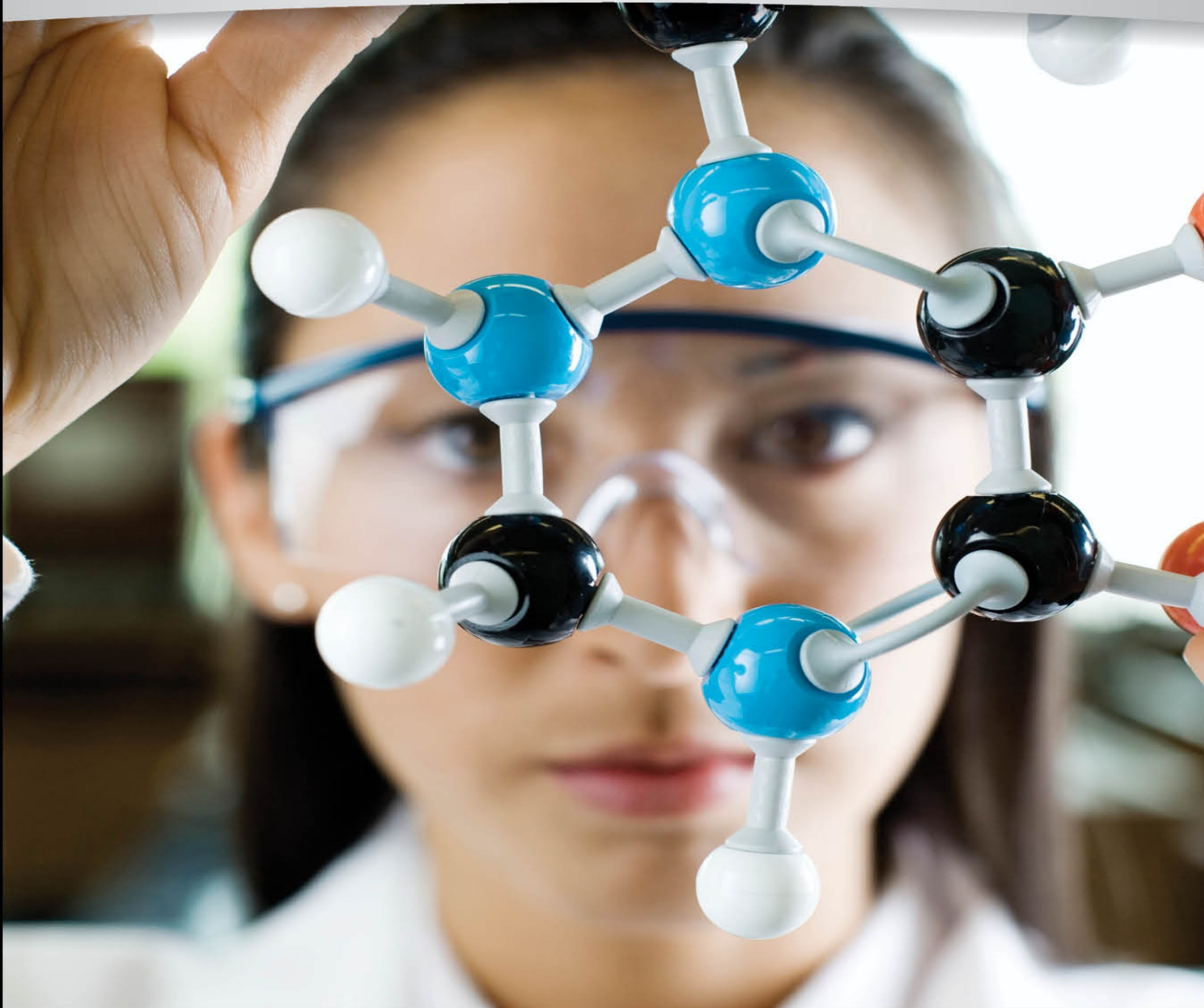


# What Is Science?

Understanding observable vs. historical science



WHAT IS SCIENCE: OPERATIONAL AND HISTORICAL SCIENCE • IS SCIENCE  
SECULAR? • SCIENCE: WORLDVIEW NEUTRAL? • EVOLUTION: THE ANTI-  
SCIENCE • SUCCESSFUL PREDICTIONS BY CREATION SCIENTISTS •  
DOES RELIGION CRIPPLE SCIENCE INNOVATION?

# What Is Science?

## Understanding observable vs. historical science

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# Science or the Bible?

by Ken Ham and Terry Mortenson

Ever heard one of these claims? Perhaps you've even said one yourself. Over the years, we've heard them all—but they're all false, or at least they imply a falsehood.

Common claims by non-Christians:

“Science proves the Bible is wrong.”

“Evolution is science, but the Bible is religion.”

“Evolutionists believe in science, but creationists reject science.”

Common claims by Christians:

“I believe the Bible over science.”

“Creation is religion, but evolution is religion, too.”

“Creationists believe in the Bible and reject science.”

The Bible's account of beginnings cannot be tested in a laboratory, so secular scientists—and even some Christians—believe it is not science and must be classified as religion.

Secular scientists claim that their view of beginnings (evolution) can be tested in a laboratory, so their view is scientific. For instance, they point to mutated fruit flies or speciation observed in the field (such as new species of mosquitoes or fish).

But this is where many people are confused—what is meant by “science” or “scientific.”

Before we get caught up in a debate about whether the Bible or evolution is scientific, we have learned to ask, “Could you please define what you mean by science?” The answer usually reveals where the real problem lies.

## Defining science

People are generally unaware that dictionaries give a root meaning, or etymology, of *science* similar to this one from Webster's: “from Latin *scientia*, from *scient-*, *sciens* ‘having knowledge,’ from present participle of *scire* ‘to know.’”

And most dictionaries give the following meaning of the word: “the state of

knowing: knowledge as distinguished from ignorance or misunderstanding.”

Although there are other uses of the word, the root meaning of *science* is basically “knowledge.” In fact, in the past, philosophy and theology were considered sciences, and theology was even called the “queen of the sciences.”

But over the past 200 years, during the so-called Scientific Revolution, the word *science* has come to mean a method of knowing, a way of discovering truth. Moreover, many people assume that modern science is the only way to discover truth.

To help people clear up the confusion, we have found it helpful to distinguish between two types of modern science, and compare how each one seeks to discover truth:

1. *Operation science* uses the so-called “scientific method” to attempt to discover truth, performing observable, repeatable experiments in a controlled environment to find patterns of recurring behavior in the present physical universe. For example, we can test gravity, study the spread of disease, or observe speciation in the lab or in the wild. Both creationists and evolutionists use this kind of science, which has given rise to computers, space shuttles, and cures for diseases.

This refers to knowledge gained by direct observation (using the five senses) and based on repeatable testing. Such “science” (knowledge) has enabled scientists to build our modern technology like airplanes and rocket ships. Whether one is a creationist or evolutionist, we all use the same operational science. Thus, both evolutionists and creationists can be honored for their observational science.

2. *Origin science* attempts to discover truth by examining reliable eyewitness testimony (if available); and circumstantial evidence, such as pottery, fossils, and canyons. Because the past cannot be observed directly, assumptions greatly affect how these scientists interpret what they see.

This refers to knowledge about the past—in essence, history. This type of science cannot be observed directly or based on repeated testing, so we need other ways of finding knowledge. The Genesis account of origins gives us knowledge about the past, revealed by an infallible witness—God. Those who believe in Darwinian evolution claim to have knowledge concerning the past, too, but it is based upon the beliefs of fallible humans who did not witness the supposed evolutionary history. Genesis is the true account of historical science, whereas evolution is really a fictional historical science.

So, for example, how was the Grand Canyon formed? Was it formed gradually

over long periods of time by a little bit of water, or was it formed rapidly by a lot of water? The first interpretation is based on secular assumptions of slow change over millions of years, while the second interpretation is based on biblical assumptions about rapid change during Noah's Flood.

## **The nature of the debate**

At this point, most people realize that the debate is not about operation science, which is based in the present. The debate is about origin science and conflicting assumptions, or beliefs, about the past.

Molecules-to-man evolution is a belief about the past. It assumes, without observing it, that natural processes and lots of time are sufficient to explain the origin and diversification of life.

Of course, evolutionary scientists can test their interpretations using operation science. For instance, evolutionists point to natural selection and speciation—which are observable today. Creation scientists make these same observations, but they recognize that the change has limits and has never been observed to change one kind into another.

Until quite recently, many geologists have used studies of current river erosion and sedimentation to explain how sedimentary rock layers were formed or eroded slowly over millions of years. In the past few decades, however, even secular geologists have begun to recognize that catastrophic processes are a better explanation for many of the earth's rock layers.

Also during this time, creation geologists have been identifying evidence that points to the catastrophic formation of most of the rock record during the unique global Flood of Noah's day.

These present-day observations help us to consider the possible causes of past events, such as the formation of the Grand Canyon. But operation science cannot tell us with certainty what actually happened in the past.

After we explain these two types of science, people usually begin to recognize the potential problems with the statement "evolution is science, but the Bible is religion." Molecules-to-man evolution is not proven by operation science; instead, it is a belief about the past based on antibiblical assumptions.

The Bible, in contrast, is the eyewitness testimony of the Creator, who tells us what happened to produce the earth, the different kinds of life, the fossils, the rock layers, and indeed the whole universe. The Bible gives us the true, "big picture" starting assumptions for origin science.

## **Different histories**

Thus, creationists and evolutionists develop totally different reconstructions of history. But they accept and use the same methods of research in both origin and operation science. The different conclusions about origins arise from different starting assumptions, not the research methods themselves.

So, the battle between the Bible and molecules-to-man evolution is not one of religion versus science. Rather, it is a conflict between worldviews—a creationist’s starting assumptions (a biblical worldview) and an evolutionist’s starting assumptions (an antibiblical worldview).

The next time someone uses the word *science* in relation to the creation/evolution controversy, ask him first to define what he means. Only then can you begin to have a fruitful discussion about origins.

## **Proven facts**

Let us be clear. Accurate knowledge (truth) about physical reality can be discovered by the methods of both operation science and origin science. But truth claims in both areas may be false. Many “proven facts” (statements of supposed truth) about how things operate (in physics, chemistry, medicine, etc.), as well as about how things originated (in biology, geology, astronomy, etc.) have been or will be shown to be false. So, as best we can, we must be like the Bereans in Acts 17:11 and examine every truth claim against Scripture and look for faulty logic or false assumptions.

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# What Is Science: Operational and Historical Science

by Roger Patterson

“Even if all the data point to an intelligent designer, such an hypothesis is excluded from science because it is not naturalistic.”—Dr. Scott Todd, Kansas State University, *Nature* 401(6752):423, Sept. 30, 1999

Many people do not realize that science was actually developed in Christian Europe by men who assumed that God created an orderly universe. If the universe is a product of random chance or a group of gods that interfere in the universe, there is really no reason to expect order in nature. Many of the founders of the principle scientific fields, such as Bacon, Galileo, Kepler, and Newton, were believers in a recently created earth. The idea that science cannot accept a creationist perspective is a denial of scientific history.

To help us understand that science has practical limits, it is useful to divide science into two different areas: operational science and historical (origins) science. Operational science deals with testing and verifying ideas in the present and leads to the production of useful products like computers, cars, and satellites. Historical (origins) science involves interpreting evidence from the past and includes the models of evolution and special creation. Recognizing that everyone has presuppositions that shape the way they interpret the evidence is an important step in realizing that historical science is not equal to operational science. Because no one was there to witness the past (except God), we must interpret it based on a set of starting assumptions. Creationists and evolutionists have the same evidence; they just interpret it within a different framework. Evolution denies the role of God in the universe, and creation accepts His eyewitness account—the Bible—as the foundation for arriving at a correct understanding of the universe.

## What we really know about science

In its original form science simply meant “knowledge.” When someone says today that they work in the field of science, a different picture often comes to mind. Science, in the view of an outspoken part of the scientific community, is the systematic method of gaining knowledge about the universe by allowing only naturalistic or materialistic explanations and causes. The quote by Dr. Todd



reflects this attitude.

Science in this sense automatically rules out God and the possibility that He created the universe because supernatural claims, it is asserted, cannot be tested and repeated. If an idea is not testable, repeatable, observable, and falsifiable, it is not considered scientific. The denial of supernatural events limits the depth of understanding that science can have and the types of questions science can ask. We may define naturalism and materialism as:

**Naturalism:** a belief denying that an event or object has a supernatural significance; specifically, the doctrine that scientific laws are adequate to account for all phenomena.

**Materialism:** a belief claiming that physical matter is the only or fundamental reality and that all organisms, processes, and phenomena can be explained as manifestations or interactions of matter.

The problem with the above definition of science is that, even though naturalistic science claims to be neutral and unbiased, it starts with a bias. The quote from Dr. Todd at the beginning of this chapter demonstrates that bias: only matter and energy exist and all explanations and causes must be directly related to the laws that matter and energy follow. Even if the amazingly intricate structure of flagella in bacteria appears so complex that it must have a designer, naturalistic science cannot accept that idea because this idea falls outside the realm of naturalism/materialism. Many scientists have claimed that allowing supernatural explanations into our understanding of the universe would cause us to stop looking for answers and just declare, “God wanted to do it that way.” This is, of course, false.

