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.

Woodpecker

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.

Nictitating Membrane

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.

Mantis Shrimp

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

Monarch Butterfly

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.

Monarch 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.

Monarch Butterfly
Biosphere Reserve,
Michoacan, Mexico

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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Inconvenient Truth 2.0

Kerby Anderson revisits Al Gore’s claims of environmental alarmism in the 20-year-old film An Inconvenient Truth.

Next month is the 20th anniversary of Al Gore’s film, *An Inconvenient Truth,* which hit theaters in May 2006. Bjorn Lomborg reminds us that “the film, with its dramatic visuals and dire warnings, transformed the issue of climate change from a niche ecological concern into a front-page crisis.”

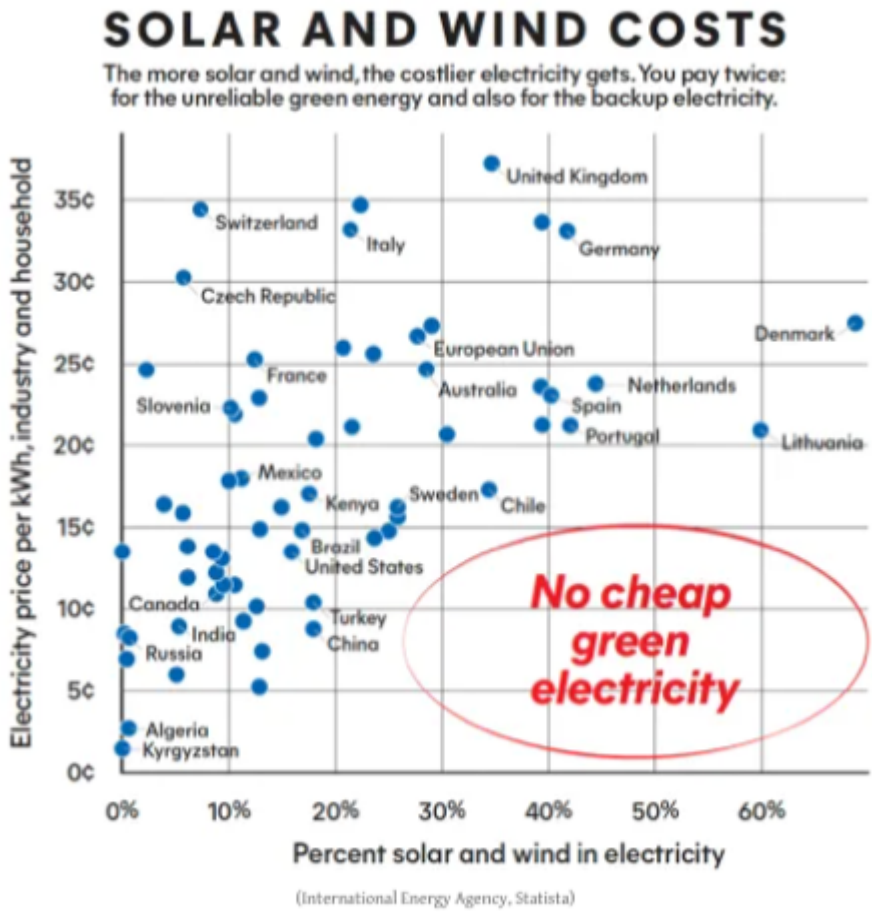
The film’s predictions about escalating catastrophes did not materialize, and its policy prescriptions failed. He also reminds us that approximately $16 trillion has been spent in pursuit of its vision, and yet it has delivered few benefits.

The film painted a bleak picture of the future with climate change driving ever-worsening disasters. For example, the film warned of polar bears vanishing, using computer-generated images of them drowning because of melting ice. But polar bear

populations have doubled. The film predicted a significant increase in hurricanes. Global data from satellites have shown a slight decline.

The proposed policies cost trillions and had little impact. We were told that wind and solar were the cheap solutions to climate change. All we had to do was swiftly implement these technologies to save the planet.

Instead, nations have found that as they ramp up their share of such renewables, electricity prices soar. As his chart shows, there is no cheap green electricity.



Perhaps the worse fallout from the film has been climate hysteria that encourages activists to glue themselves to roads and to vandalize paintings. Bjorn Lomborg believes climate change is a challenge, but not a catastrophe. Twenty years later, the biggest catastrophe is the film.

This post was first published at pointofview.net/viewpoints/inconvenient-truth-2-0/ on April 17, 2026.

Transhumanism and Artificial Intelligence

Kerby Anderson provides an overview of transhumanism and AI, considering its impact on us and our families.

Over the last few years, we have heard more pundits and futurists talk about transhumanism. What is this philosophy? How will it affect our families and us? How should a Christian think about transhumanism?

Transhumanism is an intellectual and cultural movement that seeks to transform the human condition. The leaders of this movement want to use the developing technologies to eliminate aging and enhance human potential (physical, psychological, and mental).

Nick Bostrom explains that transhumanism views human nature as a "work-in-progress, a half-baked beginning that we can learn to remold in desirable ways." He goes on to explain the transhumanist vision: "Transhumanists hope that by responsible use of science, technology, and other rational means we shall eventually manage to become posthumans, beings with vastly greater capacities than present human beings have."{1}

Two primary ways they want to do this is through genetic engineering and artificial intelligence. They want to genetically create "the new man," and they want to use technology to merge humans with machines.

The genetic part of this equation claims that we can use gene splicing and other genetic modification techniques so that genes can be easily transferred between species. But we should be concerned about geneticists who want to create a superhuman race. Leon Kass warned that "Engineering the engineer seems to differ in kind from engineering the engine."{2}

The other part of the equation concerns technology. The leaders of transhumanism believe we are on the cusp of a technological threshold in both artificial intelligence and human-machine technology.

The "humanism" in transhumanism reminds us that this is a philosophy rooted in Enlightenment humanism. But it is different. Whereas the goal of humanism was to develop the ideal human, the goal of transhumanism is to transcend what we have traditionally considered human.

The Transhumanist Declaration provides eight key points to describe what the signers believe should be the future of humans.{3} It begins with this claim: "Humanity stands to be profoundly affected by science and technology in the future. We envision the possibility of broadening human potential by overcoming aging, cognitive shortcomings, involuntary suffering, and our confinement to planet Earth."

Two Principles of Transhumanism

Now I would like to look at the two foundational principles of transhumanism.

The first principle is "metaman." Futurists predict that our current human condition will evolve into being a cyborg (short for *cybernetic organism*). Our bodies will be joined to machines as we "evolve" through technological progress.

