“What Color Were Adam and Eve?”



Hey Sue, what color were Adam and Eve?

It’s so helpful to have a Ph.D. in molecular and cell biology in the house! Here’s Ray’s answer:

> “We can’t know for sure, but here’s my educated guess: They contained all the different skin pigment genes that would end up being distributed to all the various peoples of the world. God would have created them with some level of melanin for skin protection from the sun. They probably would have been not white, not black, probably brownish—like Mediterranean coloring.”

Hope you find this helpful!

Sue Bohlin
Posted March 2025

“How Do Dinosaurs Fit Into

the Bible?”

My nephew and I recently saw a giant T-rex skeleton on exhibit. He was so fascinated and started asking a lot of questions. It really made me wonder, How do dinosaurs fit into the biblical story? There is no denying they exist, but when and where and why did God make them and then take them away? I want to make sure I am prepared to answer this question if he ever asks.

My husband and I have an article “How to Talk to Your Kids About Creation and Evolution,” where we discuss dinosaurs in this section: www.probe.org/how-to-talk-to-your-kids-about-evolution-and-creation/#dinosaurs

Also, please read Ray’s article “Christian Views of Science and Earth History,” [www.probe.org/christian-views-of-science-and-earth-history/] which covers the three perspectives on the age of the earth that most Christians hold. From a young earth perspective, dinosaurs existed before the flood (Noah probably would have taken juveniles on the ark) and likely went extinct after the flood because there wasn’t sufficient food to support their large body size. From an old earth perspective, dinosaurs died out 65 million years ago at the end of the Cretaceous Period and so there is no reinterpreting of anything. They don’t appear in the biblical account because by the time God created Adam and Eve, they had been gone for millions of years.

Hope you find this helpful.

Sue Bohlin
Probe Ministries Webmistress

Posted March 2017
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“So What Evidence IS There Against Evolution?”

Dr. Bohlin,

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

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

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

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

> *They would be teaching a course on the history of science*

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

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

Lack of Evidence for Evolution:

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

Evidence for Design:

- Irreducible complexity of many cellular molecular structures and pathways.

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

I have other articles on our website, www.probe.org, that will elaborate with references most of the above claims.

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

public discussion of the evidence is not to their advantage.

Respectfully,

Ray Bohlin, Ph.D.
Probe Ministries

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

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

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

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

have a universe first!

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

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

Hope this helps.

Respectfully,

Ray Bohlin, PhD

“Is Quantum Physics Legitimate or Spiritually Dangerous?”

Michael, thank you so very much for your insightful articles about Reiki. My father was an excellent medical doctor and surgeon and after retiring, he was led into Reiki and he is always trying to push this on us. His three adult Christian children all have known from the start that this was not of the Lord and have rejected it. Now he is advocating Quantum Physics as the answer to life even though he claims to be a Christian. Have you written anything about Quantum Physics or can you give me just a couple of scriptural reasons why it is off-base? I imagine that they are the same as the reason for Reiki.

Thanks for your kind and encouraging letter. I’m glad to hear that the article on Reiki was helpful to you. Concerning quantum physics, this is a legitimate and highly-developed branch of contemporary physics. Any difficulties with quantum physics would not be due to the legitimate scientific work being done. However, difficulties with quantum physics do arise, and these can usually be traced back to two sources of origin.

In the first place, the vast majority of people who mention quantum physics have very little idea of what it is they’re actually talking about. They may have read a popular-level book or two on the subject (or they may not have even done that). With this bit of new knowledge they may then make all kinds of far-fetched and dubious claims. The problem is, they usually don’t know what they are talking about and it is

difficult for anyone to challenge them (because not many people have a deep enough knowledge of this important field of physics to do so). In particular, quantum physics has been embraced by many non-Christian Eastern religious movements (or religious movements influenced by such philosophies) as a means of showing that physical reality is paradoxical, or illogical, etc. This often fits in with their religious claims, but many of these views are based on misunderstandings, misappropriations, and misinterpretations of quantum physics—and hence are not to be accepted uncritically.