The ability to study the world around us is only reasonable because there is a Lawgiver who established the laws of nature. Most people do not realize that modern science was founded by men who believed that nature can be studied because it follows the laws given to it by the Lawgiver. Johannes Kepler, one of the founders of astronomy, said that science was “thinking God’s thoughts after Him.” Many founders of scientific disciplines, such as Bacon, Newton, Kepler, Galileo, Pascal, Boyle, Dalton, Linnaeus, Mendel, Maxwell, and Kelvin were Bible-believing Christians. As a matter of fact, the most discerning historians and philosophers of science have recognized that the very existence of modern science had its origins in a culture at least nominally committed to a biblical worldview.

What, then, should Christians think of science? Science has been hijacked by



those with a materialistic worldview and exalted as the ultimate means of obtaining knowledge about the world. Proverbs tells us that the fear of God, not science, is the beginning of knowledge. In a biblical worldview, scientific observations are interpreted in light of the truth that is found in the Bible. If conclusions contradict the truth revealed in Scripture, the conclusions are rejected. The same thing happens in naturalistic science. Any conclusion that does not have a naturalistic explanation is rejected.

The words *creation* and *evolution* can be used in many different ways. Evolution will be used in this book to describe the naturalistic process that is alleged to have turned molecules into man over billions of years. As creation is used throughout this book, it is intended to describe the supernatural acts of God who created the universe and everything in it in six, approximately 24-hour days, about 6,000 years ago. This perspective is often referred to as young-earth creationism. The true history of the universe is revealed to us from God's eyewitness perspective in the Bible. This history can be summarized as the 7 C's of history: **Creation** of the univers; **Corruption** of the universe as a result of man's sin; the judgment of mankind in the **Catastrophe** of Noah's Flood; **Confusion** of languages at Babel; **Christ** coming to earth to live a righteous life and then to pay for our sins on the **Cross**; and the future **Consummation** when God creates the New Heaven and New Earth. This history serves as a foundation for interpreting evidence in the biblical creationist's worldview.

Making a distinction between two types of scientific study helps us to understand the limitations of naturalistic presuppositions in science:

**Operational (Observational) Science:** a systematic approach to understanding that uses observable, testable, repeatable, and falsifiable experimentation to understand how nature commonly behaves.

Operational science is the type of science that allows us to understand how DNA codes for proteins in cells. It is the type of science that has allowed us to cure and treat diseases, put a man on the moon, build satellites and telescopes, and make products that are useful to humans. Biblical creationists believe that God has created a universe that uses a set of natural laws that operate consistently in the universe. Understanding how those laws operate is the basis for scientific thinking.

Some events defy natural laws. Christians refer to these things as miracles, but naturalistic science must find a way to explain these occurrences naturally. This approach rejects miracles in the Bible because they cannot be explained using

natural laws. Such scientists occasionally try to explain the miracles in the Bible as natural phenomena, but this ultimately undermines the authority of God and His Word.

**Historical (Origins) Science:** interpreting evidence from past events based on a presupposed philosophical point of view.

The past is not directly observable, testable, repeatable, or falsifiable; so interpretations of past events present greater challenges than interpretations involving operational science. Neither creation nor evolution is directly observable, testable, repeatable, or falsifiable. Each is based on certain philosophical assumptions about how the earth began. Naturalistic evolution assumes that there was no God, and biblical creation assumes that there was a God who created everything in the universe. Starting from two opposite presuppositions and looking at the same evidence, the explanations of the history of the universe are very different. The argument is not over the evidence—the evidence is the same—it is over the way the evidence should be interpreted.

Evolutionists often claim that people misuse the word “theory” when discussing science and don’t make a distinction between a scientific theory and the common use of the word “theory.” You may say, “I have a theory about why Mr. Jones’ hair looks funny” but that theory has never been compared to a broad set of observations. This is not the sense of a theory in science.

In light of this, few would argue that there are different types of theories. So it would be good to refine this term further to avoid any baiting and switching of the word “theory”. Just as it was valuable to distinguish between operational and historical science, it would be good to do the same with operational and historical theories. Let’s define a scientific operational theory:

**Operational Theory:** an explanation of a set of facts based on a broad set of repeatable and testable observations that is generally accepted within a group of scientists.

That evolution has been elevated to the status of an operational theory (and “fact” in the opinion of some) is not due to the strength of the evidence, but in spite of it. Because evolutionary ideas are interpretations of past events, they are not as well-founded as testable scientific theories like Einstein’s Theory of Relativity or Newton’s Theory of Gravity. These theories offer predictable models and the ability to conduct experiments to determine their validity in different circumstances.

Molecules-to-man evolution does not offer this opportunity because these

events happened in the past. Therefore, evolution is not an operational theory. For these reasons evolution could be considered an historical theory, along with creation models and other origins theories.

**Historical Theory:** an explanation of past events based on the interpretation of evidence that is available in the present.

It is important to recognize that people's presuppositions influence the way they interpret evidence. Evolution is based on a reasoning process that rejects God. Creation starts from the authority of God's Word. Your presuppositions are like a pair of glasses that you wear to look at the world around you.

Evolution fits this definition of theory, but it relies on the assumption of naturalism. In the naturalistic scientific community, evolution has become a theory that is assumed to be an established fact and not an explanation. Evolution is the prevailing paradigm, and most scientists have stopped questioning the underlying assumptions that the theory is based upon. Creationists develop theories, too, in light of biblical truth, but they are not as widely accepted by scientists. All interpretations (theories) of the past are based on assumptions and cannot be equated with facts that are observable in the present. This holds true for creationist or evolutionist theories.

Evolution also relies heavily on the assumption of uniformitarianism—a belief that the present is the key to the past. According to uniformitarians, the processes in the universe have been occurring at a relatively constant rate. One of these processes is the rate of rock formation and erosion. If rocks form or erode at a certain rate in the present, uniformitarians believe that they must have always formed or eroded at nearly the same rate. This assumption is accepted even though there are no observations of the rate of erosion from the distant past and there is no way to empirically test the erosion rate of the past. However, the Bible makes it very clear that some events of the past were radically different from those we commonly observe today. Noah's Flood, for example, would have devastated the face of the earth and created a landscape of billions of dead things buried in layers of rock, which is exactly what we see.

Just as evolutionists weren't there to see evolution happen over several billion years, neither were creationists there to see the events of the six days of creation.

The difference is that creationists have the Creator's eyewitness account of the events of creation, while evolutionists must create a story to explain origins without the supernatural. Just because many scientists believe the story does not make the story true. Believing the Bible and the information that has been

revealed to us by our Creator gives us a foundation for thinking—including our thinking about science. Good operational science can provide us with answers to many questions about the world around us and how it operates, but it cannot answer the questions of where we came from and why we are here. Those questions are outside the scope of operational science. But we are not left without an answer. God has given us the answers to those questions in His Word, the Bible.

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# Missing? Or Misinterpreted?

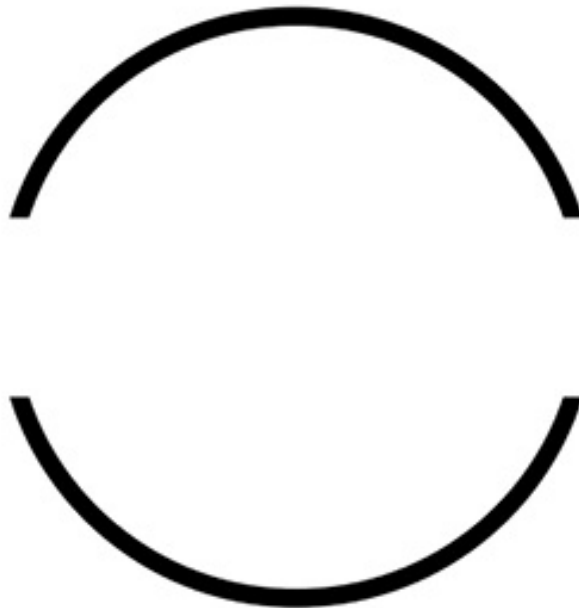
by Ken Ham

Have you ever watched the comedy movie “The Gods Must Be Crazy”? Someone drops a coke bottle from a plane into a group of native people in Africa who have never seen such a bottle. The whole movie centers around a particular interpretation of what they thought the coke bottle really was. The movie title refers to their belief that “the gods” had sent it. However, it caused so many squabbles about who should use it that they decided that it was an evil thing that must be returned to the gods by dropping it over “the edge of the world.”

The bushmen had a totally different way of looking at this bottle from that of the people who dropped it. Why did they get it so wrong? The following exercise will help us understand what was happening.

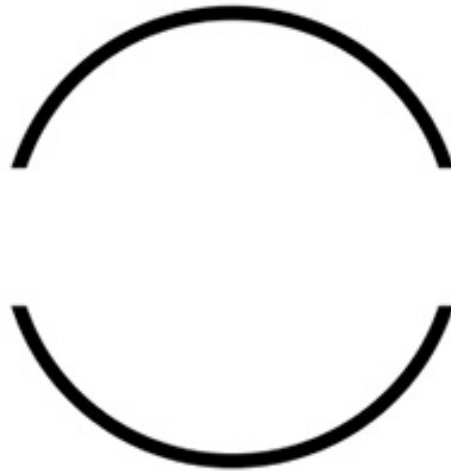
Consider the following “fact.” Observe it very closely.

**Fact:**



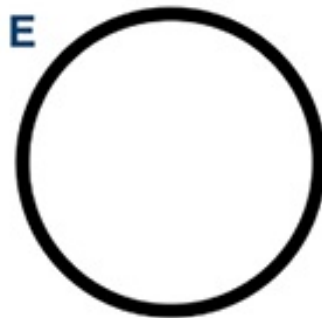
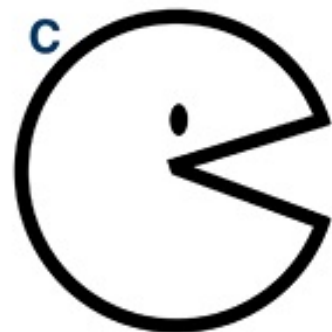
Now attempt to answer this question about the fact. What do you think this most likely was originally? What do you think is most likely missing?

# What's missing?



# What was there originally?

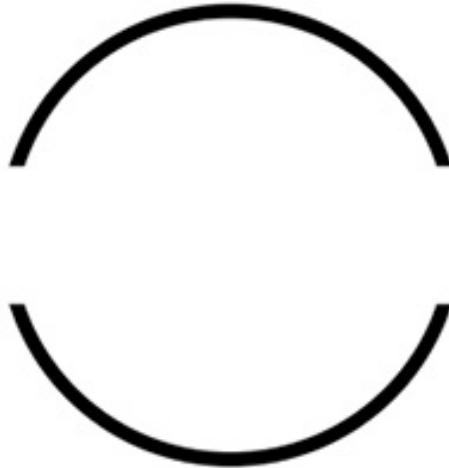
Let me help you by offering you some options. See if one of these is one of the possibilities you thought of.



**F**  
**SOME MYSTERY  
OPTION YOU  
HAVEN'T SEEN  
YET**

Most people say it was a circle originally, and thus choose option E. However, the correct answer is that *nothing* is missing, because I drew the “fact” (first illustration pictured above) just as you see it!

## Nothing is missing?



**I drew it this way.**

This simple exercise teaches us a very important lesson about evidence and interpretation. The point is that “facts” by themselves are essentially meaningless—they all need to be *interpreted* within a particular philosophical framework.

Let’s consider our “fact” above. I asked a question: “What is missing?” By doing this I gave people a particular *presupposition* to use when looking at this fact. If someone accepts this presupposition that something is missing, then they look at the fact believing they have to come up with a solution as to what is missing. Thus, the person is now looking at the fact in a particular way—with a specific belief about the “fact” that they have accepted. When people say it was a circle, they have actually interpreted the fact in a particular way, consistent with their way of thinking that is based on the presupposition stating something is missing.

Now the circle interpretation is totally consistent with the person’s way of thinking and is totally consistent with their presupposition—it’s just the *interpretation* is totally wrong because they started with the wrong presupposition.

What those listening to me should have done was to question my question! In



other words, instead of accepting this presupposition without question, they should have asked how I knew something was missing—thus questioning my question! In doing so, a person may then discover that there could be a totally different way of looking at this same “fact.”

The problem is that most people have not been trained to even understand that every “fact” has been interpreted by a presupposition that in essence asks a question—let alone whether the right question was asked!

For instance, the public reads almost daily in newspapers and magazines that scientists have dated a particular rock at billions of years old. Most just accept this. However, creation scientists have learned to ask questions as to how this date was obtained: What method was used? What *assumptions* were accepted to develop this method?

These scientists then question those assumptions (questions) to see whether they are valid or not and determine whether the rock’s age could be interpreted differently. Then the results are published to help people understand that scientists have not proved the rock is billions of years old, and that the evidence can be interpreted in a different way to support a young age.

For example, consider the research from the creationist RATE group concerning the age of zircon crystals in granite. Using one set of assumptions, these crystals could be interpreted to be around 1.5 billion years old, based on the amount of lead produced from the decay of uranium (which also produces helium). However, if one questions these assumptions, one is motivated to test them. Measurements of the rate at which helium is able to “leak out” of these crystals indicate that if they were much older than about 6,000 years, they would have nowhere near the amount of helium still left in them. Hence the originally applied assumption of a constant decay rate is flawed; one must assume, instead, that there has been acceleration of the decay rate in the past. Using this revised assumption, the same uranium-lead data can now be interpreted to also give an age of less than 6,000 years.<sup>[1](#)</sup>

The bushmen in the movie had the wrong presupposition when trying to interpret the coke bottle. Because they asked the wrong question, they came up with the wrong answer and thought it was something that was evil and must be disposed of.