Transhumanists believe we will have immense knowledge and information because of the rapid advances in artificial intelligence and computing power. These advances will

eventually exceed human intelligence. Meanwhile, advances in genetic engineering will allow scientists to modify the human body to keep pace with these technological advances.

This is the two-fold hope of the transhumanists: artificial intelligence and genetic engineering. One represents biological change through mixing and matching genes. The other presents the merging of human intelligence with artificial intelligence.

In fact, the hope is to create a superorganism through the transference of genes between species. This may even eradicate the differences between species. One scientist even suggested that tampering with the genetic codes of all plants and animals on this planet would cause the "definition of human beings to drift."{4} Humans would merge with the rest of nature, thereby creating a planetary superorganism he calls "Metaman."

In essence, transhumanists would like to erase any distinction between human, other forms in nature, and machines. Humans would now control the future direction of evolution and merge all forms of life and non-life together in one enormous superorganism.

The second principle is "the singularity." Transhumanists wait for the arrival of a technological threshold that will be achieved through artificial intelligence. Futurists predict that sometime in the middle of this century, we will achieve what transhumanists call "the singularity."{5} The current distinction between humanity and nature and machine will fade and there will no longer be any barriers between the natural world and artificial world.

This utopian view assumes that humans will be able to transcend the limitations of our biological bodies and brains. There will no longer be any distinction between humans and machines. And this, say the transhumanists, will allow

humanity to no longer be resigned to death as the end. All of this, they predict, will usher in a technological millennium.

History of Artificial Intelligence

The term artificial intelligence was coined in 1956 by the American computer scientist John McCarthy. He defines it as "getting a computer to do things which, when done by people, are said to involve intelligence." Unfortunately, there is no standard definition of what constitutes AI. Part of the problem is the lack of agreement on what constitutes intelligence and how it relates to machines.

McCarthy proposes that "Intelligence is the computational part of the ability to achieve goals in the world. Varying kinds and degrees of intelligence occur in people, many animals, and some machines."{6} This would include such capabilities as logic, reasoning, conceptualization, self-awareness, learning, emotional knowledge, planning, creativity, abstract thinking, and problem solving.

Researchers have for decades hoped to build machines that could do anything the human brain could do. Progress was slow for many decades but has accelerated in the last few years. A significant breakthrough occurred in 2012, when an idea called the neural network shifted the entire field. This is a mathematical system that learns skills by finding statistical patterns in enormous amounts of data.

The next big step came around 2018 with large language models. Companies such as Google, Microsoft, and OpenAI began building neural networks trained on vast amounts of text including digital books, academic papers, and Wikipedia articles. Surprisingly, these systems learned to write unique prose and computer code and to carry on sophisticated conversations. This breakthrough has been called "generative AI."

These AI algorithms are based on intricate webs of neural

networks and allow for what is considered “deep learning.” These advanced AI systems collect huge amounts of data and can correct mistakes and even anticipate future problems.

The benefits are significant. Factory automation, self-driving cars, efficient use of resources, correlating massive amounts of data, and fewer errors in medical diagnoses are just a few of the many ways in which AI will improve our lives in the 21st century.

Unfortunately, AI poses dangers to us.

Dangers of Artificial Intelligence

Although artificial intelligence offers some significant benefits, it also poses many dangers. The authors of the open letter on AI warn that human beings are not ready for a powerful AI under present conditions or even in the foreseeable future. What happens after AI becomes smarter than humans? That is a question that bothered Eliezer Yudkowsky. In his opinion piece for *Time* magazine, he argued that “We Need to Shut It All Down.”{7}

He warned that “Many researchers steeped in these issues, including myself, expect that the most likely result of building a superhumanly smart AI, under anything remotely like the current circumstances, is that literally everyone on Earth will die.” He doesn’t think this is merely a possibility but believes it is a virtual certainty.

He uses this illustration to drive home his point: “To visualize a hostile superhuman AI, don’t imagine a lifeless book-smart thinker dwelling inside the internet and sending ill-intentioned emails. Visualize an entire alien civilization, thinking at millions of times human speeds, initially confined to computers—in a world of creatures that are, from its perspective, very stupid and very slow.”

Bill Gates understands both the benefits and dangers of AI. He

explains that the “development of AI is as fundamental as the creation of the microprocessor, the personal computer, the Internet, and the mobile phone.” While these changes in how we work, learn, and communicate are good, there is also “the possibility that AIs will run out of control.”{8}

He asks, “Could a machine decide that humans are a threat, conclude that its interests are different from ours, or simply stop caring about us?” He recognizes that “superintelligent AIs are in our future” and that they “will be able to do everything that a human brain can, but without any practical limits on the size of its memory or the speed at which it operates.” However, these “strong AIs” will “probably be able to establish their own goals.” Those would likely conflict with our best interests.

Notice the number of dystopian movies where the machines have taken over. That would include movies like *2001: A Space Odyssey*, *Avengers: Age of Ultron*, *I, Robot*, the *Matrix* series, and the *Terminator* series. That is why many people fear how AI will be used in the future.

Biblical Perspective

How should Christians respond to transhumanism? We should begin by looking at the philosophical foundation of this movement. It begins with a belief that there is no God and we are responsible for our own destiny. It also is based upon an evolutionary foundation that assumes that we are the product of millions of years of chance process.

The leaders of transhumanism see genetic engineering as a tool to be used to speed up the process of evolution. We can use genetics to enhance and improve the human race. If we believe that humans are merely the product of the undirected force of evolution, then certainly intelligent scientists can “improve on nature.”

The evolutionary argument goes like this. Humans die due to some technological glitch (e.g., heart stops beating). Therefore, "Every technical problem has a technical solution. We don't need to wait for the Second Coming in which to overcome death. A couple of geeks in a lab can do it. If traditionally death was the specialty of priests and theologians, now the engineers are taking over."{9}

The leaders of transhumanism believe we should use technology to improve the human race so that we are perfect and immortal. In many ways, this technological imperative harkens back to the Tower of Babel (Genesis 11). Instead, we should use technology wisely as we exercise dominion over the world (Genesis 1:28).

Here are a few biblical principles. First, we begin with the reality that each human being in created in God's image (Genesis 1:26-27, Psalm 139:13-16, Isaiah 43:6-7, Jeremiah 1:5, Ephesians 4:24). We have been given dominion and stewardship over the creation (Genesis 1:28, Colossians 1:16) and should reject any form of technology that would usurp or subvert that stewardship responsibility.

Second, humans are created as moral agents. Computer technology can aid us in making moral decisions because of its powerful ability to process data. But we can never cede our moral responsibility to those same computers. God will hold us responsible for the moral or immoral decisions we make (Roman 2:6-8, Galatians 5:19-21, 2 Peter 1:5-8). We should never give computers that authority.

