

Dr. Ray Bohlin Publicly Debates in Belarus

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

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



Following their presentations, the debaters responded for an hour to written questions submitted by the audience. One question was, "Would either of you consider changing your mind if shown sufficient evidence of the other side?" With clear contempt, Dr. Gelfand dismissed the possibility that there was

evidence for anything other than evolution. Ray related how, in his graduate studies in evolutionary biology, he continually asked, "Show me the evidence for evolution. Please convince me." By the end of his studies, he was more of a skeptic of evolution than ever before.

Concerned about making his flight back to Moscow, Dr. Gelfand gathered up his things. He was very surprised when Ray came over and, smiling, shook his hand after having been insulted several times



during the debate. Christian kindness and compassion is its own kind of culture.

Following the debate, 55% of participants in an online vote chose Ray as the winner. The debate was uploaded to Russian YouTube with over 1000 views that weekend (Link to English YouTube video is [here](#)). There was quite a bit of social media buzz about it, including requests to bring Ray back to Belarus in November for another debate.

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

(Link is [here.](#))

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

Churches

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

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

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



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

The third weekend, with both men very tired, meant being driven to Brest and back the same day, to speak at a conference in another church. Todd, who doesn't use a cell phone or wear a watch, spoke to the issues and challenges of technology, particularly smartphones and computers. Ray, playing "good cop" to Todd's "bad cop," explained how helpful technology is to him as he tries to explain science to students and various audiences, especially the visual component of technology. Powerpoint is invaluable to him for showing graphs, tables and pictures, as well as showing videos using animation to demonstrate molecular machines inside the cell. Getting personal, he also explained that his wife Sue, a polio survivor who is no longer able to walk (and thus can no longer accompany him to handicap-unfriendly Belarus), needs the technology of her scooter to be mobile at all. Otherwise she would be bedridden, or unable to leave their home—which is what happens to most disabled Belarusians.

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



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

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

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

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

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

In 1973, when Probe was founded, there was no glimmer of hope for debates like these behind the Iron Curtain, much less in

the Soviet Union. But look what God did in March 2018! There is a great hunger for honest answers to honest questions in Belarus. The debates are possible because they are about science, not religion . . . because true science—the study of what God created—is the truth that points to Romans 1.

And for that, we thank and praise God.

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

©2018 Probe Ministries

Darwinism: A Teetering House of Cards

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

The Origin of Life: A Mystery

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

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

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



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

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

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

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

Another professor states, "Those who think scientists understand the issues of prebiotic chemistry are wholly misinformed. Nobody understands them. . . . The basis upon which we . . . are relying is so shaky we must openly state

the situation for what it is: a mystery.”{6}

Facing insurmountable odds against life appearing, some materialists propose an infinite number of parallel universes.{7} With infinite chances, even the most unlikely events could occur. But, as Axe points out, “The biological inventions that surround us (are) fantastically improbable, with evolution explaining none and the multiverse hypothesis explaining only those absolutely necessary for wondering to be possible, . . . this hypothesis fails to explain what we see.”{8}

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

An Example of Macro-evolution: Still Searching

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

Let’s begin with fossil evidence.

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

artifact of either incomplete sampling or preservation.”[{10}](#)

And evolution proponent Stephen Gould wrote, “The extreme rarity of transitional forms in the fossil record persists as the trade secret of paleontology. The evolutionary trees . . . have data only at the tips and nodes of their branches; the rest is inference.”[{11}](#) *Nature* editor Henry Gee put it this way: “To take a line of fossils and claim that they represent a lineage is not a scientific hypothesis that can be tested, but an assertion that carries the same validity as a bedtime story.”[{12}](#)

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

Let’s continue by looking at experimental evidence.

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

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

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

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

The Challenge of Irreducible Complexity

Darwin wrote his theory would “absolutely break down” if an organ could not be formed by “numerous, successive, slight modifications.”[\[17\]](#) Have such organs been found? Irreducible complexity and functional coherence say yes.

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

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

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

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

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

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

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

DNA and Molecular Science Muddy the Scenario

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

A species’s DNA sequence, we are told, contains all the information needed to create new members. But Douglas Axe states, “(We) would be shocked to know the . . . state of

ignorance with respect to DNA. The view that most aspects of living things can be attributed neatly to specific genes has been known . . . to be FALSE for a long time.”{21}

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

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

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

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

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

Originally scientists thought DNA was primarily junk sequences not contributing to the characteristics of a species. This junk represented functions which were replaced or had no

current usefulness. As Francis Crick, one of the discoverers of DNA's structure, said, "The possible existence of such selfish DNA is exactly what might be expected from the theory of natural selection."[{26}](#)

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

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

A Philosophy Props Up Its Poster Child

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

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

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

Atheist Colin Patterson offers an honest view regarding the theory of evolution as "often unnecessary" in biology.

Nevertheless, it was (taught as) “the unified field theory of biology,” holding the whole subject together. Once something has that status it becomes like religion.”[{29}](#)

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

Bethel points out, “If our minds are . . . accidental products of a blind process, what reason do we have for accepting materialist claims as true?”[{30}](#) After all, our minds are selected to improve our survivability, not to discern what is true.

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

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

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

In this review, we have seen

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

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

Notes

1. Tom Bethel, *Darwin's House of Cards: A Journalist's Odyssey Through the Darwin Debates*, Discovery Institute Press, 2017, page 20.
2. Ibid, page 20.
3. Eugene V. Loonin, *The Logic of Chance: The Nature and Origin of Biological Evolution*, FT Press, 2011, page 391.
4. See Behe, back cover comment for Thomas E. Woodward and James P. Gills, *The Mysterious Epigenome* (Grand Rapids, MI: Kregel Publications, 2012).
5. Douglas Axe, *Undeniable: How Biology Confirms Our Intuition That Life Is Designed*, HarperOne, New York, 2016, page 63.
6. James Tour, "Animadversions of a synthetic chemist," *Inference* 2:2, May 19, 2016.
7. Axe, page 227.
8. Axe, page 230.
9. Meyers and other quotes on the Cambrian.
10. Stephen Meyer, *Darwin's Doubt*, New York, Harper Collins, 2014, page 70.
11. Gould, *The Panda's Thumb*, page 181.
12. Henry Gee, *In Search of Deep Time: Beyond the Fossil Record to a New History of Life*, New York: The Free Press, 1999, p. 32, 113-117.
13. Soren Lovtrup, *Darwinism: The Refutation of a Myth*, New York, 1987, page 351.
14. Bethel, page 45.
15. Richard Lewontin, "Testing the Theory of Natural Selection," *Nature* 236 no. 5343, p. 181-182.
16. Bethel, page 79.
17. Darwin, *The Origin of Species*, 2nd ed., 1860, page 189.
18. Axe, page 184.
19. Gehring and Ikeo, "Pax6: mastering eye morphogenesis and eye evolution," *Trends in Genetics* 15, 1999, 376.

20. James Schwartz, "Oh My Darwin!: Who's the Fittest Evolutionary Thinker of All?", *Lingua Franca* 9, no. 8 (1999).
21. Axe, page 271.
22. Wells, page 90.
23. Wells, page .
24. Liliana Davalos, Andrea Cirranello, Jonathan Geisler, and Nancy Simmons, "Understanding phylogenetic incongruence: Lessons from phyllostomid bats," *Biological Reviews of the Cambridge Philosophical Society* 87, 2012.
25. Antonis Rokas, Dirk Kruger, and Sean B. Carroll, "Animal evolution and the molecular signature of radiations compressed in time," *Science* 310, 2005.
26. Francis Crick, *What Mad Pursuit: A Personal View of Scientific Discovery*, New York, Basic Books, 1988, page 147.
27. Wells, page 128.
28. Wells, page 17.
29. Bethel, page 149.
30. Bethel, page 174.
31. Axe, page 54.
32. Bethel, page 161.

