

# The Five Crises in Evolutionary Theory

## The Case of the Missing Mechanism

The growing crisis in Darwinian theory is becoming more apparent all the time. The work of creationists and other non-Darwinians is growing and finding a more receptive ear than ever before. In this discussion I want to elaborate on what I believe are the five critical areas where Darwinism and evolutionary theory in general are failing. They are:

- 1. The unsubstantiation of a Darwinian mechanism of evolution*
- 2. The total failure of origin of life studies to produce a workable model*
- 3. The inability of evolutionary mechanism to explain the origin of complex adaptations*
- 4. The bankruptcy of the blind watchmaker hypothesis*
- 5. The biological evidence that the rule in nature is morphological stability over time and not constant change.*

Much of the reason for evolution's privileged status has been due to confusion over just what people mean when they use the word evolution. Evolution is a slippery term. If evolution simply means "change over time," this is non-controversial. Peppered moths, Hawaiian drosophila fruit flies, and even Galapagos finches are clear examples of change over time. If you say that this form of evolution is a fact, well, so be it. But many scientists extrapolate beyond this meaning. Because "change over time" is a fact, the argument goes, it is also a fact that moths, fruit flies, and finches all evolved from a remote common ancestor. But this begs the question.

The real question, however, is where do moths, flies, and finches come from in the first place? Common examples of

natural selection acting on present genetic variation do not tell us how we have come to have horses, wasps, and woodpeckers, and the enormous varieties of living animals. Evolutionists will tell you that this is where mutations enter the picture. But mutations do not improve the scenario either. In speaking of all the mutation work done with bacteria over several decades, the great French zoologist and evolutionist Pierre-Paul Grasse' 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.*

When I speak of evolution or Darwinism, it is the origin of new biological forms, new adaptive structures, morphological and biochemical novelties that I am referring to. This is precisely what has not yet been explained. When people question the popular explanations of the origin of complex adaptations such as the vertebrate limb, or sexual reproduction, or the tongue of the woodpecker, or the reptilian hard-shelled egg, they are usually given a litany of reasons why these structures are beneficial to the organisms. More precisely, the selective advantage of these structures is offered as the reason they evolved. But this begs the question again. It is not sufficient for an evolutionist to explain the function of a particular structure. What is necessary is to explain the mechanistic origin of these structures!

Natural selection does explain how organisms adapt to minor changes in their environment. Natural selection allows organisms to do what God commanded them to do. That is to be fruitful and multiply. Natural selection does not, however, explain the crucial question of how complex adaptations arose in the first place.

# The Origin of Life

We have been led to believe that it is not too difficult to conceive of a mechanism whereby organic molecules can be manufactured in a primitive earth and organize themselves into a living, replicating cell. In fact, the ease by which this can (allegedly) happen is the foundation for the popular belief that there are numerous planets in the universe which contain life. Nothing could be further from the truth.

Early experiments suggested that it was relatively simple to produce some of the building blocks of life such as amino acids, the components of proteins. However, the euphoria of the Miller-Urey experiment of 1953 has given way to a paradigm crisis of 1993 in origin of life research. The wishful, yet workable atmosphere of ammonia, hydrogen, methane, and water vapor has been replaced by the more realistic, but stingy atmosphere of nitrogen, carbon dioxide, carbon monoxide, hydrogen sulfide, and hydrogen cyanide. This is the stuff that volcanoes belch out. This atmosphere poses a much more difficult challenge. Molecules relevant for life would be much rarer. Even more damaging is the possibility of the presence of molecular oxygen in the atmosphere from the break-up of water vapor. Molecular oxygen would poison any reaction leading to biologically significant molecules.

Coacervates, microspheres, the "RNA world," and other scenarios all have serious flaws obvious to everyone in the field except those who continue work with that particular scenario. Some have privately called this predicament a paradigm crisis. There is no central competing model, just numerous ego-driven scenarios. Even the experiments in which researchers try to simulate the early earth have been severely criticized. These experiments generally hedge their bets by using purified reactants, isolated energy sources, exaggerated energy levels, procedures which unrealistically drive the reaction toward the desired product and protect the products

from the destructive effects of the energy sources which produced them in the first place.