We should reject the vision of transhumanism that looks forward to the day in which man and machine become one in the singularity. We must reject the idea that this is the next step in human evolution. We should reject the worship of technology and reject the idea that AI will make us more human. And we should reject the false utopian vision of a world when machines are given co-equal value to humans created

in the image of God (Genesis 1:26-27).

Notes

1. Nick Bostrom, “Transhumanist Values,” *Ethical Issues for the Twenty-First Century* (2005): 3-14.
2. Kass, Leon. “The New Biology: What Price Relieving Man’s Estate?” *Science*, 19 November 1971, 779.
3. Transhumanism Declaration, www.humanityplus.org/the-transhumanist-declaration.
4. Gregory Stock, *Metaman: The Merging of Humans and Machines Into a Global Superorganism*, NY: Simon and Schuster, 165.
5. Ray Kurtzweil, *The Singularity Is Near*, NY: Penguin, 2005.
6. John McCarthy, “What is AI/Basic Questions,” jmc.stanford.edu/artificial-intelligence/what-is-ai/index.html
7. Eliezer Yudkowsky, “Pausing AI Developments Isn’t Enough. We Need to Shut it All Down,” *Time*, March 29, 2023.
8. Bill Gates, “The Age of AI has Begun,” March 21, 2023, www.gatesnotes.com/The-Age-of-AI-Has-Begun.
9. Yuval Noah Harari, *Homo Deus: A Brief History of Tomorrow*, London: Penguin, 2016, 23.

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Kerby Anderson, *Technology and Social Trends* Cambridge, OH: Christian Publishers, 2016, chapter 3.
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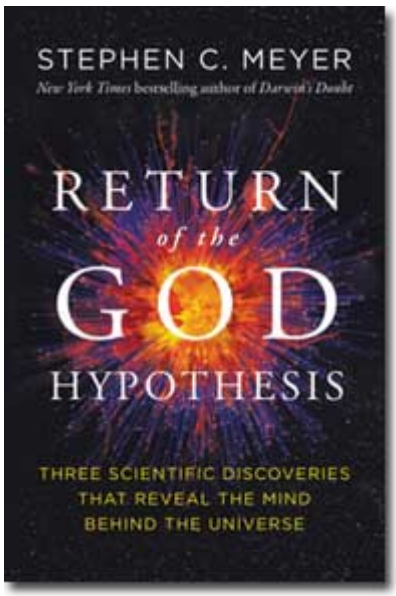
‘Return of the God Hypothesis’ for Regular People

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

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

Theistic Evolution: A Theological Critique

Dr. Ray Bohlin concludes a four-part series covering some of the big ideas in Dr. Stephen Meyer's book 'Theistic Evolution' by examining some of the theological problems with this perspective.

Did God Create a World with Pain and Suffering Already In It?

In this article I review the theological critique of theistic evolution from the book, *Theistic Evolution: A Scientific, Philosophical, and Theological Critique*. (I have previously written on the scientific problems here and here, and the philosophical problems here.) First, I review a chapter in the philosophical section, "Bringing Home the Bacon: The Interaction of Science and Scripture Today" by Colin R. Reeves. I'm focusing on Reeves's section on theistic evolution's problem with theodicy.

A theodicy seeks to explain God's reasons for allowing evil. He says that many conservative Christians who have embraced theistic evolution simply view natural evil as having always existed. He writes, "If natural evil is of necessity a part of evolutionary history, and if evolution is the process instituted by God to, in the end, result in creatures on earth with whom he could have a relationship, then it follows that God is the direct cause of natural evil – it is part of his plan."{1} Reeves quotes evolutionary philosopher David Hull: "The God implied by evolutionary theory . . . is careless, wasteful, indifferent, almost diabolical . . . not the sort of

God to whom anyone would be inclined to pray."{2} Hull's solution is to simply reject any notion of God. He mentions theologian Christopher Southgate struggling with this problem. How does one "redeem" the notion that pain, suffering, and death are intrinsic to evolution, which Southgate accepts? Southgate settles for an underwhelming notion of what he calls a "pelican heaven," symbolizing the hope that everything will be fine in the end. That is just bizarre. This seems to recognize the problem, but seeing no solution, this idea simply hopes that God has it figured out somehow.

Reeves refers to Denis Alexander, who simply recognizes that "God created a tough world . . . in which there is pain and death." For many theistic evolutionists, since humans evolved from a population of at least 10,000 individuals, there was no Adam and Eve and therefore, no Fall. He then references John Schneider who seems to say that we just shrug our shoulders and stop worrying!

If I were a theistic evolutionist, I would be very worried. But since they embrace evolution with no hesitation, they figure there just *must* be a way out of this dilemma, so don't make a big deal about it.

Did Adam and Eve Even Exist for Theistic Evolutionists?

Now I will focus on theologian Wayne Grudem's opening chapter in the theological section of the book. He briefly discusses twelve points at which theistic evolution (as currently promoted by its prominent supporters) differs from the biblical creation account if it is taken as historical narrative. Now I'll address the first three points:

1. Adam and Eve were not the first humans.
2. Adam and Eve were born of human parents.
3. God did not directly or specially create Adam out of the

dust of the ground.

Something that needs to be understood concerning theistic evolution—or evolutionary creation as is now preferred—is that the human species came about as any other species, through naturalistic evolution. Calculations from some evolutionary creationists conclude that the human species can only be reduced to a population of around 10,000 individuals, certainly not just two. Some have even gone so far as to explicitly say that Adam and Eve did not exist. Others are willing to say that God chose a man and a woman from this population as Adam and Eve. But even this concession has problems of its own.

The primary question at this point is whether Genesis 1 to 3 is historical narrative. For evolutionary creationists, the simple answer is *no*. These initial chapters in Genesis are considered theological or allegorical but not a description of any actual events. But are they?

Grudem makes a significant case that these three chapters have always been understood as historical narrative and to consider them otherwise, one must bring an evolutionary viewpoint to the text. The text itself does not lead you to this conclusion.

Even if one assumes that God chose Adam and Eve out of the population of 10,000, they were born of human parents. God did not do anything supernatural to bring them into existence. This brings problems further down the line.

Were Adam and Eve Sinless?

Three more doctrines will be upturned if humans came about through a naturalistic evolutionary process. First, Eve wasn’t formed from Adam’s rib or side; second, Adam and Eve were not sinless; and third, if they weren’t sinless, they didn’t commit the first sin.