All of this should be a lesson for us to take note of the situation when we read the newspaper—we are reading someone’s interpretation of the facts of world history—there very well could be a different way of looking at the same “facts.” One can see this in practice on US television when comparing a news network

that's currently considered fairly liberal (CNN) with one that is more conservative (FOX)—one can often see the same “facts” interpreted differently!

I had the opportunity to explain all of this to a student at a Christian university who was frustrated with one of her professors who claimed to believe the Bible was the Word of God.

She said: “I wanted to write a paper on Job 40, stating my belief that the creature called ‘behemoth’ mentioned in this passage was a dinosaur living at the time of Job. However, my professor told me that unless I could show clearly documented evidence that dinosaur and human fossils were found together in the same rock layers—and he said no one has ever found this—then, I could not write on dinosaurs and humans living together. He said that scientists had proved dinosaurs lived millions of years before man. What can I say to my professor?”

My response was to suggest this student confront her professor with two issues:

1. If the Bible really is the Word of God, who knows everything, and is the true record of history (which it is), then all of our thinking must start with God's Word. The Bible clearly teaches that God created everything in six literal days.<sup>2</sup> On Day Six, God made land animals (which must have included dinosaurs, as they were land animals) and Adam and Eve. Therefore, on the basis of God's authority, we should be prepared to say that dinosaurs and humans lived together, regardless of what the world claims. Now, since God's Word in Genesis is true history, then any evidence, properly interpreted on this basis, will be consistent with observational science. Whereas if the evidence is interpreted on the basis of the professor's view, that dinosaurs lived millions of years before man, it should ultimately conflict with observational science and thus show a problem with the interpretation.
2. I told this student to use the coelacanth fish to explain a very important point to her professor. For a long time, this fish was believed to have evolved about 340 million years ago and become extinct about 70 million years ago—about the same final extinction “date” claimed for the dinosaurs. This was because fossils of coelacanth fish are found in rocks the same evolutionary age as the dinosaurs, but not rocks “dated” younger. So coelacanths were believed to have died out long before man came on the scene, and thus never lived at the same time as people. However, in 1938, scientists found live coelacanths were being caught off

the coast of Madagascar.<sup>3</sup> Decades later, researchers found that Indonesian fisherman had also been selling coelacanths in their fish markets for years.<sup>4</sup>



Now here's the point. No fossils of coelacanths have ever been found in the same layers as human fossils, but they have been found in the same layers as dinosaur fossils—yet we know coelacanths and humans do live together, because they do so in the present world. In other words, just because we don't find fossils of certain creatures (or plants) together with humans in the fossil record, it doesn't mean they didn't live together. Starting with the Bible, and therefore the presupposition that man and dinosaur did live together, we can properly interpret such "facts" (or in this case, really the *absence* of a fact—thus an *argument from silence*). But, as our coelacanth example shows, the absence of human fossils in "dinosaur rock" does not support the presupposition that dinosaurs lived millions of years before man.

The famous Wollemi pine from Australia—yet another living example of something previously known from fossils only, and dated by evolutionists as existing millions of years ago. Creationists understand that the reason no evolutionary change is evident in the many living fossils, like this one discovered, is that there has been no evolution.

And it's not just the coelacanth—there are numerous (in fact hundreds) of examples of plants and animals living today that are represented in the fossil record as being supposedly millions of years old, and yet they are not found fossilized in the same layer as human fossils. Consider the Wollemi pine tree found in 1994 in the Blue Mountains in Australia—it was thought to have become extinct with the dinosaurs, but was then found living alongside people in this present world!<sup>5</sup> Another example is the tadpole shrimp, said to have lived

from 250 to 65 million years ago, yet identical shrimps have been found living today.<sup>6</sup>

The reason so many Christian professors (and Christian leaders in general) have rejected the literal creation position is that they have blindly accepted the interpretation of evidence from the secular world, based on man's fallible presuppositions about history. So they have tried to reinterpret the Bible accordingly.

If only they would start with the presupposition that God's Word is true. They would find that they could then correctly interpret the evidence of the present, and also show overwhelmingly that observational science over and over again confirms such interpretations. For example, fossil red blood cells and traces of hemoglobin have been found in *T. rex* bones, although they should have long decomposed if they were millions of years old.<sup>7</sup> Yet the reaction of the evolutionary researchers was a perfect illustration of how evolutionary bias can result in trying to explain away hard facts to fit the preconceived framework of millions of years:

It was exactly like looking at a slice of modern bone. But, of course, I couldn't believe it. I said to the lab technician: "The bones, after all, are 65 million years old. How could blood cells survive that long?"<sup>8</sup>

Whenever you hear a news report that scientists have found another "missing link" or discovered a fossil "millions of years old"—try to think about the right questions that need to be asked to question the questions these scientists asked to get their interpretations!

And don't forget, as Christians, we need to always build our thinking on the Word of the One who has the answers to all of the questions that could ever be asked—the infinite Creator God. He has revealed the true history of the universe in His Word to enable us to develop the right way of thinking about the present and thus determine the correct interpretations of the evidence of the present. We should follow Proverbs 1:7 and 9:10 that teach that fear of the Lord is the beginning of true wisdom and knowledge.

(This chapter was originally published in *Creation* 26(2):22–25, March 2004.)

## Endnotes

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# Searching for the “Magic Bullet”

by Ken Ham

All evidence is actually interpreted, and all scientists actually have the same observations—the same data—available to them in principle.

In 1986 a number of leading creationist researchers decided that the evidence of supposedly human and dinosaur footprints, found together at the Paluxy River in Texas, had serious problems. They decided that, pending further research to establish the correct interpretation of the prints, they could no longer be safely used as evidence supporting the fact (based on the biblical account of creation) that man and dinosaur lived at the same time.

Regardless of what the correct interpretation really is, I want to discuss a related phenomenon that is rife throughout the church. I believe it is one of the reasons so many Christians believe in millions of years, and do not accept the days of creation as ordinary-length days. It is also why so many creationists are not able to successfully argue with evolutionists in a convincing way.

In 1993 *Answers in Genesis* published an article in our refereed journal (now called *ARJ*) about the popular “moon dust” argument supporting a young universe.<sup>1</sup> The idea was that the thickness of dust on the moon when the astronauts landed was only enough to account for a few thousand years worth of accumulation, given the amount that was presently pouring into the earth/moon system. But the authors of the article concluded that this argument should no longer be used, because new *measurements* showed that the influx of meteoric dust was much less than evolutionists had previously thought.

Later, AiG published articles concerning the supposed plesiosaur carcass netted by a Japanese fishing trawler in 1977.<sup>2</sup> These reported on research which substantiated that this carcass could not be of a plesiosaur, and was consistent with a basking shark identification. (They included photos of an actual decomposing basking shark.) This was despite our having previously given favorable publicity to the “plesiosaur” interpretation in our literature.

After this “plesiosaur” article, a person approached me at a creation seminar, and, obviously upset, stated, “First you take away the Paluxy prints, then the moon dust, and now you’ve destroyed the 1977 plesiosaur argument. If you keep going, we won’t have any great evidence left at all to counteract the evolutionists.”

In November 2001, *Answers in Genesis* published an article on its website



entitled, Arguments we think creationists should not use, which was added to the Q&A section. This covered a substantial number of widely-used arguments opposing evolution. It was meant to inform Christians why we felt these arguments were either factually incorrect, or were very dubious and unsafe, even counterproductive, to use. Early the following year, a modified form appeared in *Creation* magazine.<sup>3</sup>

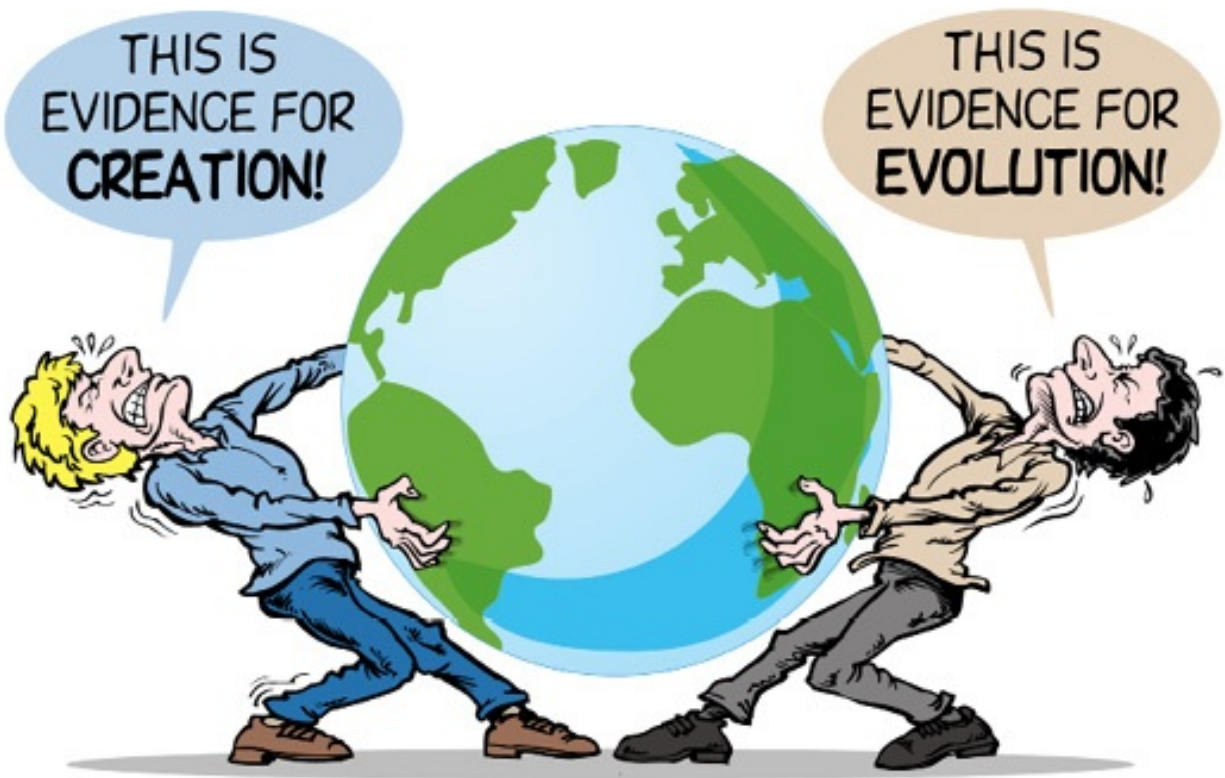
Again, some people became upset, expressing their dismay through phone calls, emails and the like. Once more, I had people complain to me at conferences. One man said: “Evolutionists have so much evidence; if you people at AiG keep destroying some of the greatest evidence we’ve had, there’ll be none left for creationists. You’re helping the evolutionists win!”

Quite apart from the strange implication that we should not inform people of the truth about things that are believed to be in error, I’ve noticed that many people do not really understand the nature of “evidence.” So they think that to oppose evolution or disprove an old earth, one has to come up with totally different or unique “evidence.” I think this is a major reason why a number of Christians are drawn to what I call “flaky evidence” in the hope that this will counteract evolution. For instance, such things as:

1. a supposed boat-like structure in the Ararat region as evidence of Noah’s Ark;
2. a “human hand print” (with virtually no documentation or credible research) supposedly from ‘dinosaur age’ rock;
3. supposed “human hand fossils” from rock dated as millions of years old (but to date no credible substantiation of the claim); and many other dubious and/or unsubstantiated arguments.

Most well-meaning creationists would agree in principle that things that are not carefully documented and researched should not be used. But in practice, many of them are very quick to accept the sorts of evidences mentioned here, without asking too many questions. Why this seeming urge to find a startling, exciting “magic bullet”?





I think it is because probably the majority of Christians believe that the “evidence” overwhelmingly supports an old (millions of years) earth. For many, it causes them to reject what the Bible makes so plain about history, to the great detriment of the Gospel founded on that history.

But even those who keenly support Genesis still tend to see it as if there is a “mountain” of “their” facts/evidences lined up “against our side.” This is, I believe, why they are less cautious than they might otherwise be, because they are so keen to have “our” facts/evidences to counter “theirs.”

That is, both of the above groups suffer from the *same* basic problem. They really don’t understand that it is not a matter of “their evidence vs. ours.” *All* evidence is actually interpreted, and *all* scientists actually have the *same* observations—the same data—available to them in principle.

I have often debated with evolutionists, or Christians who believe in millions of years, on various radio programs. Sometimes the interviewer has made statements like, “Well, today we have a creationist who believes he has evidence for creation, and on the other side is an evolutionist who believes he has evidence to support evolution.”

Too many people think  
it's a battle of sorting out  
**DIFFERENT** evidences



I then stop the interviewer and state “I want to get something straight here, I actually have the same evidence the evolutionist has—the battle is not about the evidence or facts, as they are all the same. We live on the same earth, in the same universe, with the same plants and animals, the same fossils. The facts are all the same.”

Then the evolutionist says, “But you’re on about the Bible—this is religion. As an evolutionist I’m involved in real science.”

I then respond, “Actually, as a creationist, I have no problem with your science; it’s the same science I understand and trust. The argument is not about science or about facts—ultimately, the argument is about how you *interpret* the facts—and this depends upon your belief about history. The real difference is that we have different “histories” (accounts about what happened in the past), which we use to interpret the science and facts of the present.”

I then give an example. “Let’s consider the science of genetics and natural selection. Evolutionists believe in natural selection—that is real science, as you observe it happening. Well, creationists also believe in natural selection. Evolutionists accept the science of genetics—well, so do creationists.

“However, here is the difference: Evolutionists believe that, over millions of years, one kind of animal has changed into a totally different kind. However, creationists, based on the Bible’s account of origins, believe that God created

separate kinds of animals and plants to reproduce their own kind—therefore one kind will not turn into a totally different kind.

