# Are We Significant in This Vast Universe? – The Evidence Supports Belief in God

*Steve Cable considers the question of why we could possibly be important in such a vast universe. Current research shows that there are reasons why God needed such a vast universe to house life on this planet. Understanding this idea can make it an apologetic for our faith rather than a fact which detracts from our faith. Science is the study of God's creation and the more we delve into it the clearer the hand of God becomes.*

## Why Is the Universe So Vast? Are We Truly Insignificant?

What do you feel when you look at the night sky? Awe? Insignificance? Adoration? Recently, my wife and I took three Ph.D. students from China for an overnight outing at a lake in West Texas. One of the things that impressed them most was the opportunity to view the night sky on a moonless night. Due to "light pollution," people in most cities can only make out a few hundred stars with the naked eye. These young women had never seen the night sky as King David did when he declared, "The heavens declare the glory of God!" (Psalm 19:1, NASU). They were so taken by the stars and the Milky Way that they spent several hours lying on the dock, looking up at the night sky.



These students were not Christians, and I was glad to have an opportunity to use what we know about the stars to talk to them about the overwhelming evidence for a Creator who is intensely interested in humans. However, another host may have used the same night sky to argue that if there is a God, we must not be

very significant to God. Which view is correct? In this article, we will look into the Bible *and* into current scientific theories to better equip us to answer this important question.

According to the Bible, the transcendent Creator of this universe made humans in His own image as the focal point of His creation. Skeptics of a biblical worldview often point to the vastness of the universe as evidence that humans cannot be the focal point of a theistic creation. The famous astronomer, author, and television personality Carl Sagan put it this way:

> Our posturings, our imagined self-importance, the delusion that we have some privileged position in the Universe, are challenged by this point of pale light. Our planet is a lonely speck in the great enveloping cosmic dark. In our obscurity, in all this vastness, there is no hint that help will come from elsewhere to save us from ourselves.{1}

Famous physicist Stephen Hawking wrote, "Our Solar System is certainly a prerequisite for our existence . . . . but there does not seem to be a need for all these other galaxies."{2}

In other words, why would God create this huge universe, if He was primarily interested in His relationship with one species occupying a tiny planet?

I think this is a reasonable question. After all, based on observations from the Hubble Telescope, the current best estimate for the number of stars in the observable universe is

5 times 10 to the 22$^{nd}$ power; that is a 5 with 22 zeros after it. How many stars is that? Well, if you were to count one star every second, it would take you only fifteen hundred trillion years to count them. These stars are spread over billions of light years. Amazingly, all of these stars account for only about 1% of the total mass of the universe. Why did God create such a vast universe, placing us on a single small planet with no reasonable hope of ever traveling beyond our

solar system? Does the size of our universe run counter to a biblical worldview?

## A Biblical Perspective of Humankind and the Vast Heavens

If God is the Creator of the universe, and the Bible is revelation directly from God, then accurate observation of the universe will ultimately prove to be consistent with His revelation. By combining the general revelation of science with the special revelation of the Bible, we should be rewarded with a greater understanding of the nature of our Creator and His intentions for mankind. Let's see if this is true in addressing the vastness of the universe.

First let's consider what God's special revelation for us, the Bible, has to say about the vastness of the universe. The Bible often refers to God's creative work in "stretching out the heavens" and filling it with stars (e.g. Job 9:8, Zechariah 12:1). A review of Bible passages on the stars and the heavens reveals a number of reasons why a vast universe is consistent with humans being the most significant part of creation.

We need to realize that creating a vast universe is not harder for God than creating a smaller universe. God brought the universe into existence out of nothing. He had no limits on the amount of matter and energy created. Consequently, it is meaningless to say that it would be a tremendous waste for God to create so many lifeless galaxies. The concept of waste only applies when there is a limited supply. When there is an unlimited supply, you can use all you desire; there is plenty more where that came from.

Within this vast universe, God placed earth in potentially the only place in the universe capable of supporting advanced life. There are many aspects of the universe that are hidden

from the casual observer, but the vastness of the heavens is not one of them. God created the earth and positioned it in an ideal place so that humans could observe the vastness of the heavens and the enormous number of stars. The Bible points out at least five purposes for humans observing this vast universe:

1. *To reveal His majesty and power.* Job refers to this understanding as he reflected on his sufferings stating,

> Who commands the sun not to shine,
> And sets a seal upon the stars;
> Who alone stretches out the heavens
> And tramples down the waves of the sea;
> Who makes the Bear, Orion and the Pleiades,
> And the chambers of the south;
> Who does great things, unfathomable,
> And wondrous works without number.
> Were He to pass by me, I would not see Him;
> Were He to move past me, I would not perceive Him.
> Were He to snatch away, who could restrain Him?
> Who could say to Him, "What are You doing?" (Job 9:7-12).

Later, God confronts Job with His lack of understanding the full power and majesty of His Creator:

> Where were you when I laid the foundation of the earth?
> Tell Me, if you have understanding, . . . .
> Can you bind the chains of the Pleiades,
> Or loose the cords of Orion?
> Can you lead forth a constellation in its season,
> And guide the Bear with her satellites?
> Do you know the ordinances of the heavens,
> Or fix their rule over the earth? (Job 38:4, 31-33).

As we see in this passage, God intentionally did creative, wondrous works without number so that we could glimpse His greatness.

2. *To emphasize our insignificance without God.* The vastness of the heavens highlights how insignificant humans are apart from God's concern for us. The primary lesson that Job learned through his experience was that we are in no position to critique God's actions over His creation. God's creation is so vast that any significance we have comes solely from God's choice to be concerned with us. Job stated it this way: "Behold, I am insignificant; what can I reply to You?" (Job 40:4)

King David was the most significant person in Israel during his reign, but when he considered the vastness of God's creation he acknowledged our insignificance:

> When I consider Your heavens, the work of Your fingers,
> The moon and the stars, which You have ordained;
> What is man that You take thought of him,
> And the son of man that You care for him (Psalm 8:3-4)?

3. *As a measure of His loving kindness toward us.* God uses the vastness of the heavens to help us understand the magnitude of His love for us, stating, "For as high as the heavens are above the earth, So great is His loving kindness toward those who fear Him" (Psalm 103:11).

God's love for us is greater than the billions of light years which separate us from the most distant galaxies.

4. *As a picture of His faithfulness and forgiveness.* In a similar way, God uses our inability to completely grasp the breadth and depth of the universe to emphasize spiritual truths. Through Jeremiah, God promised a new covenant where He will remember our sins no more. God used the vastness of the heavens to convey His promise to never cast those in the new covenant away from Him with these words,

> Thus says the LORD, "If the heavens above can be measured
> And the foundations of the earth searched out below,
> Then I will also cast off all the offspring of Israel

> For all that they have done," declares the LORD (Jeremiah 31:37).

Even today astronomers recognize that the universe we can observe is much smaller than the state of the universe as it exists today. Due to the finite speed of light, it is impossible to directly observe the current size of the universe or count the exact number of stars. Just as the heavens can never be measured, God will never cast us off from His presence.

