

“I Need Help Figuring Out the Meaning of MY Life”

Jerry Solomon,

I read your essay entitled, “[What’s the Meaning of Life?](#)” and was encouraged. I see that you wrote the piece over five years ago; but of course the content is ageless.

If you have a few minutes, I’d like to share my story with you and perhaps solicit some advice from you.

I’m 43. I became a believer when I was 8. I’ve walked closely with Jesus for most of those years. I have a wife of 22 years and three fantastic teenage children. Vocationally, I’ve been [details edited out]. In addition to many other blessings, God has blessed us financially—so much so that the financial need to work has diminished, leaving me time (and emptiness) to consider “meaning” questions.

I ask God, “What’s next?” but I don’t seem to be getting throughor at least I don’t understand His answer(s). Most men (including my believing dad) are very uncomfortable talking to me about “meaning” questions. I sense that it’s scary for them to face such crucial issues head on. I’ve read *Purpose Driven Life* and am re-reading Piper’s *Desiring God*. *Purpose Driven Life* was good; but it didn’t offer me any new perspectives. Piper’s book is challenging; but I’m not sure how to “activate” the whole idea of “enjoying God.”

I’m taking a month off work to try to figure out what happens next. I would be honored if you would take time to comment or share spiritual insights you (or your staff) might have.

Dear _____,

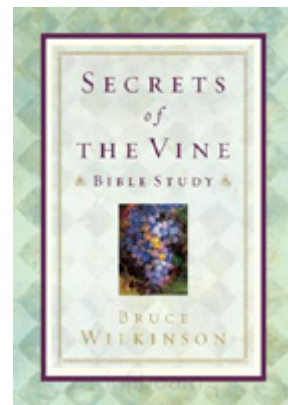
Thank you for your comments and expression of gratitude upon

reading Jerry's article. In a following paragraph to his article we explain that Jerry is no longer with Probe and that within 2 years of leaving Probe for an associate pastor's role in a local church, the Lord took him home after a 6 month battle with pancreatic cancer. I will respond to your query as best I can.

You are correct in your observation that many men are uncomfortable considering questions of meaning. Basically they are afraid of what they might discover and that their life has been focused on the wrong things. Who wants to discover that?! This is especially so for someone like your dad who is late in life with little time to correct his perspective.

You are also correct in your intuition that discovering life's meaning for you has to go beyond reading a book. *Purpose Driven Life* is great for those who have never even considered these things. But for those who have followed Him with some perseverance over many years will find the book a little stale and repetitive. It really is for baby Christians.

I would like to suggest a different book you can read in an hour or so but the application at the end could last several years. The book is Bruce Wilkinson's *Secrets of the Vine*. It's an exposition of John 15 that outlines four stages to a believers life: (1) little fruit, (2) no fruit due to discipline brought on by sin, (3) pruning to produce more fruit, and (4) full abiding. My suspicion is that you are desiring a fully abiding relationship with your Lord, and Wilkinson's description of his own crisis and his solution will be enlightening and empowering to you.



Unfortunately, in my experience, few Christians get to the place where full abiding is where they want to be. It scares them. It is a full relinquishing of ourselves to Him and Him alone. Abiding truly is just being with Him and not

necessarily looking for more ways to serve, more things to accomplish. Abiding is getting to the point where we realize that if we simply pursue Jesus, all He wants from us will flow with almost no effort because we are yielded to Him.

This requires a sharpened sense of knowing His will. To do that one needs to spend time with Him, truly know Him. Wilkinson embarked on a journey of journaling his thoughts with the Lord. I am working on developing that skill. It's not easy for me, having grown up with a loving but non-communicative father. I'm still learning how to talk to my heavenly Father as a person and not some kind of heavenly czar.

I have led several groups of men through this book, and some get it and get it big. Most, however, are intrigued, enlightened, but non-committal.

Quite simply, yet frustratingly, the meaning of life is Jesus. "I am the way, the truth, and the life." Ultimately, knowing Him and pursuing Him is the only thing that can bring true meaning, fulfillment, and joy in this life, no matter what we actually do, day in and day out.

Respectfully,

Ray Bohlin, PhD

Thank you very much for your very thoughtful response. I was very encouraged by your comments and felt like you really understand the struggle. Wow, what a breath of fresh air, that another brother understands. I look forward to getting and reading Bruce Wilkinson's *Secrets of the Vine*. Thank you for taking the time to respond.

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“Is There a Genetic Component to Homosexuality?”

Dear Dr. Bohlin,

I noticed that you have some background in genetics. I am writing an article involving homosexuality for my own website. Many homosexuals want to say they are “born” that way, or that God made them homosexual. However, the evidence so far is unconvincing.

I am a student of science and scientific knowledge and have some background in science as well. I believe that there may be a genetic component to what some homosexuals experience.

Also, I’ve been thinking that some homosexuals may have a genetic defect somewhere that we may discover. They may not want to hear or believe this, but I think it is a possibility. They don’t seem to realize that just because they may be “born” homosexual does not mean that they were meant to be homosexual. For example, some are born with sickle-cell anemia, but we know that this is due to a genetic defect and that this is abnormal for red blood cells. This is a problem that needs to be fixed. I think we may find in the genetic code a defect that leads some to homosexuality. I purposely used the word “some” in my statements because I think it is pretty well established by now that homosexuality is not a monolith and that some of them do choose this lifestyle deliberately. So what do you think?