“Now this can be tested in the present. The scientific observations support the creationist interpretation that the changes we see are not creating new information. The changes are all within the originally created pool of information of that kind; sorting, shuffling or degrading it. The creationist account of history, based on the Bible, provides the correct basis to interpret the evidence of the present—and real science confirms the interpretation.”



My point is that if we Christians really understood that all evidence is actually interpreted on the basis of certain presuppositions, then we wouldn't be in the least bit intimidated by the evolutionists' supposed "evidence." We should instead be looking at the evolutionist's (or old-earther's) *interpretation* of the evidence, and how the same evidence could be interpreted within a biblical framework and be confirmed by testable and repeatable science.

I believe if more creationists did this, they would be less likely to jump at "flaky" evidence that seems startling, but in reality may be being interpreted incorrectly by the creationists themselves in their rush to find the magic-bullet, knock-down, drag-em-out convincing "evidence" against evolution that they think they desperately need.

The same is true of dating methods. All dating methods suffer, in principle, from the same limitations—whether they are those which are used to support a

young world or an old world. Even the famous moon dust argument, back when it still seemed that this was an excellent one to use (given the information available), needed to involve assumptions—*uniformitarian* assumptions, just like radiometric dating does. Even before the error in the measurement of moon dust influx was pointed out, evolutionists could rightly counter—how do you know that the dust has always been coming in at the same rate? Of course, such creationist arguments have always been justified in that they are merely turning their own uniformitarian assumptions against them. Creationists can rightly challenge radiometric dating on this same sort of basis, too. Once one understands the assumptions/presuppositions behind dating methods, one realizes that the ‘date’ obtained is actually an interpretation—not a fact!

The bottom line is that it’s not a matter of who has the better (or the most) “facts on their side.” We need to understand that there are no such things as brute facts—all facts are interpreted. Thus, the next time evolutionists use what seem to be convincing facts for evolution, try to determine the *presuppositions* they have used to interpret these facts. Then, beginning with the big picture of history from the Bible, look at the same facts through these biblical glasses and interpret them differently. Then, using the real science of the present that an evolutionist also uses, see if that science, when properly understood, confirms (by being consistent with) the interpretation based on the Bible. You will find over and over again that the Bible is confirmed by real science.<sup>4</sup>

But remember that, like Job (42:2–6), we need to understand that compared to God we know next to nothing. So we won’t have all the answers. However, so many answers have come to light now, that a Christian can give a credible defense of the book of Genesis and show it is the correct foundation for thinking about, and interpreting, every aspect of reality.

So let’s not jump in a blind-faith way at the startling evidences we think we need to “prove” creation—trying to counter “their facts” with “our facts.” (Jesus Himself rose from the dead in the most startling possible demonstration of the truth of God’s Word. But still many wouldn’t believe—cf. Luke 16:27–31.) Instead, let’s not be intimidated by apparent “evidences” for evolution, but understand the right way to think about evidence. We can then deal with the *same evidence the evolutionists use*,<sup>5</sup> to show they have the wrong framework of interpretation—and that the facts of the real world really do conform to, and confirm, the Bible.

(This chapter was originally published in *Creation* 25(2):34–37, March 2003)

## Endnotes

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3. Sarfati, J., "Moving forward—arguments we think creationists shouldn't use," *Creation* 24(2):20–24, 2002. [Return to text.](#)
4. We are not here talking of the Bible being "proved" (science is incapable of proving or disproving one-off past events). But faith in the Bible is confirmed (and affirmed and reinforced) whenever we find evidence to be consistent with the Bible. [Return to text.](#)
5. Of course, creationists certainly may use certain evidence that an evolutionist avoids—but make sure you have the correct interpretation and you are not just clinging to something because it "sounds good." [Return to text.](#)



# A Young Earth—It’s Not the Issue!

by Ken Ham

Time and time again I have found that in both Christian and secular worlds, those of us who are involved in the creation movement are characterized as “young earthers.” The supposed battle-line is thus drawn between the “old earthers” (this group consists of anti-God evolutionists as well as many “conservative” Christians) who appeal to what they call “science,” versus the “young earthers,” who are said to be ignoring the overwhelming supposed “scientific” evidence for an old earth.

I want to make it VERY clear that we don’t want to be known *primarily* as “young-Earth creationists.” AiG’s main thrust is NOT “young Earth” as such; our emphasis is on **biblical authority**. Believing in a relatively “young earth” (i.e., only a few thousands of years old, which we accept) is a *consequence* of accepting the authority of the Word of God as an infallible revelation from our omniscient Creator.

Recently, one of our associates sat down with a highly respected world-class Hebrew scholar and asked him this question: “If you started with the Bible alone, without considering any outside influences whatsoever, could you ever come up with millions or billions of years of history for the Earth and universe?” The answer from this scholar? “Absolutely not!”

Let’s be honest. Take out your Bible and look through it. You can’t find any hint at all for millions or billions of years.

For those of you who have kept up with our lectures and our articles in *Answers* magazine, you will have heard or read quotes from many well-known and respected Christian leaders admitting that if you take Genesis in a straight-forward way, it clearly teaches six ordinary days of Creation. However, the reason they don’t believe God created in six literal days is because they are convinced from so-called “science” that the world is billions of years old. In other words, they are admitting that they start *outside* the Bible to (re)interpret the words of Scripture.

When someone says to me, “Oh, so you’re one of those fundamentalist, young-earth creationists,” I reply, “Actually, I’m a revelationist, no-death-before-Adam redemptionist!” (which means I’m a young-earth creationist!).

Here’s what I mean by this: I understand that the Bible is a revelation from our infinite Creator, and it is self-authenticating and self-attesting. I must interpret

Scripture with Scripture, not impose ideas from the outside! When I take the plain words of the Bible, it is obvious there was no death, bloodshed, disease or suffering of humans or animals before sin. God instituted death and bloodshed because of sin—this is foundational to the Gospel. Therefore, one cannot allow a fossil record of millions of years of death, bloodshed, disease and suffering before sin (which is why the fossil record makes much more sense as the graveyard of the flood of Noah’s day).

Also, the word for “day” in the context of Genesis can only mean an ordinary day for each of the six days of Creation.[1](#)

Thus, as a “revelationist,” I let God’s Word speak to me, with the words having meaning according to the context of the language they were written in. Once I accept the plain words of Scripture in context, the fact of ordinary days, no death before sin, the Bible’s genealogies, etc., all make it clear that I cannot accept millions or billions of years of history. Therefore, I would conclude there must be something wrong with man’s ideas about the age of the universe.

And the fact is, *every single dating method* (outside of Scripture) is based on fallible assumptions. There are literally hundreds of dating tools. However, whatever dating method one uses, assumptions must be made about the past. Not one dating method man devises is absolute! Even though 90% of all dating methods give dates far younger than evolutionists require, none of these can be used in an absolute sense either.[2](#)

Question: Why would any Christian want to take man’s fallible dating methods and use them to impose an idea on the *infallible* Word of God? Christians who accept billions of years are in essence saying that man’s word is infallible, but God’s Word is fallible!

This is the crux of the issue. When Christians have agreed with the world that they can accept man’s fallible dating methods to interpret God’s Word, they have agreed with the world that the Bible can’t be trusted. They have essentially sent out the message that man, by himself, independent of revelation, can determine truth and impose this on God’s Word. Once this “door” has been opened regarding Genesis, ultimately it can happen with the rest of the Bible.

You see, if Christian leaders have told the next generation that one can accept the world’s teachings in geology, biology, astronomy, etc., and use these to (re)interpret God’s Word, then the door has been opened for this to happen in every area, including morality.

Yes, one can be a conservative Christian and preach authoritatively from God’s Word from Genesis 12 onwards. But once you have told people to accept man’s



dating methods, and thus should not take the first chapters of Genesis as they are written, you have effectively undermined the Bible's authority! This attitude is destroying the church in America.

So, the issue is not "young earth" versus "old earth," but this: Can fallible, sinful man be in authority over the Word of God?

A "young-earth" view admittedly receives the scoffing from a majority of the scientists. But Paul warned us in 1 Corinthians 8:2 (KJV), "And if any man think that he knoweth any thing, he knoweth nothing yet as he ought to know." Compared to what God knows, we know "next door to nothing!" This is why we should be so careful to let God speak *to* us through His Word, and not try to impose our ideas *on* God's Word.

It's also interesting to note that this verse is found in the same passage where Paul warns that "knowledge puffeth up." Academic pride is found throughout our culture. Therefore, many Christian leaders would rather believe the world's fallible academics, than the simple clear words of the Bible.

At Answers in Genesis, we believe this message needs to be proclaimed to the Church as a challenge to return to biblical authority, and thus stand tall in the world for the accuracy of God's Word. Ultimately, this is the only way we are going to reach the world with the truth of the gospel message.

Let's start the year by putting more and more pressure on our Christian leaders to take a long, hard look at how they are approaching the question of the authority of the Bible! Please help us fulfill our mission statement: to bring about reformation in the Church!

## Endnotes

1. See [www.answersingenesis.org/genesis](http://www.answersingenesis.org/genesis) for more information. [Return to text.](#)

2. See [www.answersingenesis.org/geology/radiometric-dating](http://www.answersingenesis.org/geology/radiometric-dating) and [www.answersingenesis.org/age-of-the-earth](http://www.answersingenesis.org/age-of-the-earth) for more information. [Return to text.](#)

# Is Science Secular?

by Bodie Hodge

Many people today insist that science can only be done by people who have a secular worldview—or at least by those who are willing to leave their religious views at the door as they enter the science lab. Several popular atheists and evolutionists have contended that people who reject the big bang and the evolution of living things are so backward that they cannot even be involved in developing new technologies.<sup>1</sup> But is this really the case, or are these opponents of a biblical worldview simply making assertions that cannot be supported with facts and substantial arguments, having an incorrect understanding of true science?

A friend of the ministry was recently challenged by the comment that science can only be done through a purely secular evolutionary framework. We have decided to publish a response for the sake of teaching. Such statements are blatantly absurd and are a type of arbitrary fallacy called an “ignorant conjecture.” In other words, these people simply do not know the past, nor are they familiar with what science really is.

## **Examples of scientists operating from a Christian worldview**

If science is a strictly secular endeavor without any need for a biblical worldview, then why were most fields of science developed by Bible-believing Christians? For example, consider Isaac Newton, Gregor Mendel, Louis Pasteur, Johann Kepler, Galileo Galilei, Robert Boyle, Blaise Pascal, Michael Faraday, James Joule, Joseph Lister, and James Clerk Maxwell. Were these “greats” of science not doing science? Francis Bacon developed the scientific method, and he was a young-earth creationist and devout Christian.

Even in modern times, the inventor of the MRI scanning machine, Dr. Raymond Damadian, is a Christian working with Christian principles. The founder of catastrophic plate tectonics, Dr. John Baumgardner, is also a devout Christian. And those who recently founded the scientific field of baraminology are also Christians.

Also, I developed a new method for production of submicron titanium diboride for the materials science and ceramics industry. Professor Stuart Burgess developed a new mechanism for the two-billion-dollar European (ESA) satellite

Envisat. Dr. John Sanford developed the gene gun. And let's not forget Werner Von Braun, the young-earth Christian who was the founder of rocket science and led the U.S. to the moon. These are but a few examples of people who held to a biblical worldview and were quite capable as scientists and inventors of new technologies.

## **The foundation for science is biblical Christianity**

Furthermore, science comes out of a Christian worldview. Only the God described in the Bible can account for a logical and orderly universe. God upholds the universe in a particular way, such that we can study it by observational and repeatable experimentation (see Genesis 8:22). Because God upholds the universe in a consistent manner, we have a valid reason to expect that we can study the world we live in and describe the laws that God uses to sustain the universe (Colossians 1:17).

In the secular view, where all matter originated by chance from nothing, there is no ultimate cause or reason for anything that happens, and explanations are constantly changing, so there is no *basis* for science. Though many non-Christians do science, like inventing new technologies or improving medical science, they are doing it in a manner that is inconsistent with their professed worldview. On what basis should we expect a universe that came from nothing and for no reason to act in a predictable and consistent manner? When non-Christians do real science by observable and repeatable experimentation, they are actually assuming a biblical worldview, even if they do not realize it.

It makes sense why “science” in the U.S. is losing out to other nations since our science education system now limits science in the classroom exclusively to the religion of secular humanism.

## **It is not “science vs. religion”**

So, the debate is not “science versus religion.” It is really “religion versus religion.” Sadly, science is caught up in the middle.

The battle is between the religion of *secular humanism* (with its variant forms like agnosticism, atheism, and the like), which is usually called *secularism* or *humanism* for short, and *Christianity*. They both have religious documents (e.g., the Humanist Manifestos I, II, and III for humanists, and the Bible for Christians); both are recognized religions by the Supreme Court;<sup>2</sup> and both receive the same 501(c)(3) tax-exempt status. Both have different views of origins.

Humanism has astronomical evolution (big bang), geological evolution (millions of years of slow gradual changes), chemical evolution (life came from non-life) and biological evolution (original, single-celled life evolved into all life forms we have today over billions of years) in its view of origins. In other words, evolution (as a whole) is a subset of the dogma of the religion of humanism in the same way as biblical creation (as a whole, with six-day Creation, the Fall, global Flood, and the Tower of Babel) is a subset of the dogma of Christianity. It is a battle over two different religions.