5. *As a reminder that our understanding is limited.* Our Creator understands the universe from one end to the other and from the beginning of time to its end. As humans, we are just beginning to probe its mysteries. So, God reminds us, "For as the heavens are higher than the earth, So are My ways higher than your ways And My thoughts than your thoughts" (Isaiah 55:9).

It is clear that God intended us to observe and study the stars and the heavens. As a part of God's general revelation, the magnitude of the universe speaks to His greatness. Through God's special revelation, we see God using the vastness of His creation to teach us lessons about who we are and how we relate to Him. For a Creator who was willing to sacrifice His only Son on the cross for our redemption, it would be child's play to create a vast universe solely for our instruction. With this understanding, the vastness of the universe becomes a testament to our importance to God rather than evidence of our insignificance.

## A Scientific Perspective of Humankind and the Vast Universe

If God is the Creator of the universe and the author of the Bible, accurate observation of the universe will ultimately prove to be consistent with His revelation. By combining the

general revelation of science with the special revelation of the Bible, we should be rewarded with a greater understanding of the nature of our Creator and His intentions for mankind.

In his book *Why the Universe is the Way It Is*{3}, Hugh Ross points out a number of areas where combining the latest observations of astronomy and physics with biblical theology provides us with fuller answers for some of the tough questions of life. One area he focuses on is the question we have been examining: "Does the vastness of this universe mean that we are insignificant and/or accidental?"

If we assume, as most skeptics and seekers would, that the physical laws of this universe have remained constant from the beginning of the universe until now, then the current state of scientific knowledge points to three reasons why the universe must occupy the mass and volume that it does in order for advanced carbon based life to exist on this planet.

1. *The exact mass of the universe was necessary for life supporting elements to exist*. Life requires heavier elements such as oxygen, carbon, and nitrogen. These elements are produced in the nuclear furnaces of stars. If there were less mass in the universe, only lighter elements such as helium would be produced. If there were more mass, only heavier elements, such as iron, would be produced. In fact, the amount of mass and dark energy in the universe must be fine tuned to less than one part in 10 to the $60^{th}$ power, or one part in one trillion trillion trillion trillion trillion, to have a universe that can create a life supporting solar system and planet.

2. *The exact mass of the universe was required to regulate the expansion of the universe to allow the formation of the sun and the solar system.* Amazingly, it turns out that the same total mass that results in the right mix of life supporting elements also results in the right amount of gravity to dampen the expansion of matter across the surface of the space-time

continuum to allow the formation of stars like the sun which are capable of supporting a planet like earth. If the universe were expanding faster, stars and solar systems would not form. If the universe were expanding slower, giant stars and black holes would dominate the universe. Once again the total matter in the universe is fine tuned to support life. And what an amazing coincidence: the number that creates the right mix of elements also creates the right expansion rate. This dual fine tuning is much less likely than achieving the financial returns guaranteed by Bernie Madoff!

3. *The vast volume of the universe is required to give the earth just the right amount of light and other electromagnetic radiation to support life and not destroy it.* Life not only requires a planet with the right mix of elements orbiting the right kind of sun in just the right solar system; it also requires a "just right" galactic environment. Astronomers has discovered what they call "the galactic habitable zone" for our Milky Way galaxy at a distance of about 26,000 light years from the center of the galaxy. Any planet closer to the center will experience deadly radiation levels. Any planet further away from the center would lack the mix of heavy elements necessary for advanced life. But the vast majority of this habitable zone is inside one of the uninhabitable spiral arms of the galaxy. Since stars revolve around the galactic center at a rate different than the spiral arm structure based on their distance from the center of the galaxy, most solar systems pass through deadly spiral arms over the course of time. Our solar system occupies a very special place as Hugh Ross points out: "The solar system holds a special position in the Milky Way . . . the one distance from the core where stars orbit the galaxy at the same rate as its spiral arm structure does."{4}

Once again we are faced with a divine "coincidence": the same fine-tuned distance required to safely place a habitable planet is also the exact distance required to keep that planet

out of the deadly spiral arms.

Not only must the earth be located far from the center of the Milky Way, the Milky Way must be located far enough away from other galaxies to maintain the stability of its spiral structure. Many aspects of the Milky Way appear to be very rare or unique in the universe.

As you can see, a logical application of current scientific orthodoxy based on the Big Bang and constant natural laws overwhelmingly supports the view that the vastness of the universe does not imply that human life is unremarkable and insignificant. On the contrary, the most reasonable conclusion from the evidence is that life on this planet is the primary purpose behind the vastness of our universe. Both the Bible and the results of scientific observation agree: our vast universe is the work of a Creator who considers life on earth as very significant.

Consequently, we don't have to convince a seeker that the world is much younger than it appears in order to answer the question, "Are we significant to our Creator?" We can say, "Whether you look to the teaching of the Bible or you look at the current prevailing models from the scientific community, the answer is definitely yes!" The important question is, "Is it possible to know more about my Creator and have a relationship with Him?" Beginning with the death and resurrection of Jesus, we can explain how to have an eternal relationship with God and why we believe the Bible is the reliable source of information about our Creator and our universe.

• Check out our article "The Answer is the Resurrection" at Probe.org for more information on using the resurrection to respond to key questions from seekers.
• For more information on topics related to the origins of our universe and other science topics, check out our Faith and Science section.

• For further discussion on the age of the universe see "Christian Views of Science and Earth History" in our Faith and Science section.
• For further discussion of how the age of the universe debate relates to this discussion see Appendix A: Theology vs. Science or Theology plus Science? and Appendix B: Apologetics and the Age of the Universe.

**Notes**

1. Carl Sagan, *Pale Blue Dot: A Vision of the Human Future in Space* (New York: Random House, 1994).
2. Stephen Hawking, *A Brief History of Time: From the Big Bang to Black Holes* (New York: Bantam, 1988).
3. Hugh Ross, *Why The Universe Is The Way It Is* (Grand Rapids, MI: Baker Books, 2008).
4. Ross, *Why The Universe Is The Way It Is*, 66.

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# God's Amazing Creatures

*Dr. Ray Bohlin marvels at God's creativity in making three magnificent creatures: the mantis shrimp, the woodpecker, and the monarch butterfly with its amazing migration story.*

## The Woodpecker Tongue



In this article I highlight several of God's amazing creatures: the woodpecker, the mantis shrimp, and the migration of the monarch butterfly from North America to the Central Highlands of Mexico.

So, what about woodpeckers?

They’re rather strange birds; they bang their heads into trees! No doubt you’ve heard the rhythmic drumming of a woodpecker in your yard or in the forest. They come in many shapes and sizes. But what they all have in common is some form of pecking. You may not know that this behavior is not just about searching for insects, but most woodpeckers do not sing like other birds; instead, drumming is their form of communication.

Usually the pecking behavior is used to uncover small tunnels containing insects or larvae. When the tunnel is exposed, the woodpecker inserts its tongue and searches up and down the tunnel.



The woodpecker tongue can extend up to three times the length of its beak! The tongue, from the tip at the end of the beak, does not attach to the lower jaw as most bird tongues do, but it makes a loop into the throat, comes up around the back of the skull, and sometimes extends into the right nostril and into the upper beak.