No one has identified any gene that has been linked to homosexuality. Dean Hamer reportedly found a chromosomal region that was prevalent in male homosexuals but his work was unrepeatable and has been largely discarded.

It certainly is possible that there may be a gene or sets of genes that predispose someone to homosexuality. But you correctly surmise that this in no way would determine homosexual behavior. We all probably have genetic predispositions of one sort or another that make it easier for us to sin in some areas than in others. This could be similar to suspected predispositions for some to alcoholism (as found in some races and ethnic groups). This does not mean their alcoholism is excused or acceptable. The same would be true of any predisposition to homosexuality.

Keep in mind also that many who desire to leave the homosexual lifestyle can and do, and many have successfully worked to change their romantic and sexual attractions. If it were in any way genetically determined, this would not be possible. It would be like choosing to have genetically blue eyes and blonde hair (hair coloring and colored contact lenses aside).

Also, many in the gay community are distancing themselves from any genetic component to homosexuality because that would mean a genetic test could eventually be developed for it. They know full well that many parents would likely choose to have any embryo/fetus testing positive for homosexuality to be aborted or simply not implanted in the case of IVF.

Respectfully,

Ray Bohlin, PhD
Probe Ministries

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“Why Would an E.T. Have to Have a Biology Like Ours?”

Love your ministry. Keep up the good work! Just a question on your article [UFOs and Alien Beings...](#)

You wrote:

In the first place, it is highly improbable that there is another planet in our cosmos capable of supporting physical life. Dr. Ross has calculated the probability of such a planet existing by natural processes alone as less than 1 in 10^{174} .

My question would be: Why would one assume that an E.T would have to have biological mechanism that functions as you and I? Is it possible they can have a body that is not limited or constrained to “our” conditions here on planet earth?

You asked a good and frequent question. Actually complex life would have to be of similar chemistry as us. It turns out that carbon is the only element capable of forming the diversity of bonds and molecules that would allow life. Carbon can form bonds to four other atoms, including hydrogen, oxygen, and nitrogen as well as others. These bonds can serve as the basis for numerable molecules which life depends on. Since other life would necessarily be carbon based, there would also be requirements for water, oxygen, carbon dioxide, phosphorous, sulfur, etc. Eventually life’s chemistry would be similar to our own and intelligent life would have to be similar to us.

Respectfully,

Ray Bohlin, Ph.D.
Probe Ministries

“You are Full of Hatred and Bigotry”

I just read your article [Contact: A Eulogy for Carl Sagan](#). I hope you live to understand the hatred and bigotry you people spread and the millions of deaths that your kind of blind stupidity has caused. You live based on a political system used to control gullible people; that in itself is not wrong but please try to use the brain you have and think, just once in your life think.

Don't waste your life with a lie. The universe is a wonderful place, whatever you believe, being so large and wonderful, let's all think big and not insular and earth bound.

Good luck with seeing the truth and being honest with yourselves.

Sorry you had such a negative reaction to my article concerning Sagan and “Contact.” You're certainly not the first to respond to me that way.

I certainly do think that the universe is a wonderful place. I simply believe I have a much better reason for thinking that way. The universe is wonderful because God created it that way and I can appreciate the beauty, wonder, and awe of what I see as a reflection of the Creator. Sagan, and I presume you, have no reason for awe and wonder. We're just cogs in a mechanistic universe that did not have us or anything else in mind. We just happened. When we die, we're dirt and our lives have had no real significance.

Sagan in his opening monologue to the *Cosmos* series claims "There is a catch in the voice and a tingle in the spine as we approach the grandest of mysteries." He is referring to the origin and nature of the universe. However, if it's just molecules colliding over time, what's to get excited about? I maintain Sagan is borrowing his awe and wonder from a Christian perspective. When I approach the origin and nature of the universe, I too get a catch in the voice and a tingle in the spine because I am approaching the Creator in all His majesty, wonder, complexity, and mystery. Now that is truly awesome.

Every worldview has had its moments of terror attributed to it. Materialists such as Lenin, Stalin, Hitler, Mao, and Pol Pot have put a dark stain on that worldview. On the other hand, the Christian West literally invented hospitals, orphanages, shelters for the poor and homeless, and relief aid around the world for centuries. Certainly Christianity has had its dark moments such as the Crusades and the Inquisition, to name just a few. However, I would argue that the perpetrators of those events were not consistent in their application of the Bible to their world, where the materialists listed above lived far more consistently within theirs in perpetrating their horrors.

So I agree that we all need to think more clearly and consistently.

Respectfully,

Ray Bohlin
Probe Ministries

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“Your Article on Rock Music is Biased and Unjust”

Dear Mr. Jerry Solomon,

I stumbled across [your page](#) when I was looking for a song on the internet, I thought what you noted was extremely biased and unjust. From what I picked up from your page you obviously have a concern for rock music, maybe this email is completely out of no where but I think you are being slightly over the top. I love rock music and I am a Christian, I go to church twice a week every week and my friends at my church love rock too.

Music is just a way of feeling less stressed for me and rock is just a way of getting everything out of my system when I am at home. I think that you should let your daughter decide what music she likes and no offence but I think that what religion she chooses should be up to her. Also many rock bands are Christian based and maybe you should have done a bit more research on “rock music” before you wrote your page for the whole world to see.

Please don't get me wrong I really don't want to appear rude I just felt quite offended by what you said about the music I enjoy. Thank you very much for your time and would be interested to hear from you.

Dear _____,

Jerry Solomon went home to be with His Lord several years ago so I will answer your questions.