Secondly (and this is very important), there are MANY DIFFERENT interpretations of what the mathematics and experimental science behind quantum physics is actually telling us about the nature of physical reality. This is terribly important to understand, but sadly, most people are not aware of this. Many of the "wild and crazy" ideas which people propound with an appeal to quantum physics are based on a particular interpretation of the mathematical and physical evidence. But the problem with this is that there are numerous competing interpretations, each one of which adequately accounts for the data, but many of which would NOT result in the same strange views of the physical world. And here's the kicker: we do NOT know which interpretation is the right one! Hence, as you can easily imagine, many of the strange ideas which are based on a particular interpretation of quantum physics may be incorrect, simply because the interpretation upon which these ideas are based is incorrect!

For more on quantum physics from an informed Christian perspective, please check out some of William Lane Craig's materials on his website here. These are the search results from "quantum physics" on his website. Craig is a world class Christian philosopher and theologian, who is intimately acquainted with the issues in contemporary physics. You might also want to refer your father to Craig's work. His website

has scholarly and popular-level articles, podcasts, debates with leading atheists, etc. I would highly recommend Craig's work.

I hope this is helpful. May the Lord richly bless you in your service for Him!

Shalom in Christ,

Michael Gleghorn

Posted Nov. 28, 2012

"I Can't Recommend Probe Because of Your View of Creation"

Dear brother,

I am a Pastor and also teach Bible at _____ School. I have used some of your materials in my Church and ministry. I have also made Probe.org a resource for my Senior Bible Class. I must confess that I was greatly disappointed recently to see your view related to creation. While I admire your view that six literal days of creation make the most sense I do not at all understand how you allow "overwhelming" scientific evidence to move you from that sensible position. Seems to me that one could make the same argument of the miracles or even the resurrection to be contrary to "overwhelming" scientific evidence. It would also seem from a scientific point of view the evidence was at one time overwhelming that the earth was flat. While I do not think it is your intention to place science above the Bible this is certainly what is happening

among many of our youth today. I am sure in the long run it makes little difference but I can no longer recommend your ministry to my students or my church. Rather than be a "fence sitter" to use your description I would urge you to stand up for the faith once delivered to the saints in the inspired Word rather than the ever changing observations of science.

Pastor,

I regret your decision to deprive your students of our material because of one cautious position on an issue of secondary importance. However, I understand your position. But your response has raised issues and questions I feel I must respond to.

> *While I admire your view that six literal days of creation make the most sense I do not at all understand how you allow "overwhelming" scientific evidence to move you from that sensible position.*

This evidence is something that requires a simple and plain reading of facts that I and the other young earth creationists I have asked, have no answer for.

> *Seems to me that one could make the same argument of the miracles or even the resurrection to be contrary to "overwhelming" scientific evidence.*

Not at all. There is no pertinent scientific evidence to contradict miracles in Scripture. But there is present and currently observable evidence to lead anyone to question the young earth view of a thousands of years old earth and universe.

> *It would also seem from a scientific point of view the evidence was at one time overwhelming that the earth was flat.*

A spherical earth was recognized from the early Greeks onward. You are victim here of the naturalists' contrived view of the flat earth. The Bible never taught it and even early science never did.

> *While I do not think it is your intention to place science above the Bible this is certainly what is happening among many of our youth today.*

That is certainly not my intent and I fully recognize the strong tendency that you mention. My contention is that it is not absolutely clear that Scripture teaches a young earth.

> *I am sure in the long run it makes little difference but I can no longer recommend your ministry to my students or my church.*

I truly do not understand this position. But I have run across it frequently among my young earth friends. I find it sad and counterproductive.

> *Rather than be a "fence sitter" to use your description I would urge you to stand up for the faith once delivered to the saints in the inspired Word rather than the ever changing observations of science.*

Where in Scripture does it say the earth and universe are only thousands of years old? There are many uncertainties here both scripturally and scientifically, I for one, do not consider myself so informed to conclude which position is correct. There is a resolution, I just don't know what that is. At least I am not refusing to consider all the evidence at hand. The young earth model now admits that all the supposed radioactive decay necessary to indicate billions of years actually occurred. But since the earth CANNOT be that old the decay must have been accelerated a million times or more. This means incredible heat and radiation that would have

annihilated all life on earth, even the life on the ark. But that couldn't have happened so they appeal to miracle and heat release nowhere indicated in Scripture. That is special pleading which I find disappointing.

