Intelligent Creator of the Universe?"* (lecture given at High Ground Men's Conference, Beaver Creek, Colo., Lecture given at High Ground Men's Conference, 2 March, 2001).
10. C.S. Lewis, *Mere Christianity* (New York: MacMillan, 1943), 18.
11. Ibid., 45.
12. Ibid., 70-71.
13. *Webster's New Collegiate Dictionary,* s.v. "agnosticism."
14. Leith Samuel, *Impossibility of Agnosticism* (Downers Grove, Ill: InterVarsity, n.d.).

©2002 Probe Ministries

---

# "What Is the Prevailing Evolutionary Theory for the Origin of the Universe?"

**What is the prevailing evolutionary theory for the origin of the universe? I would also like to know your views on the "Gap Theory."**

The prevailing theory for the origin of the universe is the Big Bang Theory which suggests that the universe began as a particle that was infinitely dense and occupied no space. This particle came into existence essentially from nothing (actually a quantum fluctuation from nothing to something), and immediately exploded, thus beginning a process that led to the universe as we see it today. This happened approximately 12-13 billion years ago.

Astronomers, cosmologists, and astrophysicists alike will admit they have a problem accounting for the origin of the initial particle. How does something come from nothing? The quantum fluctuation idea is a dead end since quantum physics is a property of the current universe. If there was no universe prior to the existence of the particle, how do we know that a quantum fluctuation was even possible? You must have a universe first!

In addition, the mechanistic process following the explosion that led to our current universe as we see it has difficulty explaining the many finely tuned characteristics of this universe seemingly designed for life with no purpose or design. How does a mechanistic process accomplish this? Some Christians believe that God ordered the initial particle in such a way to allow these finely tuned parameters to arise by His design by a seemingly mechanistic but preordained process. However, others like me see these properties requiring God's intimate involvement and perhaps even intervention. The other view seems more deistic (a distant God who wound up the universe initially and then left it alone) than theistic. It also seems difficult to reconcile Romans 1:20 where we are told we are without excuse of God's existence by simply observing what has been made. If it all looks like a mechanistic process, how are we without excuse?

The gap theory has been largely rejected by evangelical scholars since it requires a reading of Genesis 1:1-1:2 that seems to be ruled out by the grammatical construction of the sentence. The Gap Theory usually suggests that the earth BECAME formless and void, suggesting that God's original creation was marred (perhaps by the fall of Satan) and then God recreated it in six literal days. However, while the verb *was* is sometime translated as *became*, the Hebrew grammar of the sentence does not allow it in this case. Therefore the traditional translation that the earth WAS formless and void is preferred.

Hope this helps.

Respectfully,

Ray Bohlin, PhD

---

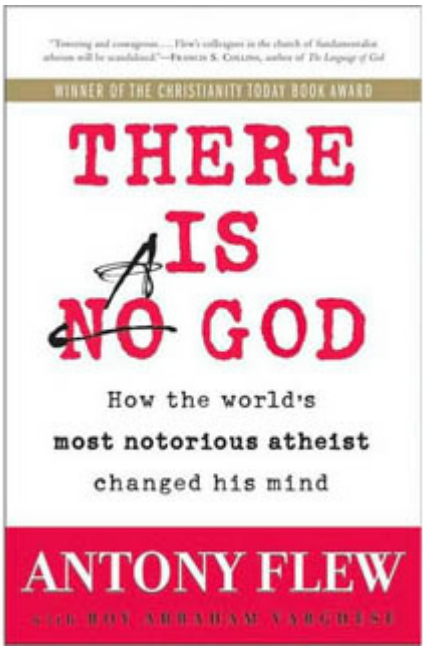
# There is a God

*In his 2008 article, Dr. Michael Gleghorn examines some of the arguments and evidence that led Antony Flew, the world's most notorious atheist, to change his mind about God. Dr. Flew died in April 2010. To our knowledge, he never entered into a saving faith in Jesus Christ. That is a point of great sorrow for us at Probe.*

## A Much-Maligned Convert



I remember how astonished I was when I first heard the news of his "conversion." In 2004, longtime British atheist philosopher Antony Flew publicly announced that he now believed in God! I could hardly believe it. Professor Flew had been an atheist for the greater part of his life and, until 2004, his entire academic career. As the "author of over thirty professional philosophical works," he "helped set the agenda for atheism for half a century."{1} But then, in 2004, at the age of eighty-one, he changed his mind!




As one might expect, the reaction to Flew's announcement varied widely. Theists naturally welcomed the news that one of the most important atheistic philosophers of the past century had come to believe in God. Skeptics and atheists, on the other hand, made little effort to conceal their contempt. Richard Dawkins characterized Flew's conversion as a kind of apostasy from the atheistic faith and implied that his "old age" likely had something to do with it.{2} Others suggested that the elderly Flew was trying to hedge his bets, fearful of the negative reception he might have in the afterlife. And Mark Oppenheimer, in an article for *The New York Times*, argued that Flew had been exploited by Christians and that he hadn't even written the recent book that tells the story of his "conversion."{3} That book, *There Is A God: How the World's Most Notorious Atheist Changed His Mind,* is the subject of this article.