In recent times the state and federal governments kicked Christianity out of the classroom, thinking they kicked religion out; but instead, they just replaced Christianity with a godless religion of humanism. This was done as a designed attack by humanists. Consider this quote in the magazine *The Humanist* that outlines the plan they had already been striving toward in the early 1980s:

I am convinced that the battle for humankind's future must be waged and won in the public school classroom by teachers who correctly perceive their role as the proselytizers of a new faith: a religion of humanity that recognizes and respects the spark of what theologians call divinity in every human being. These teachers must embody the same selfless dedication as the most rabid fundamentalist preachers, for they will be ministers of another sort, utilizing a classroom instead of a pulpit to convey humanist values in whatever subject they teach, regardless of the educational level—preschool day care or large state university. The classroom must and will become an arena of conflict between the old and the new—the rotting corpse of Christianity, together with all its adjacent evils and misery, and the new faith of humanism.<sup>3</sup>

## **An evolutionary worldview equals science?**

There is a misconception that this evolutionary subset of humanism *is* science. Science means knowledge and scientific methodology that is based on the scientific method (observable and repeatable experimentation). However, evolution (whether chemical, biological, astronomical, or geological) is far from scientific. Consider the following facts:

No one has been able to observe or repeat the making of life from non-life (matter giving rise to life or chemical evolution).

No one has been able to observe or repeat the changing of a single-celled life-form like an amoeba into a cow or goat over billions of years (biological evolution).

No one has been able to observe or repeat the big bang (cosmological/astronomical evolution).

No one has observed millions of years of time progressing in geological layers (geological evolution).

The reason some people are confused about the religion of humanism—and specifically its subset of evolution—as being science is a bait and switch fallacy. Let me explain. One of the key components of humanism is naturalism. Basically, it assumes *a priori* there is nothing supernatural and no God. In other words, nature (i.e., matter) is all that exists in their religion (only the physical world).

As a clarifying note, Christians also believe in the natural realm; but unlike the naturalist or humanist, we believe in the supernatural realm, too (i.e., the spiritual, abstract, conceptual, and immaterial realm). Logic, truth, integrity, concepts, thought, God, etc., are not *material* and have no mass; so those holding to naturalism as a worldview *must* reject logic, truth, and all immaterial concepts if they wish to be consistent since these are *not* material or physical parts of nature.

This is very important because naturalism or natural science has been added as one of the dictionary definitions of science. For example, it was not found in the 1828 Webster's dictionary, but it was added in one form in the 1913 edition. And, interestingly, they removed the definition that “the science of God must be perfect” in the 1913 edition.

So, although many appeal to observable and repeatable science through methodology to understand how the universe operates, another definition has been added to muddle this (there is also the issue of operational science versus historical science). Science is now defined as “knowledge or a system of knowledge covering general truths or the operation of general laws especially as obtained and tested through scientific method.”<sup>4</sup>

For example, evolutionists have continued to popularize Darwin's scientific observation of the changes in beaks of Galapagos finches as proof for the evolution of one animal kind into another. This is a great example of the bait and switch fallacy where scientists present real scientific evidence (the difference in finch beaks) but stretch the truth to say it gives validity to the Greek mythology of microbes to man evolution (the “switch” part of the fallacy). This trick leads many to believe that evolution is real science. The only real science in this example is the observation of the difference in finch beaks.

People are baited with this good methodology of science (again developed by a

Christian named Francis Bacon) and then they are told that evolution is science while subtly appealing to another added definition: that of “natural science” or “naturalism.”

This is like saying another definition of science is “Nazism.” Then Nazis could say they are “scientists” and get into a classroom! This is what has happened with humanism. The religion of humanism (with its founding principle of naturalism) has been disguised as science by adding another definition to the word science. But it is not the good science we think of that makes computers, space shuttles, and cars. It is a religion. To call evolution science is a bait and switch tactic.

## **So, is science strictly secular?**

No. In summary, science can never be strictly secular for these reasons:

Real (operational) science is observable and repeatable experimentation that only makes sense in a biblical worldview where God’s power keeps the laws of nature consistent. In other words, science proceeds from a biblical worldview.

Secular humanism, with its subset of evolution, is in reality a religion and not science.

Many of the greatest scientists were Bible-believing Christians whose biblical worldview motivated their scientific studies, showing that a strictly secular view is not necessary for performing science.

## **Final note: where humanism leads**

Christians will continue to conduct scientific inquiry and invent things, processes, and science fields as we always have. If the U.S. and other places neglect our accomplishments and inventions and continue to push the religion of humanism on unsuspecting kids in the classroom (usually unbeknownst to most) by limiting its definition of science to the humanistic worldview, then my humble suggestion is that they will continue down the same road where humanism leads. That is, people who are consistent in their naturalistic worldview shouldn’t care about true science or the world, since nothing ultimately matters in that worldview.

## **Endnotes**

1. As an example of this dismissive attitude, Eugenie Scott of the National Center for Science Education (NCSE), a leading religious humanist, says, “Like other pseudosciences, ‘creation science’ seeks support and adherents by claiming the mantle of science.” (<http://ncse.com/ncse/23/1/my-favorite-pseudoscience>). [Return to text.](#)

2. The U.S. Supreme Court in *Torcaso v. Watkins*, 81 S.Ct. 1681 (1961), stated the following: “Among religions in this country which do not teach what would generally be considered a belief in the existence of God, are Buddhism, Taoism, Ethical Culture, Secular Humanism, and others.” [Return to text.](#)

3. J. Dunphy, "A Religion for a New Age," *The Humanist*, January–February 1983, p. 23, 26. [Return to text.](#)

4. Merriam-Webster Online, s.v. "science," <http://www.merriam-webster.com/dictionary/science> (accessed March 8, 2013). [Return to text.](#)

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# Science—Worldview Neutral?

by Georgia Purdom

A few months ago I received a flyer for a homeschool science curriculum called *Real Science-4-Kids*. The flyer stated that the curriculum “is “worldview-friendly science ... without the spin.”

I wondered exactly what that meant, so I went to the curriculum website and read the following:

In order for science to be “scientific” it must not commit itself to any one worldview, ideology, philosophical or religious perspective. Science and scientists must be free to follow the evidence wherever it leads. Anything short of this is not real science.

I remember thinking something very similar twelve years ago when I first started researching the origins issue. The evidence would lead me to the truth, I thought. I just needed to follow.

As young people study our world, they need God’s Word. The Bible should be their main lens for true understanding.

But what I discovered instead was that while science itself may be an objective exercise, scientists are not objective—especially in the area of historical science (evolution and creation). Presuppositions and biases play a definitive role in determining how scientists interpret evidence and the conclusions they draw about the past.

There is only one truth source for the past as it concerns the beginnings of the universe, earth, and life—and that is the eyewitness account God gave to us in the book of Genesis. Everything else is merely human opinion, imaginations, and ideas—subject to fallible thinking.

As I looked through the *Real Science-4-Kids* curriculum, I noticed a mixing of observational science (i.e., the technology that produces airplanes, vaccines, and computers) and historical science. For example, the author of the curriculum wants students to explore the question, “Did God create humans?” She poses these follow-up questions, “Who discovered it? When was it discovered? What is the evidence?”

These questions are not directly applicable because the question “Did God create humans?” is historical science. The follow-up questions fall under the category of observational science.

Both creationists and evolutionists approach observational science—such as the laws of physics or the laws governing genetic inheritance (my field of study)—very similarly. However, when it comes to how the laws of physics and genetic inheritance came into existence in the past, the presuppositions of the scientists govern their interpretations and conclusions.

The curriculum mainly focuses on observational science such as atoms, cells, animals, plants, chemical reactions, laws of physics, planets, stars, etc. But a closer look revealed it was not “worldview neutral” at all. For example in the biology textbook for grades 4–6 it states the following:

The animal kingdom, Animalia, includes ALL of the animals: dogs, cats, frogs, sea urchins, bees, birds, snakes, jellyfish, bunnies, and even us!

This isn't neutral language at all. You see, biblical creation holds that mankind was created in God's image separate and distinct from the animals (Genesis 1:26–27). Instead, the language is “friendly” to evolution (and to the Intelligent Design Movement, since many in the ID Movement believe humans evolved from ape-like ancestors).

There is no such thing as being “worldview neutral” because that belief in itself is a worldview! Moreover, Jesus dispelled the myth of neutrality when He stated, “He who is not with Me is against Me, and he who does not gather with Me scatters abroad” (Matthew 12:30).

In an attempt to sell us on the idea that her curriculum is “neutral,” the author states the following:

“In my opinion anytime we present information as “undisputed fact,” we have crossed over into “dogma.” This includes both scientific “facts” and religious “facts.””

What does she mean by religious “facts”? Would this include the virgin birth and Resurrection of Jesus Christ? Are they not to be considered undisputed fact and therefore not dogma? If these events in the New Testament did not happen, they would chime the death knell for Christianity (1 Corinthians 15:14). Not affirming the Bible's authority in Genesis, and the miracles of creation recorded there, is a slippery slope to questioning its authority everywhere else.

Moms and dads: I challenge you to carefully evaluate the books, DVDs, and curricula that your children use (including materials purchased at homeschool conferences) and choose resources that have the Bible as their ultimate authority—and that glorify Jesus as Creator.

**Georgia Purdom** received her PhD in molecular genetics from Ohio State

University in 2000. She is a member of the Human Anatomy and Physiology Society, American Society for Cell Biology, Creation Research Society, and American Society for Microbiology. Dr. Purdom has published papers in several scientific journals and is now engaged in full-time research, speaking, and writing on the topic of creation for Answers in Genesis.

# Evolution: The Anti-science

by Jason Lisle

Some evolutionists have argued that science isn't possible without evolution. They teach that science and technology actually require the principles of molecules-to-man evolution in order to work. They claim that those who hold to a biblical creation worldview are in danger of not being able to understand science!<sup>1</sup>

Critical thinkers will realize that these kinds of arguments are quite ironic because evolution is actually *contrary* to the principles of science. That is, if evolution were true, the concept of science would not make sense. Science actually requires a biblical creation framework in order to be possible. Here's why:

## The preconditions of science

Science presupposes that the universe is logical and orderly and that it obeys mathematical laws that are consistent over time and space. Even though conditions in different regions of space and eras of time are quite diverse, there is nonetheless an underlying uniformity.<sup>2</sup>

Because there is such regularity in the universe, there are many instances where scientists are able to make successful predictions about the future. For example, astronomers can successfully compute the positions of the planets, moons, and asteroids far into the future. Without uniformity in nature, such predictions would be impossible, and science could not exist. The problem for evolutionism is that such regularity only makes sense in a biblical creation worldview.

## Science requires a biblical worldview

The biblical creationist expects there to be order in the universe because God made all things (John 1:3) and has imposed order on the universe. Since the Bible teaches that God upholds all things by His power (Hebrews 1:3), the creationist expects that the universe would function in a logical, orderly, law-like fashion.<sup>3</sup> Furthermore, God is consistent (1 Samuel 15:29; Numbers 23:19) and omnipresent (Psalm 139:7–8). Thus, the creationist expects that all regions of the universe will obey the same laws, even in regions where the physical conditions are quite different. The entire field of astronomy requires this important biblical

principle.

Moreover, God is beyond time (2 Peter 3:8) and has chosen to uphold the universe in a consistent fashion throughout time for our benefit. So, even though conditions in the past may be quite different than those in the present and future, the way God upholds the universe (what we would call the “laws of nature”) will not arbitrarily change.<sup>4</sup> God has told us that there are certain things we can count on to be true in the future—the seasons, the diurnal cycle, and so on (Genesis 8:22). Therefore, under a given set of conditions, the consistent Christian has the right to expect a given outcome because he or she relies upon the Lord to uphold the universe in a consistent way.

These Christian principles are absolutely essential to science. When we perform a controlled experiment using the same preset starting conditions, we expect to get the same result every time. The “future reflects the past” in this sense. Scientists are able to make predictions only because there is uniformity as a result of God’s sovereign and consistent power. Scientific experimentation would be pointless without uniformity; we would get a different result every time we performed an identical experiment, destroying the very possibility of scientific knowledge.

## **Can an evolutionist do science?**

Since science requires the biblical principle of uniformity (as well as a number of other biblical creation principles), it is rather amazing that one could be a scientist and also an evolutionist. And yet, there are scientists that profess to believe in evolution. How is this possible?

The answer is that evolutionists are able to do science only because they are inconsistent. They accept biblical principles such as uniformity, while simultaneously denying the Bible from which those principles are derived. Such inconsistency is common in secular thinking; secular scientists claim that the universe is not designed, but they do science as if the universe is designed and upheld by God in a uniform way. Evolutionists can do science only if they rely on biblical creation assumptions (such as uniformity) that are contrary to their professed belief in evolution.<sup>5</sup>

## **How would an evolutionist respond?**

The consistent Christian can use past experience as a guide for what is likely to happen in the future because God has promised us that (in certain ways) the future will reflect the past (Genesis 8:22). But how can those who reject Genesis

explain why there should be uniformity of nature? How might an evolutionist respond if asked, “Why will the future reflect the past?”

One of the most common responses is: “Well, it always has. So, I expect it always will.” But this is circular reasoning. I’ll grant that in the past there has been uniformity.<sup>6</sup> But how do I know that in the future there will be uniformity—unless I already assumed that the future reflects the past (i.e., uniformity)? Whenever we use past experience as a basis for what is likely to happen in the future, we are assuming uniformity. So, when an evolutionist says that he believes there will be uniformity in the future since there has been uniformity in the past, he’s trying to justify uniformity by simply assuming uniformity—a circular argument.

