“Where Did Cain Get His Wife?”

Where DID Cain get his wife????????

That’s a long-standing question that unfortunately, most commentaries don’t offer much help answering. I assume a literal Adam and Eve as the first humans. Therefore for several generations the family tree has only one trunk. Seth and Cain could only have married daughters of Adam and Eve, their sisters.

That always causes some severe consternation. Francis Collins, an evangelical Christian and the former head of NIH, has written that that solution goes against numerous Old Testament laws. How could the God of the Bible allow for such things? Collins opts for an evolved human race and a figurative Adam and Eve. He also seems to think, though he doesn’t explain, that Cain marrying his sister goes against the plain reading of the text.

The main societal taboo against incest is a practical one since offspring from these unions, even among distant cousins, carry an increased risk of birth defects. This is a well-known result of what geneticists call inbreeding. BUT Adam and Eve were completely without genetic mutation, the source of inbreeding birth defects. Therefore there was no biological risk from sister/brother marriages.

In the time of Abraham, Isaac, and Jacob, it was still the practice of marrying within one’s family, at least twenty generations after Adam and Eve if you assume no extra generations in the genealogies of Genesis 5 and 11.

In Genesis 20:12 Abraham tells Abimelech that he was not completely lying when he told Abimelech that Sarah was his sister; “Besides, she really is my sister, the daughter of my

father though not of my mother.” Sarah was Abraham’s half-sister.

When Isaac needed a wife, Abraham tells his servant to go to his country and even his own family to find a suitable wife for Isaac (Genesis 24:4). Genesis 24:15 tells us that Rebekah was the daughter of Bethuel, who is the son of Nahor, Abraham’s brother.

Isaac then tells Jacob to seek a wife from the daughters of Laban, Rebekah’s brother. (Genesis 28:2). So Jacob married two of his first cousins, Leah and Rachel.

Before the Law of Moses, these kinds of unions were the norm. But over 400 years later, mutations have accumulated in all populations and such marriages are quite risky. Therefore, I think, that is why you read in Leviticus 20:17 that if you marry your sister who is either the daughter of your father or the daughter of your mother (thus including half-siblings) they shall be cut off. So a marriage like Abraham and Sarah’s was specifically outlawed in the Law of Moses. I think times have changed and the offspring of these once-normal arrangements are at significant risk.

Also, there still may have been a reticence to marry a brother or sister with whom one grows up. But when you realize that Seth was born when Adam was 130 years old, certainly there were many more children between Cain and Abel, and Seth. Therefore Cain very conceivably could have married a sister who was twenty or thirty years younger than he was, and therefore they did not grow up together, so there wasn’t the same degree of familiarity as with a same-age sibling.

Bottom-line, I find no difficulty either theologically or biologically with Cain and Seth marrying their sisters. Marrying within the family remained the normal practice for over twenty generations.

Respectfully,

Dr. Ray Bohlin

Originally posted July 2001
© 2025 Probe Ministries

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).

©2024 Probe Ministries

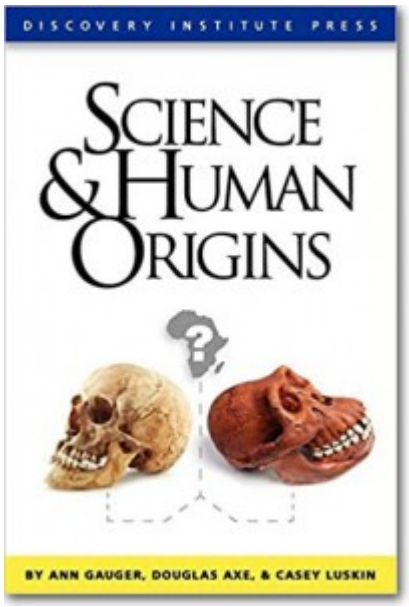
Science and Human Origins

Dr. Ray Bohlin explains how the Discovery Institute's book "Science and Human Origins" reveals why evolutionary theory cannot account for human origins.