By his own admission, the eighty-four-year-old Flew suffers from "nominal aphasia" and has difficulty recalling names. Nevertheless, it's quite unfair to insinuate that his belief in God is due to something like senility. He may have problems with his short-term memory, but he's still capable of explaining what he believes and why. In the introduction to his book he responds to the charge that he now believes in God because of what might await him in the afterlife by pointing out that he doesn't even believe in an afterlife! "I do not think of myself 'surviving' death," he explains.{4} The charge that Flew didn't actually write his book is also misleading. While it's true that he didn't *physically* type the words, the *content* was based upon his previous writings, as well as personal correspondence and interviews with Mr. Varghese. In other words, the *ideas* in the book accurately represent the

views of Professor Flew, even if he didn't type the text. With that in mind, let's now take a closer look at some of the arguments and evidence that led "the world's most notorious atheist" to change his mind about God.

## Did Something Come from Nothing?

In a chapter entitled "Did Something Come From Nothing?" Flew addresses issues surrounding the origin of the universe. Is the universe eternal, or did it have a beginning? And if it had a beginning, then how should we account for it?

Flew observes that in his book *The Presumption of Atheism,* which was written while he was still an atheist, he had argued that "we must take the universe itself and its most fundamental laws as themselves ultimate." {5} He simply didn't see any reason to think that the universe pointed to some "transcendent reality" beyond itself.{6} After all, if the universe has always existed, then there may simply be no point in looking for any explanation why.

However, as the Big Bang model of the origin of the universe became increasingly well-established among contemporary cosmologists, Flew began to reconsider the matter. That's because the Big Bang theory implies that the universe is not eternal, but that it rather had a beginning. And as Flew observes, "If the universe had a beginning, it became entirely sensible, almost inevitable, to ask what produced this beginning."{7}

Of course, many scientists and philosophers felt quite uncomfortable about what a universe with a beginning might imply about the existence of God. In order to avoid the absolute beginning of the universe, an event which seems to smack of some sort of supernatural creation, they proposed a variety of models that were consistent with the notion that the universe had existed forever. Unfortunately, all these

models essentially suffer from the same problem. When carefully examined, it turns out that they can't avoid the absolute beginning of the universe. Thus, according to Stephen Hawking, "Almost everyone now believes that the universe, and *time itself*, had a beginning at the Big Bang."{8}

Reflecting upon his initial encounter with the Big Bang theory while he was still an atheist, Flew writes, "it seemed to me the theory made a big difference because it suggested that the universe had a beginning and that the first sentence in Genesis ('In the beginning, God created the heavens and the earth') was related to an event in the universe."{9} He concludes his discussion by noting that "the universe is something that begs an explanation."{10} He now believes that the best explanation is to be found in a supernatural creative act of God. Interestingly enough, this view finds dramatic confirmation in the exquisite "fine-tuning" of our universe which allows for the existence of intelligent life.

## Did the Universe Know We Were Coming?

Flew observes that "the laws of nature seem to have been crafted so as to move the universe toward the emergence and sustenance of life."{11} Just how carefully crafted are these laws? According to British physicist Paul Davies, even exceedingly small changes in either the gravitational or electromagnetic force "would have spelled disaster for stars like the sun, thereby precluding the existence of planets."{12} Needless to say, without planets you and I wouldn't be here to marvel at how incredibly fine-tuned these constants are. The existence of complex, intelligent life depends on these fundamental constants having been fine-tuned with a precision that virtually "defies human comprehension."{13}

So how is the observed fine-tuning to be explained? Flew notes that most scholars opt either for divine design or for what

might be called the “multiverse” hypothesis. According to this hypothesis, our universe is just one of many others, “with the difference that ours happened to have the right conditions for life.”{14}

So which of these two theories best explains the amazing fine-tuning of our universe? Flew correctly observes that “there is currently no evidence in support of a multiverse. It remains a speculative idea.”{15} The fact that multiple universes are logically *possible* does absolutely nothing to prove that they *actually* exist. Indeed, the multiverse hypothesis appears to be at odds with the widely recognized principle of Ockham’s razor. This principle says that when we’re confronted with two explanations of the same thing, we “should prefer the one that is simpler, that is, the one that uses the fewest number of entities . . . to explain the thing in question.”{16}

Now clearly in the case before us, the theory of divine design, which posits only *one* entity to explain the observed fine-tuning of our universe, is much simpler than the multiverse hypothesis, which posits a potentially *infinite* number of entities to explain the same thing! The philosopher Richard Swinburne likely had Ockham’s razor in mind when he wrote, “It is crazy to postulate a trillion (causally unconnected) universes to explain the features of one universe, when postulating one entity (God) will do the job.”{17}

The observed fine-tuning of our universe is one more reason why Antony Flew now believes there is a God. And as we’ll see next, the mystery of life’s origin is yet another.

## How Did Life Go Live?

One of the reasons consistently cited by Flew for changing his mind about the existence of God has to do with the almost insuperable difficulties facing the various naturalistic

theories of the origin of life. In particular, Flew observes, there is a fundamental philosophical question that has not been answered, namely, "How can a universe of mindless matter produce beings with intrinsic ends, self-replication capabilities, and 'coded chemistry'?"{18}

When considering the origin of life from non-living matter, it's crucially important to note a fundamental difference between the two. "Living matter possesses an inherent . . . end-centered organization that is nowhere present in the matter that preceded it."{19} For example, lifeless rocks do not give evidence of goal-directed behavior, but living creatures do. Among the various goals one might list, living beings seek to preserve and reproduce themselves.