The tongue lengthens by reattaching between the eyes, the loop in the throat flattens out, and out comes the tongue—far beyond the tip of the beak. Now, evolving a long woodpecker tongue poses a unique problem. Two things must be accomplished at once. The tongue must get longer and at the same time a

retraction mechanism must be accomplished at the same time. These two processes need to be coordinated for everything to be optimized. Evolution can’t accomplish that.

The tongue usually has bristles at the tip and a sticky saliva so insects can’t wiggle off. However, for the woodpecker to chisel into tree bark and the wood of the tree, it needs to generate some real force. Next I’ll discuss the rapidity of pecking and how the woodpecker survives the shock of its pecking.

## The Woodpecker’s Ability to Absorb Shock

The woodpecker has a long tongue, but its pecking also generates some real force and it needs to be able to deal with that without getting a severe headache or even a concussion. Suffering like that would not allow woodpeckers to survive very well. But God has designed ways for the woodpecker to redistribute the shock, and the structure of its skull and brain aid in that function.

Surrounding the human brain is a layer of cerebrospinal fluid. When the brain receives a hard blow, it pushes that fluid aside, and the brain is bruised when it meets the skull. This is a concussion. God designed the woodpecker to avoid this kind of shock, first because the brain is smaller, and there is not much fluid between the brain and the skull.

The woodpecker has a sort of shock absorber of muscle and cartilage at the back of the bill and in front of the skull. Also, the lower part of the bill is slightly longer than the upper part of the bill, and this hits the tree first. This allows some of the shock to bypass the skull and connect with the spinal cord, and then the shock travels down the spinal cord into the stiff tail feathers placed against the tree—and the shock flows back into the tree with little effect on the woodpecker.

The woodpecker can drum up to twenty times per second. God created the neck muscles to be strong and able to recover quickly to maintain that kind of speed.

Lastly, pecking wood results in wood chips spraying out from the tree, which could damage the woodpecker's eye. But the woodpecker has a third eyelid called a nictitating membrane that shields the eye, and just before impact, the regular eyelids close. Thus, no chips in the eye. God did that.

## The Mantis Shrimp Packs a Punch

You likely have never heard of the mantis shrimp. This fascinating crustacean is neither a mantis nor a shrimp. Technically, they are from the family of stomatopods.

They look somewhat like shrimp, and the club variety has an appearance like a praying mantis. I'm interested in the club variety of the mantis shrimp. They use this club to strike a snail or a crab to break the snail open or to separate a limb from a crab. They can generate a tremendous amount of force with this club. The acceleration is about the same as a 22-caliber bullet.




I found a video from Maya De Vries from the Scripps Oceanographic Institute on a cruise ship. She shows a video of the mantis shrimp strike on a snail. When the club hits a snail, you see a flash of light and heat that is followed by a similar flash but slower. The linear velocity of the strike is 14 to 23 meters per second. The heat generated is the temperature of the surface of the sun. These flashes of light are caused by cavitation bubbles. The club moves so fast that

it creates negative pressure, causing the cavitation bubble. When the bubble implodes, that releases light and heat.



You can't keep a mantis shrimp in an ordinary aquarium. You need reinforced glass for the walls of the aquarium, otherwise the mantis shrimp can break the glass. I found another video of a fisherman who pulls in a mantis shrimp, and the club smashes into his new booties as he calls them, pierces through and gives him a bleeding cut.

## The Mantis Shrimp's Eyesight



Another remarkable feature of the mantis shrimp is its eyes. Like most animals, they have two eye sockets. However, there are three pupils in each eye. With our two eyes with one pupil in each, we have binocular vision that gives us depth perception. Mantis shrimp have six pupils, so they have hexnocular vision. We have little idea of what this looks like, but we do know that each pupil can be used independently of the others. On top of this, its compound eyes, like that of a fly or a bee, are composed roughly 10,000 photoreceptive units. These are capable of instantly processing information, instead of needing to send the information to the brain first.{1}

A second aspect of mantis shrimp vision is their color perception. As humans we have three color receptors in our eyes: red, green and blue. These three colors mixed in a multitude of ways allow us to see the colors of the rainbow and more. The mantis shrimp, however, has twelve color receptors, from ultraviolet to infrared. This means it can see

colors we can't even imagine! Again, what this looks like to the mantis shrimp we really don't know, but that's just amazing.

One last feature of their vision is their ability to see polarized light. They use this ability as a secret code. They have a pair of appendages that produce circular polarized light. Their eyes are the only eyes we know of that can detect this kind of light. The mantis shrimp is very territorial, and they use this ability to signal that "this hole is occupied." Engineers are currently studying the mantis shrimp's vision to develop the next generation of imaging technology.{2}

God gave this small stomatopod the fastest attack in the animal kingdom and also the most unique eyesight.

## The Monarch Butterfly's Migration

You've probably seen a monarch butterfly with vibrant orange and black coloration. When in North America, the monarchs feed and lay their eggs on milkweed plants. If you are able to buy a few milkweed plants in the spring, you can enjoy the butterflies, their caterpillars, and the chrysalis.

Before we get to the monarch's migration, let's talk about what happens in the chrysalis. Basically, the caterpillar melts down into a soup. There are a few remaining cells that take the organic soup and construct a completely new body plan, the butterfly. The caterpillar cannot reproduce, but the butterfly can. The caterpillar essentially dies in the chrysalis. For caterpillar death to make any sense, there must already be in place a plan to construct a reproducing butterfly. But evolution has no foresight. It depends on randomly produced mutations for nature to select from, going forward. The transformation inside a chrysalis is a genuine evolutionary mystery.

The eastern monarch butterflies have been known for centuries

to migrate south in the fall. But where did they go? It wasn't until 1975 that in a fir forest, 10,000 feet above sea level about 70 miles west of Mexico City, the monarchs were found. Literally millions of monarchs flutter among the trees in a beautiful cascade of orange and black. The monarchs make the journey with instinct. In North America, once the monarchs arrive in the spring, the multiple generations that are hatched only live for a few weeks. None of the monarchs who travel south have made the trip before. The generation that does make the trip south can live for up to nine months. They are called the Methusaleh Generation. These are the same monarchs that migrate north in the spring. And they have the same DNA as the monarchs that only live a few weeks!

I hope you enjoyed my discussions of woodpeckers, mantis shrimp and butterflies. It's a joy to bring it to you.

**Notes**

1. https://live.stemfellowship.org/mantis-shrimp-20-20-20-20-20-20-vision/
2. https://nature.sciencearray.com/mantis-shrimp-vision-hyperspectral-color-technology

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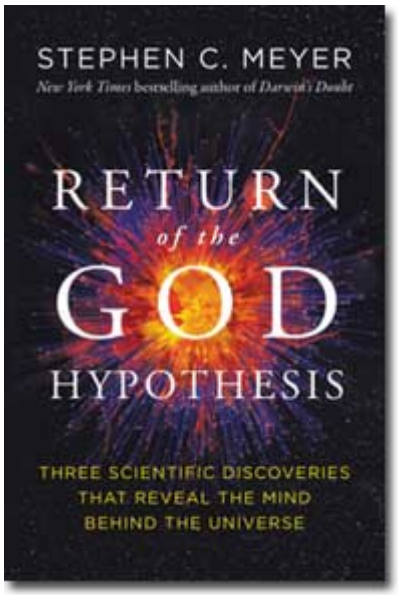
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# 'Return of the God Hypothesis' for Regular

# People

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

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




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



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

This has been the position of most scientists since the late

19th century, when two authors detailed a long-standing warfare between science and religion. Most of the scientific community followed along to the present day.