©2018 Probe Ministries

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

Steve Cable considers the question of why could we 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, Zech 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 (Ps 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” (Ps 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 (Jer 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” (Isa 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 recent 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.

© 2009 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_hi044601.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 Magicians 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

The Impotence of Darwinism: A Christian Scientist Looks at the Evidence

Dr. Ray Bohlin looks at some of the tenets of Darwinism and finds them lacking support in the real world. Speaking from a biblical worldview perspective, he finds the gaps and inconsistencies in current Darwinian thinking should demand that different theories be examined and evaluated.

Darwinism, Design, and Illusions

Darwinian evolution has been described as a universal acid that eats through everything it touches.[{1}](#) What Daniel Dennett meant was that evolution as an idea, what he called

“Darwin’s dangerous idea,” is an all-encompassing worldview. Darwinism forms the basis of the way many people think and act. It touches everything.



What Darwin proposed in 1859 was simply that all organisms are related by common descent. This process of descent or evolution was carried out by natural selection acting on variation found in populations. There was no guidance, no purpose, and no design in nature. The modern Neo-Darwinian variety of evolution identifies the source of variation as genetic mutation, changes in the DNA structure of organisms. Therefore, evolution is described as the common descent of all organisms by mutation and natural selection, and is assumed to be able to explain everything we see in the biological realm.

This explanatory power is what Dennett refers to as “Darwin’s dangerous idea.” Darwinism assumes there is no plan or purpose to life. Therefore, everything we see in the life history of an organism, including human beings, derives in some way from evolution, meaning mutation and natural selection. This includes our ways of thinking and the ways we behave. Even religion is said to have arisen as a survival mechanism to promote group unity that aids individual survival and reproduction.

Since evolution has become the cornerstone of the dominant worldview of our time—scientific naturalism—those who hold to it would be expected to take notice when somebody says it’s wrong! A growing number of scientists and philosophers are saying with greater confidence that Darwinism, as a mode of explaining all of life, is failing and failing badly. Much of the criticism can be found in the cornerstone of evolution, mutation and natural selection and the evidence for its

pervasiveness in natural history. One of the biggest stumbling blocks is evolution's repudiation of any form of design or purpose in nature. Even the staunch Darwinist and evolutionary naturalist, Britain's Richard Dawkins, admits, "Biology is the study of complicated things that give the appearance of having been designed for a purpose."[2](#)

No one denies that biological structures and organisms look designed; the argument is over what has caused this design. Is it due to a natural process that gives the appearance of design as Dawkins believes? Or is it actually designed with true purpose woven into the true fabric of life? Darwinian evolution claims to have the explanatory power and the evidence to fully explain life's apparent design. Let's explore the evidence.

The Misuse of Artificial Selection

It is assumed by most that evolution makes possible almost unlimited biological change. However, a few simple observations will tell us that there are indeed [limits to change](#). Certainly the ubiquitous presence of convergence suggests that biological change is not limitless since certain solutions are arrived at again and again. There appear to be only so many ways that organisms can propel themselves: through water, over land or through the air. The wings of insects, birds and bats, though not ancestrally related, all show certain design similarities. At the very least, various physical parameters constrain biological change and adaptation. So there are certainly physical constraints, but what about biological constraints?

Darwin relied heavily on his analogy to *artificial* selection as evidence of *natural* selection. Darwin became a skilled breeder of pigeons, and he clearly recognized that just about any identifiable trait could be accentuated or diminished, whether the color scheme of feathers, length of the tail, or

size of the bird itself. Darwin reasoned that natural selection could accomplish the same thing. It would just need more time.

But artificial selection has proven just the opposite. For essentially every trait, although it is usually harboring some variability, there has always been a limit. Whether the organisms or selected traits are roses, dogs, pigeons, horses, cattle, protein content in corn, or the sugar content in beets, selection is certainly possible. But all selected qualities eventually fizzle out. Chickens don't produce cylindrical eggs. We can't produce a plum the size of a pea or a grapefruit. There are limits to how far we can go. Some people grow as tall as seven feet, and some grow no taller than three; but none are over twelve feet or under two. There are limits to change.

But perhaps the most telling argument against the usefulness of artificial selection as a model for natural selection is the actual process of selection. Although Darwin called it *artificial* selection, a better term would have been *intentional* selection. The phrase "artificial selection" makes it sound simple and undirected. Yet every breeder, whether of plants or animals is always looking for something in particular. The selection process is always designed to a particular end.

If you want a dog that hunts better, you breed your best hunters hoping to accentuate the trait. If you desire roses of a particular color, you choose roses of similar color hoping to arrive at the desired shade. In other words, you plan and manipulate the process. Natural selection can do no such thing. Natural selection can only rely on what variation comes along. Trying to compare a directed to an undirected process offers no clues at all.

Most evolutionists I share this with usually object that we do have good examples of natural selection to document its

reality. Let's look at a few well-known examples.

The Real Power of Natural Selection

It should have been instructive when we had to wait for the 1950s, almost 100 years after the publication of *Origin of Species*, for a documentable case of natural selection, the famous Peppered Moth (*Biston betularia*). The story begins with the observation that, before the industrial revolution, moth collections of Great Britain contained the peppered variety, a light colored but speckled moth. With the rise of industrial pollution, a dark form or melanic variety became more prevalent. As environmental controls were enacted, pollution levels decreased and the peppered variety made a strong comeback.

It seemed that as pollution increased, the lichens on trees died off and the bark became blackened. The previously camouflaged peppered variety was now conspicuous and the previously conspicuous melanic form was now camouflaged. Birds could more readily see the conspicuous variety and the two forms changed frequency depending on their surrounding conditions. This was natural selection at work.

There were always a few problems with this standard story. What did it really show? First, the melanic form was always in the population, just at very low frequencies. So we start with two varieties of the peppered moth and we still have two forms. The frequencies change but nothing new has been added to the population. Second, we really don't know the genetics of industrial melanism in these moths. We don't have a detailed explanation of how the two forms are generated. And third, in some populations, the frequencies of the two moths changed whether there was a corresponding change in the tree bark or not. The only consistent factor is pollution.^{3} The most well-known example of evolution in action reduces to a mere footnote. Regarding this change in the Peppered Moth

story, evolutionary biologist Jerry Coyne lamented that “From time to time evolutionists re-examine a classic experimental study and find, to their horror, that it is flawed or downright wrong.”[{4}](#)

Even Darwin’s Finches from the [Galapagos Islands](#) off the coast of Ecuador tell us little of large scale evolution. The thirteen species of finches on the Galapagos show subtle variation in the size and shape of their beaks based on the primary food source of the particular species of finch. Jonathan Wiener’s *Beak of the Finch*[{5}](#) nicely summarizes the decades of work by ornithologists Peter and Rosemary Grant. While the finches do show change over time in response to environmental factors (hence, natural selection), the change is reversible! The ground finches (six species) do interbreed in the wild, and the size and shape of their beaks will vary slightly depending if the year is wet or dry (varying the size seeds produced) and revert back when the conditions reverse. There is no directional change. It is even possible that the thirteen species are more like six to seven species since hybrids form so readily, especially among the ground finches, and survive quite well. Once again, where is the real evolution?

There are many other documented examples of natural selection operating in the wild. But they all show that, while limited change is possible, there are limits to change. No one as far as I know questions the reality of natural selection. The real issue is that examples such as the Peppered Moth and Darwin’s Finches tell us nothing about evolution.