This leads naturally to the second difficulty, namely, providing a purely naturalistic account of the origin of organisms that are able to reproduce themselves. As philosopher David Conway points out, without this ability "it would not have been possible for different species to emerge through random mutation and natural selection." Since different species can't emerge from organisms that can't reproduce themselves, one can't claim that self-reproduction emerged through the evolutionary process. Conway concludes that such difficulties "provide us with reason for doubting that it is possible to account for existent life-forms . . . without recourse to design."{20}

The final difficulty Flew raises concerns a purely naturalistic origin of "coded chemistry." Scientists have discovered that the genetic code functions exactly like a language.{21} But as the mathematician David Berlinski asks, "Can the origins of a system of coded chemistry be explained in a way that makes no appeal whatever to the kinds of facts that we otherwise invoke to explain codes and languages?"{22} In other words, if every other code and language we're aware of results from intelligence, then why think the genetic code is any different? As physicist Paul Davies muses, "The problem

of how meaningful . . . information can emerge spontaneously from a collection of mindless molecules subject to blind and purposeless forces presents a deep conceptual challenge."{23}

Ultimately, such challenges became too much for Flew. He concludes his discussion of these difficulties by noting, "The only satisfactory explanation for the origin of such 'end-directed, self-replicating' life as we see on earth is an infinitely intelligent Mind."{24}

## The Self-Revelation of God in Human History

In a fascinating appendix to his book, Flew has a dialogue with prominent New Testament scholar N.T. Wright about Jesus. Although Flew is not a Christian and continues to be skeptical about the claims for Jesus' bodily resurrection, he nonetheless asserts that this claim "is more impressive than any by the religious competition."{25} But why is this? And what sort of evidence is there for the resurrection of Jesus? This is one of the questions to which N.T. Wright responds in his dialogue with Flew.

Although we can only scratch the surface of this discussion, Wright makes two points that are especially worth mentioning: the historicity of the empty tomb and the post-mortem appearances of Jesus. But why think these events actually happened as the Gospels claim? Because, says Wright, if the tomb were empty, but there were no appearances, everyone would have concluded that the tomb had been robbed. "They would never have talked about resurrection, if all that had happened was an empty tomb."{26}

On the other hand, suppose the disciples saw appearances of Jesus after His crucifixion. Would this have convinced them of His resurrection if His tomb were not empty? No, says Wright. The disciples knew all about "hallucinations and ghosts and

visions. Ancient literature—Jewish and pagan alike—is full of such things."{27} So long as Jesus' body was still in the tomb, the disciples would never have believed, much less publicly proclaimed, that He had been raised from the dead. This would have struck them as self-evidently absurd. For these and other reasons, Wright concludes that the empty tomb and appearances of Jesus are historical facts that need to be reckoned with. The question then becomes, "How does one account for these facts? What is the best explanation?"

Wright concludes that, as a historian, the best explanation is that "Jesus really was raised from the dead," just as the disciples proclaimed. This is clearly a *sufficient* explanation of Jesus' empty tomb and post-mortem appearances. But Wright goes even further. "Having examined all the other possible hypotheses," he writes, "I think it's also a *necessary* explanation."{28}

How does Flew respond to this claim? Asking whether divine revelation in history is really possible, he notes that "you cannot limit the possibilities of omnipotence except to produce the logically impossible. Everything else is open to omnipotence."{29} Flew has indeed come a long way from his former atheist views. For those of us who are Christians, we can pray that he might come further still.

## Notes

1. Roy Abraham Varghese, preface to Antony Flew, *There Is A God: How the World's Most Notorious Atheist Changed His Mind* (New York: Harper Collins, 2007), vii.
2. Richard Dawkins, *The God Delusion* (London: Bantam, 2006), 82; cited in Varghese, preface to *There Is A God*, xviii-xix.
3. Mark Oppenheimer, "The Turning of an Atheist," *The New York Times*, November 4, 2007, http://tinyurl.com/2lvkaj.
4. Flew, *There Is A God*, 2.
5. Ibid., 134.
6. Ibid., 135.

7. Ibid., 136.
8. Stephen Hawking and Roger Penrose, *The Nature of Space and Time, The Isaac Newton Institute Series of Lectures* (Princeton, N.J.: Princeton University Press, 1996), 20; cited in William Lane Craig and J.P. Moreland, *Philosophical Foundations for a Christian Worldview* (Downers Grove, Illinois: InterVarsity Press, 2003), 478.
9. Flew, *There Is A God*, 136.
10. Ibid., 145.
11. Ibid., 114.
12. Craig and Moreland, *Philosophical Foundations*, 483.
13. www.reasonablefaith.org/podcasts/defenders-podcast-series-2/s2-excursus-on-natural-theology/existence-of-god-part-14
14. Flew, *There Is a God*, 115.
15. Ibid., 119.
16. Craig and Moreland, *Philosophical Foundations,* 244.
17. Richard Swinburne, "Design Defended," *Think* (Spring 2004), 17; cited in Flew, *There Is A God*, 119.
18. Flew, *There Is A God*, 124.
19. Ibid.
20. David Conway, *The Rediscovery of Wisdom* (London: Macmillan, 2000), 125; cited in Flew, *There Is A God*, 126.
21. Walter L. Bradley and Charles B. Thaxton, "Information and the Origin of Life," in *The Creation Hypothesis: Scientific Evidence for an Intelligent Designer*, ed. J. P. Moreland (Downers Grove, IL: InterVarsity Press, 1994), 205.
22. David Berlinski, "On the Origins of Life," *Commentary* (February 2006): 30-31; cited in Flew, *There Is A God*, 127.
23. Paul Davies, "The Origin of Life II: How Did It Begin?" tinyurl.com/yq4geu; cited in Flew, *There Is A God*, 129.
24. Flew, *There Is A God*, 132.
25. Ibid., 187.
26. N.T. Wright, "The Self-Revelation of God in Human History: A Dialogue on Jesus with N.T. Wright," in Flew, *There Is A God*, 210.
27. Ibid.