The real situation was summed up rather well by Klaus Dose:

*More than 30 years of experimentation on the origin of life in the fields of chemical and molecular evolution have led to a better perception of the immensity of the problem of the origin of life on earth rather than to its solution. At present all discussions on principal theories and experiments in the field either end in stalemate or in a confession of ignorance." [From Interdisciplinary Science Review 13(1988):348-56.]*

But all of these difficulties together, as staggering as they are, are not the real problem. The major difficulty in chemical evolution scenarios is how to account for the informational code of DNA without intelligence being a part of the equation. DNA carries the genetic code: the genetic blueprint for constructing and maintaining a biological organism. We often use the terms of language to describe DNA's activity: DNA is "transcribed" into RNA; RNA is "translated" into protein; geneticists speak of the "genetic code." All these words imply intelligence, and the DNA informational code requires intelligent preprogramming, yet a purely naturalistic beginning does not provide such input. Chemical experiments may be able to construct small sequences of nucleotides to form small molecules of DNA, but this doesn't make them mean anything. There is no source for the informational code in a strictly naturalistic origin of life.

## **The Inability to Account for Complex Adaptations**

Perhaps the single greatest problem for evolutionary biologists is the unsolved problem of morphological and biochemical novelty. In other words, some aspects of

evolutionary theory describe accurately how existing organisms are well adapted to their environments, but do a very poor job of explaining just how the necessary adaptive structures came about in the first place.

Darwinian explanations of complex structures such as the eye and the incredible tongue of the woodpecker fall far short of realistically attempting to explain how these structures arose by mutation and natural selection. The origin of the eye in particular, caused Darwin no small problem. His only suggestion was to look at the variety of eyes in nature, some more complex and versatile than others, and imagine a gradual sequence leading from simple eyes to more complex eyes. However, even the great Harvard evolutionist, Ernst Mayr, admits that the different eyes in nature are not really related to each other in some simple-to-complex sequence. Rather, he suggests that eyes probably had to evolve over forty different times in nature. Darwin's nightmare has never been solved. It has only been made 40 times more frightening for the evolutionist.

In his 1987 book, *Theories of Life*, Wallace Arthur said:

*One can argue that there is no direct evidence for a Darwinian origin of a body plan—black Biston Betularia certainly do not constitute one! Thus in the end we have to admit that we do not really know how body plans originate.*

In 1992, Keith Stewart Thomson wrote in the *American Zoologist* that:

*While the origins of major morphological novelties remain unsolved, one can also view the stubborn persistence of macroevolutionary questioning...as a challenge to orthodoxy: resistance to the view that the synthetic theory tells us everything we need to know about evolutionary processes.*

The ability to explain major morphological novelties is not the only failing of evolutionary theory. Some argue that molecular structures are even more difficult to explain. The molecular architecture of the cell has recently been described by molecular biologist Michael Behe as being irreducibly complex systems which must have all the components present in order to be functional. The molecular workings of cilia, electron transport, protein synthesis, and cellular targeting readily come to mind. If the systems are irreducibly complex, how do they build slowly over long periods of time out of systems that are originally doing something else?

While publishing hundreds of articles pertaining to molecular homology and phylogeny of various proteins and nucleic acids over the last ten years, the *Journal of Molecular Evolution* did not publish one article attempting to explain the origin of a single biomolecular system. Those who make molecular evolution their life's work are too busy studying the relationship of the cytochrome c molecule in man to the cytochrome c molecule in bacteria, rather than the more fundamental question of where cytochrome c came from in the first place!

Clearly then, whether we are talking about major morphological novelties such as the wings of bats and birds, the swimming adaptations of fish and whales, the human eye or the molecular sub-microscopic workings of mitochondria, ribosomes, or cilia, evolutionary theory has failed to explain how these structures could arise by natural processes alone.

## **The Bankruptcy of the Blind Watchmaker Hypothesis**

In his 1986 book, *The Blind Watchmaker*, Richard Dawkins states, "Biology is the study of complicated things that give the appearance of having been designed for a purpose." He explains that

*Natural selection is the blind watchmaker, blind because it does not see ahead, does not plan consequences, has no purposes in view. Yet the living results of natural selection overwhelmingly impress us with the appearance of design as if by a master watchmaker, impress us with the illusion of design and planning.*

Darwinism critic, Philip Johnson, has quipped that the watchmaker is not only blind but unconscious!