For evolutionary creationists, humans evolved and were not specially created. Therefore, Eve was not formed from Adam's rib or side. But this raises some important questions. In Genesis 2, Adam gives names to all creatures (of course, theistic evolutionists say this didn't happen either). But he doesn't find a suitable helper. So, God creates Eve from Adam. Jesus refers to this passage in Matthew 19 where He addresses marriage. The context is that since Eve was taken from Adam, he is to hold fast to his wife. Paul also adds that man was not made from woman but woman from man (1 Corinthians 11:8). Elsewhere, he confirms that Adam was formed first, then Eve (1 Timothy 2:13). In both cases Paul indicates that Genesis 2 is historical narrative. It really happened this way.

Now we come to the issue of sin. If humans evolved and were not created, then all humans would have acted selfishly for the benefit of themselves and their offspring. This is a key feature of an evolutionary system. They likely cheated on their mates, stealing food or shelter. In other words, all humans were sinners from the beginning! However, at the end of day six (Genesis 1:31), God says that everything He made that day was not just good, but ***very*** good. This would preclude sin! According to theistic evolution, humans were not sinless, and Adam and Eve could not have committed the first sin. Indeed, God would have made a very difficult world, and humans were a part of that harsh reality. I think you can begin to see that theistic evolution plays fast and loose with significant doctrinal issue.

Were All Humans Descended From Adam and Eve?

To recap: In theologian Wayne Grudem's opening chapter in the theological section of the book *Theistic Evolution: A Scientific, Philosophical, and Theological Critique*, he briefly discusses twelve points at which theistic evolution

(as currently promoted by its prominent supporters) differs from the biblical creation account if it is taken as historical narrative.

I will now focus on points 7 to 9, which are rather distinct from each other.

1. Human death did not begin because of Adam's sin.
2. Not all human beings are descended from Adam and Eve.
3. God did not directly act in the natural world to create different kinds of plants and animals.

According to most if not all versions of theistic evolution, humans began as a population of at least 10,000 individuals. And since they evolved from an ape-like ancestor, death of humans had been around for hundreds of thousands of years. But when God informs Adam of the penalty of eating from the tree of the knowledge of good and evil, He says, "You will surely die" (Genesis 2:17). Not something you would say to someone who already knew he was going to die. In addition, Paul tells us in Romans 5 that sin came into the world through one man and with it, death! In 1 Corinthians 15, Paul links death through the one man, Adam, with life through the one man, Christ. Death entered for humans through Adam's sin.

The next problem we see is that theistic evolutionists contend that not all humans descended from Adam and Eve. This should appear rather obvious, since Adam and Eve were supposedly just two of thousands of humans at the time. Humanity would have descended from this population, not just Adam and Eve. But later in Genesis (3:20), we read, "The man called his wife's name Eve because she was the mother of all the living," meaning all humans.

Last, it should seem obvious that theistic evolutionists accept that all life evolved and just about all of Genesis 1 is not historical. But in all of Genesis 1, God repeatedly *acts*. He doesn't just let matter alone do the work.

Evolutionary creation dismisses not just the historical accuracy of Genesis but also many New Testament doctrines.

Summing Up the Problems with Theistic Evolution

Finally, I'll review the last three of the twelve events in Wayne Grudem's chapter and summarize his critique. Essentially, the last three events are:

1. Did God rest from anything on the seventh day?
2. Was the original creation a safe place?
3. After Adam and Eve's sin, there was nothing new. Thorns and thistles already existed.

As I have stated throughout this article, according to evolutionary creationists, God did not act in any kind of a direct way to bring anything into existence except matter and the physical laws of how matter operates. This means there was nothing for God to rest from. But Exodus 20:11 states clearly that God made heaven and earth and all that is in them and then rested. This is the basis for resting and keeping holy the Sabbath. Why would man need a rest day if God didn't?

Genesis is clear that the earth and specifically, the Garden of Eden was a safe environment and all that changed with their sin. Things were now much more difficult. Adam and Eve would sweat to get their bread. Thorns and thistles would grow where apparently, they hadn't before. God had cursed the ground so it wouldn't yield its fruit as easily. But evolutionary creationists affirm that nothing could have changed since there never was an idyllic Garden. So there was no curse on the land.

Grudem concludes with eleven significant Christian doctrines that are undermined or denied by theistic evolution. Time prohibits mentioning all of them, but some of them are the

truth of the Bible, evidence in nature for God's existence, and God's wisdom. Grudem closes with this paragraph: "Because theistic evolution denies the historicity of these twelve events, it also denies or undermines eleven significant doctrines. In sum, belief in theistic evolution is incompatible with the truthfulness of the Bible and with several crucial doctrines of the Christian faith." Amen. We heartily agree.

Notes

The Biology of Human Uniqueness

Dr. Ray Bohlin demonstrates unique biological attributes that set humans apart because we are made in the image of God.

What's So Special About Humans?

As humans we tend to think of ourselves as rather unique in the created order of things. As Christians, we understand ourselves to be created in the image and likeness of God as we learn in Genesis 1:26. But what does this really mean? Certainly being made in God's image does not refer to our physical construction; God is spirit and therefore does not have a physical body. But God's plan from the beginning was to rescue us from our sin through the incarnation, God becoming man. Jesus was and is the Son of God, Messiah, the God-Man. Therefore it is not a stretch to suggest that our bodily make-up is meant to be the unique earthly home of Jesus and His Spirit within us. Therefore, I suggest that our biological

make-up is unique in the animal kingdom since no other animal is made in His image.

But what does this really mean? I am going to borrow from several sources, principally Michael Denton's *Nature's Destiny*{1}, to discuss the biological uniqueness of humans. The Discovery Institute is also in the process of producing a film series based on Denton's work, titled *Privileged Species: How the Cosmos is Designed for Human Life.*

We are able to point out numerous qualitative abilities in the human species found nowhere else in the animal kingdom. I will discuss these in detail below, but I'll provide a brief overview now to whet your appetite.

First, I'll be discussing our unique intelligence. Humans' ability to think abstract thoughts appears to be absolutely unique. It is difficult to arrive at a selective advantage in an evolutionary sense to this type of thinking, so where did it come from?

Second, and related to our intelligence, is our unique language capability. Most animals communicate with their own species, but no other species, including primates, actually use *language*. As toddlers we accumulate language by simply being around it. Chimps and gorillas have to go through painstaking trial and error and still can't communicate as a three-year-old does.

Third, our excellent vision allows us to use our intelligence, language and other capabilities to manipulate our surroundings in precise and advantageous ways.