Mutations Do Not Produce Real Change

While most evolutionists will acknowledge that there are limits to change, they insist that natural selection is not sufficient without a continual source of variation. In the Neo-Darwinian Synthesis, mutations of all sorts fill that

role. These mutations fall into two main categories: mutations to structural genes and mutations to developmental genes. I will define structural genes as those which code for a protein which performs a maintenance, metabolic, support, or specialized function in the cell. Developmental genes influence specific tasks in embryological development, and therefore can change the morphology or actual appearance of an organism.

Most evolutionary studies have focused on mutations in structural genes. But in order for large scale changes to happen, mutations in developmental genes must be explored. Says Scott Gilbert:

“To study large changes in evolution, biologists needed to look for changes in the regulatory genes that make the embryo, not just in the structural genes that provide fitness within populations.” [\[6\]](#)

We'll come back to these developmental mutations a little later.

Most examples we have of mutations generating supposed evolutionary change involve structural genes. The most common example of these kinds of mutations producing significant evolutionary change involves microbial antibiotic resistance. Since the introduction of penicillin during World War II, the use of antibiotics has mushroomed. Much to everyone's surprise, bacteria have the uncanny ability to become resistant to these antibiotics. This has been trumpeted far and wide as real evidence that nature's struggle for existence results in genetic change—evolution.

But microbial antibiotic resistance comes in many forms that aren't so dramatic. Sometimes the genetic mutation simply allows the antibiotic to be pumped out of the cell faster than normal or taken into the cell more slowly. Other times the antibiotic is deactivated inside the cell by a closely related

enzyme already present. In other cases, the molecule inside the cell that is the target of the antibiotic is ever so slightly modified so the antibiotic no longer affects it. All of these mechanisms occur naturally and the mutations simply intensify an ability the cell already has. No new genetic information is added.[\[7\]](#)

In addition, genetically programmed antibiotic resistance is passed from one bacteria to another by special DNA molecules called plasmids. These are circular pieces of DNA that have only a few genes. Bacteria readily exchange plasmids as a matter of course, even across species lines. Therefore, rarely is a new mutation required when bacteria “become” resistant. They probably received the genes from another bacterium.

Most bacteria also suffer a metabolic cost to achieve antibiotic resistance. That is, they grow more slowly than wild-type bacteria, even when the antibiotic is not present. And we have never observed a bacterium changing from a single-celled organism to a multicellular form by mutation. You just get a slightly different bacterium of the same species. The great French evolutionist Pierre Paul-Grassé, when speaking about the mutations of bacteria said,

“What is the use of their unceasing mutations if they do not change? In sum the mutations of bacteria and viruses are merely hereditary fluctuations around a median position; a swing to the right, a swing to the left, but no final evolutionary effect.”[\[8\]](#)

What I have been describing so far is what is often referred to as microevolution. Evolutionists have basically assumed that the well-documented processes of microevolution eventually produce macroevolutionary changes given enough time. But this has been coming under greater scrutiny lately, even by evolutionists. There appears to be a real discontinuity between microevolution and the kind of change

necessary to turn an amoeba-like organism into a fish, even over hundreds of millions of years.

Below is just a quick sampling of comments and musings from the current literature.

“One of the oldest problems in evolutionary biology remains largely unsolved. . . . historically, the neo-Darwinian synthesizers stressed the predominance of micromutations in evolution, whereas others noted the similarities between some dramatic mutations and evolutionary transitions to argue for macromutationism.”{9}

“A long-standing issue in evolutionary biology is whether the processes observable in extant populations and species (microevolution) are sufficient to account for the larger-scale changes evident over longer periods of life’s history (macroevolution).”{10}

“A persistent debate in evolutionary biology is one over the continuity of microevolution and macroevolution □ whether macroevolutionary trends are governed by the principles of microevolution.”{11}

While each of the above authors does not question evolution directly, they are questioning whether what we have been studying all these years, microevolution, has anything to do with the more important question of what leads to macroevolution. And if microevolution is not the process, then what is?

Natural Selection Does Not Produce New Body Plans

The fundamental question which needs addressing is, How have we come to have sponges, starfish, cockroaches, butterflies,

eels, frogs, woodpeckers, and humans from single cell beginnings with no design, purpose or plan? All the above listed organisms have very different body plans. A body plan simply describes how an organism is put together. So can we discover just how all these different body plans can arise by mutation and natural selection? This is a far bigger and more difficult problem than antibiotic resistance, a mere biochemical change. Now we have to consider just how morphological change comes about.

The problem of macroevolution requires developmental mutations. Simply changing a protein here and there won't do it. We somehow have to change how the organism is built. Structural genes tend to have little effect on the development of a body plan. But the genes that control development and ultimately influence the body plan tend to find their expression quite early in development. But this is a problem because the developing embryo is quite sensitive to early developmental mutations. Wallace Arthur wrote:

"Those genes that control key early developmental processes are involved in the establishment of the basic body plan. Mutations in these genes will usually be extremely disadvantageous, and it is conceivable that they are always so."[\[12\]](#)

But these are the mutations needed for altering body plans. However, evolutionists for decades have been studying the wrong mutations. Those dealing with structural genes, microevolution, only deal with how organisms survive as they are, it doesn't tell us how they got to be the way they are. Optiz and Raft note that

"The Modern Synthesis is a remarkable achievement. However, starting in the 1970's, many biologists began questioning its adequacy in explaining evolution. . . . Microevolution looks at adaptations that concern only the survival of the fittest,

not the arrival of the fittest.”{13}

Wallace Arthur:

“In a developmentally explicit approach it is clear that many late changes can not accumulate to give an early one. Thus if taxonomically distant organisms differ right back to their early embryogenesis, as is often the case, the mutations involved in their evolutionary divergence did not involve the same genes as those involved in the typical speciation event.”{14}

To sum up the current dilemma, significant morphological change requires early developmental mutations. But these mutations are nearly universally disadvantageous. And microevolution, despite its presence in textbooks as proof of evolution, actually tells us precious little about the evolutionary process. If these developmental mutations that can offer an actual benefit are so rare, then macroevolution would be expected to be a slow and difficult, yet bumpy process. Indeed, Darwin expected that “As natural selection acts solely by accumulating slight, successive, favorable variations, it can produce no great or sudden modifications; it can only act in short and slow steps.”

The origin of body plans is wrapped up in the evidence of paleontology, the fossils and developmental biology. What does the fossil record have to say about the origin of basic body plans? When we look for fossils indicating Darwin’s expected slow gradual process we are greatly disappointed. The Cambrian Explosion continues to mystify and intrigue. The Cambrian Explosion occurred around 543 million years ago according to paleontologists. In the space of just a few million years, nearly all the animal phyla make their first appearance.

“The term ‘explosion’ should not be taken too literally, but in terms of evolution it is still very dramatic. What it

means is rapid diversification of animal life. [Rapid' in this case means a few million years, rather than the tens or even hundreds of millions of years that are more typical . . .
[. {15}](#)

Prior to the Cambrian, (550-485 million years ago), during the Vendian (620-550 million years ago) we find fossil evidence for simple sponges, perhaps some cnidarians and the enigmatic Ediacaran assemblage. For the most part we find only single cell organisms such as bacteria, cyanobacteria, algae, and protozoan. Suddenly, in the Cambrian explosion (545-535 million years ago) we find sponges, cnidarians, platyhelminthes, ctenophores, mollusks, annelids, chordates (even a primitive fish), and echinoderms.