Just What Needs to be Accomplished From Ape-like Ancestor to Humans?



In 2012 the Discovery Institute published an edited volume discussing the possibilities of human evolution from an ape-like ancestor by Darwinian evolution mechanisms. In this article I will offer an overview of the book, *Science and Human Origins*{1} and investigate the state of research into human origins from an evolutionary perspective.



First I'd like to discuss the first chapter by Ann Gauger. Ann is a research scientist with Biologic Institute with laboratory experience at Harvard and the University of Washington. Initially Ann points out two things that are necessary for there to be a link by common ancestry between humans and some ape-like ancestor. First there must be a step-wise adaptive path to follow. Neo-Darwinism depends on a slow, gradual path between two forms, genes or proteins. Rapid large jumps are likely to be too disruptive to the organism's state of being. Either survival or reproduction will be compromised.

Second, standard unguided Darwinian mechanisms such as mutation, selection, random drift and genetic recombination have to be sufficient for the task. Modern evolutionary theory is quite insistent that only natural unguided processes are necessary for evolution to occur no matter what the transition being considered.

To better understand the problem, the book discusses the numerous types of biological changes needed to transition from a primarily arboreal monkey adjusted to life in the trees to a walking, running, hunting gathering, intelligent, talking human being. Compared to the other great apes, humans possess longer legs, shorter arms, different pelvis and rib cage, refined muscles for fingers, lips and jaw, eyes that can focus straight ahead and still see where we are walking, larger and unique brain structures, a head that sits directly on top of the spine and a spine that will support upright walking and running. Now add to that our unique capacities for language, art and abstract thought and you can easily understand that a lot needs to happen.

The usual series of fossils links together Lucy, the australopithecine closest to humans and Turkana Boy (*Homo*

erectus), the first full member of our genus Homo. Lucy is said to have lived 3.2 million years ago (mya) and Turkana Boy about 1.5 mya. This is indeed a very short time span in evolutionary terms, especially considering all that must change. One recent paper from the journal *Genetics* suggested that it would take about 6 million years for a single mutation to be fixed in a primate lineage. This transition probably needs tens of mutations. If you need two mutations, forget it. That would require 216 million years.

It's not too hard to see that standard evolutionary processes are wholly insufficient to cause the transition between australopithecines and humans.

The Earliest Fossils Leading to Humans

Now I want to discuss the evidence for human evolution from the fossils. Study into ancient humans is called paleoanthropology. Casey Luskin breaks down his discussion into two parts, Early Hominin Fossils and Later Hominins: The Australopithecines. Let's start with the early hominins. As the story goes, humans and chimpanzees share a common ancestor about six million years ago. The fossil record of six million years ago has been pretty stingy. Not much to choose from for a human/chimp ancestor until the last twenty years.

The Toumai Skull (*Sahelanthropus tchadnesis*) was first reported in 2002 and is widely referred to as the oldest fossil in the hominin line. But when you dig a bit deeper as is always necessary when discussing human evolution, not everyone agrees. Some suggest that the Toumai Skull has far more in common with apes than anything resembling a human. All this skull really shows is how complex the evolutionary story has become.

A second fossil known as "Orrorin" (*Orrorin tugenensis*) or "original man" in a local Kenyan language was designated as

the earliest human link in 2001.{2} But it was little more than a few bone fragments from an arm, thigh, lower jaw and a few teeth. As usual, there were some saying that Orrorin walked on two feet and others who said there isn't enough information to determine how this organism moved. Another fossil found on the island of Sardinia is truly an ape but had some indications that it too was bipedal. But Oreopithecus is thought to have arrived at its bipedal gait independently. This would clearly indicate that just because an ape-like fossil had bipedal adaptations doesn't mean it was ancestral to humans.