On the one hand I don't think you read Jerry's article very carefully. Jerry's only real problem with rock music was with the frequent anti-biblical message contained in some lyrics. As the quote below makes clear, he emphatically said that

there is nothing “evil” in the music itself.

So rock music basically consists of certain instruments— such as guitars, keyboards, and percussion—a particular rhythm, and the human voice. And none of these is evil. People can be evil, and people abuse rock music, just as they abuse all parts of life. Our sin nature is actively involved in desecrating everything.

This desecration can best be seen in the lyrical content of the songs. We have come a long way from the inane “do-wa-diddies” of early rock history. It is at this point that those in the Christian community are challenged the most. The music alone may be of quality, but the message may be totally in opposition to a Christian worldview. A decision is required. Do I continue to listen, even though the message is awful? Or do I decide to reject it because of the message, even though I like the music?

Unfortunately, the well-worn statement, “I only listen to the beat!” is simply not true. If they are honest, most people who have heard a rock song several times can sing the lyrics upon request. When you consider the fact that most popular songs are heard dozens, if not hundreds, of times, it is not difficult to understand how the messages are embedded. The lyrics come through; we can’t escape that. This does not necessarily mean we always listen and think to the point of really considering what the messages have to say, and that is exactly part of the problem. The lyrics can be subtly incorporated into our thoughts simply because we haven’t stopped long enough to sort them out.

Jerry was simply concerned about young people’s willingness to listen without discerning the message they were pumping into their brain. I am 51 and still listen to some rock music from the 60s and 70s. But I listen selectively and know what the biblical messages are and what is clearly antithetical to what

I believe. Jerry was simply appealing to others to do likewise.

I'm sorry you were offended but I simply think you misread Jerry's intent.

On one further note I would respectfully disagree with your statement that children should be free to choose their own religion. On the one hand, of course, children should choose for themselves, but that doesn't mean, on the other hand, that I leave them completely to their own search for meaning and truth. If I have found the Truth, why wouldn't I work to persuade them of that same Truth by taking them to church, providing a copy of the Scriptures for them to read, teaching them from the Scriptures at home, and living a holy life before them to deliberately try to influence them? Anything less is unloving and irresponsible.

Respectfully,

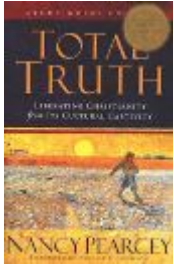
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Total Truth – The Importance of a Christian Worldview

Total Truth is a book about worldview, its place in every Christian's life, and its prominent role in determining our impact on a culture that has hooked itself to the runaway locomotive of materialism and is headed for the inevitable cliff of despair and destruction.

Liberating Christianity from Its Cultural Captivity



“This is a book of unusual importance by an author of unusual ability.”^[1] This is a strong recommendation from any reviewer, but when the reviewer is best-selling author and Darwinian critic, Phillip Johnson, people pay attention. As well they should. Nancy Pearcey’s *Total Truth* is probably the most significant book of 2004. I pray its influence and impact will be felt for decades.

This is a book about worldview, its place in every Christian’s life, and its prominent role in determining our impact on a culture that has hooked itself to the runaway locomotive of materialism and is headed for the inevitable cliff of despair and destruction.

While the concept of worldview has wiggled its way into the consciousness of some in the Christian community, it remains largely a buzzword used in the context of political discussions and fundraising for Christian parachurch organizations. But politics only reflects the culture, so working to change the political landscape without changing the way we think is not as productive as some thought it would be.

One of the extreme threats to Christianity in this country is the effect of the culture on our youth and, consequently, on the future of the church in America. Pearcey says, “As Christian parents, pastors, teachers, and youth group leaders, we constantly see young people pulled down by the undertow of powerful cultural trends. If all we give them is a ‘heart’ religion, it will not be strong enough to counter the lure of attractive but dangerous ideas.... Training young people to

develop a Christian mind is no longer an option; it is part of their necessary survival equipment.”[{2}](#)

Here at Probe Ministries we have recognized this threat for all of our thirty-two years of ministry. We continue the fight with our Mind Games conferences, Web site, and radio ministries. We address young people particularly in our week-long summer [Mind Games Camp](#). Students are exposed to the competing worldviews and challenged to think critically about their own faith, to be able to give a reason for the hope that they have with gentleness and respect.

In the rest of this article we will look at the four parts of Pearcey's *Total Truth*. In Part 1, she documents the attempts to restrict the influence of Christianity by instituting the current prisons of the split between sacred and secular, private and public, and fact and value. In Part 2 she deftly shows the importance of Creation to any worldview and summarizes the new findings of science which strongly support Intelligent Design. In Part 3, she peels back the shroud of history to discover how evangelicalism got itself into this mess. And in Part 4, she revisits Francis Schaeffer's admonition that the heart of worldview thinking lies in its personal application, putting all of life under the Lordship of Christ.

The Sacred/Secular Split

In the first part of the book, Pearcey explores what has become known as the sacred/secular split. That is to say that things of religion, or the sacred, have no intersection with the secular. Another way of putting it is to refer to the split as a private/public split. We all make personal choices in our lives, but these should remain private, such as our religious or moral choices. One should never allow personal or private choices to intersect with your public life. That would be shoving your religion down someone else's throat, as the

popular saying goes.

One more phrase of expressing the same dichotomy is the fact/value split. We all have values that we are entitled to, but our values are personal and unverifiable choices among many options. These values should not try to intersect with the facts, that is, things everyone knows to be true. The creation/evolution discussion is a case in point. We are told repeatedly that evolution is science or fact and creation is based on a religious preference or value. The two cannot intersect.