Fourth, our excellent manipulative tool, the hand, is unsurpassed in other primates. We have both strength and fine motor control in our hands, allowing us to combine a strong grip and delicate finger movements that allow a wide range of movements. This, combined with our upright stance, provides an

ability to restructure our immediate surroundings as no other species can.

We are also a highly social species which allows for quick distribution of ideas to everyone's benefit. And all these combine to allow us to be the only species to use and manipulate fire, which brings a host of unique abilities.

Human Intelligence and Language

As I mentioned above, our intelligence separates us from any other primate species. Our brain is three times the size of the brain of a chimp. But beyond that, the number of neurons and connections between neurons far surpasses any other mammal. Michael Denton cites that in each cubic millimeter of the human cortex, are 100,000 cells, about 4 kilometers of axonal wiring and 500 meters of dendrites, and around 1 billion synapse connections between neurons. We have 10 million more of these synapses than a rat brain.

The size and scope is one thing, but our mental capabilities are indeed unique. As mentioned above, humans are capable of abstract and conceptual thought. No other primate exhibits any signs of this capacity. In addition, our mathematical reasoning is completely *other* compared to other animals. You might suspect that some animals can count. But it is a learned response attached to reward. We don't really suspect the rat/horse/chimp knows what they are doing. Comparing calculus to simply counting bananas is just no comparison at all.

When you stop to consider our appreciation of the arts, there is no place to go but humans. James Trefil is a physicist fascinated by biology and evolution. But when considering the arts he says, "No matter how hard I try, I can't think of a single evolutionary pressure that would drive the ability of humans to produce and enjoy music and dance. . . . This has always seemed like a serious problem to me—perhaps even a more

serious problem than that perceived by most of my colleagues.”

When we turn to language, our uniqueness is informed even further. Plants and animals all communicate in one form or another, but not by language as humans communicate. We communicate both new information and abstract concepts, something other species don’t even approach. We possess the proper equipment to both produce and receive language and speech. And by proper equipment I mean both the brain processes and the anatomical necessities for actual speech (e.g., teeth, tongue, voice box, etc.). There is also a social ability that can utilize these upper levels of communication.

But we’ve heard about chimps and gorillas learning language. Kanzi, a bonobo chimpanzee, learned words and even symbolic use of a keyboard. Kanzi also learned through hearing the use of new words. But that is where it stopped.

To quote James Trefil again, “If we take the claims being advanced for Kanzi at face value, where are we? We have a member of the most intelligent primate species, a veritable Shakespeare of non-human animals, raised under special and unusual conditions, performing at the level of a human child of two and a half. But remember that in humans, real language begins just after this age. . . . Then we have to conclude that even in this optimal case, animals other than humans cannot learn real human language.”

Human Vision and the Hand

Now I’d like to introduce two features we can easily take for granted, our hands and our eyes.

Ordinarily we don’t think of our hands as being anything special. But just try to think of any other creature that can do the many and diverse things we can do with our hands. The closest match is the hand of a chimp. But
chimp hands are larger, stronger, and even clumsy. Simple

things like using all ten fingers to type, peel an apple, or tie a knot are beyond what chimps can do.

The strength in our fingers comes from larger muscles in the forearm and the fine manipulative control comes from much smaller muscles in the hand itself. Our ability to manipulate our environment with our hands is unparalleled. Using our intelligence we even devise additional tools for our hands to further extend our mastery of the world around us. Full use of our hands comes about from our upright and bipedal gait, allowing our hands the freedom not found in any other mammal.

In his book *Nature's Destiny* Michael Denton asks about the human hand "whether any other species possesses an organ approaching its capabilities. The answer simply must be that no other species possesses a manipulative organ remotely approaching the universal utility of the human hand. Even in the field of robotics, nothing has been built which even remotely equals the all-around manipulative capacity of the hand."

But in order to even use our hands well, we need exceptional vision to be able to detect all the little things our minds notice to manipulate. Given the physics of visible light and the dimensions and molecular process of detecting light in our eyes, the resolving power of the human eye is close to the optimum for a camera-type eye using biological cells and processes.

Some animals such as high-flying hawks and eagles detect motion from far greater distances that we can, and some organisms see much better in the dark than we do, but for all-around color vision, detail and resolution, our eyes seem to be the best there is. Combined with our highly interconnected brain, our upright gait for easily seeing straight ahead, a swiveling neck to see side to side, and our overall size, our eyes open the world to us as for no other species.

Developing science and technology, communicating to thousands and even millions through the written word, and simply exploring the world around us, are only possible through an integrated use of our unique intelligence, social structure and speech, hands and vision.

The Use of Fire

As I have explored the biology of human uniqueness, I have focused on some of our individual capacities such as our intelligence, speech, our marvelous hands, and our unique all-around color vision. I have used throughout, the wonderful book by Michael Denton, *Nature's Destiny*. Now I'm looking at one of our key distinguishing characteristics which combine all of these. Humans are the only biological creatures that have mastered the use of fire. If you think for a minute, every other animal has nothing but fear when it comes to fire. We are also fearful of fire and the damage it can do, but we have also managed to harness it and use it.

There are a couple of obvious advantages for the use of fire. First it provides additional light after sundown that extends our activity into the evening. Second, fire provides additional warmth in the evening and allows us to venture into colder climates. Third, fire allows us to cook food, particularly meat which is a very significant source of fat calories and protein. Cooking our food certainly distinguishes us from any other creature and has allowed us to add the necessary energy to fully use that big brain of ours which is a major drain on our energy stores, even at night.

But beyond these, if we never harnessed the energy and power of fire, we would not have been able to develop tools involving metal. Using heat to forge ever more powerful hand tools and weapons revolutionized human culture. Without fire we could not have developed any form of chemistry and especially the use of electricity. Electricity has

revolutionized human existence in the last 100 years. Fire is an influential and powerful tool indeed.

But how have we been able to do this? First, we need to take advantage of our intelligent capability for abstract thought and reasoning. As I said earlier, we too fear fire, but we need to be able to think about it and be curious enough to not only rationalize that we might be able to harness its power, but that it would also be useful. This ability to deduce the control and use of fire requires high-level reasoning.

Denton also points out that for a fire to be sustainable it needs to be at least 50 centimeters across (or about a foot and a half). To create a fire of this size we need our upright stance to walk the distance to gather the right amount and size of branches. That means that our upright stance, free arms, the manipulative tools of our hands, and our discerning vision work together to allow us to create a sustainable fire.

Therefore, the control and manipulation of fire requires a combined use of most of our unique biological capacities. Think about this the next time you sit around a campfire or grill your supper on a warm summer day. It’s part of what makes us human!