Respectfully,

Ray Bohlin, Ph.D.

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"Is Laminin All That Louie Giglio Says It Is?"

There are some crazy-popular YouTube videos featuring Louie Giglio about a cross-shaped molecule called Laminin that holds us together. What's your take on it?

As a biologist myself I was intrigued when I heard about it and watched one of his YouTube videos. He really had to pump the crowd to get the reaction he wanted when he put it on screen. He almost always uses the crafted diagram, not an actual photograph, because the diagram shows the cross far better. Seemed a little forced to me.

Some observations:

1. The cross is not Jesus, so we are not held together by a symbol of Jesus. The cross is just the symbol of crucifixion, maybe.
2. Any adhesion molecule is going to need a way to interlock with another and this shape works well.
3. As mentioned above, when you see an electron micrograph (tiny tiny photo) the cross shape is not so clear. Textbooks

will naturally lay it out differently.
4. Sorry, no goose bumps for me.

Respectfully,

Ray Bohlin, Ph.D.

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“At What Stage of Pregnancy is a Fetus Able to Be Genetically Engineered?”

I am a high school student wondering about the process [of] genetic screening. I would like to know at what stage of pregnancy a fetus is able to be genetically engineered, or if the process must begin before a child is conceived. I would also like to know whether or not a normal gene has to be cloned from a donor in order to replace a problem gene in another. Any help would be greatly appreciated!

Just to make sure we are on the same page, *genetic engineering* and *genetic screening* are two different, but related things. *Genetic screening* involves testing a person for certain genetic diseases. This test can occur before the embryo is implanted into the womb as in the case of in vitro fertilization (IVF), it can occur during the pregnancy through a procedure call amniocentesis, and it can occur after a baby is born including into adulthood. Often with IVF, embryos are screened and the “best” ones are selected for implantation. Embryos need not just be screened for diseases, they can also be screened for gender and certain genetic markers. In some

states pregnant women over 40 may be required to get genetic testing to determine if their baby has Down's syndrome since the chances of Down's syndrome increases when the mother is over 40. Most babies after they are born are tested for certain diseases such as phenlyketouria because, if they test positive, the parents need to keep them on a strict diet. Lastly, some couples might want to be genetically screened before they decide to get married. This was practiced in a particular group of American-Jewish people who had a high incidence of Tay-Sachs disease. If both people were carriers, then they may decide not to get married because they would likely have a child that would die from Tay Sachs (they usually die at about age 5).

Genetic modification and *genetic engineering* are slightly different. *Modification* is done with plants and with some farm animals (although usually they use hormonal and breeding techniques for reasons outlined below). *Genetic engineering* in humans is still more theoretical than actual. The reason for this has to do with our lack of knowledge regarding the genome.

The theory goes like this: in the lab, we can replace segments of DNA with other segments of DNA in organisms like bacteria. So, what if we do this with human beings: replace unwanted DNA that codes for unwanted traits with DNA that codes for wanted traits. Sounds simple enough. Unfortunately—or fortunately, depending on your point of view—our genome is *not* that simple. There isn't just one strand of DNA that codes for eye color and another that codes for hair color. Our genes (genes are composed of lots of DNA) are very complex and the functions they code for are interwoven, often coding for multiple things at a time. Also, scientists are finding that DNA doesn't simply code for traits in a letter–to–letter fashion. Rather, there is apparently some interaction between two genes spatially in the genome.

As far as whether a normal gene has to be cloned from another,

theoretically one can make segments of DNA in the lab. And scientists have been able to insert these segments into bacterial cells. However, replacement and insertion of a DNA segment in mammalian cells is a very different story, and has not been successful in laboratory settings to the extent of being able to conduct genetic engineering. I suppose if you wanted to genetically engineer traits into a human being, it would have to be at an early embryonic stage when there are only 6-8 cells to deal with. But even then, it is unclear whether we could use synthesized DNA or if we must receive large segments from a donor. This is very problematic because there is still the issue of expressing (i.e., flipping the "on switch") of the DNA in the organism.

Thanks for writing. Hope this is helpful.

Heather Zeiger

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"Is Dark Matter Another Attack on God?"

I was reading an article about experiments with dark matter in a very deep underground lab in South Dakota. What is dark matter and is this another secular atheist way to circumvent God?