The late Christopher Reeve made this split quite evident in a speech to a group of students at Yale University on the topic of embryonic stem cell research. He said, "When matters of public policy are debated, no religions should have a place at the table."[\[3\]](#) In other words keep your sacred, private values to yourself. In the public square, we can only discuss the facts in a secular context.

Far too many Christians have bought into this line of thinking or have been cowered into it. Pearcey tells of a man who was a deacon in his church, taught Sunday School, tithed generously and was looked upon as a model Christian. Yet his job at the law firm was to investigate the contracts with clients no longer wanted by the firm to see what loopholes were available to get them out of the contract. He saw no link between his Christian faith and his work.[\[4\]](#)

We fall into these thinking traps because we don't understand worldviews in general and the Christian worldview in particular. Pearcey outlines a threefold test of any worldview to help get a grasp on what they mean for thought and life: Creation, Fall, and Redemption. Every worldview has some story of where everything came from – Creation. Then each worldview proceeds to tells us that something is wrong with human society – the Fall – and then each worldview offers a solution – Redemption. Using this tool you will be better able to

diagnose a worldview and whether it speaks the truth.

The Importance of Beginnings

The second part of Pearcey's book discusses the vitally important controversy over evolution and how it is taught in our schools. There is a clear philosophical filibuster masquerading as science in classrooms around the country.

In the opening chapter of this section, she tells the all too familiar story of a religious young man who is confronted with evolution in the seventh grade. Seeing the immediate contradiction between this theory and the Bible, the young man receives no help from teachers or clergy. He is left thinking that his "faith" has no answers to his questions. By the time he finishes school in Harvard, he is a committed atheist.[{5}](#)

The same story is repeated thousands of times every year. The faith of many young people has been wrecked on the shoals of Darwinism. Whoever has the power to define the story of creation in a culture is the *de facto* priesthood and largely determines what the dominant worldview will be.

On *Probe* we have discussed the problems of evolution and the evidence for Intelligent Design numerous times. Now Pearcey makes the case that this is far more than a scientific discussion. It is at the heart of the culture war we are immersed in. Darwinism has had a far reaching impact on American thought, and we need a better grasp of the issue to better fight the battle we are in.

To show the prevalence of naturalistic Darwinian thinking Pearcey quotes from a Berenstain Bears book on nature titled *The Bears Nature Guide*. "As the book opens, the Bear family invites us to go on a nature walk; after turning a few pages, we come to a two-page spread with a dazzling sunrise and the words spelled out in capital letters: Nature... is all that IS, or WAS, or EVER WILL BE."[{6}](#) Clearly this is presented as

scientific fact and should not be doubted.

Pearcey guides the reader through a well presented description of the major problems with the evidence concerning Darwinism. But more importantly, she clearly shows that the problem is not just the evidence. Most Darwinists accept the meager evidence because their worldview demands it. Naturalism requires a naturalistic story of creation, and since they are convinced of naturalism, some form of evolution must be true. She quotes a Kansas State University professor as saying, "Even if all the data point to an intelligent designer, such an hypothesis is excluded from science because it is not naturalistic." [\[7\]](#)

Pearcey goes on to show that Darwinism has continued to progressively influence nearly all realms of intellectual endeavor. From biology to anthropology to ethics to law to philosophy to even theology, Darwinism shows its muscle. Darwinism is indeed a universal acid that systematically cuts through all branches of human thought. We ignore it at our peril.

How Did We Get in This Mess?

Nancy Pearcey titles the third section of her book, "How We Lost Our Minds." She begins with a typical story of conversion from sin of a young man named Denzel. As Denzel seeks to grow and understand his newfound faith, he is stymied by leaders who can't answer his questions and is told to just have faith in the simple things.

When Denzel gets a job, he is confused by those from other religions and cults who all seem to have answers for people's questions. Only the Christians are unable to defend themselves from skeptics and believers of other stripes. Eventually he finds work at a Christian bookstore and finds the nectar he has been hungry for. But he had to look and look hard. Denzel

has learned that many in the evangelical movement have a largely anti-intellectual bias.

Where did that come from? Today one can still hear preachers of various stripes make fun of those of higher learning whether philosophers, scientists, or even theologians. The root of this anti-intellectualism is found in the early days of our country. America was founded by idealists and individualists. Many had suffered religious persecution and were looking for someplace to practice their faith apart from ecclesiastical authority. The democratic ideals of the original colonies and the newly independent United States of America seemed like just the right place.

When the early American seminaries became infected with the theological liberalism spawned by the Enlightenment, many rebelled against any form of church hierarchy, believing it couldn't be trusted. With the opening of the great frontiers, great opportunities for evangelism sprouted at the same time. Out of this came the First Great Awakening. The early revivalists directed their message to individuals, exhorting them to make independent decisions, Jonathan Edwards being a notable exception. Emotional and experiential conversions brought bigger crowds. Some began to even see a formula that brought about large numbers of conversions.

There arose a suspicion that Christianity had become hopelessly corrupted sometime after the apostolic age. The task at hand was to leapfrog back 1,800 years to restore the original purity of the church. Suddenly, the great works of Augustine, Aquinas, Luther, Calvin, and others were seen as unnecessary. {8} Evangelicals were cut off from their historical and theological roots. The evangelical movement as a whole became focused on rugged American self-interest and self-assertion, a strong principle of Darwinian naturalism.