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

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

## Scientific Discovery #1: The Big Bang

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

First, I know that some of our readers don't accept the concept of the Big Bang since they are convinced that our universe is much younger than 13.7 billion years. I understand your position, [please read my article "Christian Views of

Science and Earth History at probe.org/christian-views-of-science-and-earth-history/] but let's look at this then as an argument you can use with an atheist to show that his own dating of the universe and the Big Bang requires a Mind.

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

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

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

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

And finally, Robert Jastrow wrote, "For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream.  He has scaled the mountains of ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries."{7} So, God creating matter and energy out of nothing explains the Big Bang, where

any naturalistic idea simply cannot explain the evidence.

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

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

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

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

Meyer had the opportunity to hear Sir John Polkinghorne at Cambridge during his doctoral work in the history and philosophy of science. Polkinghorne used an illustration of a universe generating machine with numerous dials and adjustable sliders, each representing one of the many cosmological fine-tuning parameters.  Any slight change in the dials and adjusters of these parameters would render a universe hostile to life in any form. Polkinghorne would later say in an interview that a theistic designer provided a much better explanation than any materialistic hypothesis.{8}

Later, Meyer shows that including entities such as entropy and

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

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

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

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

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

Now we understand that the need for information to compose the first living, growing, and reproducing cell, is enormous. The first cell needed DNA to store information, specific proteins and RNA to produce additional proteins for the cell to function, and a controlled means to copy DNA accurately.

For instance, life uses 20 different amino acids to link

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

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

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

## Do These Three Evidences Point to Theism?

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

But where does that leave us? Do these discoveries warrant a return of the God Hypothesis? Meyer examines four different worldviews to ask, would the universe we have, be expected by any of these worldviews? He uses a scientific approach called "the inference to the best explanation."

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

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

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

On pg. 298, Meyer states, "As one surveys several classes of evidence from the natural sciences—cosmology, astronomy, physics, biochemistry, molecular biology, and paleontology—the God Hypothesis emerges as an explanation with unique scope and power. Theism explains an ensemble of metaphysically significant events in the history of the universe and life more simply, more adequately, and more comprehensively than

major competing metaphysical systems."

## Notes

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# The Common Woodpecker: Chance or Design?

**Dr. Ray Bohlin gave this presentation at the Discovery Institute's 2025 Dallas Conference on Science and Faith.**

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# Dr. Ray Bohlin Presents "Natural Limits to Biological Change"

**Discovery Institute's *Dallas Conference on Science and Faith* (January 22, 2022) featured Probe VP and Discovery Institute Fellow Dr. Ray Bohlin's breakout session on his book *The Natural Limits to Biological Change*.**

**Read Dr. Bohlin's article: The Natural Limits to Biological Change**

**His PowerPoint slides can be accessed here.**

**PowerPoint slides in a PDF document are here.**

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# Darwinism: A Teetering House of Cards



*Steve Cable examines four areas of recent scientific discovery that undermine evolution.*

## The Origin of Life: A Mystery

Confidence in Darwinism erodes as new discoveries fail to produce supporting evidence. Three books released in 2017,

- *House of Cards* by journalist Tom Bethel
- *Zombie Science* by biologist Jonathan Wells
- *Undeniable* by biologist Douglas Axe

address areas where Darwin's grand idea is weaker now than 150 years ago. As Bethel states, "Today, it more closely resembles a house of cards, built out of flimsy icons rather than hard evidence, and liable to blow away in the slightest breeze."{1} It is not just critics who recognize this weakening. In 2016, the Royal Society in London convened a meeting to discuss "calls for revision of the standard theory of evolution."{2}

Four areas where Darwin hoped future work would support his theory will be examined. The first area is the origin of reproducing beings.

Darwin only hoped that life may have originated in a "warm little pond." But as one scientist states, "The origin-of-life field is a failure—we still do not have even a plausible coherent model, let alone a validated scenario, for the emergence of life on earth."{3}

Darwin assumed the first reproducing cells were very simple. In truth, the simplest cells are composed of impressively complex machines which could not have arisen directly from inorganic components. But there are no known simpler life forms. As Michael Behe commented, "The cell's known complexity has increased immeasurably in recent years, and points ever more insistently to an intelligent designer as its cause."{4}

The probability of even one of the amino acids necessary for life appearing by random mutations is effectively zero even given billions of years. As Doug Axe writes, "(Examining how) accidental evolutionary processes are supposed to have invented enzymes without insight, we consistently find these proposals to be implausible."{5}

Another professor states, "Those who think scientists understand the issues of prebiotic chemistry are wholly misinformed. Nobody understands them. . . . The basis upon which we . . . are relying is so shaky we must openly state the situation for what it is: a mystery."{6}

Facing insurmountable odds against life appearing, some materialists propose an infinite number of parallel universes.{7} With infinite chances, even the most unlikely events could occur. But, as Axe points out, "The biological inventions that surround us (are) fantastically improbable, with evolution explaining none and the multiverse hypothesis explaining only those absolutely necessary for wondering to be

possible, . . . this hypothesis fails to explain what we see."{8}

Even after resorting to unobservable fantasy situations, the challenges presented by the origins of life cannot be overcome. A Darwinian model begins with a self-replicating life form. Currently, this appears to be a hill that no one knows how to climb.

## An Example of Macro-evolution: Still Searching

Darwin's theory is dependent upon the unobserved concept of macro-evolution, i.e. intergenerational differences accumulating into different species over time. Darwin believed his magic wand of natural selection could direct this process toward increasingly complex beings. Has further research confirmed his belief?

Let's begin with fossil evidence.

The number of fossils studied has blossomed over the last 150 years. All the types of species which exist today appear in the fossil record over a relatively short period of time.{9} And, in most cases, with no transitional forms between them undermining Darwin's theory. As science historian Stephen Meyer concludes, "As more . . . fossils are discovered (failing) to document the great array of intermediate forms, it grows ever more improbable that their absence is an artifact of either incomplete sampling or preservation."{10}

And evolution proponent Stephen Gould wrote, "The extreme rarity of transitional forms in the fossil record persists as the trade secret of paleontology. The evolutionary trees . . . have data only at the tips and nodes of their branches; the rest is inference."{11} *Nature* editor Henry Gee put it this way: "To take a line of fossils and claim that they represent a lineage is not a scientific hypothesis that can be tested,

but an assertion that carries the same validity as a bedtime story."{12}

Cleary, the fossil record challenges rather than supports conventional evolutionary theory.

Let's continue by looking at experimental evidence.