Human Anatomy and Genome

In this article I have been focusing on aspects of human biology that make us unique in the universe of living organisms. I discussed in some detail our unique intelligence, allowing us complex and abstract thought. We have a unique ability to communicate audibly and through a symbolic written word. These combine with our stereo vision and unique manipulative tool the hand, to allow us sole possession of the ability to use and manipulate fire. All of these capabilities are made possible by several unique aspects of our anatomy.

Humans have the largest brain of any primate species. Whales,

dolphins, and elephants have larger brains, but size is not the main distinctive. Our human brain is structured like no other. If you were to open up just one cubic millimeter of our brain you would find over 100,000 cells with 4 kilometers of cell wiring and 1 billion connections between neurons. The structure and organization of our brain is definitely without parallel. Studies of our entire genome compared to chimpanzees indicate vast differences in non-coding sequences that influence the production of brain proteins. These changes are in the thousands.

In 1999, famous MIT linguist Noam Chomsky, reflected that "Thus, in the case of language, . . . (new research) is providing interesting grounds for taking seriously an idea that a few years ago would have seemed outlandish: that the language organ of the brain approaches a kind of optimal design, that it is in some interesting sense an optimal solution to the minimal design specifications the language organ must meet to be usable at all." Without our unique brain structure, our language ability would not be forthcoming.

When comparing our skeletal structure to those of our supposed closest ancestors according to an evolutionary explanation, there are major changes that would have been needed to be accomplished in a relatively short time. Casey Luskin from the Discovery Institute does an admirable job digging into these differences and makes some sweeping conclusions. Numerous studies indicate that between the lineage of *Australopithecus* and *Homo* there would need to be significant changes in shoulders, rib cage, spine, pelvis, hip, legs, arms, hands and feet. But of these major transitions, the fossil record is silent.

Luskin also refers to a study by Durrett and Schmidt in 2007 that estimates that a single-nucleotide mutation in a primate species would take 6 million years to become fixed. But what is needed are multiple mutations in multiple segments of the skeletal system and in the physiology of the brain. *Homo*

sapiens are far more unique than many have suspected. The more we learn, the more unique we become.

Since humans are created in the image of God, we expect human biological uniqueness. Even more significantly, bearing His image indicates an affinity for humans by the Creator we cannot fully comprehend.

Notes

1. Michael Denton, *Nature's Destiny: How the Laws of Biology Reveal Purpose in the Universe* (New York: The Free Press, 1998).

The Common Woodpecker: Chance or Design?

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

Climate Change

Dr. Ray Bohlin looks at the science behind climate change alarmism and encourages you to be skeptical of what you hear from much of the media.

Are Human Beings Threatening All We Hold Dear through Climate Change?

The phrase “climate change” can mean very different things. It can be a rallying cry against the shameful practice of burning fossil fuels that will cause supposedly imminent worldwide disaster. The climate change bandwagon is a way to bring about global cooperation as we fight against the danger of too much carbon dioxide in our atmosphere. OR, the climate change agenda is a way for scientists who are becoming increasingly political to push for a more socialistic policy on generating electricity. In this article I examine what’s really going on with the science and make an argument for not believing anything you read or hear in the regular media.

There is no longer much of a middle ground. I have addressed global warming or climate change before, and I am becoming increasingly convinced that the entire enterprise of human-induced climate change is a monumental and brazen attempt to hoodwink the global public into thinking we have jeopardized our future, and drastic action is necessary.

Essentially, a group of climate scientists have used the power of the United Nations and their own reputations as scientists to proclaim that we must cut back severely on the use of fossil fuels, such as coal, oil, and gas. This will prevent the rising levels of carbon dioxide in our atmosphere from generating a runaway global warming that will lead to droughts, flooding, hurricanes, tornadoes, rising sea levels, etc., that will endanger our future on the earth.

This apocalyptic vision can seem quite threatening. Scientists are objective, right? They are not going to promote something the evidence doesn’t support, are they? Well, scientists are human, and their worldview will affect their conclusions and I am convinced that some scientists are presenting a scenario of

human-induced global warming that the scientific evidence simply does not support.

The supposed villain in this scenario is the gas carbon dioxide. You might not know that this natural and necessary gas is such a bad guy according to the doomsayers!

In this next section, I investigate the history of carbon dioxide in our atmosphere and the potentially negative and positive effects of increasing its concentration in the air we breathe.

What's all the Fuss about Carbon Dioxide?

In this article I am discussing the possibility that humans, through the excess burning of fossil fuels, are jeopardizing the future of the entire planet. Previously this has been referred to as Anthropogenic (meaning human) Global Warming but is now referred to simply as Climate Change.

The evil villain in this scenario is carbon dioxide—what you get from burning coal, oil, and gas products. Carbon dioxide is known to be a greenhouse gas. No one disputes this. The relevant question remains, are humans putting too much carbon dioxide into the atmosphere, producing a warming that may not stop until the planet exceeds a livable temperature?

As I mentioned, carbon dioxide is a greenhouse gas. This means that when sunlight hits the earth's surface, some of that energy is radiated back into the atmosphere and captured by carbon dioxide. The carbon dioxide then remits this radiation as heat, warming the atmosphere. This is a good thing. Water, CO_2, methane and a few other gases allow the earth to keep enough of the sun's radiation and provide a cozy temperature for life around the earth.

But as we all know, there can be too much of a good thing. Many climate scientists are exclaiming that we have added too

much CO_2 over the last 150 years too fast, and the resulting warming is jeopardizing the greenhouse balance.

The earth has warmed over the last 150 years by about 1 degree Celsius or 1.5 degrees Fahrenheit. But is carbon dioxide to blame? CO_2 levels rose from around 280 parts per million in 1900 to 400 parts per million today. There does seem to be a correspondence. However, we can obtain temperature data for the last 4,000 years from various sources deemed quite reliable in published documents.

The data show that the peak temperature around 1500 BC was 2 degrees Celsius warmer than today. Around 200 BC temperatures were 1.5 degrees Celsius warmer than today, and around AD 1100, temperatures were a full degree Celsius warmer than today. Those warmings could not have been induced by the burning of fossils fuels.

Carbon Dioxide – Part 2

Certainly, carbon dioxide levels have been increasing due to the burning of fossil fuels over the last 150 years. And the average global temperature has risen by 1 degree Celsius or nearly 1.5 degrees Fahrenheit. But are the two linked in any way? Has the increase in atmospheric carbon dioxide caused the temperature increase?