This is still evident today in the prevalence of church-hoppers. Many view their church through an individualistic

grid which says if the church leadership doesn't do things the way I would prefer and doesn't listen to me, I will take my family and go elsewhere.

The roots of anti-intellectualism run deep and find surprisingly fresh support from Darwinian naturalism. So how do we recover?

Living It Out

In the final chapter of *Total Truth*, Pearcey rings out a call to authenticity, not just with respect to the intellectual underpinnings of the Christian worldview, but also to how we live it out.

On the final page she cites a Zogby/Forbes poll that asked respondents what they would most like to be known for. Intelligence? Good looks? Sense of humor? Unexpectedly, fully one half of all respondents said they would most like to be known for being authentic.

Pearcey concludes: "In a world of spin and hype, the postmodern generation is searching desperately for something real and authentic. They will not take Christians seriously unless our churches and parachurch organizations demonstrate an authentic way of life – unless they are communities that exhibit the character of God in their relationships and mode of living."[9](#)

For most of the chapter Pearcey highlights examples of both sides of this call, people and ministries who claim Christ but use the world's naturalistic methods, particularly in fundraising, marketing, and focusing on a personality rather than the message. She also points to people such as Richard Wurmbrand and Francis Schaeffer who lived out their Christian worldview without flashy results and hyped conferences and campaigns.

Most of us at Probe Ministries were heavily influenced by Francis Schaeffer, his ministry at L'Abri Switzerland, and his books. Many Christians whose youth spanned the turbulent '60s and '70s found Schaeffer a glowing beacon of truth and relevance in a world turned upside down by protests, drugs, war, crime, racism, and skepticism. Essentially, Schaeffer believed the gospel to be total truth. If that was the case, then living by a Christian worldview ought to be able to give real answers to real questions from real people.

We believe that what the postmodern world is searching for, what will most satisfy its craving for authenticity, is the person of Jesus Christ. They can only see Him in our lives and our answers to real questions. Our Web site at Probe.org is filled with the total truth of the Christian worldview. In our ["Answers to E-Mail" section](#) you can see authenticity lived out as we answer real questions and attacks with truth, respect, and gentleness.

We're certainly not perfect. We have much to learn and correct as we search out the answers to today's questions. We struggle with the funding and marketing of our ministry using methods that work but do not manipulate, coerce, or misrepresent who we are and what we do. Nancy Pearcey has challenged all of us in ministry, no less those of us at Probe Ministries, to always put Jesus first, people second, and ministry third.

Notes

1. Phillip Johnson, in the Foreword to Nancy Pearcey, *Total Truth: Liberating Christianity from Its Cultural Captivity* (Wheaton, Ill.: Crossway Books, 2004), 11.
2. Pearcey, 19.
3. Christopher Reeve quoted by Pearcey, 22.
4. Pearcey, 97-98.
5. Ibid., 153-154.
6. Ibid., 157.
7. Ibid, 168.

8. Ibid., 280-281.

9. Ibid., 378.

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Was Darwin Wrong? A Rebuttal to the November 2004 National Geographic Cover Story

Our authors examine arguments for evolution commonly brought out by evolutionists. They show these arguments are not as strong as they purport and in many instances make a stronger case for intelligent design. Every person, especially Christians, should be aware of the information presented in this article.

Over the last few decades more and more scientists from every field of discipline have voiced concerns with Darwinian evolution's ability to explain the origin and diversity of life on earth. However, you would not know that from reading a recent article in *National Geographic*. The cover of the November 2004 issue grabs the reader's attention with the question, "Was Darwin wrong?" To few people's surprise, upon turning to the first page of the article you see the boldfaced words, "NO. The evidence for Evolution is overwhelming." But how can this be when so many scientists are in disagreement? Is it possible that the five lines of evidence presented in the article aren't as indisputable as the reader is led to believe? What if each one of these evidences for evolution is fatally flawed? What would evolution have left to stand upon? It is my opinion, as well as many others', that this is indeed the case. Let us critically evaluate each of these five lines

of evidence (embryology, biogeography, morphology, paleontology, and bacterial resistance to antibiotics) and see what, if anything, we can conclude from them.

Embryology

First let's examine the so-called evidence from embryology, which Darwin himself considered to be "by far the strongest single class of facts in favor of" his theory.^{1} *National Geographic* asks the question, "Why does the embryo of a mammal pass through stages resembling stages of the embryo of a reptile?"^{2} This, however, is a loaded question.

This line of evidence presented by *National Geographic* is known as Embryonic Recapitulation, or in other words, as the embryo develops it passes through stages that retrace its evolutionary past. This idea was originally developed in the mid 1800's by Ernst Haeckel, which he illustrated with drawings of embryos of various species. However, as Jonathan Wells points out in his book *Icons of Evolution*, this has been known to be false for over 100 years! Not only were Haeckel's drawings fraudulent but the late Stephen J. Gould called them "the most famous fakes in biology." Furthermore, embryologist Walter Garstang also stated in 1922 that the various stages of embryo development of different species "afford not the slightest evidence" of similarities with other species supposed to be their ancestors, stating that Haeckel's proposal is "demonstrably unsound."^{3} In 1894 Adam Sedgwick wrote, "A species is distinct and distinguishable from its allies from the very earliest stages all through the development."^{4}

So how is *National Geographic's* question, "Why does the embryo of a mammal pass through stages resembling stages of the embryo of a reptile?" a loaded question? Because mammalian embryos never pass through such stages in the first place! Darwin's "strongest" evidence for evolution turns out to be no evidence at all.