Perhaps someone has recreated macro-evolution in the lab. Studies of fast replicating populations have shown no ability to accumulate multiple changes. Attempts to create macro-evolution in fruit flies, bacteria and viruses concluded "Neither in nature nor under experimental conditions have any substantial effects ever been obtained through the systematic accumulation of micro-mutations."{13}

Bethel points out, "The scientific evidence for evolution is not only weaker than is generally supposed, but as new discoveries have been made . . . , the reasons for accepting the theory have diminished rather than increased."{14}

Yet biology departments still spout their unfounded belief in the "magic wand" ability to produce an unimaginable array of advanced creatures in what "amounts to the triumph of ideology over science." Even some materialists see through this charade. One geneticist at Harvard wrote, "If scientists are going to use logically unbeatable theories about the world, they might as well give up natural science and take up religion."{15}

"Darwin might well have been dismayed (at) the meager evidence for natural selection, assembled over many years. . . . It is worth bearing in mind how feeble this evidence is any time someone tells you that Darwinism is a fact."{16}

## The Challenge of Irreducible Complexity

Darwin wrote his theory would "absolutely break down" if an organ could not be formed by "numerous, successive, slight

modifications."{17} Have such organs been found? Irreducible complexity and functional coherence say yes.

Irreducible complexity means that some known functions require multiple parts that have no purpose without the other parts. For a Darwinian process to create these functions would require useless mutations to be indefinitely maintained until combined with other useless mutations. Michael Behe's analysis has shown the 4 billion years of the earth's existence are not sufficient for such complex functions to be created by random mutations.

Even if an improbable series of events occurred allowing **one** of these complex forms to arise through a set of random mutations, it would need to happen thousands, if not millions, of times to produce our complex life forms.

In *Undeniable*, Axe introduces "functional coherence," defined as "The hierarchical arrangement of parts needed for anything to produce a high-level function—each part contributing in a coordinated way to the whole." Axe examines the role of functional coherence as a microscopic level and concludes, "The fact that mastery . . . of protein design is completely beyond the reach of blind evolution is . . . evolution's undoing. . . . The evolutionary story is . . . something much less plausible than hitting an atomic dot on a universe-size sphere over and over in succession by blindly dropping subatomic pins."{18}

In *Zombie Science*, Jonathan Wells considers the number of irreducibly complex subsystems required to evolve fully aquatic whales. These features include flukes with specialized muscles, blowholes with elastic tissues and specialized muscles, internal testicles with a countercurrent heat exchange system, specialized features for nursing, and many others. For Darwinism, these changes are insurmountably large. Whales certainly appear to be the product of design, not unguided evolution.

He also points to advanced optical systems. The process by which light detection becomes an intelligent signal to the brain is irreducibly complex. Two scientists wrote, "the prototypical eye. . . cannot be explained by selection, because selection can drive evolution only when the eye can function at least to a small extent."{19} These scientists determined the eye was irreducibly complex and could not be developed by natural selection.

Richard Lewontin, a committed materialist, does not believe natural selection can explain complex life forms. He cannot conceive of any gradual set of useful incremental changes resulting in a flying being. Unless a small change gives an advantage, "the change won't be selected for, and obviously, a little bit of wing doesn't do any good."{20}

So we can agree with Darwin on this issue: his theory "absolutely breaks down."

## DNA and Molecular Science Muddy the Scenario

Has uncovering the role of DNA filled the gaping holes in Darwinism or created more?

A species's DNA sequence, we are told, contains all the information needed to create new members. But Douglas Axe states, "(We) would be shocked to know the . . . state of ignorance with respect to DNA. The view that most aspects of living things can be attributed neatly to specific genes has been known . . . to be FALSE for a long time."{21}

The higher-level components making up a species are not entirely specified by its DNA. As Wells explains, "After DNA sequences are transcribed into RNAs, many RNAs are modified so they do not match the original transcript. . . . (changing) over time according to the needs of the organism." The claim that "DNA makes RNA makes protein" is false."{22}

Creating new complex functions requires multiple changes in the DNA sequence AND in other elements making the chance of random mutations creating new species untenable.

The original conflicting "trees of life" were created examining the morphology, i.e. the structures of species. These trees suggest different major nodes but almost no transitional forms. Can DNA analysis help? Research has shown that groupings based on morphology are not supported by DNA analysis. As Wells notes, these conflicts "are a major headache for evolutionary biologists."{23}

This disconnect from recent gene research is not limited to a few cases. As reported in 2012, "incongruence between (trees) derived from morphology . . . , and . . . trees based on different subsets of molecular sequences has become pervasive."{24}

But DNA analysis alone has a great degree of uncertainty. In one study looking at fifty genes from seventeen animal groups, multiple conflicting ideas on the evolutionary relationship between the animal groups were proposed.{25} All had seemingly absolute support from the DNA evidence, but all could not be true.

Originally scientists thought DNA was primarily junk sequences not contributing to the characteristics of a species. This junk represented functions which were replaced or had no current usefulness. As Francis Crick, one of the discoverers of DNA's structure, said, "The possible existence of such selfish DNA is exactly what might be expected from the theory of natural selection."{26}

But recent research shows at least eighty percent of the human genome contributes. As Wells reports, "The evidence demonstrates that most of our DNA is transcribed into RNA and that many of those RNAs have biological functions. The idea that most of our DNA is junk, . . . is dead."{27}

The facts uncovered about the functioning of DNA and other elements in passing on characteristics to the next generation appear to make more holes in evolutionary theory.

## A Philosophy Props Up Its Poster Child

Recent, scientific insights have weakened Darwin's theory. Yet many are unwilling to discuss its weakness. Why this reluctance? It falls into two camps: 1) a commitment to materialism and 2) a desire for academic acceptance. Materialism is a religious viewpoint where everything has a natural explanation. A spiritual component or events resulting from an outside force are rejected. Science is not materialism. Science attempts to identify and quantify the forces that make the universe. A materialist scientist adds a religious restriction: only natural forces can be considered.

Bethel states, "Although Darwinism has been promoted as science, its unstated role has been to prop up the philosophy of materialism and atheism."

Wells suggests, "Priority is given to proposing and defending materialistic explanations rather than following the evidence wherever it leads. This is materialistic philosophy masquerading as empirical science, . . . zombie science."{28}

Atheist Colin Patterson offers an honest view regarding the theory of evolution as "often unnecessary" in biology. Nevertheless, it was (taught as) "the unified field theory of biology," holding the whole subject together. Once something has that status it becomes like religion."{29}

Until they have a better theory, they will stand behind it rather than consider alternatives. They fear any uncertainty will lead to questioning other aspects of materialism, such as that free will and love for others are simply a façade promoted by natural selection.

Bethel points out, "If our minds are . . . accidental products

of a blind process, what reason do we have for accepting materialist claims as true?”{30} After all, our minds are selected to improve our survivability, not to discern what is true.

Many scientists are not die-hard materialists. They believe there may be a spiritual aspect of our existence. Yet they promote the materialistic view. For most, this inconsistent approach is a reaction to the threat of censure from the establishment.

Axe claims, “The religious agenda is the enemy that threatens science. . . . Everything that opposes the institutionalized agenda is labeled ‘anti-science.’”{31}

The same arguments used against intelligent design apply more accurately to Darwinism. Bethel states, “(Some) have said that design can’t be measured and therefore it is a religious belief. . . . They might also have said the macro-evolution has not yet been measured, or so much as observed.”{32}

In this review, we have seen

1. No materialistic concept for life’s origin
2. Little evidence f transitional life forms
3. Strong evidence complex functions could not arise through random changes
4. DNA playing havoc with the basic tenets of Darwinism.