28. Ibid., 212-13.
29. Flew, *There Is A God*, 213.

© 2008 Probe Ministries

---

# Evolution's Big Bang

*The Cambrian explosion of life has long befuddled evolutionists. New data have only deepened the mystery and caused a critical rethinking of cherished evolutionary concepts.*

 *This article is also available in Spanish.*

## Another Big Bang?

The impish Calvin, from the now defunct daily comic strip "Calvin and Hobbes," once offered to rename the Big Bang Hypothesis, "The Horrendous Space Kablooie!" Most of us have heard at some point of cosmology's preferred explanation for the origin of the universe, the Big Bang Hypothesis. The Big Bang of cosmology describes the origin of the universe as occurring in a powerful explosion that eventually results in the universe as we see it today. But a recent issue of *Time* magazine (4 December 1995) heralded a new Big Bang, a Big Bang of biological evolution previously known as the Cambrian Explosion of Life. And just as many draw theistic conclusions from cosmology's Big Bang, so it is possible to draw theistic conclusions from what is now being called Evolution's Big Bang.

But first, just what is evolution's Big Bang? The cover of this issue of *Time* declared: "New discoveries show that life as we know it began in an amazing biological frenzy that

changed the planet almost overnight." A subheading just in front of the inside article proclaimed, "For billions of years, simple creatures like plankton, bacteria, and algae ruled the earth. Then, suddenly, life got very complicated."

The standard evolutionary story describes an earth bombarded by meteorites from its origin 4.5 billion years ago until almost 3.8 billion years ago. Within only 100 million years the first life evolved following the cessation of this celestial onslaught. This, in and of itself, is a huge evolutionary hurdle without explanation. For the next 3 billion years, little else but single- celled life forms ruled the planet. Then suddenly, in the Cambrian geological period, the earth is populated with a huge diversity of complex multicellular life forms. This has always looked suspiciously like some form of creation event, and paleontologists frequently seemed rather embarrassed by the reality of the Cambrian Explosion.

So, where is the documentation for the long history of the evolution of these creatures? The usual answer is that the necessary fossil layers prior to the Cambrian period have not been discovered yet. The fossils are just missing! Hmmm. . . . how convenient! This, after all, was Darwin's excuse and many evolutionists after him followed suit. Well, recent discoveries from Canada, Greenland, China, Siberia, and Namibia document quite clearly that this period of biological creativity occurred in a geological instant virtually all around the globe. So, the usual excuse no longer holds water. While evolutionists are not exactly joining a creationist wave of conversion, they are being forced to ask tough questions concerning the nature of evolutionary change. Darwin did not envision major evolutionary change happening this fast. Darwinism has always been characterized by slow gradual change that is imperceptible in our time frame. Major evolutionary change was only visible as we looked to the fossils to reveal the number and type of intermediates between species and major

groups. But the Cambrian explosion is anything but gradual, and identifiable intermediates are totally absent. Where are the ancestors? What conditions could have prompted this frenzy of creativity? Is there some form of unknowable evolutionary mechanism at work? I think you will find the evolutionary community's answers to be quite revealing.

## How Fast is Fast?

*Anomalocaris! Ottoia! Wiwaxia! Hallucigenia! Opabinia!* If these names are unfamiliar to you, well, they should be. For they are only becoming familiar to paleontologists over the last twenty years. Paleontologists are those scientists who study the fossils embedded in ancient layers of rock. And this strange list represents a group of animals from the Cambrian period that is only now being appreciated—animals which supposedly lived over 500 million years ago. These animals not only possess strange sounding names, but are even stranger looking! So strange and different are they that most are contained in phyla of which they are the only example and which no longer exists.

Whoa! . . . you say! And just what is a phyla? Well, if you think way back to high school biology, *phyla* is actually the plural form of *phylum,* a Latin term designating a large category of biological classification. The largest category of classification is the Kingdom. We all know about the Animal and Plant Kingdoms. Well, Phylum is the next category below Kingdom. The Animal Kingdom consists of such well known phyla as the molluscs which contains clams, oysters, and snails. Another commonly known phylum is the annelids to which belong the earthworms. The largest of all phyla is the arthropods. Arthropods range from insects to millipedes to spiders to shrimp. We are placed in the phylum Chordata along with all other vertebrates, the fish, amphibians, reptiles, and other mammals. Representatives from different phyla are very different creatures. There is not much in common between a

human, an earthworm, a clam, and a mosquito. They are all from different phyla—so different that evolutionists have assumed that it must have taken tens of millions of years for these phyla to evolve from one common ancestor.

Yet, here is the real puzzle of the Cambrian Explosion for the theory of evolution. All the known phyla, except one, along with the oddities with which I began this discussion, first appear in the Cambrian period. There are no ancestors. There are no intermediates. Fossil experts used to think that the Cambrian lasted 75 million years. But even that seemed to be a pretty short time for all this evolutionary change. Eventually the Cambrian was shortened to only 30 million years. And if that wasn't bad enough, the time frame of the real work of bringing all these different creatures into existence was limited to the first five to ten million years of the Cambrian. This is extraordinarily fast! Harvard's Stephen Jay Gould says, "Fast is now a lot faster than we thought, and that is extraordinarily interesting." What an understatement! "Extraordinarily impossible" might be a better phrase!

In the *Time* magazine article (p. 70), paleontologist Samuel Bowring says, "We now know how fast fast is. And what I like to ask my biologist friends is, How fast can evolution get before you start feeling uncomfortable?" I would love to ask Bowring just what he meant by that statement. It's almost as if he is recognizing that current evolutionary mechanisms can't possibly act that fast. The potential answers to that dilemma are only creating more questions, questions that evolutionists may never be able to answer.