First, carbon dioxide is a trace gas in our atmosphere. 78% of our atmosphere is nitrogen gas and 21% is oxygen gas. The remaining 1% is mostly argon gas and CO_2 comprising only 0.04%. So, when we are told that carbon dioxide has risen from 280 parts per million around 1900 to 400 parts per million today, that means the level of CO_2 has risen from about 3 parts per 10,000 to 4 parts per 10,000. That’s not a lot of CO_2.

Second, carbon dioxide is plant food. Photosynthesis takes

carbon dioxide from the air and water from the ground and uses the energy from sunlight to make the sugar glucose, the foundation of nearly all plant and animal life. The terrific book, *Inconvenient Facts: The Science That Al Gore Doesn't Want You to Know*{1}, tells us the increased CO_2 means more plant growth, more food production, and increased soil moisture since the plants don't need to keep their "pores" open as long and therefore lose less moisture through their leaves, leaving more moisture in the ground.

Third, if we use the age of the earth as estimated by the climate change community, we learn that our current level of carbon dioxide is as low as it has ever been. I don't know how they arrive at these estimates, but published data say that carbon dioxide levels have been as high as 20 times what they are now, and temperatures were certainly not 20 times higher.

To sum up what I have reviewed above: carbon dioxide is necessary for plant growth, carbon dioxide is a trace gas and simply doesn't have the power to alter climate by itself, and carbon dioxide has been many times higher in the past.

In the next section I address the far-fetched predictions of climate catastrophe coming our way and look at what the data says.

Hurricanes, Tornadoes and Droughts, Oh My!

One of the tactics of the climate change community is to publish and threaten that increased global temperatures will result in more severe and more frequent extreme weather events. Droughts will become more frequent and severe, local flooding will become more frequent and severe. Catastrophic storms like tornadoes and hurricanes will become more frequent and severe. Basically, any form of severe weather will only get worse.

One source said that “the impacts of climate change are expected to increase the frequency, intensity, and duration of droughts.”{2} So, let’s look at a few. The EPA’s own drought index shows far more severe droughts in the 1930s and 1950s than we have experienced in the last 60 years. Even globally, the frequency and severity of droughts has declined as global temperatures and CO_2 increase.

Another form of severe weather that is supposed to increase are tornadoes. In 2011, Paul Epstein said in *The Atlantic* that “The recent trend of severe and lethal tornadoes is part of a global trend toward more storms.”{3} Well, guess what? The actual trend of severe tornadoes at F3 or above is decreasing, and overall the number of tornadoes is decreasing. In fact, 2016 saw the fewest tornadoes in the United States ever recorded. So once again, the models and extremists are wrong.

Concerning hurricanes, you need to be careful. The U.S. National Climate Assessment of 2014 stated that the intensity, frequency, and duration of North Atlantic hurricanes . . . have all increased since the early 1980s.”{4} That’s true! But if you look at the long-term trend going back to 1920, instead of just the last few decades, the trend is downward. If you look at the frequency and severity of hurricanes for the whole earth, the trend is slightly downward. And the period between 2006 and 2017 saw no major hurricanes make landfall in the United States.

Whenever a severe weather event occurs in the United States, you can be sure the media will seize the opportunity to exclaim about how climate change is increasing storms overall. Just don’t believe it.

Rising Sea Levels, Antarctic Ice and

Polar Bears

In this article I've been talking about the threats of increasing extreme weather as a result of human-caused global warming or climate change. As I've tried to show, all these threats have no basis in the scientific evidence.

You have probably heard that because of the excessive warming, glaciers will melt, and sea levels are expected to rise and inundate low lying island chains and coastal communities. Simply put, NO. Sea levels have been rising for a few thousand years and the rate of increase went up way before humans began burning fossil fuels. Sea levels are rising about one inch per decade and the rate of rise is not changing.

So, what about glaciers, the Arctic ice and Antarctica? Well, Arctic ice has been receding over the last 30 years, but that will not cause sea levels to rise since that is floating ice. Some glaciers indeed have been receding, but they began doing so before humans began burning all that fossil fuel. But even as some of these glaciers recede, they are revealing remnants of forestation, proving that they had receded previously—with no help from humans. Lastly, some Antarctic ice is receding but overall, Antarctica is gaining ice, not losing it. And polar bears are doing just fine, increasing in numbers, not declining.

In closing, let me offer a few words of advice. First, disregard almost everything you read and hear in the regular media outlets. Most of these journalists or reporters have little scientific training and they are simply repeating what they have heard from extremist environmental groups whom they trust.

Second, ignore what you hear from most government officials, elected or appointed. They have bought the narrative for their own political gain and don't likely understand the science involved.

Last, let me suggest you research two organizations for more balanced information. First, the Cornwall Alliance, a group of evangelical Christian who are concerned about the environment and accurate information. Second is a group known as CFACT and their website Climate Depot. They repeatedly attend various climate change conferences around the world and consistently stump climate change extremists.

Bottom line: I encourage you to be skeptical concerning just about anything you encounter when it comes to climate change.

Notes

1. Gregory Wrightstone, *Inconvenient Facts: The Science That Al Gore Doesn't Want You to Know* 2017, Silver Crown Productions, LLC.
2. Ibid, p. 65.
3. Ibid., p. 89.
4. Ibid., p. 93.

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 22nd 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.

A Philosophical Critique of Theistic Evolution

Dr. Ray Bohlin provides an overview of some philosophical problems with theistic evolution, particularly methodological naturalism.

Methodological Naturalism as a Ground Rule of Science

In this article I review the philosophical critique of theistic evolution from the book *Theistic Evolution: A Scientific, Philosophical, and Theological Critique.*{1} I'm starting with the chapter in this section by Steve Meyer and Paul Nelson titled, "Should Theistic Evolution Depend on Methodological Naturalism?" Now I admit that's quite a mouthful. What is methodological naturalism?

Well, if you simply break the word down, you can see that it is first about a method, therefore "methodological." The second word is "naturalism." The philosophy of naturalism maintains that only nature exists. There is no supernatural, no spirit or spirits, only matter and energy.

Therefore, methodological naturalism is a method that only

considers matter and energy. This refers for many to science. So methodological naturalism is a method of science that only considers natural explanations. As Meyer and Nelson put it, "Methodological naturalism asserts that, to qualify as science, a theory must explain by strictly physical or material—that is, non-intelligent or non-purposive—causes."

Theistic evolutionists collectively assert that this is how science must be done. No purpose or intelligence allowed. Strangely though, Meyer and Nelson quote atheist Sean Carroll saying, "Science should be about determining truth, whatever truth that may be—natural, supernatural, or otherwise." In addition, they quote theistic evolutionist Darrell Falk admitting that natural selection and mutation do not explain the origin of animal form. Yet he also affirms there is a natural explanation waiting out there. Why?