Now we wait for the façade raised by supporters of a flawed concept to collapse.

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28. Wells, page 17.
29. Bethel, page 149.
30. Bethel, page 174.
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# Is Theistic Evolution the Only Viable Answer for Thinking Christians?

*Steve Cable examines Francis Collins's arguments for theistic evolution from his book* The Language of God *and finds them lacking.*

## Francis Collins and Theistic Evolution

Dr. Francis Collins, recipient of the Presidential Medal of Freedom for cataloging the complete human DNA sequence, put forth his views on science and Christianity in his 2006 book, *The Language of God*{1}. Could his theistic evolution view resolve the apparent conflict between modern science and the Bible? In this article, we will examine this belief and his arguments for it.



Collins grew up agnostic but became an atheist in his student years. At twenty six, he took on the task of proving Christianity false. Like many before him{2}, this hopeless task resulted in accepting Christianity as true: Jesus as God in the flesh bringing us eternal life. In his role as a medical researcher into the genetics of man, he found himself dealing in a world where many questioned the validity of Christian thought as anti-science.

These conflicting forces led him to develop views reconciling the current positions of science and the truths of the Bible. As Collins states, "If the existence of God is true (not just tradition, but actually true), and if certain scientific conclusions about the natural world are also (objectively) true . . ., then they cannot contradict each other. A fully harmonious synthesis must be possible."{3} Certainly, this statement is one we all should agree on if we can agree on which scientific conclusions are objectively true.

His resulting beliefs rest on the following premises{4}:

1. God formed the universe out of nothingness 14 billion years ago.

2. Its properties appear to have been precisely tuned for life.

3. The precise mechanism of the origin of life remains unknown,

4. Once evolution got under way, no special supernatural intervention was required.

5. Humans are part of this process, sharing a common ancestor with the great apes.

6. But humans are unique in ways that defy evolutionary explanation, pointing to our spiritual nature.

Rather than interceding as an active creative force, God built into the Big Bang the properties suitable for receiving the image of God at the appropriate time. Purely random mutations and natural selection brought about this desired result. Being outside of time, God would know that this uninvolved approach would result in beings suitable to receive the breath of God.

## The Argument for Theistic Evolution

Is Francis Collins' theistic evolution the way to reconcile theology and science?

Collins argues the Big Bang and the fine-tuning of this universe are clearly the work of God. After that, no intelligent intervention occurred, even though scientists have no idea how life began.{5} At some point, God intervened—first, by giving humans moral and abstract thinking, and second, by sending Jesus Christ to perform miracles, be crucified and resurrected, and bring us eternal life.

In Collins's view, God is allowed to perform miracles to redeem mankind, but not in creating physical humans. The alternative theories make the scientific process messy and unpredictable. This position allows him to side with the naturalist scientists who hold sway today. However, it does not prevent naturalists from laughing at your silly faith.

He also appears to believe we are looking forward to new glorified bodies living in a new earth with Jesus. Apparently, at that time, God will disavow His penchant for not making changes in nature.

Collins wrote{6} that our DNA leads him to believe in common ancestry with chimpanzees and ultimately with all life. His conclusion is partially based on the large amount of "junk

DNA" similar across humans and other animals. If similar segments of DNA have no function, these must be elements indicating a common ancestry.

Subsequent research undermines this belief. "DNA previously dismissed as "junk" are . . . crucial to the way our genome works,. . . . For years,. . . more than 98% of the genetic sequence . . . was written off as 'junk' DNA."{7} Based on current research,{8} almost every nucleotide is associated with a function. Over 80% of the genome has been shown to have a biochemical function and "the rest . . . of the genome is likely to have a function as well."{9} Collins agrees that his earlier position was incorrect.{10}

In this case, the argument of reuse by an intelligent designer now makes more sense.

On theistic evolution, Collins could be right and it would not tarnish the absolute truth of the Bible. However, in all likelihood, Collins is wrong. From both Scripture and current observations, it appears much more likely God actively interceded in creation.

## Irreducible Complexity

One area of Intelligent Design Francis Collins attacks is the concept of irreducible complexity.

ID researchers define it as: "[A] system of several well-matched, interacting parts that contribute to the basic function, wherein the removal of any one of them causes the system to cease functioning. [It] cannot be produced directly by slight, successive modifications of a precursor system, because any precursor . . . that is missing a part is by definition nonfunctional."{11} A mindless evolutionary process cannot create a number of new, unique parts that must function together before creating any value.

However, Collins believes nothing is too hard for evolution

given enough time. He states, “Examples . . . of irreducible complexity are clearly showing signs of how they could have been assembled by evolution in a gradual step-by-step process. . . Darwinism predicts that plausible intermediate steps **must have existed**, . . . ID. . . sets forth a straw man scenario that no serious student of biology would accept.”{12}

One of Collins’s examples, the bacterial flagellum, is “a marvelous swimming device”{13} which includes a propeller surface and a motor to rotate it. ID researchers identify it as an irreducibly complex. Collins suggests this conclusion has been “fundamentally undercut,” stating that one protein sequence used in the flagellum is also used in a different apparatus in other bacteria. “Granted, [it] is just one piece of the flagellum’s puzzle, and we are far from filling in the whole picture (if we ever can). But each such new puzzle piece provides a natural explanation for a step that ID had relegated to supernatural forces, . . .”{14}

Today, seven years later, ID researchers are not backing off. A recent article concludes, “The claim . . . to have refuted . . . the bacterial flagellum is unfounded. Although there are sub-components . . . that are dispensable . . ., there are numerous subsystems within the flagellum that require multiple coordinated mutations. [It] is not the kind of structure that one can . . . envision being produced in Darwinian step-wise fashion.”{15}

Evolutionists have been trying for over 15 years to attack irreducible complexity. Rather than discrediting the theory, their efforts have shown how difficult it is to do so. Collins’s claims put him in the company of those relying on the ignorance of their audience to cow them with logically flawed arguments.

## God of the Gaps and *Ad Hominem* Attacks

Francis Collins states, “ID is a ‘God of the gaps’ theory,

inserting . . . the need for supernatural intervention in places its proponents claim science cannot explain."{16}

This statement mischaracterizes Intelligent Design. "ID is not based on an argument from ignorance."{17} It looks for conditions indicating intelligence was required to produce an observed result. The event must be exceedingly improbable due to random events and it must conform to a meaningful pattern. "Does a forensic scientist commit an 'arson-of-the-gaps' fallacy in inferring that a fire was started deliberately. . .? To assume that every phenomenon that we cannot explain must have a materialistic explanation is to commit a converse 'materialism-of-the-gaps' fallacy."{18}

ID researchers identify signs that are consistent with intelligent design and examine real world events for those same signs. In addition, a number of non-ID scientists having reached the conclusion that Darwinism is not sufficient, are looking at other mechanisms to explain certain features of life.

Another aspect of Collins's defense of theistic evolution is using overstated and unsubstantiated attacks to discredit other views.