Dawkins later suggests just how this process may have brought about the development of wings in mammals. He says:

*How did wings get their start? Many animals leap from bough to bough, and sometimes fall to the ground. Especially in a small animal, the whole body surface catches the air and assists the leap, or breaks the fall, by acting as a crude aerofoil. Any tendency to increase the ratio of surface area to weight would help, for example flaps of skin growing out in the angles of joints...(It) doesn't matter how small and unwinglike the first wingflaps were. There must be some height, call it  $h$ , such that an animal would just break its neck if it fell from that height. In this critical zone, any improvement in the body surface's ability to catch the air and break the fall, however slight the improvement, can make the difference between life and death. Natural selection will then favor slight, prototype wingflaps. When these flaps have become the norm, the critical height  $h$  will become slightly greater. Now a slight further increase in the wingflaps will make the difference between life and death. And so on, until we have proper wings.*

This can sound rather seductively convincing at first. However there are three faulty assumptions being used.

The first doubtful assumption is that nature can provide a whole chain of favorable mutations of the precise kind needed

to change forelimbs into wings in a continuous line of development. What is the larger miracle, an instantaneous change or a whole series of thousands of tiny changes in the proper sequence?

The other assumption is "all things being equal." These mutations must not have secondary harmful effects. How is the creature's grasping ability compromised while these wingflaps grow? These little shrew-like animals may slowly be caught between losing their adaptiveness in the trees before they can fully utilize their "developing" wings. Or there might be some seemingly unrelated and unforeseen effect that compromises survivability.

A third faulty assumption is the often used analogy to artificial selection. "If artificial selection can do so much in only a few years," so the refrain goes, "just think what natural selection can do in millions of years." But artificial selection works because it incorporates foresight and conscious purpose, the absence of which are the defining qualities of the blind watchmaker. In addition, artificial selection actually demonstrates the limits to change since an endpoint in the selection process is usually reached very quickly.

The blind watchmaker hypothesis, when analyzed carefully, falls into the category of fanciful stories that are entertaining—but which hold no resemblance to reality.

## **The Prevalence of Stasis over Mutability**

Rather than observing organisms gradually evolving into other forms, the fossil record speaks of "sudden appearance" and "stasis." New types appear suddenly and change very little after their appearance. The rarity of gradual change examples in the fossil record were revealed as the trade secret of paleontology by Steven J. Gould of Harvard. Gould also refers to stasis as "data" in the paleontological sense. These are



significant observations.

Darwin predicted that there should be innumerable transitional forms between species. But the reality of paleontology (the study of fossils) is that new forms appear suddenly with no hint of the "gradual" change predicted by evolution. Not only that, but once these new forms have appeared, they remain relatively unchanged until the present day or until they become extinct.

Some animals and plants have remained unchanged for literally hundreds of millions of years. These "living fossils" can be more embarrassing for the evolutionist than they often care to admit. One creature in particular, the coelacanth, is very instructive. The first live coelacanth was found off the coast of Madagascar in 1938. Coelacanths were thought to be extinct for 100 million years. But most evolutionists saw this discovery as a great opportunity to glimpse the workings of a tetrapod ancestor. Coelacanths resemble the proposed ancestors of amphibians. It was hoped that some clues could be derived from the modern coelacanth of just how a fish became preadapted for life on land, because not only was there a complete skeleton, but a full set of internal organs to boot. The results of the study were very disappointing. The modern coelacanth showed no evidence of internal organs preadapted for use in a terrestrial environment. The coelacanth is a fish—nothing more, nothing less. Its bony fins are used as exceptionally well-designed paddles for changing direction in deep-sea environment, not the proto-limbs of future amphibians.

Nowhere is the problem of sudden appearance better demonstrated than in the Burgess Shale found in the Canadian Rockies. The Burgess Shale illustrates that in the Cambrian period (which evolutionists estimate as being over 500 million years ago) nearly all of the basic body plans (phyla) of animals existing on earth came into existence in a geological instant (defined as only 20-30 million years), and nothing

that new has appeared since that time. The Cambrian explosion as it is called is nothing less than astounding. Sponges, jellyfish, worms, arthropods, mollusks, echinoderms, and many other stranger-than-fiction creatures are all found to suddenly appear in the Cambrian without a hint of what they descended from nor even how they could all be related to each other. This is the opposite expectation of Darwinism which would have predicted each new body plan emerging from pre-existing phyla over long periods of time. The Cambrian explosion is a direct contradiction of Darwinian evolution.

If Darwin were alive today, I believe he would be terribly disappointed. There is less evidence for his theory now than in his own day. The possibility of the human eye evolving may have caused him to shudder, but the organization of the simplest cell is infinitely more complex. Perhaps a nervous breakdown would be more appropriate!