## How Could the Cambrian Explosion Occur?

Charles Darwin proposed an evolutionary process that was slow and gradual. This formulation has remained the mainstay of evolutionary explanations for the over 100 years since Darwin until very recently. One of the many reasons for a rethinking of this slow, gradual, snail-like pace has been the intricate

complexity of living things. In the years before Darwin, the marvelous fit of an organism to its environment was considered the chief evidence of a Supreme Designer. But Darwin supposedly showed another and better way, natural selection. But if organisms were so finely-tuned to their environment, so wonderfully adapted to their particular niche, then if they were to change at all over time, then that change would have to be very gradual so as not to upset too quickly that delicate balance between the organism and its environment.

This notion of the gradualness of the evolutionary process was deeply reinforced with the discovery of DNA and the genetic code. DNA operates as an informational code for the development of an organism from a single cell to an adult and also regulates all the chemical processes that go on in cells. Mutations, or mistakes in the code had to have very minor effects. Disruption of the blueprint would be very sensitive. The small changes brought about by mutations would have to be cumulative over very long periods of time to bring about significant evolutionary changes.

This necessity of gradualism explains the difficulty evolutionists have concerning the Cambrian explosion or Evolution's Big Bang, as *Time* magazine called it. How could animals as diverse as arthropods, molluscs, jellyfish, and even primitive vertebrates all appear within a time span of only 5-10 million years with no ancestors and no intermediates? Evolution just doesn't work this way. Fossil experts and biologists are only beginning to wrestle with this thorny dilemma. Some think that genes which control the process of development from a fertilized egg to an adult, the so- called *Hox* genes, may have reached a critical mass which led to an explosion of complexity. Some of the simplest multi-celled organisms like the jellyfish only have three *Hox* genes, while insects have eight, and some not-quite-vertebrates have ten. Critical mass may be a real phenomena in physics, but biological processes rarely if ever work that way. Besides,

that doesn't solve the important riddle of where the first *Hox* gene came from in the first place. Genetic information does not just spontaneously arise from random DNA sequences.

Other scientists think that a wholesale reorganization of all the genes must have also changed along with the duplication of *Hox* genes to bring about this stupendous amount of change. But that only complicates the picture by requiring additional, simultaneous genetic mutations that have to occur virtually all at once. This would have an enormous negative effect on an organism that was already adapted to its environment. How could it survive? It seems that the equivalent of a miracle would be required. But such things aren't allowed in evolution. To quote *Time* magazine again,

> *Of course, understanding what made the Cambrian explosion possible doesn't address the larger question of what made it happen so fast. Here scientists delicately slide across data-thin ice, suggesting scenarios that are based on intuition rather than solid evidence.*

## Why Hasn't Such Rapid Change Ever Happened Again?

Before addressing this question, let's review our discussion thus far. Evolution's Big Bang, the Cambrian explosion of life that supposedly occurred over 500 million years ago, continues to puzzle evolutionists. Recent discoveries have narrowed the time frame from over 70 million years to less than 10 million years. This has only complicated their dilemma because so many different creatures appear in the Cambrian with no ancestors or intermediates. The major evolutionary innovations represented in the Cambrian would ordinarily require at least tens of millions of years to accomplish. Some might even suggest over 100 million years would be required. The differences between the creatures that suddenly appear in the Cambrian are enormous. In fact these differences are so large

many of these animals are one of a kind. Nothing like them existed before and nothing like them has ever appeared again.

In fact, a question that is just as perplexing as how this explosion of diversity could occur so fast, is why hasn't such drastic change ever happened in the 500 million years since? The same basic body plans that arose in the Cambrian remain surprisingly constant ever since. Apparently, the most significant biological changes in the history of the earth occurred in less than ten million years, and for 500 million years afterward, this level of change never happened again. Why not? This may seem like a simple question, but it is far more complicated than it appears.

Many biologists think the answer must lie within the genetic structure of organisms. During the Cambrian, new forms of life could readily appear because the genetic organization of organisms was relatively loose. Once all these body plans came into existence and were successful, then these same genetic structures became relatively inflexible in order to preserve what worked so well. In other words there may be genetically built-in limits to change. Developmental biologist Rudolf Raff said, "There must be limits to change. After all we've had these same old body plans for half a billion years." Lane Lester and I coauthored a book over ten years ago titled *The Natural Limits to Biological Change*. Though the limits to change we proposed were tighter than what these evolution scientists are proposing, it is the same basic idea. We even suggested that these limits to change would be found in the genetic organization and regulatory programs that are already built in.

Some evolutionists have gone so far as to suggest that the mechanisms of evolution operating in the Cambrian were probably radically different from what has taken place ever since. This raises the possibility that we may never be able to study these mechanisms because animals with the proper genetic structure no longer exist. We are left only with the

products of the Cambrian explosion and none of the precursors. The speculations will therefore be wild and uncontrollable since there will be no way to test these theories. Fossils leave no trace of their genetic organization. We may never be able to know how this marvelous burst of creativity occurred. Sounds like evolutionists may be faced with the very same problems they accuse creationists of stumbling over: a process that was unique to the past, unobservable in any shape or form, and unrepeatable.

Stuart Kaufmann, a leader in complexity theory, places his faith in self-organizing systems that spontaneously give rise to order out of chaos—a sort of a naturalistic, impersonal self-creator. A supernatural Creator performs the same function with the added benefit of providing a source of intelligent design as well.