While many animal phyla are not present in the Cambrian, they are mostly phyla of few members and unlikely to be fossilized in these conditions. James Valentine goes further in saying that "The diversity of body plans indicated by combining all of these Early Cambrian remains is very great. Judging from the phylogenetic tree of life, all living phyla (animal) were probably present by the close of the explosion interval." [{16}](#) Later Valentine assures us that the fossil record of the explosion period is as good as or better than an average section of the geologic column. [{17}](#) So we just can't resort to the notion that the fossil record is just too incomplete.

In the Cambrian Explosion we have the first appearance of most animal body plans. This sudden appearance is without evidence of ancestry in the previous periods. This explosion of body plans requires a quantum increase of biological information. New genetic information and regulation is required. [{18}](#) Mutations at the earliest stages of embryological development are required and they must come in almost rapid fire sequence. Some have suggested that perhaps the genetic regulation of body plans was just more flexible, making for more experimentation. But we find some of the same organisms in the

strata from China to Canada and throughout the period of the explosion. These organisms do not show evidence of greater flexibility of form.

The type of mutation is definitely a problem, but so is the rate of mutation. Susumo Ohno points out that "it still takes 10 million years to undergo 1% change in DNA base sequences. . . . [The] emergence of nearly all the extant phyla of the Kingdom Animalia within the time span of 6-10 million years can't possibly be explained by mutational divergence of individual gene functions."[19](#)

Darwinism would also require early similarities between organisms with slow diversification. Phyla should only become recognizable after perhaps hundreds of millions of years of descent with modification. Yet the great diversity appears first with gradual drifting afterward, the opposite of what evolution would predict. Again some suggest that the genetic structure of early organisms was less constrained today, allowing early developmental mutations with less severe results. But there would still be some developmental trajectory that would exist so the selective advantage of the mutation would have to outweigh the disruption of an already established developmental pathway.

But each of these speculations is unobservable and untestable. It's quite possible that developmental constraints may be even more rigid with fewer genes. But even if the constraints were weaker, then there should be more variability in morphology of species over space and time. But as I said earlier, the Cambrian fauna are easily recognizable from the early Cambrian deposits in China and Greenland to the middle Cambrian deposits of the Burgess Shale. There is no testable or observational basis for hypothesizing less stringent developmental constraints.

This stunning burst of body plans in the early Cambrian and the lack of significant new body plans since the Cambrian

indicate a limit to change. Evolutionary developmental biologist Rudolf Raff told *Time* magazine over ten years ago that “There must be limits to change. After all, we’ve had these same old body plans for half a billion years.”[\[20\]](#) Indeed, perhaps these limits to change are far more pervasive and genetically determined than Raff even suspects.

Along the way, functional organisms must form the intermediate forms. But even the functionality of these intermediate organisms transforming from one body plan to another has long puzzled even the most dedicated evolutionists. S. J. Gould, the late Harvard paleontologist, asked,

“But how can a series of reasonable intermediates be constructed? . . . The dung-mimicking insect is well protected, but can there be any edge in looking only 5 percent like a turd?”[\[21\]](#)

With his usual flair, Gould asks a penetrating question. Most have no problem with natural selection taking a nearly completed design and making it just a little bit more effective. Where the trouble really starts is trying to create a whole new design from old parts. Evolution has still not answered this critical question. I fully believe that evolution is incapable of answering this question with anything more than “I think it can.” However, unlike the little train that could, it will take far more than willpower to come up with the evidence.

In this brief discussion I haven’t even mentioned the challenges of [Michael Behe’s irreducible complexity](#),[\[22\]](#) William Dembski’s specified complexity,[\[23\]](#) and a host of other evolutionary problems and difficulties. This truly is a theory in crisis.

Notes

1. Daniel Dennett, *Darwin’s Dangerous Idea* (New York: Simon

and Schuster, 1999).

2. R. Dawkins, *The Blind Watchmaker* (W. W. Norton, 1986), 1.
3. Jonathan Wells, *Icons of Evolution* (Washington, DC: Regnery Publishing, Inc, 2000), 137-157.
4. Jerry Coyne, "Not black and white," *Nature* 396 (1998): 35-36.
5. Jonathan Weiner, *The Beak of the Finch* (New York: Alfred A. Knopf, 1994).
6. Scott F. Gilbert, "Opening Darwin's black box: teaching evolution through developmental genetics," *Nature Reviews Genetics* 4 (2003): 735-741.
7. Lane Lester and Raymond G. Bohlin, *The Natural Limits to Biological Change* (Richardson Tex.: Probe Books, 1984, 1989), 103,170.
8. Pierre-Paul Grassé, *Evolution of Living Organisms* (New York: Academic Press, 1977), 87.
9. David L. Stern, "Perspective: evolutionary developmental biology and the problem of variation," *Evolution* 54 (2000): 1079-1091.
10. Sean B. Carroll, "The big picture," *Nature* 409 (2001): 669.
11. Andrew M. Simons, "The continuity of microevolution and macroevolution," *Journal of Evolutionary Biology* 15 (2002): 688-701.
12. Wallace Arthur, *The Origin of Animal Body Plans* (Cambridge: Cambridge University Press, 1997), 14.
13. S. Gilbert, J. Optiz, and R. Raff, "Review—Resynthesizing Evolutionary and Developmental Biology," *Developmental Biology* 173 (1996): 361.
14. Wallace Arthur, *The Origin of Animal Body Plans*, 22.
15. S. Conway Morris, *Crucible of Creation* (Oxford: Oxford University Press, 1998), 31.
16. James Valentine, *On the Origin of Phyla* (Chicago: University of Chicago Press, 2004), 183.
17. Ibid., p. 194.
18. Stephen C. Meyer, "The origin of biological information and the higher taxonomic categories," *Proceedings of the*

- Biological Society of Washington* 117 (2), (2004):213-239.
19. Susumo Ohno, "The notion of the Cambrian pananimalia genome," *PNAS USA* 93 (1996): 8475-78.
20. Rudolf Raff, quoted in "Then Life Exploded," by J. Madeleine Nash, *Time*, Dec. 4, 1995, p. 74.
21. S. J. Gould, *Ever Since Darwin*, 1977, 104.
22. Michael Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution* (New York: Free Press, 1996).
23. William A. Dembski, *No Free Lunch: Why Specified Complexity Cannot Be Purchased without Intelligence*, (Lanham, Maryland: Roman and Littlefield, 2002).

© 2005 Probe Ministries

"Culture in Conflict" Conference MP3s



Conference Recordings

Kerby Anderson:

[Being Christian in a Post-Christian Society](#)
[Truth Decay](#)
[Basic Christian Evidences](#)

Dr. Ray Bohlin:

[The Privileged Planet and Intelligent Design](#)
[Evidence for the Existence of God](#)
[The Reliability of the Bible](#)

Sue Bohlin:

[Thinking Clearly About Sexual Confusion](#)
[Helping Teens Understand Homosexuality](#)
[Raising Gender-Secure Children](#)

Ray and Sue:

[Guys are From Mars, Girls Are From Venus](#)

God and CSI, Take 2

At our house, conversations about ID usually aren't about "identification." It means "Intelligent Design."

My husband Ray's entire education is in science, including a Ph.D. in molecular biology. Early in his Christian walk, learning there was evidence against evolution lit a fire under him that has only grown in the 35 years since. Today, he is thrilled by advances in science that on an almost-monthly basis reveal more and more evidence that an intelligence is the only reasonable explanation for many aspects of the natural world.

But that doesn't sit well with people who don't want to be accountable to the God they know perfectly well is there, but

spend endless hours and countless books (and YouTube videos) denying it.