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## **Sociobiology: Evolution, Genes and Morality – A Christian Perspective**

*Dr. Bohlin looks at the basic tenets of sociobiology from a biblical worldview perspective. Looking at them as a scientist and a Christian, he finds a lack of consistency and obvious paradoxes in this way of looking at our world.*

In 1981 I wrote an article for *Christianity Today*, which they

titled "Sociobiology: Cloned from the Gene Cult."(1) At the time I was fresh from a graduate program in population genetics and had participated in two graduate seminars on the subject of sociobiology. You might be thinking, "What in the world is sociobiology, and why should I care?"

That's a good question. Sociobiology explores the biological basis of all social behavior, including morality. You should care because sociobiologists are claiming that all moral and religious systems, including Christianity, exist simply because they help promote the survival and reproduction of the group. These sociobiologists, otherwise known as *evolutionary ethicists*, claim to be able to explain the existence of every major world religion or belief system, including Christianity, Judaism, Islam, and even Marxism and secular humanism, in terms of natural selection and evolution. E. O. Wilson, a Harvard biologist and major advocate of sociobiology, claims that scientific materialism (a fully evolutionary worldview) will eventually overcome both traditional religion and any other secular ideology. While Wilson does admit that religion in some form will always exist, he suggests that theology as an explanatory discipline will cease to exist.

## **The First Paradox**

While the arrogance of sociobiology is readily apparent, it contains a number of paradoxes. The first paradox is simply that the worldview of sociobiology offers nothing but despair when taken to its logical conclusion, yet it continues to gain acceptance in the academic community.

## **Four Foundational Principles of Sociobiology**

The despair of the sociobiological worldview and the ultimate lack of meaning it presents are derived from what I consider the four foundational principles of sociobiology. The first principle is the assertion that human social systems have been shaped by evolutionary processes. Human societies exist in

their present form because they work, or at least have worked in the past, not because they are based on any kind of revelation.

Second, there is what sociobiologist Robert Wallace called the **reproductive imperative**.(2) The ultimate goal of any organism is to survive and reproduce. Species survival is the ultimate goal. Moral systems exist because they ultimately promote human survival and reproduction.

Third, the individual—at least in respect to evolutionary time—is meaningless. Species, not individuals, evolve and persist through time. E.O. Wilson stated that the organism, your body, is simply DNA's way of making more DNA.(3)

Fourth, all behavior is therefore selfish, or at least pragmatic, at its most basic level. We love our children because love is an effective means of raising effective reproducers. Wilson spells out the combined result of these principles quite clearly in his book *On Human Nature* when he says that

*...no species, ours included, possesses a purpose beyond the imperatives created by its own genetic history (i.e., evolution)...we have no particular place to go. The species lacks any goal external to its own biological nature.(4)*

Wilson is saying that since humans have been shaped by evolution alone, they have no purpose beyond survival and reproduction. Even Wilson admits that this is an unappealing proposition.

## **Hope and Meaning**

Since sociobiologists claim that all behavior is ultimately selfish, that an organism's only goal or purpose is to survive and reproduce, and that it is species survival, not individual survival, that is ultimately required, personal worth and

dignity quickly disappear. The responses of sociobiologists when they are confronted with this conclusion have always been curious to me. I distinctly remember posing a question about hope and purpose to a graduate seminar composed of biology students and faculty. I asked, "Let's suppose that I am dead and in the ground, and the decomposers are doing their thing. What difference does it make to me now whether I have reproduced or not?" My point was that if death is the end with a capital "E", who cares whether or not I have reproduced? After an awkward silence, one of the faculty answered, "Well, I guess that it doesn't matter at all." In response, I asked, "Don't you see, we were just discussing how the only purpose in life is to survive and reproduce, but now you admit that this purpose is really an illusion. How do you go on with your life when you realize that it really doesn't matter what you do? That there is no point to any of it?" After an even longer silence, the same faculty member said, "Well, I suppose that those who will be selected for in the future will be those who know there is no purpose in life, but will live as if there is."

To say the least, I was stunned by the frankness of his response. He was basically saying that the human race will be forced to live with a lie—the illusion of hope and meaning. What was even more unsettling, however, was the fact that no one disagreed or offered even the most remote protest. Apart from myself, everyone there accepted evolution as a fact, so they were forced to accept this conclusion. (I would find out later that at least a couple of them didn't like it.)