An evolutionist might argue that the nature of matter is such that it behaves in a regular fashion;<sup>7</sup> in other words, uniformity is just a property of the universe. This answer also fails. First, it doesn’t really answer the question. Perhaps uniformity is one aspect of the universe, but the question is why? What would be the basis for such a property in an evolutionary worldview? Second, we might ask how an evolutionist could possibly know that uniformity is a property of the universe. At best, he or she can only say that the universe—in the past—seems to have had some uniformity.<sup>8</sup> But how do we know that will continue into the future unless we already knew about uniformity some other way? Many things in this universe change; how do we know that the laws of nature will not?

Some evolutionists might try a more pragmatic response: “Well, I can’t really explain why. But uniformity seems to work, so we use it.” This answer also fails for two reasons. First, we can only argue that uniformity seems to have worked in the past; there’s no guarantee it will continue to work in the future unless you already have a reason to assume uniformity (which only the Christian does). Yet, evolutionists do assume that uniformity will be true in the future. Second, the answer admits that uniformity is without justification in the evolutionary worldview—which is exactly the point. No one is denying that there is uniformity in nature; the point is that only a biblical creation worldview can make sense of it. Evolutionists can only do science if they are inconsistent: that is, if they assume biblical creationist concepts while denying biblical creation.

## **Theistic evolution won’t save the day**

Some evolutionists might argue that they can account for uniformity just as the Christian does—by appealing to a god who upholds the universe in a law-like fashion.<sup>9</sup> But rather than believing in Genesis creation, they believe that this god

created over millions of years of evolution. However, theistic evolution will not resolve the problem. A theistic evolutionist does not believe that Genesis is literally true. But if Genesis is not literally true, then there is no reason to believe that Genesis 8:22 is literally true. This verse is where God promises that we can count on a certain degree of uniformity in the future. Without biblical creation, the rational basis for uniformity is lost.

It's not just any god that is required in order to make sense of uniformity; it is the Christian God as revealed in the Bible. Only a God who is beyond time, consistent, faithful, all powerful, omnipresent, and who has revealed Himself to mankind can guarantee that there will be uniformity throughout space and time. Therefore, only biblical creationists can account for the uniformity in nature.

## **Evolution is irrational**

In fact, if evolution were true, there wouldn't be any rational reason to believe it! If life is the result of evolution, then it means that an evolutionist's brain is simply the outworking of millions of years of random-chance processes. The brain would simply be a collection of chemical reactions that have been preserved because they had some sort of survival value in the past. If evolution were true, then all the evolutionist's thoughts are merely the necessary result of chemistry acting over time. Therefore, an evolutionist must think and say that "evolution is true" not for rational reasons, but as a necessary consequence of blind chemistry.

Scholarly analysis presupposes that the human mind is not just chemistry. Rationality presupposes that we have the freedom to consciously consider the various options and choose the best. Evolutionism undermines the preconditions necessary for rational thought, thereby destroying the very possibility of knowledge and science.

## **Conclusions**

Evolution is anti-science and anti-knowledge. If evolution were true, science would not be possible because there would be no reason to accept the uniformity of nature upon which all science and technology depend. Nor would there be any reason to think that rational analysis would be possible since the thoughts of our mind would be nothing more than the inevitable result of mindless chemical reactions.

Evolutionists are able to do science and gain knowledge only because they are inconsistent; professing to believe in evolution, while accepting the principles of



biblical creation.

## Endnotes

1. Theodosius Dobzhansky wrote, “Nothing in biology makes sense except in the light of evolution.” This was also the title of his 1973 essay first published in the *American Biology Teacher*, Vol. 35, p. 125–129; The National Academy of Sciences issued a book called *Science, Evolution, and Creationism* which stated that evolution is a “critical foundation of the biomedical and life sciences . . .” and that evolutionary concepts “are fundamental to a high-quality science education.”; The National Academy of Sciences also published a document called “Teaching About Evolution and the Nature of Science” (1998) with a similar theme. In the preface (p. viii) the authors indicate that biological evolution is “the most important concept in modern biology, a concept essential to understanding key aspects of living things.” They chose to publish the document in part “because of the importance of evolution as a central concept in understanding our planet.” [Return to text.](#)
2. Uniformity should not be confused with “uniformitarianism.” Uniformity simply insists that the laws of nature are consistent and do not arbitrarily change with time or space, though specific conditions and processes may change. Uniformitarianism is the (unbiblical) belief that present processes are the same as past processes; it asserts a consistency of conditions and rates over time and is summed up in the phrase, “The present is the key to the past.” [Return to text.](#)
3. The “ordinances of heaven and earth” are specifically mentioned in Jeremiah 33:25. [Return to text.](#)
4. Granted, God can use unusual and extraordinary means on occasion to accomplish an extraordinary purpose—what we might call a “miracle.” But these are (by definition) exceptional; natural law could be defined as the ordinary way that God upholds the universe and accomplishes His will. [Return to text.](#)
5. Why would someone who professes to believe in evolution also accept creation-based concepts? Although they may deny it, evolutionists are also made in the image of God (Genesis 1:26–27). In their heart-of-hearts, they know the biblical God (Romans 1:19–20), but they have deceived themselves (James 1:22–24). They have forgotten that the principles of science come from the Christian worldview. [Return to text.](#)
6. In granting this assumption, I’m actually being very generous to the evolutionist. I could have been very thorough and asked, “How do we really know that even in the past nature has been uniform?” One might argue that we remember that the past was uniform. But since the memory portions of our brain require that the laws of chemistry and physics are constant over time, you would have to assume that the past is uniform in order to argue that we correctly remember that the past is uniform! Any non-Christian response would be necessarily circular. [Return to text.](#)
7. The atheist Dr. Gordon Stein used essentially this response in the famous 1985 debate with Christian philosopher Dr. Greg Bahnsen on the existence of God. [Return to text.](#)
8. Again, I’m being generous here. Even this response is begging the question, since the evolutionist would have to assume uniformity in the past in order to argue that his memories of the past are accurate. [Return to text.](#)
9. A “day-age” creationist might also try to use this argument. But it also fails for the same reason. Day-age creationists do not believe that Genesis really means what it says (that God literally created in six ordinary days). So, how could we trust that Genesis 8:22 really means what it says? And if Genesis 8:22 does not mean what it says, then there is no reason to believe in uniformity. Therefore, the day-age creationist has the same problem as the evolutionist. Neither can account for science and technology within his own worldview. [Return to text.](#)

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# Can Creationists Be “Real” Scientists?

by Jason Lisle

Some evolutionists have stated that creationists cannot be real scientists. Several years ago, the National Academy of Sciences published a guidebook entitled *Teaching about Evolution and the Nature of Science*.<sup>1</sup> This guidebook states that biological evolution is “the most important concept in modern biology, a concept essential to understanding key aspects of living things.” Famous geneticist Theodosius Dobzhansky stated that, “nothing in biology makes sense except in the light of evolution.”<sup>2</sup>

But is a belief in particles-to-people evolution really necessary to understand biology and other sciences? Is it even helpful? Have any technological advances been made because of a belief in evolution?

Although evolutionists interpret the evidence in light of their belief in evolution, science works perfectly well without any connection to evolution. Think about it this way: is a belief in molecules-to-man evolution necessary to understand how planets orbit the sun, how telescopes operate, or how plants and animals function? Has any biological or medical research benefited from a belief in evolution? Not at all. In fact, the PhD cell biologist (and creationist) Dr. David Menton has stated, “The fact is that though widely believed, evolution contributes nothing to our understanding of empirical science and thus plays no essential role in biomedical research or education.”<sup>3</sup> And creationists are not the only ones who understand this. Dr. Philip Skell, Emeritus Evan Pugh Professor of Chemistry, Penn State University, wrote:

I recently asked more than 70 eminent researchers if they would have done their work differently if they had thought Darwin’s theory was wrong. The responses were all the same: No.

I also examined the outstanding biodiscoveries of the past century: the discovery of the double helix; the characterization of the ribosome; the mapping of genomes; research on medications and drug reactions; improvements in food production and sanitation; the development of new surgeries; and others. I even queried biologists working in areas where one would expect the Darwinian paradigm to have most benefited research, such

as the emergence of resistance to antibiotics and pesticides. Here, as elsewhere, I found that Darwin's theory had provided no discernible guidance, but was brought in, after the breakthroughs, as an interesting narrative gloss. . . . From my conversations with leading researchers it had become [sic] clear that modern experimental biology gains its strength from the availability of new instruments and methodologies, not from an immersion in historical biology.<sup>4</sup>

The rise of technology is not due to a belief in evolution, either. Computers, cellular phones, and DVD players all operate based on the laws of physics, which God created. It is because God created a logical, orderly universe and gave us the ability to reason and to be creative that technology is possible. How can a belief in evolution (that complex biological machines do *not* require an intelligent designer) aid in the development of complex machines, which are clearly intelligently designed? Technology has shown us that sophisticated machines require intelligent designers—not random chance. Science and technology are perfectly consistent with the Bible, but not with evolution.

## **Differing assumptions**

The main difference between scientists who are creationists and those who are evolutionists is their starting assumptions. Creationists and evolutionists have a different view of history, but the way they do science in the present is the same.

Both creationists and evolutionists use observation and experimentation to draw conclusions about nature. This is the nature of observational science. It involves repeatable experimentation and observations in the present. Since observational scientific theories are capable of being tested in the present, creationists and evolutionists are generally in agreement on these models. They agree on the nature of gravity, the composition of stars, the speed of light in a vacuum, the size of the solar system, the principles of electricity, etc. These things can be checked and tested in the present.

But historical events cannot be checked scientifically in the present. This is because we do not have access to the past; it is gone. All that we have is the circumstantial evidence (relics) of past events. Although we can make educated guesses about the past and can make inferences from things like fossils and rocks, we cannot directly test our conclusions because we cannot repeat the past. Furthermore, since creationists and evolutionists have very different views of history, it is not surprising that they reconstruct past events very differently. We all have the same evidence; but in order to draw conclusions about what the

evidence means, we use our worldview—our most basic beliefs about the nature of reality. Since they have different starting assumptions, creationists and evolutionists interpret the same evidence to mean very different things.

Ultimately, biblical creationists accept the recorded history of the Bible as their starting point. Evolutionists reject recorded history, and have effectively made up their own pseudo-history, which they use as a starting point for interpreting evidence. Both are using their beliefs about the past to interpret the evidence in the present. When we look at the scientific evidence today, we find that it is very consistent with biblical history and not as consistent with millions of years of evolution. We've seen in this book that the scientific evidence is consistent with biblical creation. We've seen that the geological evidence is consistent with a global Flood—not millions of years of gradual deposition. We've seen that the changes in DNA are consistent with the loss of information we would expect as a result of the Curse described in Genesis 3, not the hypothetical gain of massive quantities of genetic information required by molecules-to-man evolution. Real science confirms the Bible.

## **Real scientists**

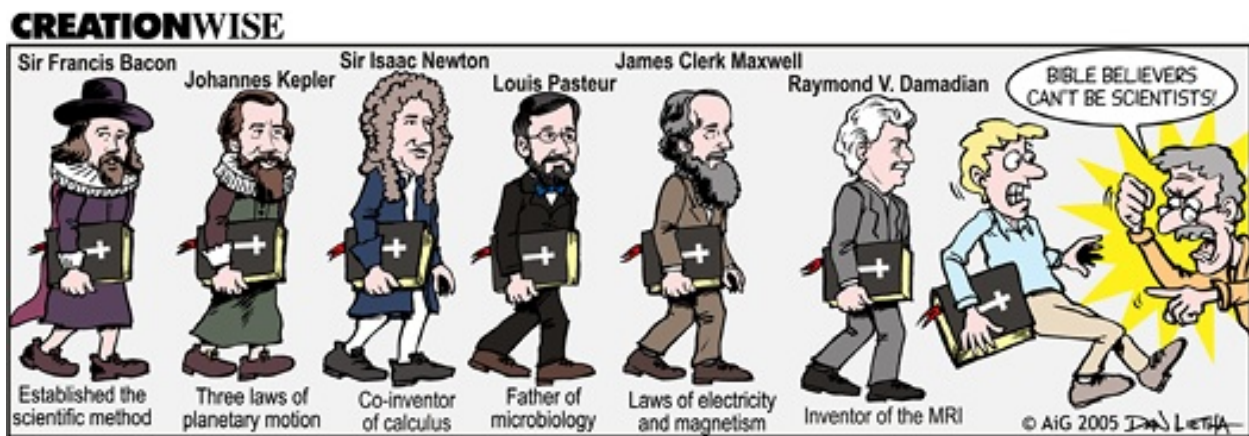
It shouldn't be surprising that there have been many *real* scientists who believed in biblical creation. Consider Isaac Newton (1642–1727), who co-discovered calculus, formulated the laws of motion and gravity, computed the nature of planetary orbits, invented the reflecting telescope, and made a number of discoveries in optics.



Sir Isaac Newton

Newton had profound knowledge of, and faith in, the Bible. Carl Linnaeus (1707–1778), the Swedish botanist who developed the double-Latin-name system for taxonomic classification of plants and animals, also believed the Genesis creation account. So also did the Dutch geologist Nicolaus Steno (1631–1686), who developed the basic principles of stratigraphy.

Even in the early 19th century when the idea of millions of years was developed, there were prominent Bible-believing English scientists, such as chemists Andrew Ure (1778–1857) and John Murray (1786?–1851), entomologist William Kirby (1759–1850), and geologist George Young (1777–1848). James Clerk Maxwell (1831–1879) discovered the four fundamental equations that light and all forms of electromagnetic radiation obey. Indeed, Maxwell’s equations are what make radio transmissions possible. He was a deep student of Scripture and was firmly opposed to evolution. These and many other great scientists have believed the Bible as the infallible Word of God, and it was their Christian faith that was the driving motivation and intellectual foundation of their excellent scientific work.