The anti-God attitude was well known to the apostle Paul, who said in Romans 1:19-20, “. . .that which is known about God is evident within them; for God made it evident to them. For since the creation of the world His invisible attributes, His eternal power and divine nature, have been clearly seen, being understood through what has been made, so that they are without excuse.”

Eventually, it poisoned the very core of most science today. The early scientists like Galileo and Newton made important discoveries about the Creation because their starting point was a belief in an intelligent, orderly Creator who wove orderliness into His creation. They believed that the orderliness and principles of the natural world were knowable because our God is knowable. But then, Darwin's theory of evolution allowed people to embrace science without buying into the “God part” of it. Richard Dawkins (*The God Delusion*) said that “Darwin made it possible to be an intellectually fulfilled atheist.” And today, it is now assumed that the very nature of science excludes anything supernatural. This has nothing to do with the evidence and everything to do with people's hearts.

When we “X” God out of our thinking, we feel free to redefine things any way we want, since we no longer feel beholden to His view of reality. I was thinking the other day that if Las Vegas decided it didn't like its crime statistics, all it needs to do is define crime away. Can you imagine if the city went to the CSI investigators and said, “You know all those dead bodies you deal with? From now on, you need to find a natural explanation for those deaths.”

And the CSI people would say, “But most of the deaths we investigate aren't naturally caused. They are caused by human beings.”

LV: Not any more. If all people die from natural causes, then we've done away with crime. And we are totally committed to doing away with crime in Las Vegas.

CSI: But we're committed to following the evidence no matter where it leads. If the evidence implies a killer, we can't say it's a natural death.

LV: Our commitment is eliminating crime. If you can't come up with natural causes for these deaths, we'll bring in CSIs who can.

CSI: So when we find someone face down on a desk, with a wound indicating something long and sharp was stabbed from the back of the neck into the victim's mouth. . .?

LV: Keep researching until you find a completely natural explanation. And stop using needlessly prejudicial words like "victim." There is no more crime in this city because we have declared it so. Your findings have to be consistent with the new city policy.

And that's what it's like to be a scientist these days. Don't believe me? Watch Ben Stein's movie *Expelled: No Intelligence Allowed* .

And go "Arrrrrgggggggghhhhhhhhhhhhh!!!!!!"

This is a revised version of the [blog post](#) originally published on October 7, 2008

Evidence for God's Existence

Romans chapter 1 says that God has planted evidence of Himself throughout His creation so we are without excuse. Sue Bohlin looks at different types of evidence indicating that God really does exist.

A "Just Right" Universe

There's so much about the universe, and our world in particular, that we take for granted because it works so well. But Christian astronomer Dr. Hugh Ross has cited twenty-six different characteristics about the universe that enable it to sustain life. And there are thirty-three characteristics about our galaxy, our solar system, and the planet Earth that are finely-tuned to allow life to exist.^{1} I do well to make the meat, potatoes, vegetables, and bread all come out at the same time for dinner; we're talking about fifty-nine different aspects all being kept in perfect balance so the universe hangs together and we can live in it!

Our Earth, for instance, is perfectly designed for life. It's the "just right" size for the atmosphere we need. Its size and corresponding gravity hold a thin, but not too thin, layer of gases to protect us and allow us to breathe. When astronaut John Glenn returned to space, one of the things that struck him was how thin and fragile our atmosphere is (only 50 miles above the Earth). If our planet were smaller it couldn't support an atmosphere, like on Mercury. If it were larger, like Jupiter, the atmosphere would contain free hydrogen, which is poison for us.^{2} Earth is the only planet we know of that contains an atmosphere that can support human, animal, and plant life.

The Earth is also placed at a "just right" distance from the sun and the other planets in our solar system. If we were closer to the sun, we'd burn up. If we were farther away, we'd

freeze. Because Earth's orbit is nearly circular, this slightly elliptical shape means that we enjoy a quite narrow range of temperatures, which is important to life. The speed of Earth's rotation on its axis, completing one turn every 24 hours, means that the sun warms the planet evenly. Compare our world to the moon, where there are incredible temperature variations because it lacks sufficient atmosphere or water to retain or deflect the sun's energy.

Speaking of the moon, it's important that there is only one moon, not two or three or none, and it's the "just right" size and distance from us. The moon's gravity impacts the movement of ocean currents, keeping the water from becoming stagnant. [\[3\]](#)

Water itself is an important part of a "just right" world. Plants, animals and human beings are mostly made of water, and we need it to live. One of the things that makes Earth unique is the abundance of water in a liquid state.

Water has surface tension. This means that water can move upward, against gravity, to bring liquid nutrients to the tops of the tallest plants.

Everything else in the world freezes from the bottom up, but water freezes from the top down. Everything else contracts when it freezes, but water expands. This means that in winter, ponds and rivers and lakes can freeze at the surface, but allow fish and other marine creatures to live down below.

The fact that we live on a "just right" planet in a "just right" universe is evidence that it all was created by a loving God.

The Nagging Itch of "Ought"

As a mother, I was convinced of the existence of a moral God when my children, without being taught, would complain that something wasn't "fair." Fair? Who taught them about fair? Why

is it that no one ever has to teach children about fairness, but all parents hear the universal wail of “That’s not fa-a-a-a-a-air!” The concept of fairness is about an internal awareness that there’s a certain way that things ought to be. It’s not limited to three-year-olds who are unhappy that their older siblings get to stay up later. We see the same thing on “Save the Whales” bumper stickers. Why should we save the whales? Because we ought to take care of the world. Why should we take care of the world? Because we just should, that’s why. It’s the right thing to do. There’s that sense of “ought” again.

Certain values can be found in all human cultures, a belief that we act certain ways because they’re the right thing to do. Murdering one’s own people is wrong, for example. Lying and cheating is wrong. So is stealing. Where did this universal sense of right and wrong come from? If we just evolved from the apes, and there is nothing except space, time, and matter, then from where did this moral sense of right and wrong arise?

A moral sense of right and wrong isn’t connected to our muscles or bones or blood. Some scientists argue that it comes from our genes – that belief in morality selects us for survival and reproduction. But if pressed, those same scientists would assure you that ultimate right and wrong don’t exist in a measurable way, and it’s only the illusion of morality that helps us survive. But if one researcher stole another’s data and published results under his own name, all the theories about morality as illusion would go right out the window. I don’t know of any scientist who wouldn’t cry, “That’s not fair!” Living in the real world is a true antidote for sophisticated arguments against right and wrong.

Apologist Greg Koukl points out that guilt is another indicator of ultimate right and wrong. “It’s tied into our understanding of things that are right and things that are wrong. We feel guilty when we think we’ve violated a moral

rule, an “ought.” And that feeling hurts. It doesn’t hurt our body; it hurts our souls. An ethical violation is not a physical thing, like a punch in the nose, producing physical pain. It’s a soulish injury producing a soulish pain. That’s why I call it ethical pain. That’s what guilt is – ethical pain.”[\[4\]](#)

The reason all human beings start out with an awareness of right and wrong, the reason we all yearn for justice and fairness, is that we are made in the image of God, who is just and right. The reason we feel violated when someone does us wrong is that a moral law has been broken – and you can’t have a moral law without a moral law giver. Every time we feel that old feeling of, “It’s not fa-a-a-a-a-air!” rising up within us, it’s a signpost pointing us to the existence of God. He has left signposts pointing to Himself all over creation. That’s why we are without excuse.

Evidence of Design Implies a Designer



If you’ve ever visited or seen pictures of Mount Rushmore (South Dakota USA), you cannot help but look at the gigantic sculpture of four presidents’ faces and wonder at the skill of the sculptor. You know, without having to be told, that the natural forces of wind and rain did not erode the rock into those shapes. It took the skilled hands of an artist.