## Marvelous Evidence of Creation and Design and the Role of World View

So often at Probe our focus is on some issue that has the opposing forces shaped by worldview. A worldview is a system of beliefs or philosophy of life that helps us to interpret the world around us. We often compare one's worldview to a pair of glasses that helps bring everything into focus. Just as it is important for someone with impaired vision to have the right prescription glasses, so it is also necessary for sin-impaired people to have the right world view with which to make sense of the world of ideas around us.

Clearly we believe that the Bible offers the only tool to arrive at the right prescription or worldview. We have been discussing here Evolution's Big Bang, the Cambrian explosion of life approximately 543 million years ago according to evolutionists. The latest discoveries in this field were highlighted in *Time* magazine's 4 December 1995 issue. Three weeks later, some very interesting letters appeared from

readers in *Time*. They are very instructive of the effects of one's worldview when evaluating the very same evidence. Much of our time in this pamphlet has been spent detailing the vast problems that the Cambrian explosion produces for evolutionary theory. But that is from the vantage point of a biblical worldview. One *Time* magazine reader commented, "This report should end discussions about whether God created the earth. Now there is no way to deny the theory of evolution." Another reader said, "It is great to see a national magazine put the factual evidence of evolution's vast, complex story out there for the lay public."

Now, before you go assuming that they surely didn't read the same story I have been describing in these pages, listen to these readers with a different perspective. "A more appropriate title for your article could have been 'Evolution's Big Bust.' One hundred and thirty-five years of Darwinism out the window just like that? What a poor excuse for the lack of transitional forms." Another reader said, "This story read more like confirmation for Noah's Deluge than Darwin's theory of evolution."

Well, they all read the same story. Many even quoted from the article to explain their views. So, how can four people read the same information and come to such radically different conclusions? The difference is worldview. To those who are working within a naturalistic worldview, one which holds that there is no God, some form of evolution must be true. Therefore, while the evidence of the Cambrian may be perplexing, the fact that scientists are wrestling with it and offering some possible explanations is exciting and invigorating. However, I find that they are usually missing the big picture. By concentrating on explaining the minutiae, naturalistic thinkers often miss the clear possibility of intelligent design precisely because they don't expect to find any.

A great example of this is a comment by Harvard's Steven Jay

Gould on the Cambrian creatures found in the Burgess Shale of Canada:

> *Imagine an organism built of a hundred basic features, with twenty possible forms per feature. The grab bag contains a hundred compartments, with twenty tokens in each. To make a new Burgess creature, the Great-Token-Stringer takes one token at random from each compartment and strings them together. Voila, the creature works—and you have nearly as many successful experiments as a musical scale can build catchy tunes.*

Sounds like a marvelous description of a Creator to me, but perhaps only if you are thinking biblically from the start.

©1996 Probe Ministries

---

# The Origin of the Universe

*What is the newest evidence for the Big Bang? The cosmic background radiation is exactly what was expected if the universe began as an immensely hot event 10-20 billion years ago. But the universe that was created is "just right" for life. Richard Milne explains that dozens of factors are exquisitely fine-tuned for life to be able to exist, at least on our planet.*

## What Was the Big Bang?

*"If you're religious, this is like looking at God."*{1}

A mystic, describing his vision in a trance? A poet, looking at the beauty of nature and seeing God? No, a Berkeley astrophysicist, commenting on the data he was making public in

1992 that seemed to confirm a basic expectation of the Big Bang theory.

Just what is the Big Bang theory of the origin of the universe? One scientist summed it up succinctly by saying: "The explosion from zero volume at zero time of a corpuscle of energy equivalent to the mass and radiation that now constitute the Universe."{2} What does that mean? It means that everything we now see or know about was once compacted into an unimaginably small blip that suddenly expanded in a huge explosion that created the very space and time it was expanding into. Or as Calvin of *Calvin and Hobbes* put it, "The Horrendous Space Kablooie."

The Big Bang has become as much a part of our common science knowledge as dinosaurs, something we speak about with the same sense of familiarity we talk about atoms. But, like atoms, how much do we really know about this wondrous explosion of everything?

In this essay we'll talk about what scientists mean by the Big Bang theory, why it's often in the news, why some scientists oppose it, what it tells us about our home the universe, and what we as Christians can learn from all of this.

Science is often seen as attacking the God of the Bible, but in this case scientific discoveries seem to be revealing God's work. The Bible begins with the statement that God created the heavens and the earth, leaving no doubt that all we see had a beginning and had a Creator.

But by the 1700s many people accepted an earlier theory that Immanuel Kant made more popular. The theory held that the universe is an infinite expanse with no beginning and no end. This fit the philosophy of the time, as people did not want to think that they might have to face judgment by a God who had the power to both begin and end the universe.

In the roaring twenties, Edwin Hubble had begun to investigate

mysterious masses of stars called nebulae. Some thought we were all part of one giant galaxy; others thought there might be a whole world of galaxies outside our own. Hubble was able to show that there are many galaxies besides our own. In 1929 he announced we were in a huge universe, so big it would take light billions of years to travel across it. Not only was it immense, but every part was moving away from every other part at incredible speeds, some receding at 100 million miles an hour!

Priests do not enter into this story very often, but in the late 20s and early 30s a Belgian priest and mathematics teacher by the name of Georges Lemaître (who was fond of saying "There is no conflict between science and religion") first constructed and then published a theory that changed the course of cosmology in the twentieth century. Taking Hubble's observation that the galaxies were rapidly receding from one another, he ran the theory backwards to a time when all the matter in the universe was very close together. He called this the "primordial atom" and imagined a beginning when the whole universe exploded like "fireworks of unimaginable beauty" with a "big noise."{3} Thus was born the Big Bang theory.