Today there are many other PhD scientists who reject evolution and believe that God created in six days, a few thousand years ago, just as recorded in Scripture. Russ Humphreys, a PhD physicist, has developed (among many other things) a model to compute the present strength of planetary magnetic fields,<sup>5</sup> which enabled him to accurately predict the field strengths of the outer planets. Did a belief in the Bible hinder his research? Not at all. On the contrary, Dr. Humphreys was able to make these predictions precisely because he started from the principles of Scripture. John Baumgardner, a PhD geophysicist and biblical creationist, has a sophisticated computer model of catastrophic plate tectonics,



which was reported in the journal *Nature*; the assumptions for this model are based on the global flood recorded in Genesis. Additionally, think of all the people who have benefited from a magnetic resonance imaging (MRI) scan. The MRI scanner was developed by the creationist Dr. Raymond Damadian.[6](#)



Dr. John Baumgardner

Consider the biblical creationists Georgia Purdom and Andrew Snelling (both authors in this book), who work in molecular genetics and geology, respectively. They certainly understand their fields, and yet are convinced that they do not support evolutionary biology and geology.[7](#) On the contrary, they confirm biblical creation.

I have a PhD from a secular university and have done extensive research in solar astrophysics. In my PhD research, I made a number of discoveries about the nature of near-surface solar flows, including the detection of a never-before-seen polar alignment of supergranules, as well as patterns indicative of giant overturning cells.

Was I hindered in my research by the conviction that the early chapters of Genesis are literally true? No, it's just the reverse. It is because a logical God created and ordered the universe that I, and other creationists, expect to be able to understand aspects of that universe through logic, careful observation, and experimentation.

Clearly, creationists can indeed be real scientists. And this shouldn't be surprising since the very basis for scientific research is biblical creation. This is not to say that noncreationists cannot be scientists. But, in a way, an evolutionist is being inconsistent when he or she does science. The big-bang supporter claims the universe is a random chance event, and yet he or she studies it as if it were logical and orderly. The evolutionist is thus forced to borrow certain creationist principles in order to do science.

The universe is logical and orderly because its Creator is logical and has imposed order on the universe. God created our minds and gave us the ability and curiosity to study the universe. Furthermore, we can trust that the universe will obey the same physics tomorrow as it does today because God is consistent. This is why science is possible.

On the other hand, if the universe is just an accidental product of a big bang, why should it be orderly? Why should there be laws of nature if there is no lawgiver? If our brains are the by-products of random chance, why should we trust that their conclusions are accurate? But if our minds have been designed, and if the universe has been constructed by God, as the Bible teaches, then of course we should be able to study nature. Science is possible because the Bible is true.

## Endnotes

1. The claims made in this guidebook have been refuted in Roger Patterson's book, *Evolution Exposed*. [Return to text.](#)
2. *The American Biology Teacher* 35:125–129. [Return to text.](#)
3. [www.answersingenesis.org/ministry-news/ministry/a-testimony-to-the-power-of-gods-word](http://www.answersingenesis.org/ministry-news/ministry/a-testimony-to-the-power-of-gods-word). [Return to text.](#)
4. P. Skell, "Why Do We Invoke Darwin?" *The Scientist* 16:10. [Return to text.](#)
5. [www.creationresearch.org/crsq/articles/21/21\\_3/21\\_3.html](http://www.creationresearch.org/crsq/articles/21/21_3/21_3.html). [Return to text.](#)
6. [www.answersingenesis.org/creation-scientists/super-scientist-slams-societys-spiritual-sickness](http://www.answersingenesis.org/creation-scientists/super-scientist-slams-societys-spiritual-sickness). [Return to text.](#)
7. [www.answersingenesis.org/genetics/mutations/are-mutations-part-of-the-engine-of-evolution](http://www.answersingenesis.org/genetics/mutations/are-mutations-part-of-the-engine-of-evolution); [www.answersingenesis.org/geology](http://www.answersingenesis.org/geology). [Return to text.](#)



# A List of a Few Scientists of the Past Who Believed the Bible

by Editors, Answers in Genesis

## Early

- Francis Bacon (1561–1626) Scientific method
- Galileo Galilei (1564–1642) Physics, Astronomy
- Johann Kepler (1571–1630) Scientific astronomy
- Athanasius Kircher (1601–1680) Inventor
- John Wilkins (1614–1672)
- Walter Charleton (1619–1707) President of the Royal College of Physicians (1623–1662) Hydrostatics; Barometer
- Sir William Petty (1623–1687) Statistics; Scientific economics
- Robert Boyle (1627–1691) Chemistry; Gas dynamics
- John Ray (1627–1705) Natural history
- Isaac Barrow (1630–1677) Professor of Mathematics
- Nicolas Steno (1631–1686) Stratigraphy
- Thomas Burnet (1635–1715) Geology
- Increase Mather (1639–1723) Astronomy
- Nehemiah Grew (1641–1712) Medical Doctor, Botany

## The age of Newton

- Isaac Newton (1642–1727) Dynamics; Calculus; Gravitation law; Reflecting telescope; Spectrum of light (wrote more about the Bible than science, and he emphatically affirmed a Creator. Some have accused him of Arianism, but it's likely he held to a heterodox form of the Trinity— See Pfizenmaier, T.C., Was Isaac Newton an Arian? *Journal of the History of Ideas* 68(1):57–80, 1997)
- Gottfried Wilhelm Leibnitz (1646–1716) Mathematician
- John Flamsteed (1646–1719) Greenwich Observatory Founder;

## Astronomy

- William Derham (1657–1735) Ecology
- Cotton Mather (1662–1727) Physician
- John Harris (1666–1719) Mathematician
- John Woodward (1665–1728) Paleontology
- William Whiston (1667–1752) Physics, Geology
- John Hutchinson (1674–1737) Paleontology
- Johathan Edwards (1703–1758) Physics, Meteorology
- Carolus Linneaus (1707–1778) Taxonomy; Biological classification system
- Jean Deluc (1727–1817) Geology
- Richard Kirwan (1733–1812) Mineralogy
- John Dalton (1766–1844) Atomic theory; Gas law

## Just before Darwin

- Timothy Dwight (1752–1817) Educator
- William Kirby (1759–1850) Entomologist
- Jedidiah Morse (1761–1826) Geographer
- Benjamin Barton (1766–1815) Botanist; Zoologist
- John Dalton (1766–1844) Father of the Modern Atomic Theory; Chemistry
- Samuel Miller (1770–1840) Clergy
- Charles Bell (1774–1842) Anatomist
- John Kidd (1775–1851) Chemistry
- Humphrey Davy (1778–1829) Thermokinetics; Safety lamp
- Peter Mark Roget (1779–1869) Physician; Physiologist
- David Brewster (1781–1868) Optical mineralogy, Kaleidoscope (probably believed in an old-earth)
- Michael Faraday (1791–1867) Electro magnetics; Field theory, Generator
- Samuel F.B. Morse (1791–1872) Telegraph
- Joseph Henry (1797–1878) Electric motor; Galvanometer

## Just after Darwin

- Henry Rogers (1808–1866) Geology
- James Glaisher (1809–1903) Meteorology
- Philip H. Gosse (1810–1888) Ornithologist; Zoology
- Sir Henry Rawlinson (1810–1895) Archeologist
- James Simpson (1811–1870) Gynecology, Anesthesiology
- Sir Joseph Henry Gilbert (1817–1901) Agricultural Chemist
- James Joule (1818–1889) Thermodynamics
- Thomas Anderson (1819–1874) Chemist
- Charles Piazzzi Smyth (1819–1900) Astronomy
- George Stokes (1819–1903) Fluid Mechanics
- Rudolph Virchow (1821–1902) Pathology
- Gregor Mendel (1822–1884) Genetics
- Louis Pasteur (1822–1895) Bacteriology, Biochemistry; Sterilization; Immunization
- Henri Fabre (1823–1915) Entomology of living insects
- William Thompson, Lord Kelvin (1824–1907) Energetics; Absolute temperatures; Atlantic cable (believed in an older earth than the Bible indicates, but far younger than the evolutionists wanted\*)
- William Huggins (1824–1910) Astral spectrometry
- Bernhard Riemann (1826–1866) Non-Euclidean geometries
- Joseph Lister (1827–1912) Antiseptic surgery
- Balfour Stewart (1828–1887) Ionospheric electricity
- James Clerk Maxwell (1831–1879) Electrodynamics; Statistical thermodynamics
- P.G. Tait (1831–1901) Vector analysis
- John Bell Pettigrew (1834–1908) Anatomist; Physiologist
- John Strutt, Lord Rayleigh (1842–1919) Similitude; Model Analysis; Inert Gases
- Sir William Abney (1843–1920) Astronomy
- Alexander MacAlister (1844–1919) Anatomy

- A.H. Sayce (1845–1933) Archaeologist
- John Ambrose Fleming (1849–1945) Electronics; Electron tube; Thermionic valve

## **Early modern period**

- Dr. Clifford Burdick, Geologist
- George Washington Carver (1864–1943) Inventor
- L. Merson Davies (1890–1960) Geology; Paleontology
- Douglas Dewar (1875–1957) Ornithologist
- Howard A. Kelly (1858–1943) Gynecology
- Paul Lemoine (1878–1940) Geology
- Dr. Frank Marsh, Biology
- Dr. John Mann, Agriculturist, biological control pioneer
- Edward H. Maunder (1851–1928) Astronomy
- William Mitchell Ramsay (1851–1939) Archeologist
- William Ramsay (1852–1916) Isotopic chemistry, Element transmutation
- Charles Stine (1882–1954) Organic Chemist
- Dr. Arthur Rendle-Short (1885–1955) Surgeon
- Dr. Larry Butler, Biochemist

# (Just a Few) Successful Predictions by Creation Scientists

by Editors, Answers in Genesis

For many years, creation researchers have been studying the biblical record and the world around us to understand the history that God's Word records. While some of their theories have been *discarded* as new data came to light, other predictions have been powerfully confirmed. Here are just a few of those predictions and the tests that confirmed them:

## **Prediction 1: Strength of the planets' magnetic fields**

There is evidence that every planet and large moon in our solar system, including earth, has—or once had—a magnetic field surrounding it. And since the earth's creation, its field has been steadily decaying (losing strength), for which Horace Lamb created a model over 100 years ago. More recently (1984), creationist physicist D. Russell Humphreys developed a theory to explain the strength of the magnetic fields of the earth and the other planets.

### **Test result: *Voyager 2's* measurements**

If the earth were even 20,000 years old, its magnetic field would have been so strong as to make life impossible, based on the present rate of decay. The theories of Humphreys and Lamb can be used to determine how much the magnetic field of an astronomical object should decay after 6,000 years at the present decay rate. The numbers that resulted from Humphreys's theory not only matched the strengths of the known magnetic fields at the time but also successfully anticipated *Voyager 2's* measurements of the magnetic field of Uranus (in 1986) and Neptune (in 1990).

These results not only confirmed a creationist theory but also helped confirm that the solar system really is as young as the Bible claims.[1](#)

## **Prediction 2: Decay and helium release (RATE)**

When radioactive elements, such as uranium, decay, particles are released. These particles include helium atoms, which are “slippery” and make their way out of the crystals where they are formed. If uranium has been decaying at the present slow rate over millions and billions of years, most of the helium should have slipped out of rock crystals. If, in contrast, the earth is young and

radioactive decay was much more rapid in the past, then we would expect to find lots of helium in the earth's rocks.

### **Test result: New Mexico drill site**

When rock was tested from a drill site in Fenton Hill, New Mexico, large amounts of helium in crystals were found. This suggests not only that those crystals are only thousands of years old, but also that lots of radioisotope decay (which would require more than a billions of years at today's rates) had to occur in only thousands of years. This in turn suggests that nothing on the earth can be dated any older than the Bible indicates.

### **Prediction 3: Radiohalos in sandstones**

Radiohalos are the evidence of damage caused when radioactive elements within rocks break down. The breakdown of uranium also creates the fast-decaying radioactive element polonium. Geologist Andrew Snelling suggested that if water flowed rapidly through a rock at the time uranium was rapidly decaying, polonium could be concentrated in a separate place from the uranium. If Snelling's theory were correct, geologists would expect to find more polonium halos wherever additional water was passing through the rock.

### **Test result: Smoky Mountains**

When Snelling examined metamorphosed sandstones in the Smoky Mountains, he found exactly what he had predicted. Not only do these polonium halos confirm this creationist theory, but they also suggest that many processes were more rapid in the past. Radioactive decay, metamorphism, and cooling of rocks must have been more rapid in the past to fit into a biblical understanding of earth history.[2](#)

### **Prediction 4: Cold material near the earth's core**

In the early 1980s, physicist John Baumgardner developed a creationist theory for the rapid motion of the earth's crust during the Flood. His theory suggested that the "cold" crust, located beneath the pre-Flood oceans, should have sunk the full 1,800 miles (2,900 km) to the base of the earth's hot mantle, where the temperatures are up to 7,232°F (4,000°C). This crust would have melted if it had millions of years to reach the base of the mantle, sinking as slowly as today's rates. On the other hand, if it sank quickly 4,350 years ago, as Baumgardner's theory suggested, then piles of those plates should still be found at the base of the mantle, cooler than the mantle around them.