William Paley made a compelling argument years ago that the intricacies of a watch are so clearly engineered that it cannot be the product of nature: a watch demands a watchmaker. In the same way, the more we discover about our world and ourselves, the more we see that like an expertly-fashioned watch, our world and we ourselves have been finely crafted with intentional design. And design implies a designer.

Since we live in our bodies and take so much of our abilities for granted, it's understandable that we might miss the evidence of design within ourselves – much like a fish might be oblivious to what it means to be wet. Dr. Phillip Bishop at the University of Alabama, challenges us to consider what would happen if we commissioned a team of mechanical engineers to develop a robot that could lift 500 pounds. And let's say we also commissioned them to design a robot that could play Chopin. They could probably do that. But what if we asked them to come up with a robot that could do both, and limit the robot's weight to 250 pounds, and require that it be able to do a variety of similar tasks? They'd laugh in our faces, no matter how much time or money we gave them to do it. But you know, all we'd be asking them to do is to come up with a very crude replication of former football player Mike Reid.[\[5\]](#)

Probably the greatest evidence of design in creation is DNA, the material of which our genes are made, as well as the genetic material for every living thing on the planet. One of the startling discoveries about DNA is that it is a highly complex informational code, so complex that scientists struggle hard to decipher even the tiniest portions of the various genes in every organism. DNA conveys intelligent information; in fact, molecular biologists use language terms – code, translation, transcription – to describe what it does and how it acts. Communication engineers and information scientists tell us that you can't have a code without a code-maker, so it would seem that DNA is probably the strongest indicator in our world that there is an intelligent Designer behind its existence.

Dr. Richard Dawkins, a professor of biology who writes books and articles praising evolution, said in his book *The Blind Watchmaker*, "Biology is the study of complicated things that give the appearance of having been designed for a purpose."[\[6\]](#) Even those who desperately fear the implications of design keep running into it.

Those who deny the evidence of a designer are a lot like the foolish fisherman. If he fails to catch a fish, he says, "Aha! This proves there are no fish!" He doesn't want to consider the possibility that it might be he is an inept fisherman. Since science cannot measure the intangible or the supernatural, there are many people who say, "Aha! There is no Creator." {7} Foolish fishermen deny the evidence that God exists and has left His fingerprints all over creation.

The Reliability of the Bible

Every religion has its own holy book, but the Bible is different from all the others. It claims to be the very Word of God, not dropped out of the sky but God-breathed, infused with God's power as He communicated His thoughts and intent through human writers.

The Bible was written over a period of 1500 years, by about forty different writers, on three different continents. They addressed a wide variety of subjects, and yet the individual books of the Bible show a remarkable consistency within themselves. There is a great deal of diversity within the Bible, at the same time displaying an amazing unity. It presents an internally consistent message with one great theme: God's love for man and the great lengths to which He went to demonstrate that love.

If you pick up any city newspaper, you won't find the kind of agreement and harmony in it that is the hallmark of the biblical books. A collection of documents that spans so much time and distance could not be marked by this unity unless it was superintended by one Author who was behind it all. The unity of the Bible is evidence of God's existence.

One other aspect of the Bible is probably the greatest evidence that God exists and that He has spoken to us in His holy book: fulfilled prophecy. The Bible contains hundreds of details of history which were written in advance before any of

them came to pass. Only a sovereign God, who knows the future and can make it happen, can write prophecy that is accurately and always – eventually – fulfilled.

For example, God spoke through the prophet Ezekiel against the bustling seaport and trade center of Tyre. In Ezekiel 26:3-6, He said He would bring nations against her: “They shall destroy the walls of Tyre and break down her towers; and I will scrape her soil from her, and make her a bare rock.” Ezekiel 26-28 has many details of this prophecy against Tyre, which would be like Billy Graham announcing that God was going to wipe New York off the map.

Tyre consisted of two parts, a mainland city and an island a half- mile offshore. The first attack came from the Babylonian king Nebuchadnezzar, who laid siege to Tyre for thirteen years. Finally, his battering rams broke through the walls, and he tore down the city’s towers. But the island part of the city wasn’t yet destroyed, because this prophecy was fulfilled in stages. For 250 years it flourished, until Alexander the Great set his sights on Tyre. Even without a navy, he was able to conquer this island city in what some consider his greatest military exploit. He turned the ruined walls and towers of Old Tyre into rubble, which he used to build a causeway from the mainland to the island. When he ran out of material, he scraped the soil from the land to finish the land- bridge, leaving only barren rocks where the old city used to be. He fulfilled the prophecy, “They will break down your walls and destroy your pleasant houses; your stones and timber and soil they will cast into the midst of the waters”(Ez. 26:12).

Fulfilled prophecy is just one example of how God shows He is there and He is not silent. How else do we explain the existence of history written in advance?

Jesus: The Ultimate Evidence

The most astounding thing God has ever done to show His

existence to us is when He passed through the veil between heaven and earth and came to live among us as a man.

Jesus Christ was far more than just a great moral teacher. He said things that would be outrageous if they weren't true, but He backed them up with even more outrageous signs to prove they were. Jesus claimed not to speak for God as a prophet, but to be God in human flesh. He said, "If you've seen Me, you've seen the Father" (John 14:9), and, "The Father and I are one" (John 10:30). When asked if He was the Messiah, the promised Savior, He said yes.[\[8\]](#) He told his contemporaries, "Before Abraham was, I am" (John 8:58). The fact that His unbelieving listeners decided then to kill Him shows that they realized He was claiming to be Yahweh, God Almighty.

When Jesus told His followers that He was the Good Shepherd (John 10:11-18), they would immediately be reminded of a passage in the book of Ezekiel where Yahweh God pronounced Himself shepherd over Israel (Ez. 34:1-16). Jesus equated Himself with God.

But words are cheap, so Jesus backed up His words with miracles and signs to validate His truth-claims. He healed all sorts of diseases in people: the blind, the deaf, the crippled, lepers, epileptics, and even a woman with a twelve-year hemorrhage. He took authority over the demons that terrorized and possessed people. He even raised the dead.

Jesus showed His authority over nature, as well. He calmed a terrible storm with just a word. He created food out of thin air, with bread and fish left over! He turned water into wine. He walked on water.

He showed us what God the Father is like; Jesus was God with skin on. He was loving and sensitive, at the same time strong and determined. Children and troubled people were drawn to Him like a magnet, but the arrogant and self-sufficient were threatened by Him. He drenched people with grace and mercy

while never compromising His holiness and righteousness.

And after living a perfect life, He showed His love to us by dying in our place on a Roman cross, promising to come back to life. Who else but God Himself could make a promise like that and then fulfill it? The literal, bodily resurrection of Jesus Christ is the final, greatest proof that there is a God, that Jesus is God Himself, and that God has entered our world and showed us the way to heaven so we can be with Him forever. He said, "I am the way, the truth, and the life; no one comes to the Father except by Me" (John 14:6).

God exists, and He has spoken. He made a "just right" universe that is stamped with clues of its Maker. He placed eternity in our hearts, as Ecclesiastes tells us, and all people have a strong moral streak because we are made in the image of a moral God. The evidence of design in our bodies, our world and the universe is a signpost pointing to a loving, intelligent Designer behind it all. The unity of the Bible and the hundreds of fulfilled prophecies in it show the mind of God behind its creation. And we've looked at the way Jesus punched through the space-time continuum to show us what God looks like, and opened the doorway to heaven. Jesus is the clearest evidence of all that God does exist.