Of the young earth creationists, he states, "If these claims were actually true, it would lead to a complete and irreversible collapse of the sciences of physics, chemistry, cosmology, geology, and biology."{19} This is a gross overstatement. In truth, belief in a young earth creation does not prevent one from making predictions based on micro-evolutionary effects or investigating the physical laws of the universe from a microscopic to an intergalactic level.

Collins also states, "**No serious biologist** today doubts the theory of evolution."{20} And, "ID's central premise . . . sets forth a straw man scenario that **no serious student** of biology would accept."{21} So, those differing with Collins

are not even serious students of biology. Collins ignores the over 800 Ph.D.s who signed a document questioning the ability of Darwinian theory to explain life.{22}

In discrediting ID, he misrepresents the premise of this field, saying ID is designed to resist an atheistic worldview. As one researcher, William Dembski, explains, "Intelligent Design attempts only to explain the arrangement of materials within an already given world. Design theorists argue that certain arrangements of matter, especially in biological systems, clearly signal a designing influence."{23}

Collins would rather pursue an answer that was wrong and exclude the actions of an intelligent designer, than consider the possibility of intelligent design.

## Perverting the Views of C. S. Lewis

Did C. S. Lewis support theistic evolution? Francis Collins quotes Lewis{24}, postulating God could have added His image to evolved creatures who then chose to fall into sin. Although consistent with theistic evolution, Lewis' thoughts are more consistent with ID tenets.

Lewis begins, "For long centuries, **God perfected** the animal form which was to become the vehicle of humanity and the **image of Himself**. **He gave it** hands whose thumb could be applied to each of the fingers, . . ."{25} So, God was actively involved in bringing about the human form; God intervened to produce the desired outcome. This view contrasts with Collins's view that God took whatever evolution produced and breathed into it His image.

BioLogos extends the thought, stating "(Lewis) is clearly a Christian Theistic Evolutionist, or an Evolutionary Christian Theist."{26} They point out passages from Lewis showing the evolutionary theory of physical change was not contradictory to the gospel. They suggest Lewis would accept today's

theories as truth and reject ID.

John West's research{27} finds Lewis was not saying evolutionary theory was definitely true, but rather that it did not refute Christian belief. Lewis wrote, "belief that Men in general have immortal & rational souls does not oblige or qualify me to hold a theory of their pre-human organic history—**if they have one**."{28} In *Miracles* he wrote, "the preliminary processes within Nature which led up to" the human mind "**if there were any**"—"were **designed** to do so."{29} In both these quotes, Lewis caveats evolutionary theory by adding a big "if."

Lewis did not embrace a simple-minded view of natural science as fundamentally more authoritative or less prone to error than other fields of human endeavor. Lewis argued that scientific theories are "supposals" and should not be confused with "facts." . . . We must always recognize that such explanations can be wrong.{30}

Clearly, Lewis did not feel that a young earth view a necessity. But, he was adamantly against the thought that science trumped theology. Although, one cannot know with certainty, it appears that Lewis would resonate with the methodology and claims of Intelligent Design theorists.

I appreciate Collins' faith journey. However, I wish he would say "We really don't know the details of man's creation, but we know God was intimately involved."

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23. William Dembski, *Intelligent Design: The Bridge Between Science and Theology* (Downers Grove, IL: InterVarsity Press, 1999), p. 248.
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27. John G. West, *The Magician's Twin: C. S. Lewis on Science, Scientism, and Society* (Seattle: Discovery Institute Press, 2012).
28. West, p. 114.
29. West, p. 131 quoting from *Miracles* by C. S. Lewis, 1960.
30. West, p. 140-141.

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# Dr. Ray Bohlin Publicly Debates in Belarus

Something wonderful and heretofore-unseen happened in March 2018 in the formerly Communist country of Belarus, part of the Soviet Union until 1990. The capital city of Minsk was the site of a public debate between two scientists: Dr. Mikhail Gelfand, an atheist biology professor at Russia's Moscow State University, and Probe's own Dr. Ray Bohlin, a Ph.D. in molecular biology.

Ray had submitted a number of intelligent design-related topics to Dr. Gelfand who refused them all, deciding instead on the topic "Evolution or Creationism?" It was clear he was expecting a religious rather than a scientific argument from Ray, who presented "Is intelligent Design Science?" with the primary evidence that the DNA genetic code requires an intelligence. Dr. Gelfand did not respond to any of Ray's points.




Following their presentations, the debaters responded for an hour to written questions submitted by the audience. One question was, “Would either of you consider changing your mind if shown sufficient evidence of the other side?” With clear contempt, Dr. Gelfand dismissed the possibility that there was evidence for anything other than evolution. Ray related how, in his graduate studies in evolutionary biology, he continually asked, “Show me the evidence for evolution. Please convince me.” By the end of his studies, he was more of a skeptic of evolution than ever before.



Concerned about making his flight back to Moscow, Dr. Gelfand gathered up his things. He was very surprised when Ray came over and, smiling, shook his hand after having been insulted several times during the debate. Christian kindness and compassion is its own kind of culture.

Following the debate, 55% of participants in an online vote chose Ray as the winner. The debate was uploaded to Russian YouTube with over 1000 views that weekend  (Link to English

YouTube video is here). There was quite a bit of social media buzz about it, including requests to bring Ray back to Belarus in November for another debate.

The following weekend, along with his Probe colleague Todd Kappelman, Ray traveled several hours by train to Brest (on the border of Belarus and Poland) for another debate, this time with a professor of the history of Slavic people, Dr. Alexander Svirid. In his presentation Ray pointed out that the fossil evidence for human evolution is sparse and open to many interpretations. His opponent was not able to refute what Ray said, but suggested that the way information has "evolved" from the early computer software to what we have today is evidence of evolution. Ray pointed out that it takes an intelligent mind to rewrite and update software. Dr. Svirid was quite gracious and complimentary of Ray, remarking that "each of us would have been a good student of the other." (Link is here.)

Monday through Friday for two weeks, Ray and Todd spent time with friends and potential church leaders. (Feel free to ask us for more information about that.)

## Churches

This was Ray's 14th trip to Belarus, and every time he goes, he speaks in the churches of people who have become friends. The first Sunday (of three), he preached in a church outside Minsk where one of his excellent translators is a teaching elder. He preached on Romans 1:18-20 in every church he spoke at, because after the previous day's debate, many young people asked why the belief in creation mattered. Drawing on his worldview perspective sharpened by 40+ years of speaking and writing for Probe, he said that if there is no God, there is no purpose or meaning to any living thing—especially humans. Romans 1 assures us that we *all* know there is a Creator, so maybe the Creator's intended purpose and meaning for us gives

us worth and value. This is especially good news in a country that was recently Communist, which denies the worth and value of people. Questions continued through lunch, turning Sunday into another four-hour marathon like the (debate) day before.

The second weekend was jam-packed with ministry opportunities. On Friday night, Ray answered questions at an English club (for those working on learning to speak English). He heard the one question he can always count on: “What do you like about Belarus?” People always love his go-to answer: “Chocolate!”

On Saturday afternoon, he spoke at a student conference sponsored by CRU (formerly known as Campus Crusade for Christ). Both the Christians and the seekers in attendance were interested in hearing Todd address problems and issues in technology, and Ray was asked to address the problem of evil. Todd and Ray, along with their translator Sasha and his wife, took the train to Brest, arriving very late at night.