## **Test result: Mantle discovery**

It took ten more years before scientists developed the technology capable of “seeing” something like that at the base of the mantle. When that technology was developed, the cold material was discovered, just as Baumgardner’s model had expected. This successful prediction suggests that Baumgardner’s model is true. It also suggests that continents moved rapidly during the Flood and that the Flood occurred only thousands of years ago, just as the Bible suggests.<sup>3</sup>

## **Prediction 5: Reversal of earth’s magnetic field**

All magnetic fields have two distinct poles, a north and a south, and so it is with the earth’s. At various times in the past, however, the earth’s magnetic field has actually switched directions. In each case, the North Pole switched with the South Pole. Since volcanic lava, as it cools, records the direction of the magnetic field at the time of the cooling, the rocks of the earth have recorded these flips of the magnetic field. In 1986, however, D. Russell Humphreys suggested that the turmoil of the Flood caused the magnetic field of the earth to flip rapidly during the Flood. If so, the field must have flipped every couple of weeks or so.

## **Test result: Steens Mountain record**

In 1988, a basalt flow was found at Steens Mountain in southern Oregon that did indeed record a flip in the earth’s magnetic field. So far, the only way to explain such a rapid reversal is by the disruption of the young earth’s magnetic field during a global Flood—just as the Bible claims.

## **Endnotes**

1. See [www.answersingenesis.org/astronomy/earth/the-earths-magnetic-field-and-the-age-of-the-earth](http://www.answersingenesis.org/astronomy/earth/the-earths-magnetic-field-and-the-age-of-the-earth) and [www.answersingenesis.org/astronomy/solar-system/neptune-monument-to-creation](http://www.answersingenesis.org/astronomy/solar-system/neptune-monument-to-creation). [Return to text.](#)
2. See [www.answersingenesis.org/geology/radiometric-dating/testing-model-for-polonium-radiohalo-formation](http://www.answersingenesis.org/geology/radiometric-dating/testing-model-for-polonium-radiohalo-formation). [Return to text.](#)
3. See [www.answersingenesis.org/geology/plate-tectonics](http://www.answersingenesis.org/geology/plate-tectonics). [Return to text.](#)





# Does Religion Cripple Science Innovation?

by Elizabeth Mitchell

Astrophysicist Neil deGrasse Tyson, in an interview posted on National Geographic's website<sup>1</sup> on June 6, 2014, wants to “fix” adults he considers “scientifically illiterate.” His 13-part series *Cosmos: A SpaceTime Odyssey* claims its aim is to promote science literacy, but by this phrase and the content of many of his episodes, it is clear that Tyson's concern is to expunge the influence of young-earth creationists on the minds and hearts of people.

Tyson warns of the danger of religious influence<sup>2</sup> on science. He says it will create “a generation of people who will not understand what science is.” And “they will be *intellectually crippled*” (emphasis his) in their ability to contribute as innovators in science and technology. Tyson's message complements Bill Nye's viral video exhorting parents to refrain from teaching a biblical view of origins to children lest they imperil the economic and technological future of our country. Tyson says, “The real problem in society is not whether we're teaching our kids enough science because, let's say we started that tomorrow, does that mean everything's okay? . . . For me the real challenge and the real problem are scientifically illiterate adults. . . . Let's fix the adults; then the kids'll be fine!”

## Historical vs. observational science

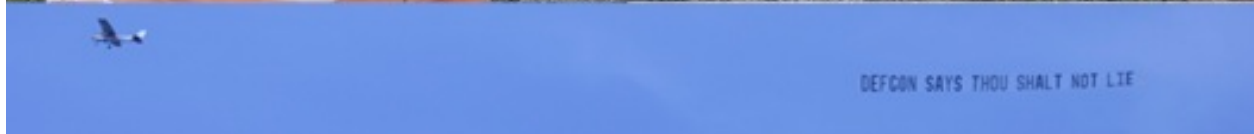
Like Bill Nye, Neil deGrasse Tyson obfuscates the distinction between historical (origins) science and operational (observational, experimental) science. Historical science involves interpreting scientific data through the filter of what you already believe about the unobservable past. Yet engineers design technological solutions for today's problems in the present. Astronomers observe the behavior and nature of the stars and planets in the present. Physicians discover the causes and cures for diseases and deformities by making observations, developing and testing hypotheses, trying out their ideas repeatedly in controlled circumstances—all in the present.

Science literacy is surely a laudable goal. But teaching people to uncritically accept worldview-based evolutionary assumptions as if they were observable scientific information gleaned through the scientific method is deceptive and promotes a poor understanding of science. Many of the *Cosmos* episodes were

evolutionary infomercials mingled with scientific principles. The dire warnings in the concluding portion of this interview reveal Tyson's keen interest in getting the public to accept evolutionary interpretations as incontrovertible facts. This approach confuses observable, testable scientific principles with unsupportable evolutionary conjecture superimposed on them. By mixing up that which can be observed with that which can only be imagined and assumed, Tyson is actually helping create "a generation of people who will not understand what science is."

### **Atheists don't picket?**

Tyson ends his interview with a tirade against people who because of their "religious philosophies" want to "change the curriculum in a science classroom" or "influence a school board." Though he did not specifically refer to Bible-believing creationists in this interview, he has made his hostility toward biblical belief in other settings and repeatedly during the *Cosmos* programs. He opens his tirade with the absurd claim that evolutionary scientists and "even atheists" do not try to influence what is taught in religious settings. He says, "There's no tradition of scientists knocking down the Sunday school door telling the preacher what to teach. That is never—atheists don't even do that! There's no scientists or atheists picketing outside of your church, or synagogue, or mosque: 'Oh that might not necessarily be true!' There is no such tradition!"



Neil deGrasse Tyson asserts that scientists—even atheists—do not try to tell religious leaders what to teach or suggest they are teaching something wrong. When the Answers in Genesis Creation Museum opened in Petersburg, Kentucky, in May 2007, to proclaim the truth of the Word of God, secular protestors gathered outside the gates to protest. They picketed, posted signs, and even hired an airplane with a banner to fly overhead, borrowing from the Bible that they don't believe to accuse those who stand boldly for the truth of God's Word of lying.

Answers in Genesis astronomer Dr. Danny Faulkner, commenting on the interview, says:

Tyson here spoke in broad terms without naming any names. While there are some who believe in creation who wish to force creation being taught in schools, we at Answers in Genesis have never advocated that, nor would we.

On the other hand, Tyson claimed that there are no atheists demanding control over what is taught in Sunday schools. But there are some who have suggested such a thing. Richard Dawkins has equated teaching children about creation with child abuse. Bill Nye has strongly warned against teaching children about creation, saying that it is okay for adults to believe in creation, but don't you dare teach your children that. These statements are meaningless if they are interpreted to give a free pass to what is taught in Sunday schools. Imagine Dawkins and Nye saying, "Don't you dare teach your children about creation, unless it's in church." No, their proscribed prohibitions are not restricted in this way.

Furthermore, the likes of Tyson, Dawkins, and Nye would make any consideration of God forbidden within a discussion of science. Sir Isaac Newton, who literally wrote the book for the disciplines of astronomy and physics, clearly thought that the discussion of God was relevant to the discussion of science. I'll trust the judgment of Sir Isaac on this.

## **Metaphysical evolution**

Tyson warns against substituting religious philosophy for science. Yet, thanks to their unbounded belief in insupportable evolutionary claims, Tyson is guilty of this himself. For instance, *Cosmos: A SpaceTime Odyssey* premiered in March echoing Carl Sagan's theme: "The cosmos is all that is, or ever was, or ever will be." This in itself is a metaphysical assertion, not a scientific one. Sagan's comment, echoed by Tyson, is a "religious philosophy." Answers in Genesis astronomer Dr. Danny Faulkner explains:

There is not a bit of science in that statement. When Sagan said it 34 years ago and then wrote it in his book, a lot of people were saying, "Wow! What a profound scientific statement," but it's actually a philosophical statement. It is denial of the supernatural, saying the only thing that exists is the physical world, the natural world. But to say that with any certainty Sagan had to get outside the physical universe and see that the physical universe is all that there is. And he would have had to do that in eternity past and in eternity

future in order to say that. If he could really see that, then he would be god. It's a very bold, metaphysical statement. It's an assertion. But it's not science. It's not a scientific statement.

The “religious philosophy” of evolution, despite a complete lack of experimental evidence to demonstrate life evolving from non-living elements through random processes—something Tyson admits in *Cosmos*—maintains that life evolved through natural processes. Tyson's religion of evolution, despite a complete lack of experimental evidence to demonstrate living organisms evolving into new, more complex kinds of organisms, maintains that such natural processes produced the biodiversity we see on the earth. Tyson, during the *Cosmos* series, directly attacks biblical belief as ignorant superstition while praising the work of many Bible-believing pioneers in science (like Isaac Newton, Michael Faraday, William Herschel, etc.) who sought to uncover the natural laws that they trusted their wise Creator God would have put in place to govern the universe He created with consistency, orderliness, and predictability.

## **Science works because God created**

Bible-believing scientists do not “substitute” their religion for science. But they do trust that the universe they study using the tools of science was created by a logical, wise God and that He has told us some things about His Creation in His Word, the Bible. While it is possible and even common for fallible human beings to misinterpret both scientific data and the written word, Bible-believing scientists understand the correct interpretation of accurate scientific data will never conflict the correctly interpreted (2 Timothy 2:15) Word of God.

The Word of the Creator God explains how the existence of consistent laws of science only makes sense in the context of a universe created by God. God created the laws of nature; they did not create themselves. Without those God-created natural laws, the scientific method would be useless because experiments could never be trusted to yield consistent results.

## **Predictions**

In another *Cosmos*-related interview back in March, Tyson said: “If you start using your scripture, your religious text as a source of your science, that's where you run into problems, and there is no example of someone reading their scripture and saying ‘I have a prediction about the world that no one knows yet because this gave me insight let's go test this prediction and have that theory turn out to be correct.’”<sup>3</sup>



Tyson, perhaps due to his prejudicial attitude toward biblical belief or perhaps due to personal ignorance on the matter, was here discounting the extensive body of scientifically confirmed predictions based on the Bible. Not only did many great scientists of the past draw from a biblical worldview to discover scientific laws and make great discoveries, modern scientists continue to do the same. A sampling of Bible-based predictions that have led to scientific discoveries are discussed in the previous chapter.<sup>4</sup>

## **Critical thinking and critical motivation**

While Answers in Genesis does not advocate requiring creationism be taught in public schools, we do maintain that students and teachers who are allowed the academic freedom to critically examine the claims of evolutionists will better understand the distinction between worldview-based assumptions and observable facts. Such critical thinking skills may, evolutionists fear, lead some students to discern the opinion-based foundation of claims.

This understanding of science should make students better scientists. Perhaps they will be equipped to avoid mistakes such as the presumption that certain human organs are useless evolutionary vestiges of no use. Perhaps they will be better equipped to see that a human embryo is not just an unborn animal to be culled at will through abortion.

These are clearly academic advantages to allowing “a divine foot in the door”<sup>5</sup> of the science classroom rather than arbitrarily assuming that science cannot have had a supernatural agent involved at the foundation of the orderly natural universe in which we live. But the ultimate answer to Tyson’s question about the motivation of Bible-believing Christians in caring about science education reaches beyond the classroom to life, and beyond life in this world into eternity.

We believe all people should be allowed to hear the truth about how the biblical account of our history actually fits the facts of observable science. We speak out and write reviews and answer questions because evolutionary scientists loudly proclaim that the Word of God is false, that the God of the Bible is nonexistent or a liar, and that people who believe in them are intellectually inferior. They thus place stumbling blocks (John 5:46–47) in the path of those who would eternally benefit from faith in Jesus Christ, the Son of God, our Creator (Colossians 1:16–17) and the Savior of all who repent and put the trust in Him for salvation from sin and guilt.

## **Endnotes**

1. <http://video.nationalgeographic.com/video/news/140606-neil-degrasse-tyson-vin>. [Return to text](#).



2. Though in this interview Tyson uses a general term, “religious philosophy,” in many of the episodes he specifically targets Bible-believers with emphasis on those who believe the earth is about 6,000 years old, i.e. young earth creationists. [Return to text.](#)

3. Billy Hallowell, “‘Cosmos’ TV Host Says Scripture Isn’t a Scientific Source: ‘Enlightened Religious People . . . Don’t Try to Use the Bible as a Textbook,’” *The Blaze*, March 11, 2014, [www.theblaze.com/stories/2014/03/11/cosmos-host-says-scripture-isnt-a-scientific-source-enlightened-religious-people-dont-try-to-use-the-bible-as-a-textbook](http://www.theblaze.com/stories/2014/03/11/cosmos-host-says-scripture-isnt-a-scientific-source-enlightened-religious-people-dont-try-to-use-the-bible-as-a-textbook). [Return to text.](#)

4. See also [www.answersingenesis.org/creation-science/can-bible-based-predictions-lead-to-scientific-discoveries](http://www.answersingenesis.org/creation-science/can-bible-based-predictions-lead-to-scientific-discoveries). [Return to text.](#)

5. Evolutionist Richard Lewontin wrote: “Our willingness to accept scientific claims that are against common sense is the key to an understanding of the real struggle between science and the supernatural. We take the side of science *in spite* of the patent absurdity of some of its constructs, *in spite* of its failure to fulfill many of its extravagant promises of health and life, *in spite* of the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment, a commitment to materialism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but on the contrary, that we are forced by our *a priori* adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door.” From Richard Lewontin (Harvard University geneticist), “Billions & Billions of Demons,” *New York Times Book Reviews* (9 Jan. 1997), p. 31 (italics in the original). The review is of Carl Sagan’s book, *The Demon-Haunted World: Science as a Candle in the Dark* (Random House, 1997). [Return to text.](#)

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