Notes

1. Hugh Ross, *Creator and the Cosmos*. (Colorado Springs, CO.: Navpress, 1995), 111-145.

2. R.E.D. Clark, *Creation* (London: Tyndale Press, 1946), 20.

3. *The Wonders of God's Creation*, Moody Institute of Science (Chicago, IL).

4. Gregory Koukl, "Guilt and God," Stand to Reason Commentary.

<http://www.str.org/free/commentaries/theology/guiltngod.htm>.

5. Phillip Bishop, "Evidence of God in Human Physiology."

<http://www.leaderu.com/science/bishop.html>

6. Richard Dawkins, *The Blind Watchmaker* (New York: W.W. Norton & Co., 1986), 1.

7. Bishop.

8. Mark 14:61-62; Matthew 26: 63-65; Luke 22:67-70

The author gratefully acknowledges the insights of Marilyn Adamson, whose article "Is There a God?" on LeaderU.com formed the basis for much of this essay.

© 1999 Probe Ministries.

DNA, Information, and the Signature in the Cell

Where Did We Come From?

Where did we come from? A simple question, but not an easy answer. Darwin addressed this question in his book, *On the Origin of Species*. Although he never really answered how the universal common ancestor first came to life, he implied that it was from natural causes. In this article, we are going to look at Darwin's method of deducing occurrences in the past based on observations we see today. This is now referred to as the *historical* or *origins science* method. We will find that purely naturalistic causes fall short of explaining what we know about DNA, but intelligent design seems to be a promising alternative. Then we will look at scripture and see how Christians can use these evidences for design to talk about who that designer is. We will be using Stephen Meyer's new book, *Signature in the Cell*, to guide us on the science and method of approaching this question.

Charles Darwin's book, *On the Origin of Species* discusses his

theory on how natural selection acts on living things so that the fittest organisms for a particular environment survive, and how this process eventually leads to novel species and body plans. Implied in his work is the notion that all living things came from nature and from natural causes. So his presupposition is that life must have first come from impersonal things like matter and energy. Because of this, origin-of-life scientists have been trying for years to demonstrate how life may have come from non-life.

Let's try to figure out how a cell could form from purely naturalistic processes. Better yet, since we now know that natural selection acts on random mutations within the genome, let's focus in on DNA, the instruction booklet for the cell. Without DNA, cells would not function.

DNA is part of a complex information-processing systems{1} DNA is a long, helical structure found inside the nucleus and mitochondria of the cell. It is made of a four-molecule alphabet arranged in a very specific order. This sequence is like an instruction book telling the cell what parts to use to build a protein. But this instruction book needs to be decoded with other proteins. The difficult thing is that proteins are needed to make more DNA, but DNA is needed to make proteins. And the cell cannot function without proteins. This means that the first DNA molecule must have been made differently than how it is made today.

DNA is a very complex information processing system. In fact, Bill Gates has compared it to a computer program but far, far more advanced than any software ever created.{2} DNA is more than just an improbable sequence of bases; it is functional. It tells the cells what to do. So the question we really need to answer is, how can this kind of information arise in the first place?

Origins and Operations Science

We are investigating what science can tell us about the origin of life. Did we just come out of a chemical soup, or was it something else? First, we need to answer this question: How did DNA, the body's instruction book, first get here? In order to answer the question, we need to decide what method to use to investigate this question. Since we are looking at the science, we should use the scientific method. However, we need to make a distinction between approaching something that is a re-occurring, testable phenomenon, and a singular event in the past.

As a scientist, I usually work in the area of *operations science*. This is the type of science we learn in school. You start with a hypothesis, then you conduct an experiment to test your hypothesis. Repeat your experiment several times, collect data, and make conclusions about your hypothesis. Operations science deals with regular, repeatable things that can usually be described by mathematical formulas. Oftentimes, operations science is looking at some kind of naturally occurring process.

But there is another type of science that forensics experts and archeologists use. It is called origins science. Origins science determines what caused a singular event in the past. The role of origins science is to first determine if something was caused by chance, natural laws, or intelligence. For example, one could find a rock formation that looks very similar to a human head. Was this formation caused by chance and natural laws, such as wind and rain wearing away the rock? Or was it caused by intelligence? Did someone carve the rock to look this way?

Origins science operates under a different set of rules than operations science because the event in question has already happened, and it is not a reoccurring, observable phenomenon. The best that we can do is look at clues to give us a

reasonable guess as to what might have happened. In *Signature in the Cell*, Meyer uses origins science to determine if DNA is a result of chance, natural laws, or intelligence:

Thaxton and his colleagues argued that inferring an intelligent cause was legitimate in origins science, because such sciences deal with singular events, and the actions of intelligent agents are usually unique occurrences. On the other hand, they argued that it was not legitimate to invoke intelligent causes in operations science, because such sciences only deal with regular and repeating phenomena. Intelligent agents don't act in rigidly regular or lawlike ways, and therefore, cannot be described mathematically by laws of nature. [\[3\]](#)

DNA replication happens all of the time, but it requires proteins. But proteins are made by instructions from DNA. So the first DNA molecule must have been made in a special, atypical way, meaning it qualifies as origins science. Origins science allows for singular acts of intelligence to explain certain phenomena.

This means we need to investigate, using origins science, how the first DNA molecule with its information-carrying capacity was produced.

What Are the Possibilities?

DNA is the code for life. If we determine where it came from, then we are one step closer to determining the origin of life. Let's look at the typical origin of life theories posed by scientists as our first step in our origins science method, and see where theories are lacking or where they are helpful. Two things these theories all have in common is that they presume no designer, but only natural causes, and none of them can explain the origin of information.

The first option is that DNA might have arisen by chance. When scientists talk about chance, they are not saying that some entity called Chance did something. They mean random chemical shuffling, and out of that came DNA. But it's not good enough to explain how random chemicals came together. Think of scrabble pieces. To say that DNA came about by chance would be similar to saying that someone shook a bag of scrabble pieces and threw them on the floor and it spelled out a sentence. And this would not be just any sentence, but step-by-step instructions on how to build a cellular machine. Chance is not a good explanation for the origin of DNA, because the probability of getting something as specified and complex as DNA is well beyond the accepted probability of zero.

The other option is DNA might have come about because of necessity or natural law. Maybe there is some chemical or natural reason that forced the DNA molecules to form. Two examples of this type of origin of life theory are *self-organization* and *biochemical predestination*. The idea behind both of these is that the molecular alphabet in DNA arranged itself because of chemical properties or environmental factors. Unfortunately, scientists have found that the molecules in DNA do not chemically interact with each other because they are stuck to a phosphate backbone, not to each other.[\[4\]](#) On top of that, there isn't even a chemical attraction between these DNA sequences and the protein parts they code for (known as a *codon*). Since there is not a self-organizing motivation for this, and there is not an environmental factor that would favor certain combinations over others, necessity seems to fall short of explaining the functional information of DNA.

Some scientists propose that it is a combination of chance and necessity. The most popular origin of life models are based on this theory. However, Stephen Meyer shows in his book that the two most popular models, the *RNA-first world* and the *Oparin* model, do not explain how functional information first arose.

Ultimately these theories boil down to claiming that random chance causes functional information.

So if all of the naturalistic theories of origin of life fall short, then perhaps we should expand our options to theories that allow for intelligent agents.

What if We Allow Intelligence?

It seems that all of the naturalistic explanations for the origin of life fall short of accounting for the information-rich molecule, DNA. As Meyer points out, apart from DNA and the machinery in cells, such specified information is not found anywhere in the natural world.[\[5\]](#) The only time we see these properties is in human language and writing. So if DNA has the properties of something that was designed, then why not entertain the idea that it was designed?