The next morning was the second debate, arranged by the pastor of Brest Bible Church, who had seen the YouTube videos of Ray’s 2016 debate and 2017 lecture, and really wanted him to come to his city.

The third weekend, with both men very tired, meant being driven to Brest and back the same day, to speak at a conference in another church. Todd, who doesn’t use a cell phone or wear a watch, spoke to the issues and challenges of technology, particularly smartphones and computers. Ray, playing “good cop” to Todd’s “bad cop,” explained how helpful technology is to him as he tries to explain science to students and various audiences, especially the visual component of technology. Powerpoint is invaluable to him for showing graphs, tables and pictures, as well as showing videos using animation to demonstrate molecular machines inside the

cell. Getting personal, he also explained that his wife Sue, a polio survivor who is no longer able to walk (and thus can no longer accompany him to handicap-unfriendly Belarus), needs the technology of her scooter to be mobile at all. Otherwise she would be bedridden, or unable to leave their home—which is what happens to most disabled Belarusians.

On Sunday, their last day, both Todd and Ray gave a short 20-minute talk in the small house church of a pastor and his wife who have become good friends of the Bohlins. That night at another small church, Ray answered lots of questions about the Minsk debate.



He was especially glad for the question, “Why bother?” Why, indeed, would anyone from Probe go 5500 miles to the former Soviet Union, giving time, energy and passion to the point of utter exhaustion, year after year?

It’s an opportunity to provide unbelievers with a reasoned, rational response to evolution.

It’s an opportunity to model to Christians how to engage in controversial issues without defensiveness or anger.

We pray something sticks, planting a “pebble in people’s shoes,” so to speak, sowing seeds of new information and a different perspective by asking questions for which the listeners have no answers. It starts a journey.

For over forty years, that's what Probe Ministries has been doing. Sowing seeds, asking questions, planting pebbles in people's shoes so they *think*.

In 1973, when Probe was founded, there was no glimmer of hope for debates like these behind the Iron Curtain, much less in the Soviet Union. But look what God did in March 2018! There is a great hunger for honest answers to honest questions in Belarus. The debates are possible because they are about science, not religion . . . because true science—the study of what God created—is the truth that points to Romans 1.

And for that, we thank and praise God.

Note: The funding for this trip is several thousand dollars short of what was needed to cover expenses. There is still an opportunity to invest eternally in what God is doing through Probe in Belarus! You can donate here and designate Dr. Ray Bohlin. All gifts will receive a tax-deductible receipt.

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# "So What Evidence IS There Against Evolution?"

**Dr. Bohlin,**

**I just read an article by yourself condemning evolution and the teaching of it. You state your opinion that scientists should teach the controversy behind the teaching thereof. Is this the job of scientists? They cannot teach the issues in every discovery ever made and every theory they believe.**

**They would be teaching a course on the history of science rather than a course on science if they did. Evolution is accepted as proven in the scientific community, so why should scientists justify teaching it? We teach science in science classes and theology in theology classes. And what information is in conflict with it? You made frequent reference to it, but never said exactly what it is.**

> *You state your opinion that scientists should teach the controversy behind the teaching thereof. Is this the job of scientists? They cannot teach the issues in every discovery ever made and every theory they believe.*

Actually, science textbooks do this all the time, especially with the more important and central theories. Check out a high school or college introductory biology text that emphasizes evolution and I can just about guarantee that there will be some discussion about just what Darwin was attempting to overthrow in proposing his theory of natural selection. You're not really teaching science unless you also teach some of its history as well.

> *They would be teaching a course on the history of science rather than a course on science if they did. Evolution is accepted as proven in the scientific community, so why should scientists justify teaching it? We teach science in science classes and theology in theology classes. And what information is in conflict with it? You made frequent reference to it, but never said exactly what it is.*

The list of problems with evolution is long and has everything to do with science and nothing to do with theology. It has to do with evidence, both the lack of evidence for evolution on the broadest scale, and the presence of evidence for design.

Lack of Evidence for Evolution:

- No workable system for a naturalistic origin of life.
- Inability of evolutionary mechanisms to explain anything

but minor variation in finch beaks and moth coloration.
• Rapid origin of nearly all animal phyla in Cambrian period with little or no evidence of ancestors.
• Early life is now known to not be monophyletic, a classic prediction of Darwinian evolution. Molecular evolutionists have had to invent a polyphyletic origin of life and massive gene transfers in earth's early history to explain the molecular data.
• Despite the presence of a few putative transitional forms in the fossil record, transitions are rare (Darwin expected them to be everywhere). The invertebrate fossil record is virtually devoid of any transitional forms (BTW, invertebrates comprise around 90% of the fossil record) .
• The fossil record demonstrates stasis, not a gradual process of origin for new forms.
• We see a lot of evidence for structures falling into disuse in organisms but no examples of new organs appearing.

Evidence for Design:

• Irreducible complexity of many cellular molecular structures and pathways.
• The genetic code is an informational code and informational codes only arise from an intelligent source.
• Junk DNA, a label derived from Darwinian interpretations of non-transcribed DNA, is junk no longer. The "junk" continues to be found functional in surprising ways.
• The overall complexity of the cell was not anticipated by Darwinists, and the last 50 years has yielded surprise after surprise as to the order and complexity of living cells.
• Embryology is looking more and more like a biological process with a goal that cannot be arrived at by natural selection. Body plans are determined early in development but mutations in early development are the harshest and most deleterious mutations of all. An early mistake renders a ruined organism.

I have other articles on our website, www.probe.org, that will

elaborate with references most of the above claims.

Everything I have cited is known in the scientific community, but textbooks and media reports are routinely devoid of these evidences because the scientific community believes that science must only seek natural causes for all the biological realities they discover. (How the physical operates is reasonably to be assumed to be naturalistic, but the origin of physical and biological objects may not be so.) This is nothing more than a philosophical bias and not a scientific one. A scientist should be willing to follow the evidence wherever it leads and not wherever he wants it to lead. One of Richard Feynman's basic principles for scientists was that a scientist must not fool him or herself, and he is the easiest person to fool. Evolutionary biologists are fooling themselves with an errant definition of science which leads to a suppression of real evidence to the contrary. Teaching the controversy is the only way at the moment to get around the naturalistic filibuster going on in science and in science education. Evolutionists are now fighting back hard because, I believe, that deep down they realize that a fully open and public discussion of the evidence is not to their advantage.

Respectfully,

Ray Bohlin, Ph.D.
Probe Ministries

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# "Culture in Conflict"

# Conference MP3s




| Conference Recordings |
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| **Kerby Anderson:** |
| Being Christian in a Post-Christian Society<br>Truth Decay<br>Basic Christian Evidences |
| **Dr. Ray Bohlin:** |
| The Privileged Planet and Intelligent Design<br>Evidence for the Existence of God<br>The Reliability of the Bible |
| **Sue Bohlin:** |
| Thinking Clearly About Sexual Confusion<br>Helping Teens Understand Homosexuality<br>Raising Gender-Secure Children |
| **Ray and Sue:** |
| Guys are From Mars, Girls Are From Venus |