Last is the curious story of "Ardi" (*Ardipithecus ramidus*). Ardi is a 4.4 million year old fossil announced in 2009. Ardi quickly rose in fame and attention, being hailed by some as the oldest human ancestor found and the key to understanding how human bipedalism evolved. But Casey Luskin informs us that Ardi was originally found in the early 1990s. It took over a decade to piece the fossil together because it was found literally crushed and extremely brittle. How did they know how it all really fit together? Within a year other paleontologists indicated Ardi had little to do with human evolution and was simply overhyped. That's become a familiar story. So much change to cover and so little evidence.

From "Lucy" to "Turkana Boy"

We now turn to the appearance and nature of a very important fossil category. If humans have evolved by a Darwinian process from an ape-like ancestor, then there must be some species or group of species that show clear signs of being intermediate between fossil apes and humans. For many years that position has been occupied by the "australopithecines." More specifically a particular species (*Australopithecus afarensis*) has been represented for decades as that ancestor, represented by a fossil known as "Lucy."

As Casey Luskin carefully documents, Lucy is a fossil that represents about 40% of the original organism so it is very incomplete, although far more representative that any earlier fossils. He also notes that the original fossil was found scattered over a hillside and may not truly represent a single individual. But significantly, Lucy is not necessarily closely related or descended from the Toumai Skull, Orrorin, or Ardi that I discussed above. There is much about Lucy that is very ape-like, and many anthropologists even question whether Lucy can be considered as truly ancestral to humans.

Most significant about Lucy is the contention by some that she possessed a form of bipedalism that was very much or at least similar to human locomotion. But even that is highly contested by the evolutionary experts. Lucy's skull is small and quite ape-like. The chest cavity is shaped in a way that would make upright walking difficult and her arms are long like apes and her legs are short like apes. Much is made about the shape of her pelvis. But as Luskin points out, the shape may have been an error in reconstruction since that part of the skeleton was found severely crushed.

Even more to the point, Lucy shows numerous characteristics that require significant reworking compared to the earliest human-like fossils (*Homo erectus*) usually represented by "Turkana Boy." This two-million-year-old fossil shows itself to be entirely human. Even its small brain is within the range of modern humans and the brain architecture is also entirely human and nothing like Lucy. As Luskin points out there needs to be a sort of "Big Bang" between Lucy and Turkana Boy.{3}

What we have then is a large gap between apes and Lucy, and a large gap between Lucy and humans. So even though the fossil record could be interpreted to show a modest progression from apes to humans over time, there are no true transitional forms to document how this important transition took place.

DNA Doesn’t Lie

In a well-documented chapter, Casey Luskin examines the claims of evangelical scientist, Francis Collins, that there is explicit and undeniable genetic evidence that humans and chimps evolved from a common ancestor. Collins has earned a stellar reputation as a medical geneticist for first discovering the gene responsible for cystic fibrosis, leading the Human Genome Project for over a decade, and then in 2009 being named by President Obama as the head of the prestigious National Institutes of Health (NIH). In between Collins’s role as head of the Human Genome Project and his current role at NIH, he founded an organization, BioLogos, dedicated to convincing the church in America that evolution is indeed is a fact and we need to adjust both our science and preaching to reflect that fact.

In preparation for BioLogos he published a book titled *The Language of God*.{4} In this book, Collins presents a two-fold line of evidence that humans and chimps evolved from a common ancestor. First he appeals to what are known as repetitive elements in our DNA. All mammalian genomes have relatively short sequences that can be very specific to species and groups of species, spread throughout the genome. It appears as if these sequences make copies of themselves and randomly insert the copy elsewhere in the genome. These repetitive elements are frequently found in the same place in the genome in distant species such as mice and humans. These are referred to as Ancient Repetitive Elements (ARE). These AREs are assumed to have no functional significance in the organism. This renders them as what is referred to as “selfish DNA” which exists only to survive and reproduce.

Some AREs are found in the same chromosomal location in mice and humans as well as humans and chimps. This sure seems like evidence of common ancestry, as Collins claims. But the assumption I just mentioned, that these sequences have no

function, has been widely disproved in just the last ten years. As a result of the Human Genome Project that Collins led, we can now search all DNA sequences for some kind of function. Relying on work published by Richard Sternberg, Luskin lists twenty newly discovered functions for different types of repetitive elements in mammalian and human genomes.{5}

The chapter discusses two other now disproven evidences for common ancestry of humans and chimps. I hope you can see that new and mounting evidence is making the common ancestry of humans and chimps even more difficult to defend.