## Why Is Everybody Excited?

Geffory Burbidge has been complaining recently that his colleagues in astronomy have been all too quick to join "the First Church of Christ of the Big Bang." And what is causing this big rush? Findings from the Hubble Space telescope and the COBE (Cosmic Background Explorer) satellite that are confirming the Big Bang theory in unprecedented detail.

When the Big Bang was originally formulated about sixty years ago, not much thought was given to the conditions of the universe at the very beginning. But by the early 60s some scientists had realized that such an incredibly hot origin might have left slight traces behind. There might still be a

whisper of the beginning of everything. This whisper would be a very small remnant of the heat of that first fiery instant.

In 1965 two Bell scientists announced they had indeed found such a remnant, a cosmic background radiation. This radiation, the signature of the heat of a long ago creation, was very close to what several theorists had rather off-handily predicted some years before. Their paper had gone unnoticed because there was at that time no way to measure such a small signal, but when Arno Penzias and Robert Wilson, of Bell Laboratories, published their short article, it was quickly seen as confirmation of the Big Bang, and they received the Nobel Prize in 1978.

Then, in 1989, the United States launched the COBE satellite to look for details of the cosmic background radiation. The first evidence looked promising, but showed a background radiation so smooth that it was hard to understand how any cosmic structures like stars or galaxies could have formed. Unless there were some differences in the initial temperature of space, there would have been no reason for matter to cluster and form stars.

Then, in a dramatic press conference in 1992, George Smoot and others announced that they had found ripples of temperature differences in the radiation data. Even Stephen Hawking, the wheelchair-bound English astrophysicist, proclaimed, “It is the discovery of the century, if not of all time.”{4} Every major newspaper in the world carried stories about the “echoes of creation.” And many assumed that the Big Bang was proved.

But even as many scientists exulted in the new data, new questions also began to arise, but they were not questions about whether the Big Bang happened, but about how it progressed. For most scientists, the Big Bang theory is not “in trouble” as is sometimes reported. What is in question is how this sea of energy that was there in the first moments of the Big Bang was transformed into the myriad of galaxies,

clusters, quasars, and other astronomical oddities.

Science, by its very nature, attempts to find the best explanation for observed phenomena. But the Big Bang has drawn an impenetrable curtain across the stage of history. For some this is a frustration: "This view of the origin of the universe is thoroughly unsatisfactory . . . . [because] the origin of the Big Bang itself is not susceptible to discussion," fumes the editor of *Nature*.{5} But for others, the very impossibility of going behind the creation points to God in a powerful way. "For since the creation of the world His invisible attributes, His eternal power and divine nature, have been clearly seen, being understood through what has been made, so that they are without excuse" (Rom. 1:20).

## "Big Bang Theory Collapses"

The banner headline in *Nature* magazine read "Down with the Big Bang."{6} Sounding more like a 60s chant about the Establishment, the editorial was, however, very serious. And *Nature* magazine is perhaps the most respected science publication in the world. Why was the editor so exercised about the leading cosmological theory? Because it was "philosophically unacceptable." "The origin of the Big Bang is not susceptible to discussion," fumed John Maddox. And besides that "Creationists . . . have ample justification in the doctrine of the Big Bang." So, for Maddox, a scientific theory that is only rivaled in acceptance by evolution is "thoroughly unsatisfactory" because 1) it says that scientists cannot know everything, and 2) the theory might encourage belief in a creator. But materialists like Maddox are not alone.

"Big Bang Theory Collapses" shouted the title of an article written in a creationist journal. It went on to make such remarks as "The Big Bang theory has received one body blow after another" and "A cruel fate has befallen the grandest theory of all." They reported the "death knell of the cold-

dark-matter theory" as if this were the main theory cosmologists had developed. Remarks suggesting results from the COBE satellite "should really make them wish they had gone into some other field" came across as very unprofessional. The description of scientists as "smug in their assurance" about the cosmic background radiation seemed more descriptive of this article itself than the theory it was attempting to criticize.{7}

Young earth creationists find the Big Bang theory a failure primarily because it does not fit an interpretation of Genesis 1 that requires the universe be created less than 50,000 years ago. But what are the scientific problems with the Big Bang?

One continuing problem surrounding theories of the origin of the universe has been "How much matter is there in the universe?" It is generally agreed that there is indirect evidence of far more matter in the universe than we have been able to detect. But what form is this matter in? This so-called "missing mass" may, by some estimates, make up 90% of all the matter in the universe. But where is it? Several theories attempt to answer this question, but at the moment, there are not many ways to test competing theories.

Another continuing problem is finding out what caused the clumpiness of the universe? When we look out into the sea of galaxies that surrounds our own, we find that the swirling pools of stars are not evenly distributed in space but rather segregated into "walls" separated by "voids." It is not yet known what accounts for this foam-like structure, but any theory of galaxy formation needs to provide an answer.

So, while the Big Bang certainly has difficulties, and may be replaced some day, it has also been the basis for many correct predictions about the structure of the universe. Like any scientific theory, the Big Bang is not a static idea but a theory that is always open to new information that may change its basic form, or lead to its rejection, or merely confirm

that it is indeed correct. But, especially for Christians, it's ironic that while most scientists have been searching for a naturalistic answer for the origin of the universe, they have instead, ended up with a theory that points strongly to a Creator.