Meyer and Nelson explain, "Because of his commitment to methodological naturalism, Darrell Falk will not consider any theory (such as intelligent design) that invokes 'creative intelligence.'" Instead, he waits for an adequate and fully naturalistic theory of evolution. But is this reasonable?

This is my third article critiquing Theistic Evolution. You can find the first two here and here. I simply ask that our brothers and sisters who accept Theistic Evolution, look again with unbiased eyes.

Why Methodological Naturalism?

Above, I said that science should be about determining truth, wherever the evidence leads. Methodological naturalism limits that search for truth in science to only natural explanations. So why this restriction?

Some theistic evolutionists like Nancy Murphy are quoted as saying that, "For better or worse, we have inherited a view of science as methodologically atheistic." This limit by history

over the last 150 years hardly seems adequate. Others, however, insist that methodological naturalism is supported by independent and objective criteria. These are often referred to as Demarcation criteria, such as:

1. Must be based on observable data and/or
2. Must be testable or falsifiable and/or
3. Must offer explanations based on natural law.

These criteria will be able to distinguish genuine science from pseudoscience, metaphysics, or religion.

I'm going to need to examine these criteria to see if they provide what is needed—basically a principled philosophical or methodological reason for supporting methodological naturalism. Can these criteria enable scientists or philosophers to do science in a normative way? Do the criteria justifiably exclude, *a priori*, some theories as unscientific or pseudoscientific, despite what the evidence may show? If so, then it may be perfectly justifiable to exclude from scientific consideration theories of the origin and development of life that invoke creative intelligence, and it may also be justifiable to require that theories refer only to materialistic causes or natural processes just as many theistic evolutionists assume.

BUT—and this is a big BUT—what if these demarcation criteria are neither independent nor objective? Is there already an inherent bias in these criteria and are they applicable in all situations? The answer is a resounding NO!

Demarcation Criteria Work, Except When They Don't

Earlier, I discussed if methodological naturalism is necessary for science, and most evolutionists and theistic evolutionists think that it is. There are what are called demarcation

criteria that are supposed to distinguish science from pseudoscience and religious theories.

There was a significant and famous federal court case challenging a new law passed in Arkansas back in 1980, that required creationism to be taught alongside evolution in public schools. Federal Judge William Overton struck down the Arkansas law and used many of these demarcation criteria as his reasoning. His reasoning was that creationism was not science based on these criteria.

First, he said, virtually verbatim from the brief submitted from the ACLU, creationism was not guided by natural law. Second, it was not explained by reference to natural law. Third, creationism was not testable against the empirical world. And fourth, Creationism was not falsifiable. On the surface judge Overton's decision was reasonable.

Therefore, despite whatever scientific evidence creationists were able to offer for their claims, it simply wasn't science. No matter what the evidence!

But within months of the ruling being issued, it was blistered by philosophers of science. They explained that many theories throughout science in the past and present would not qualify as science according to Overton's decision.

But as Meyer and Nelson point out, Newton and Galileo posed no natural law to govern gravitational phenomena. Yet, Newton's universal law of gravitation described and predicted gravity precisely, but according to the criteria, it's not science. Even Darwin's theory of natural selection knew nothing of the genetics it would eventually refer to. Were both Newton and Darwin unscientific? No one would claim that today. So, judge Overton greatly
overreached.

Demarcation Criteria Could Exclude Both ID and Evolution

In the previous section I began discussing what are called demarcation criteria that are supposed to distinguish between science and non-science. I showed that Newton's gravitational ideas were not based on scientific law. He had no idea what caused gravity. Another criterion is that science must be testable. But as philosopher of science Larry Laudan showed after the trial, creationists routinely offered geological tests for their catastrophic flood geology.

Another major criterion was that a scientific hypothesis must be observable. When discussing intelligent design, of course, the designer is not observable. So, ID is not science. Meyer and Nelson point out however, that this is applying the criterion far too rigidly. After all, we still cannot see gravitational waves, we have never observed an electron, we have never observed a mammalian carnivore evolving into a wolf or a lion, or anything even remotely this close in relationship.

But evolutionists can suggest evolutionary events that could give rise to the wolf and the lion, and we can very precisely predict and describe gravitational fields even though we can't observe gravity itself, only the results.

Appropriately, while we may not observe the designing mind behind the information rich content of living things, we are very acquainted with the results of intelligence. Our only model today for the origin of complex specified information (or language) is the mind. Our minds interpret and produce language every hour of our waking day; even in our sleep, we dream—again information.

So, if we use the criterion of observability too rigidly, then both evolution and ID are not science, but if we apply the criterion more realistically, then both materialistic and non-

materialistic theories can qualify as science.

Why Methodological Naturalism Sinks Theistic Evolution

I will now close my discussion of the philosophical objections to theistic evolution by discussing an intriguingly-titled chapter, How to Lose a Battleship: Why Methodological Naturalism Sinks Theistic Evolution.

Remember that Methodological Naturalism is defined by asserting that science, properly understood, can only suggest natural causes. Author Stephen Dilley reminds us of what has been known for decades; that Darwin's *Origin of Species* was written as a scientific answer to its main competitor, special creation. However, in the fourth edition, Darwin also claimed that special creation is not science.

But if you use scientific evidence to discredit a theory as false, it must be science, otherwise, scientific evidence is useless. But when Darwin also claimed that special creation was not science, then his scientific arguments against special creation should have been taken out of what he called "the long argument."

But even modern-day theistic evolutionists do much the same thing. On the one hand, they use methodological naturalism to contend that ID is not science, but then they offer scientific evidence that ID is false using scientific arguments. If ID is not science, then scientific evidence is useless; if it is science, then use scientific evidence to demonstrate that it is incorrect science.

Francis Collins is perhaps the most recognizable proponent of theistic evolution. In his book, *The Language of God*, he uses theological language to show evolution as being true and ID as false. Basically, he reasons that the design of the mammalian

eye is less than ideal. That is what you would expect, he says, from evolution, but not design. Evolution will cobble something together that works, whereas you would expect the Designer to design it perfectly. This argument has been around for some time and simply is not true, but you can see that Collins uses theological language to exclude design.

If evolution is science, then why resort to what we think God would do, to argue in favor of evolution? Either way, Dilley shows, theistic evolutionists would be wise to discard methodological naturalism. I agree.

Notes

1. *Theistic Evolution: A Scientific, Philosophical, and Theological Critique* by J. P. Moreland, Stephen C. Meyer et al. (Wheaton, IL: Crossway, 2017).