Today design is not permitted as an explanation in science. However, historically, this has not been the case. In fact, it was a belief in an intelligible and coherent world created by God that motivated early scientists such as Newton, Boyle, and Pascal.[\[6\]](#) However, after the Enlightenment (mid-1700s), many scientists started operating under different assumptions. They assumed that only natural causes, such as chance and necessity, are permitted to explain observations.

Flash forward to Charles Darwin's time (1860s). Darwin looked at presently acting conditions to extrapolate back to the origin of all living things. He saw that environmental factors select for certain traits, such as beaks on finches. And he saw that things like dog breeding will select for certain desired traits. He therefore concluded that maybe the various animals and body plans came from conditions similar to this. He named this selective force, this breeder, natural selection. This was based on what Darwin knew in the 1850s, and some assumptions about intelligent causes influenced by

Enlightenment thinking. At that time Darwin knew nothing about DNA. It would not be discovered until the 1950s.

Stephen Meyer discusses how presently there are no known natural causes for the kind of functional information we see in DNA. The only place we see this is in human language and writing. So perhaps we cannot assume natural causes. Maybe DNA arose by intelligent design. Furthermore, experimental efforts to try to produce DNA or RNA in the lab show that a chemist or a computer programmer must be involved in the experiment in order to obtain functional information. Natural selection cannot act as a breeder, because it does not have the end goal in mind.

Intelligent Design is a strong possibility for explaining the origin of DNA. It is something that we see in operation today. And it is experimentally justified.

What Does This Have to Do with Christianity?

We have been looking at the properties of DNA and how it has all of the characteristics of a written code. Using the methods of origins science that Stephen Meyer used in *Signature in the Cell*, we can conclude that intelligent design is the best explanation for the origin of DNA. Intelligence is causally adequate to produce a code like DNA. It is observable, in the sense that today intelligent agents produce codes. And any experiments that try to reproduce DNA seem to require the input of information by an intelligent agent to make anything meaningful. This is why Meyer calls DNA the signature in the cell. However, the science alone cannot tell us whose signature it is, so we need to look elsewhere for that. That's where Christianity comes in.

As Christians we believe that God reveals himself through general and special revelation. General revelation is God

revealing things about himself in nature. Think of it like God's fingerprints on creation. Special revelation is what God has specifically revealed in the Bible. If we want to find out whose signature is in the cell, we need special revelation to inform us on that. And the Bible says this much. Right before Paul says that creation reveals the attributes of God in Romans 1:18-20, he says it is the gospel that brings salvation in verses 16 and 17.

From the science it is reasonable to say DNA first arose by intelligent design. DNA is one of many extra-Biblical clues pointing us to a designer. This evidence, taken with many other extra-biblical evidences such as the fine-tuning of the universe for life, the moral law on our hearts, and even the way that we know gravity works the same today as it did yesterday, makes one suspicious that there must be a designer. Now take the evidences for the authority of Scripture from archeology and the Bible's internal structure and consistency and we have many reasons to believe that this designer is the God of the Bible. As Paul says in Romans 1, "His invisible attributes, namely, his eternal power and divine nature, have been clearly perceived, ever since the creation of the world, in the things that have been made. So they are without excuse" (v. 20). So, even though the science will not bring someone to a saving knowledge of Christ, they are without excuse because it does reveal God's attributes. Maybe when someone sees the Signature in the Cell, they will ask, whose signature is it?

Notes

1. "After the early 1960s advances in the field of molecular biology made clear that the digital information in DNA was only part of a complex information-processing system, an advanced form of nanotechnology that mirrors and exceeds our own in its complexity, storage density, and logic of design." Stephen C. Meyer, *Signature in the Cell* (HarperOne, 2009), 14.
2. Bill Gates, *The Road Ahead* (Viking, 1995), 188; quoted in

Meyer, *Signature*, 12.

3. Meyer, *Signature*, 29.

4. The only time the nucleotides in DNA interact with each other is when they are paired, A-T, C-G, and they do this through hydrogen bonding. However, this pairing is with nucleotides across from each other and serves to protect the DNA molecule. The coding has to do with the sequence of bases next to each other, and there is no chemical reason for one nucleotide to “prefer” being next to another.

5. “Apart from the molecules comprising the gene-expression system and machinery of the cell, sequences of structures exhibiting such specified complexity or specified information are not found anywhere in the natural—that is, the nonhuman—world.” Meyer, *Signature*, 110.

6. In the radio transcript, I included James Maxwell in this list. While he is among scientists whose belief in God did influence his work, he lived from 1831-1879 which was after the beginning of the Enlightenment. I chose to take his name out here for clarity, although he is a good example of someone who did not hold to the typical presuppositions of the Enlightenment.

© 2010 Probe Ministries

God and CSI:

At our house, conversations about ID usually aren't about “identification.” It means “Intelligent Design.”

My husband Ray's entire education is in science, including a Ph.D. in molecular biology. Early in his Christian walk,

learning there was evidence against evolution lit a fire under him that has only grown in the 35 years since. Today, he is thrilled by advances in science that on an almost-monthly basis reveal more and more evidence that an intelligence is the only reasonable explanation for many aspects of the natural world.

But that doesn't sit well with people who don't want to be accountable to the God they know perfectly well is there, but spend endless hours and countless books (and YouTube videos) denying it.

The anti-God attitude was well known to the apostle Paul, who said in Romans 1:19-20, ". . .that which is known about God is evident within them; for God made it evident to them. For since the creation of the world His invisible attributes, His eternal power and divine nature, have been clearly seen, being understood through what has been made, so that they are without excuse."

Eventually, it poisoned the very core of most science today. The early scientists like Galileo and Newton made important discoveries about the Creation because their starting point was a belief in an intelligent, orderly Creator who wove orderliness into His creation. They believed that the orderliness and principles of the natural world were knowable because our God is knowable. But then, Darwin's theory of evolution allowed people to embrace science without buying into the "God part" of it. Richard Dawkins (*The God Delusion*) said that "Darwin made it possible to be an intellectually fulfilled atheist." And today, it is now assumed that the very nature of science excludes anything supernatural. This has nothing to do with the evidence and everything to do with people's hearts.

When we "X" God out of our thinking, we feel free to redefine things any way we want, since we no longer feel beholden to His view of reality. I was thinking the other day that if Las

Vegas decided it didn't like its crime statistics, all it needs to do is define crime away. Can you imagine if the city went to the CSI investigators and said, "You know all those dead bodies you deal with? From now on, you need to find a natural explanation for those deaths."

And Gus Grissom would say, "But most of the deaths we investigate aren't naturally caused. They are caused by human beings."

LV: Not any more. If all people die from natural causes, then we've done away with crime. And we are totally committed to doing away with crime in Las Vegas.

GG: But we're committed to following the evidence no matter where it leads. If the evidence implies a killer, we can't say it's a natural death.

LV: Our commitment is eliminating crime. If you can't come up with natural causes for these deaths, we'll bring in CSIs who can.

GG: So when we find someone face down on a desk, with a wound indicating something long and sharp was stabbed from the back of the neck into the victim's mouth. . .?

LV: Keep researching until you find a completely natural explanation. And stop using needlessly prejudicial words like "victim." There is no more crime in this city because we have declared it so. Your findings have to be consistent with the new city policy.

And that's what it's like to be a scientist these days. Don't believe me? Watch Ben Stein's movie *Expelled: No Intelligence Allowed* when it comes out on DVD in a few days.

And go "Arrrrrgggggggghhhhhhhhhhhhhhhhhhh!!!!!!!"

This blog post originally appeared at

blogs.bible.org/tapestry/sue_bohlin/god_and_csi on October 7,
2008.