A professor of philosophy at a university in Minnesota recently answered my challenge by saying that maybe there are two different kinds of hope and meaning: hope and meaning in small letters (meaning survival and reproduction) and Hope and Meaning in capital letters (meaning ultimate worth and significance). We all have hope and meaning in small letters, and maybe there just isn't any in capital letters. So what?

But that was precisely my point. Hope and meaning in small letters is without significance unless Hope and Meaning in capital letters really exists.

## Three Responses

Over the years I have noted three responses of evolutionists to the stark realization that their worldview offers no hope or meaning in their lives. The first is strong disagreement with the conclusions of sociobiology without strong reasons for disagreeing. They don't like the result, but they find it difficult to argue with the basic principles. As evolutionists, they agree with evolution, but they don't want to believe that a meaningless existence is the end result.

The second response is simple acceptance. These evolutionists agree that there is no purpose or meaning in life. They just have to accept it, as the professor in the story did. Their commitment to an evolutionary worldview is total. I find this attitude most prevalent among faculty and graduate students at secular institutions. There is an almost eerie fatalism that stoutly embraces the notion that one's dislike of a theory is not sufficient cause to raise questions about it, especially when it is based on "sound" evolutionary principles.

The third response is an existential leap for meaning and significance when both have been stripped away. This leap is aptly illustrated by evolutionist Robert Wallace at the end of his book, *The Genesis Factor*. He writes:

*I do not believe that man is simply a clever egotist, genetically driven to look after his own reproduction. He is that. But he is at least that. He is obviously much more. The evidence for this is simple and abundant. One need only hear the Canon in D Major by Johann Pachelbel to know that there are immeasurable depths to the human spirit...I am sorry for the person who has never broken into a silly dance of sheer exuberance under a starry sky: perhaps such a person will be*

*more likely to interpret the message of this book more narrowly. The ones who will find it difficult to accept the narrow view are those who know more about the joy of being us. My biological training is at odds with something that I know and something that science will not be able to probe, perhaps because the time is now too short, perhaps because it is not measurable. I think our demise, if it occurs, will be a loss, a great loss, a great shame in some unknown equation.(5)*

What Wallace is saying in this passage is that something is missing, and it can't be found within the confines of the evolutionary worldview. So look wherever you can!

Some may argue that those who have trouble with the loss of hope and meaning are taking all this too seriously. I don't agree. On the contrary, I believe that they are being very consistent within their worldview. If everything has evolved, and there is nothing outside of mere biology to give meaning and significance to life, then we must live in despair, denial, or irrational hope.

Sociobiology is gaining in popularity because of the scientific community's strong commitment to evolution. If something follows logically from evolutionary theory, which I believe sociobiology does, then eventually all who consider themselves evolutionists will embrace it, whether it makes them comfortable or not. They will have no other rational choice.

## **The Second Paradox**

In reflecting on the notion that all human societies and moral systems should have characteristics that seem to have evolved, I am led to a second paradox for sociobiology. The first paradox was that, despite the loss of hope and meaning in the context of a completely naturalistic worldview, sociobiology

has continued to grow in influence. The second paradox involves Christianity. Since Christianity is based on revelation, it should be antithetical to or unexplainable by sociobiology, at least in some crucial areas.

It is not unreasonable to expect that some aspects of Christian morality would be consistent with a sociobiological perspective, since Christians in small and large groups do work for the betterment of the group as a whole, and the argument could be made that the survival of individuals is thus increased. However, if Christianity's claim to be based on revelation from a transcendent God is true, I would be surprised, indeed extremely disappointed and confused, if everything in Christianity's moral standards also made sense from a sociobiological perspective. What little I have seen in the way of an evaluation of Christianity from E.O. Wilson and other sociobiologists is a poor caricature of true Christianity.

I would like to offer a few suggestions for consideration. William Irons, in a discussion of theories of the evolution of moral systems, comments that nepotism is a very basic prediction of evolutionary theory.(6) Humans should be expected to be less competitive and more helpful towards relatives than towards non- relatives. He cites numerous studies to back up his claim that this prediction, more than any other sociobiological prediction, has been extensively confirmed.