The simple answer is that dark matter is material in space that cannot be directly detected with telescopes because it does not emit any type of radiation. Ordinary dark matter is made up of cold gas, stars with so little mass that they never ignite nuclear fusion, small rocks, etc. Even though

astronomers cannot directly see dark matter, they can detect its presence through its effects, e.g. impact on movement of galaxies. (See the excerpt from an article by Dr. David Rogstad below for more information on this.) In attempting to measure the amount of dark matter required to create the observed effects, astronomers have developed a theory that there are two types of dark matter: ordinary dark matter and exotic dark matter. Exotic dark matter only weakly interacts with light and ordinary matter, so it is different than the material we normally deal with on earth. I would guess the experiments you were reading about were dealing with the study of exotic dark matter.

Based on this definition, the existence of dark matter does not directly bear on the existence of God. I have not seen any arguments from atheists that point to dark matter as supporting evidence for their claims. Given that dark matter in space can only be detected through very sophisticated, expensive methods, I would not expect the Bible to talk about it directly, and it does not. Of course, the Bible makes it clear that "For by Him [Jesus Christ] all things were created, both in the heavens and on earth, visible and invisible" (Col. 1:16). No matter how you define dark matter, it is covered by this verse.

Going a little deeper, it is true that some (but not all) of the ways used to estimate the amount of dark matter in the universe assume that the universe has been expanding for billions of years. Some Christian scientists, such as those at Reasons to Believe, who promote a Biblical creation model based on a 13.7 billion-year-old universe, point out that the existence of dark matter in just the right quantities is further evidence that our earth is fine tuned for life to such a degree that it could only be through the work of a transcendent, all powerful, intelligent creator. RTB has a number of articles on dark matter which you can see at www.reasons.org/search/node/?keys=%22dark+Matter%22.

If you are interested in understanding the different Christian perspectives on the origins of the universe, check out our Faith and Science section at www.probe.org; in particular you may be interested in "Christian Views of Science and Earth History" at www.probe.org/christian-views-of-science-and-earth-history

I hope this answer is helpful for you.

God bless,
Steve Cable

Excerpt from Dr. David Rogstad on history of dark matter: "Based on his observation that clusters of galaxies do not have enough matter to remain gravitationally bound, Fritz Zwicky proposed (in 1933) the existence of dark matter to provide the needed gravity. Since then, there has been a growing body of supporting evidence, including flat rotation curves in large spiral galaxies, larger-than-expected velocity dispersion in elliptical galaxies, and certain measured characteristics of the cosmic microwave background, all of which require the presence of dark matter for their explanation." [www.reasons.org/filling-gap]

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"Shouldn't the Statistical Improbability of Evolution Convince Open-Minded

Evolutionists?”

Dear Dr. Bohlin,

Thank you for your excellent article “The Five Crises in Evolutionary Development” which I just completed reading. Very, very well done.

Here is a comment/question for you: The statistical improbability (impossibility) of macroevolution, whether Darwinian or sudden leaps, is so overwhelming that no other evidence should really be needed to discredit the theory. However, I’ve never seen the type of discussion of the statistical/probability aspect that I’d like to see. My feeling is if the statistical aspect were carefully developed and presented it would be sufficient to convince any reasonably open-minded evolutionist (an oxymoron?).

Thanks again for your excellent article. If you know of any good statistical analyses of the probability of evolution please tell me where to look.

I’m glad you found the article helpful.

Regarding probability, most biologists don’t really fully comprehend the argument from probability. To them, evolution happened, therefore the statistical studies must be missing something to come up with such impossible odds. Their eyes tend to glaze over with the many numbers and conditions. In my graduate work at the University of North Texas in the late 70s, the one probability and statistics course we all took was largely seen as necessary evil and we all probably remember being told that statistics can be easily misused and you can prove anything with statistics. So while they all need some probability and statistics to get their population genetics articles published, they largely distrust the figures of others. Therefore anything trying to use probability to debunk evolution must be suspect.

A good book covering the general argument from probability against evolution can be found in Lee Spetner's *Not By Chance*. You can probably still find it at Amazon or at the ID website at www.arn.org.

Respectfully,

Ray Bohlin, PhD

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