How Many Humans at the Start?

In the final chapter of *Science and Human Origins*, Ann Gauger discusses a bit more of an academic argument for humans having evolved from an ape-like ancestor. Some evolutionary geneticists have described an argument that the level of genetic variation for particular human genes could not have arisen from a beginning of just two people. They state that standard genetic equations indicate that the human population most likely descends from a population of around 100,000 individuals. Just two people could not have generated this much variation in 100,000 years, let alone less than 10,000 years. If their analysis is true, then the Biblical account of Adam and Eve becomes a theological story with no historical significance. So let's take a look.

Gauger investigates in detail the most variable gene in humans. This gene codes for a protein involved in the immune system. One section of this gene is what geneticists call "hypervariable." Evolutionist Francisco Ayala and others researched this gene in the mid-1990s. Ayala's conclusion was that the original human population that separated from the line that evolved into chimps contained at least 32 copies of the gene in its population. Each of us has only two copies of

each gene, so 32 copies requires at least 16 people. But since, over time, different gene copies are lost, Ayala estimated a human population of at least 10,000 individuals with an average closer to 100,000.

Gauger points out that Ayala misused several assumptions. He assumed a small mutation rate and he assumed no selection. When Gauger corrects for these errors and examines the studies of others, she determines that the equations, when the proper assumptions and mutation rates are used, the original human population could have had as few as 4 copies of this gene. Let's see, two copies per person, four copies, only needs two people. How about that!

Obviously in this short article I have intentionally glossed over the technical details. Ann Gauger gives you the details as well as more non-technical summaries along the way. I strongly encourage you to purchase the book. At 122 pages, it's readable in a Saturday. Considering all I have covered this week, my doubts about human evolution have only been strengthened. It becomes even more obvious over time that Darwinian evolutionary mechanisms are proving less and less adequate.

Notes

1. Gauger, Ann, Douglas Axe, and Casey Luskin, *Science and Human Origins* (Seattle: Discovery Institute Press, 2012).
2. Ibid., p. 51.
3. Ibid., p. 65-70.
4. Francis Collins, *The Language of God: A Scientist Presents Evidence for Belief* (New York: Free Press, 2006).
5. Gauger, Ann, et al., *Science and Human Origins*, p. 87-88.

© 2013 Probe Ministries

Is Theistic Evolution the Only Viable Answer for Thinking Christians?

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

Francis Collins and Theistic Evolution

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



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

These conflicting forces led him to develop views reconciling the current positions of science and the truths of the Bible.

As Collins states, “If the existence of God is true (not just tradition, but actually true), and if certain scientific conclusions about the natural world are also (objectively) true . . ., then they cannot contradict each other. A fully harmonious synthesis must be possible.”{3} Certainly, this statement is one we all should agree on if we can agree on which scientific conclusions are objectively true.

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

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

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

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

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

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

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

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

The Argument for Theistic Evolution

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

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

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

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

Collins wrote{6} that our DNA leads him to believe in common ancestry with chimpanzees and ultimately with all life. His conclusion is partially based on the large amount of "junk DNA" similar across humans and other animals. If similar segments of DNA have no function, these must be elements indicating a common ancestry.