Biogeography

Biogeography, as defined by *National Geographic*, “is the study of geographical distribution of living creatures—that is, which species inhabit which parts of the planet and why.”^{5} *National Geographic* asks, “Why should [such similar] species inhabit neighboring patches of habitat?”^{6} Why are there several different species of zebras found in Africa, or dozens of species of honey creepers in Hawaii, or thirteen species of finches in the Galapagos Islands? The answer given is that “similar species occur nearby in space because they have descended from common ancestors.” There is nothing controversial about that. But I don’t believe that this in anyway supports the kind of evolution that *National Geographic* is trying to promote. Allow me to explain by taking a closer look at the term “evolution.”

There are two different kinds of “evolution” within the biological sciences. The first kind of evolution is *macroevolution*, or, big change over time. Macroevolution requires a vast amount of new genetic information and describes the kind of evolution required to make a man out of a microbe. It is this kind of evolution that is being propagated by *National Geographic*.

The second kind of evolution is *microevolution* which describes small changes or variations within a kind. For example, you may breed a pair of dogs and get another dog which is smaller than both its parents. You may then breed the new smaller dog and get an even smaller dog. However, there are limits to this kind of change.^{7} No matter how often you repeat this procedure the dog will only get so small. It is also important to note that the offspring will always be a dog. You will never get a non-dog from a dog through this kind of change. Not to mention this kind of evolution tells us nothing about where the dog came from in the first place.

So what about *National Geographic*’s examples? They are all

examples of microevolution. Why, for example, are there several species of zebras in Africa? Because they had a common ancestor that probably lived in Africa—a zebra. Or why are there thirteen species of finch on the Galapagos Islands? Because they are all descended from a single pair or group of finches. To use this kind of observation and try to explain where a zebra or finch came from in the first place goes beyond the data and the scientific method, and enters into the realm of imagination.

Evolutionists are still puzzling over the connection between these two forms of evolution, macro and micro. Perhaps the puzzle remains because macroevolution is just wishful thinking.

Morphology

Morphology is a term referring to “a branch of biology that deals with the form and structure of animals and plants.”^{8} It is presented by *National Geographic* as having been labeled by Darwin the “‘very soul of natural history.” So what is this evidence from morphology that lends itself as “proof” for microbes-to-man evolution? Simply put, it is that similarities in shape and design between different species may indicate that those species have originated from a common ancestor by way of descent with modification. *National Geographic* gives a few examples such as the “five-digit skeletal structure of the vertebrate hand,” and “the paired bones of our lower legs” which are also seen “in cats and bats and porpoises and lizards and turtles.”^{9}

Perhaps an easier to follow illustration concerning this is evolutionist Tim Berra’s famous illustration which he used in his book *Evolution and the Myth of Creationism*. In it he states the following:

If you look at a 1953 Corvette and compare it to the latest model, only the most general resemblances are evident, but if

you compare a 1953 and a 1954 Corvette, side by side, then a 1954 and a 1955 model, and so on, the descent with modification is overwhelmingly obvious. This is what paleontologists do with fossils, and the evidence is so solid and comprehensive that it cannot be denied by reasonable people [emphasis in original].[{10}](#)

So why is this illustration famous? It's because Berra, although an evolutionist, unwittingly demonstrated why similar structures across different species is just as naturally attributed to intelligent design. For what do each of these various Corvette models have in common? They were all designed and manufactured by the same company, General Motors. In fact, the Corvette has many design features in common with other automobiles as well, such as four wheels, a gasoline engine, brakes, a steering wheel, etc. Why do most cars share these things, and many others things, in common? Because they are effective and efficient features designed for the proper operation of the vehicle. Maybe this is the same reason we find commonalities between many different kinds of plants and animals.

It must be granted that if evolution were true, then one would expect to see similarities between closely related species. However, as illustrated above, they could also be explained as the result of a common designer. So how can we tell which it is?

There are at least two ways. First, if similar structures did truly descend from a common ancestor, then those structures should have similar developmental pathways. In other words, they should develop in a similar manner while still in the embryonic stage. However, as early as the late 1800's scientists observed that this simply isn't the case. Embryologist Edmund Wilson in 1894 noted that structures which appear similar between adults of different species often differ greatly either in how they form or from where they

form, or both.[{11}](#)

Secondly, if similar structures are the result of descent with modification, then you would expect the development of those structures to be governed by similar genes. Concerning this very point biologist Gavin de Beer said, "This is where the worst shock of all is encountered . . . the inheritance of homologous structures from a common ancestor . . . cannot be ascribed to identity of genes."[{12}](#) In other words, different genes govern the development of similar structures which runs contrary to what evolution would predict.

It would appear then, that morphology, the "'very' soul of natural history," is more the "ghost" of natural history than supporting evidence for evolution. There are certainly many features of organisms resulting from a common ancestry, such as the beak of the Galapagos finches; but that doesn't mean that the beaks of all birds are also related by common ancestry. Perhaps applying the perspective of Intelligent Design can help clarify the difference.

Paleontology

Paleontology simply put is the study of the fossil record. So how does the fossil record support the "theory" of evolution? According to *National Geographic*, Darwin observed that species presumed to be related tend to be found in successive rock layers.[{13}](#) *National Geographic* asks if this is just coincidental. The answer provided, of course, is a firm no. Rather, they say, it is "because they are related through evolutionary descent."[{14}](#) Is this conclusion truly supported by scientific observation?