## A "Just Right" Universe

Imagine piles of dimes stacked on all of North America as high as the moon. More than you could possibly ever count. Then imagine a billion other continents covered over with more dimes. Now, somewhere in those billion piles, hide one red dime. What are the chances of taking a blind-folded person out into these piles and having them pick up the one red dime on the first try. Not likely? Well, the odds of the universe just happening to have the correct number of protons and electrons is the same as the odds for getting the red dime the first time. And if the universe did not have just the right ratio of these particles, galaxies, stars, and planets could never have formed, let alone people and all the rest of nature.{8}

In the last fifteen years, scientists who study the make up of our solar system, and the stars in our galaxy, have come to the conclusion that unless conditions had been perfectly fine-tuned for us, life could never have arisen on planet Earth even by evolution. Every time we learn something about the form of the universe, we find new reasons to glorify God, and to thank Him for His creation.

Arno Penzias, who with Robert Wilson was awarded the Nobel Prize for detecting the cosmic background radiation in 1965, much later remarked that: "Astronomy leads us to a unique event, a universe which was created out of nothing, one with the very delicate balance needed to provide exactly the conditions required to permit life, and one which has an underlying (one might say supernatural') plan."{9}

Robert Griffiths summarized it nicely when he said: “If we need an atheist for a debate, I go to the philosophy department. The physics department isn’t much use.”{10} Obviously those physicists know too much.

When Paul talks about what all people know about God, he points to the natural world as the foremost witness (Rom. 1:20). And, in these last years of the twentieth century, as we discover more and more about the conditions necessary for life, we find everywhere signs that we could not possibly be here by chance. Every detail of the basic structure of nature, even such things as how far away the moon is from the earth, must be fine-tuned to an unprecedented degree for us to live here on earth.

In the design of the universe, in the construction of our solar system, and in the very systems of our own earth, there is immense evidence of planning. The Big Bang theory provides strong evidence of fine tuning so clear that even a dogmatic atheist such as Sir Fred Hoyle was moved to affirm that “a superintellect has monkeyed with physics, as well as with chemistry and biology”{11} to create a world for humans to live in.

Will we give glory to God for His great creation, or will we continue to proclaim that we are merely the chance creations of a random process of undirected evolution? The choice is ours.

## What Can Christians Learn?

“The scientist’s pursuit of the past ends in the moment of creation. This is an exceedingly strange development, unexpected by all but the theologians. They have always accepted the word of the Bible: In the beginning God created heaven and earth.”{12} This has been a difficult lesson for scientists, and many have yet to learn it. But what lessons

can Christians learn from the search for Big Bang?

One of the primary lessons is that we need to know what it is a theorist is trying to prove. Often, as one reads the literature, one sees some rather clear statements about why certain possibilities are chosen. As is often the case, Sir Fred Hoyle is a good example: "This possibility [of a steady state universe] seemed attractive, especially when taken in conjunction with the aesthetic objections to the creation of the universe in the remote past."{13} Hoyle is very clearly saying that, because he disliked the idea that the universe might have been "created" sometime in the past, perhaps by God, he would seek to develop another theory that avoids that possibility.

A second lesson is that we must be careful of the role we give to science. A scientist very astutely observed that "We live…in an age obsessed with scientific sanctification and technological authority.' If creationism is judged scientific, America will respect it."{14} His point is that Christians, like everyone else, have fallen prey to the idea that if an idea is judged "scientific" it must be right. The phrase "scientific creationism" is an excellent example of this tendency. But is science really the final judge of truth? For the Christian, and anyone else who believes that not all of what makes humans both beautiful and unique is measurable, the answer must be "No." Science is a good companion, but not a good guide. Whenever Christians have wedded themselves to a scientific theory they have suffered through painful divorces when that theory has proved to be an unfaithful guide to the world. The church's acceptance of an Aristotelian unmoved earth is but one example of the church not recognizing that science can and will change. The Big Bang may be today's best theory, but, as one of the best scientific authors on the Big Bang has written: "[O]ne ought to take the extrapolations back to the beginning of time with a healthy dose of skepticism. The Big Bang cosmology may yet be superseded."{15}

Whether we are young earth creationists or materialistic evolutionists, this warning is equally true. The Big Bang is the best answer we have at this moment. It may change next year, and by next century it will almost surely have changed, perhaps dramatically. If science fully supports our view of Scripture now, will we be willing to change it when science changes? The Bible is beautifully clear that "The heavens are telling of the glory of God; And their expanse is declaring the work of His hands" (Psalm 19:1), but we must admit that we are not always clear exactly what the details of the message are. It is God's glory that we must be clear about.

© 1995 Probe Ministries

## Notes

1. *Scientific American*, July 1992, 34.
2. *Nature*, 356:731 (30 April 1992), unsigned opinion.
3. *Los Angeles Times*, 12 January 1933. Quoted in Timothy Ferris, *Coming of Age in the Milky Way* (New York: William Morrow, 1988), 211.
4. Hugh Ross, *The Creator and the Cosmos*, second expanded edition (Colorado Springs, Col.: NavPress, 1995), 19.
5. *Nature*, John Maddox, 340:425 (10 August 1989).
6. Ibid.
7. Duane T. Gish, "Big Bang Theory Collapses," Impact #216, June 1991.
8. Hugh Ross, *The Creator and the Cosmos*, chapter 14.
9. Ibid., 122.
10. Ibid., 123.
11. Ibid., 121.
12. Robert Jastrow, *God and the Astronomers* (New York: W.W. Norton, 1978), 115.
13. Hugh Ross, *The Fingerprint of God* (Orange, Calif.: Promise Publishing, 1989), 76.
14. *Discover*, March 1987, 6.
15. *Nature*, Joseph Silk, 322:505 (7 August 1986).