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

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

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

Irreducible Complexity

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

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

However, Collins believes nothing is too hard for evolution given enough time. He states, "Examples . . . of irreducible complexity are clearly showing signs of how they could have been assembled by evolution in a gradual step-by-step process. . . . Darwinism predicts that plausible intermediate steps **must have existed**, . . . ID. . . sets forth a straw man scenario that no serious student of biology would accept."{12}

One of Collins's examples, the bacterial flagellum, is "a marvelous swimming device"{13} which includes a propeller surface and a motor to rotate it. ID researchers identify it as an irreducibly complex. Collins suggests this conclusion has been "fundamentally undercut," stating that one protein sequence used in the flagellum is also used in a different

apparatus in other bacteria. “Granted, [it] is just one piece of the flagellum’s puzzle, and we are far from filling in the whole picture (if we ever can). But each such new puzzle piece provides a natural explanation for a step that ID had relegated to supernatural forces, . . .”{14}

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

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

God of the Gaps and *Ad Hominem* Attacks

Francis Collins states, “ID is a ‘God of the gaps’ theory, inserting . . . the need for supernatural intervention in places its proponents claim science cannot explain.”{16}

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

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

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

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

Collins also states, "**No serious biologist** today doubts the theory of evolution."{20} And, "ID's central premise . . . sets forth a straw man scenario that **no serious student** of biology would accept."{21} So, those differing with Collins are not even serious students of biology. Collins ignores the over 800 Ph.D.s who signed a document questioning the ability of Darwinian theory to explain life.{22}

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

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

the possibility of intelligent design.

Perverting the Views of C. S. Lewis

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

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

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

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

Lewis did not embrace a simple-minded view of natural science

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

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

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

Notes

1. Francis S. Collins, *The Language of God: A Scientist Presents Evidence for Belief* (New York: Free Press, 2006).
2. See for example, Josh McDowell's story in *Undaunted: One Man's Real-Life Journey from Unspeakable Memories to Unbelievable Grace*, Lee Strobel's story in *The Case for Faith*, and Viggo Olsen's story in *Daktar, Diplomat in Bangladesh*.
3. Collins, p. 169.
4. Collins, p. 200.
5. Collins, p. 90.
6. Collins, p. 109-142.
7. *UK Guardian*, September 5, 2012.
8. ENCODE is an acronym for the Encyclopedia of DNA Elements project.
9. Casey Luskin, Junk No More: ENCODE Project Nature Paper Finds "Biochemical Functions for 80% of the Genome", 2012, www.evolutionnews.org/2012/09/junk_no_more_en_1064001.html (Accessed Mar. 30, 2014)
10. Jonathan McLatchie, Has Francis Collins Changed His Mind On "Junk DNA"? www.evolutionnews.org/2011/03/has_francis_collins_changed_hi04

4601.html (Accessed Mar. 30, 2014).
11. Michael J. Behe, *Darwin's Black Box: The Biological Challenge to Evolution* (New York: Free Press, 1996).
12. Collins, p. 188-190.
13. Behe, *Darwin's Black Box.*
14. Collins, p. 192.
15. Jonathan McLatchie, Two of the World's Leading Experts on Bacterial Flagellar Assembly Take on Michael Behe, March 2013, www.evolutionnews.org/2013/03/kelly_hughes_an069881.html (Accessed Mar. 30, 2014).
16. Collins, p. 193.
17. Jonathan McLatchie, Once Again, Why Intelligent Design is Not a "God-of-the-Gaps" Argument, 2013, www.evolutionnews.org/2013/01/why_intelligent068151.html (Accessed Mar. 30, 2014).
18. Ibid.
19. Collins, p. 174.
20. Collins, p. 99.
21. Collins, p. 190.
22. www.dissentfromdarwin.org
23. William Dembski, *Intelligent Design: The Bridge Between Science and Theology* (Downers Grove, IL: InterVarsity Press, 1999), p. 248.
24. C. S. Lewis, *The Problem of Pain*, (New York: Simon and Schuster, 1996), p. 69.
25. Lewis, p. 68.
26. Michael L. Peterson, C. S. Lewis on Evolution and Intelligent Design biologos.org/blog/series/lewis-id-series, p. 13 (Accessed Mar. 30, 2014).
27. John G. West, *The Magician's Twin: C. S. Lewis on Science, Scientism, and Society* (Seattle: Discovery Institute Press, 2012).
28. West, p. 114.
29. West, p. 131 quoting from *Miracles* by C. S. Lewis, 1960.
30. West, p. 140-141.

©2014 Probe Ministries