The biggest problem with identifying a gradual change from one species into another within the fossil record is that by and large no such gradual sequence of fossils exists! With the exception of a few disputed examples, such as the horse and whale, what truly stands out in the fossil record is sudden

appearance. The late Stephen J. Gould, a world renowned evolutionist, noted concerning this, "The extreme rarity of transitional forms in the fossil record persists as the trade secret of paleontology. The evolutionary trees that adorn our textbooks have data only at the tips and nodes of their branches; the rest is inference, however reasonable, not the evidence of fossils."[\[15\]](#) This is especially true within the Cambrian rock layer, dated by evolutionists at over 500 million years old, where complex species appear for the first time with no sign of gradual development from simpler forms.

To illustrate this point, imagine, if you will, that you covered the entire state of Texas with playing cards. If someone were to then go for a walk across Texas and periodically pick up a card at random, what might they begin to think if all they ever picked up were 2s and aces, and never any of the cards in between? He might begin to wonder if those other cards were there at all.

This is precisely what we find within the Cambrian rock layer. We always find fully formed species, like finding just 2s and aces, and never any intermediates, like your 3s, 4s, and so on. In fact, *National Geographic* even acknowledges this problem when it compares the fossil record in general to a film with 999 out of every 1,000 frames missing.[\[16\]](#) It's more likely that there are few if any missing frames; rather those frames never existed in the first place.

Darwin himself, observing the lack of transitional forms within the fossil record, noted this problem to be "perhaps the most obvious and serious objection which can be urged against [his theory of evolution]."[\[17\]](#) Today, with nearly 150 years of advancements in the area of paleontology, the fossil record still fails to meet the expectation of Darwin's theory. This problem goes unaddressed by *National Geographic*.

Bacterial Resistance to Antibiotics

National Geographic derives a fifth line of evidence from more recent scientific data. They state, "These new forms of knowledge overlap one another seamlessly and intersect with the older forms, strengthening the whole edifice, contributing further to the certainty that Darwin was right." {18} Is this really the case? The most lauded of these "new forms of knowledge" is from the study of bacteria that acquire resistance to modern medicines. *National Geographic* states that "there's no better or more immediate evidence supporting the Darwinian theory than this process of forced transformation among our inimical germs." {19}

These adaptations are in fact evidence for change over time, but not the kind that would change a microbe into a man. Rather, all examples of bacterial resistance are that of micro-evolution, i.e. change *within* a kind. For example, a staph infection is caused by a bacterium known as a *Staphylococcus* or "staph" for short. Whenever a staph bacterium acquires resistance to a particular antibiotic, it still remains a staph. It doesn't change into a different kind of bacterium altogether. In fact, no matter how much it changes, it always remains a staph.

Secondly, when we take a closer look at how bacteria become resistant to a particular treatment, we find something very interesting. Just like in humans, information on how bacteria grow and survive is stored in the bacteria's DNA. Therefore, if any change is to take place to turn an organism from one kind to another "more complex" kind, such as a microbe into a man, it must add new information to that organism's DNA. However, that is not what we observe taking place in bacteria at all. New information is *never* created. Existing information may be modified, lost, or even exchanged between bacteria, but never created.

Thirdly, and perhaps most significantly, is that nothing which

National Geographic presents even begins to explain where the information to make a bacterium came from in the first place. Rather, and to no surprise to the creationists, the study of bacterial resistance testifies to an intelligent Designer who created all living organisms with an ability to adapt to changing environments.

Conclusion

Modern science has indeed offered us great insight into the complexities of life and the inner workings of all living things. Advances in population genetics, biochemistry, molecular biology, and the human genome will surely result in greater understanding of life on our planet. But unlike what *National Geographic* suggests, it is these advances which have served to convince an increasing number of scientists to abandon Darwin's theory as an explanation for the origin of life on earth. Rather, these advancements point to the necessity of intelligent design as an added tool in the toolbox.

Notes

1. Jonathan Wells, *Icons of Evolution* (Washington, DC: Regnery Pub., 2000), 82.
2. David Quammen, "Was Darwin Wrong?," *National Geographic* November, 2004: 13.
3. Wells, 88.
4. Ibid., 97.
5. Quammen, "Was Darwin Wrong?," 9.
6. Ibid., 12.
7. Lester, Lane P., Raymond G. Bohlin, and V. Elving Anderson, *The Natural Limits to Biological Change* (Dallas: Probe Books : Distributed by Word Pub., 1989).
8. Merriam-Webster Inc., *Merriam-Webster's Collegiate Dictionary*, 10th ed. (Springfield, Mass: Merriam-Webster, 1996).
9. Quammen, "Was Darwin Wrong?," 13.

10. Tim Berra, *Evolution and the Myth of Creationism* (Stanford, Calif.: Stanford University Press, 1990), 117.
11. Edmund B. Wilson, "The Embryological Criterion of Homology," pp.101-124 in *Biological Lectures Delivered at the Marine Biological Laboratory of Wood's Hole in the Summer Session of 1894* (Boston: Ginn & Company, 1895), p. 107.
12. Wells, *Icons of Evolution*, 73.
13. Quammen, "Was Darwin Wrong?," 12.
14. Ibid., 13.
15. Stephen J. Gould, "Evolution's Erratic Pace," *Natural History* 85(5).
16. Quammen, "Was Darwin Wrong?," 25.
17. Charles Darwin, *On the Origin of Species by Means of Natural Selection* (New York, New York: The New American Library of World Literature, Inc., 1958), 287.
18. Quammen, "Was Darwin Wrong?," 20.
19. Ibid., 21.

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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 that the gaps and inconsistencies in current Darwinian thinking should demand that different theories be examined and evaluated.



This article is also available in [Spanish](#).

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).

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“What is Inductive Reasoning?”

I took an aptitude test, in fact two of them, in which I tested very low in inductive reasoning. Apparently, this is a reasoning in which lawyers, doctors, and scientists, among other people, tend to have very strong aptitudes. What do you know about this reasoning process? What does it look like? If God has not made one strong in it, how should one compensate for it? (In one of the two tests I took, the administrator told me I needed to seek out people who were gifted in this area before I made major decisions.) I figured you may know a lot more about this and use it quite often considering your scientific background.

Inductive reasoning uses facts and observations to reason to a general conclusion.

Induction: The reasoning process in which generalizations, laws, or principles are formed from the observation of particular cases; reasoning that moves from the part to the whole, from the particular to the general. Most human reasoning is inductive or empirical in character since it consists of generalizations based on our sense experience.

Ray Bohlin is a person
 Ray Bohlin has feelings
 Joe Blow is a person
 Joe Blow has feelings
 Sue Bohlin is a person
 Sue Bohlin has feelings
 Therefore, probably all persons have feelings.

The conclusion is not certain but likely. The premises provide some support for the conclusion

The conclusion is not itself a fact but a generalization or trend. For instance, Darwin observed that the shapes of the carapaces (shells) of the tortoises on the Galapagos were specific to each island. From this he reasoned (inductively) that perhaps they were all related and the specific differences were due to initial variations present in the first tortoises that occupied each island. His conclusion was just an idea, an analysis of a possible trend or connection. From this he would need to derive experiments designed to gather more specific data from which he would hopefully reason deductively to a specific conclusion. If this is true, and if this is true, and if this is true, then this must be true.

Deduction: The reasoning process in which conclusions are drawn from accepted premises. The premises are more general than the conclusion, so deduction is often defined as reasoning from the whole down to the part or from the general to the particular.

All humans are mortal.		Very general
Aristotle is human.		More specific but still general
Therefore, Aristotle is mortal.		Aristotle will die! Quite specific

If the first two are true, the conclusion must be true. The conclusion is certain.

Deductive reasoning reasons to an obvious conclusion that follows logically from the premises. Inductive reasoning takes the observations (facts) and reasons to a possible or general conclusion that is more tentative. Lawyers, doctors, and scientists need this kind of reasoning to solve problems, to take the available facts and determine which direction to take their investigation next. They then need to collect additional facts to confirm their earlier conclusion or even deductively arrive at a definite, firm conclusion.

Some people have a hard time seeing connections between seemingly isolated facts that others see a clear trend from. The tests you took apparently put you in that category.

In my work I see a lot of evidence for intelligent design in the universe and life but the evidence is not so clear as to be able to draw a certain conclusion. I believe I am right, but not 100% certain. I continue to look for additional evidence to make my conclusion more reliable.

This was perhaps more than you bargained for, but I hope it helps. You may need to take some time and read it several times and come back to it again after a few days to let it percolate a little. I had to do some checking to make sure I got it right so let me know if I can help further.

Respectfully,

Ray Bohlin
Probe Ministries

“What Do You Think About

Surrogate Mothering?"

My wife is considering acting as a surrogate mother for a friend who is having difficult with in vitro fertilization. Her embryos won't implant. Both of us couples are Christians. My wife and I have 3 kids and although she doesn't want another child for us she is willing to carry one for her friend. What are your thoughts about entering into this relationship?

First, I consider surrogate parenting a very risky venture. Just because your wife is able to intellectually say she will give up the baby to your friends when the time comes, does not mean she will be able to do so emotionally. Carrying a baby for nine months creates a powerful bond that is not easily broken. This is easily seen in teenage mothers who often change their minds about giving their baby up for adoption after birth. The surrogate mom can rationally say and believe "this baby is not mine," but her emotions find it difficult to believe this after carrying the child for nine months.

Since there is also a relationship among friends here the risk is even greater, because even just a hint of wavering as the time of birth approaches could be interpreted as betrayal. The mother acting as the surrogate would also be faced with seeing this child regularly and having the pain of separation renewed frequently.

Second, there is the sacrifice of the family of the surrogate mother. Her husband and children will need to endure the difficulties of a pregnant mom and wife for a child that is not theirs. How is this explained to her children particularly? Pregnancy always involves risk and this is asking a lot of the family. All parties would need to seek God's peace before proceeding. If anyone is hesitant, I would not proceed.

Third, I am troubled by the implications of surrogacy to the concept of a couple becoming one flesh through marriage and child-bearing. I would want to be sure of the Lord's leading in this regard because I just have a suspicion that surrogacy may violate this principle by having someone outside the marriage carry a baby from another union.

While I do not see a clear and unambiguous reason to say no, that is my advice due to the number of potential problems and pitfalls. We sometimes have to face difficult decisions with couples dealing with infertility because we seem to say we are unsympathetic to their dilemma. But we must also be realistic to realize that God does not promise that all potential solutions to all our problems are Biblical. Having a child of our own is not promised or demanded. Often a family's unwillingness to adopt is not just rooted in the natural desire to have children but in a selfishness that only wants "our" child.

If it were me, I would not do it.

Respectfully,

Ray Bohlin
Probe Ministries