To be sure, the New Testament holds to very high standards concerning the importance of the family. Church leaders are to be judged first by how they conduct and relate themselves to their families (1 Tim. 3:12; Tit 1:6). Yet Jesus makes it quite clear that if there is any conflict between devotion to Him and devotion to our family, the family comes second. He said,

*Do not think that I came to bring peace on the earth; I did*



*not come to bring peace, but a sword. For I came to set a man against his father, and a daughter against her mother, and a daughter-in-law against her mother-in-law; and a man's enemies will be the members of his household. He who loves his father or mother more than Me is not worthy of Me. And he who does not take his cross and follow after Me is not worthy of Me. He who has found his life shall lose it, and he who has lost his life for My sake shall find it. (Matt. 10:34-39).*

In other passages Jesus gives promises that if we give up our families and possessions for His sake, then we will receive abundantly more in this life and the next, along with persecutions (Mark 10:29,30). Jesus Himself preferred the company of those who do the will of God to His own mother and brothers (Matt. 12:46-50). The clear message is that, while our families are important, our relationship with the living God comes first, even if members of our family force us to choose between God and them. Sociobiology may respond by saying that perhaps the benefit to be gained by inclusion in the group will compensate for the family loss, but how can the loss of an individual's entire genetic contribution to the next generation be explained away by any evolutionary mechanism?

## **Common Ground**

So far I have concentrated my remarks in areas where a Christian worldview is in sharp contrast with the evolutionary worldview of the sociobiologists. Now I would like to explore an area of curious similarity.

While Christianity should not be completely explainable by sociobiology, there are certain aspects of Christian truth that are quite compatible with it. I have always been amazed by the curious similarity between the biblical description of the natural man or the desires of the flesh, and the nature of

man according to evolutionary principles. Both perceive man as a selfish creature at heart, looking out for his own interests. It is not "natural" for a man to be concerned for the welfare of others unless there is something in it for him.

Sociobiology seems to be quite capable of predicting many of the characteristics of human behavior. Scripture, on the other hand, informs us that the natural man does not accept the things of the Spirit, that they are foolishness to him (1 Cor. 2:14). I have wondered if our sin nature is somehow enveloped by biology, or, to be more specific, genetics. Could it be that some genetic connection to our sin nature at least partially explains why "there is none righteous, there is none who understands, there is none who seeks for God" (Rom. 3:10,11)? Does a genetic transmission of a sin nature help explain why "all have sinned and fall short of the glory of God" (Rom. 3:23)? Is this why salvation can only be through faith, that it is not of ourselves but is a gift of God, not a result of works (Eph. 2:8, 9)? Is this why the flesh continues to war in our bodies so that we do the thing which we do not want to do, why nothing good dwells in me, and why the members of my body wage war against the law of my mind (Rom. 7:14-25)?

If there is a genetic component to our sin nature, it seems reasonable to assume that only the Spirit of God can overcome the desires of the flesh and that this struggle will continue in the believer until he or she is changed, until we see God face to face (1 Cor. 13:12; 15:50-58).

I ask these questions not thinking that I have come upon some great truth or the answer to a long-standing mystery, but simply looking for some common ground between the truth of Scripture and the truth about human nature we may be discovering from the perspective of sociobiology. All truth is ultimately God's truth. While I certainly do not embrace the worldview of the sociobiologist, I realize that there may be some truth that can be discovered by sociobiologists that can be truly captured to the obedience of Christ (2 Cor. 10:5).

When I wrote that article for *Christianity Today* in 1981, I closed with this paragraph:

*To know what to support and what to oppose, Christians involved in the social and biological sciences must be effective students of sociobiology. The popularity of sociobiology has gone unnoticed for too long already. We need precise and careful study as well as a watchful eye if we are to take every thought captive to the obedience of Christ.”(7)*

## Notes

1. Raymond G. Bohlin, “Sociobiology: Cloned from the Gene Cult,” *Christianity Today*, 23 January (1981): 16-19.
2. Robert Wallace, *The Genesis Factor* (New York: Morrow and Co., 1979).
3. E. O. Wilson, *Sociobiology: The New Synthesis* (Cambridge, Mass.: Harvard University Press, 1975), 3.
4. E.O. Wilson, *On Human Nature* (Cambridge, Mass.: Harvard University Press, 1978) 2-3.
5. Ibid., 217-218. Emphasis mine.
6. William Irons, “How Did Morality Evolve?” *Zygon* 26 (1991): 49-89.
7. Bohlin, “Sociobiology,” 19.

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# The Epidemic of Sexually Transmitted Diseases – A Christian Solution

Written by Dr. Ray Bohlin

*Dr. Bohlin looks at data describing the huge increase in STDs in America, considers the causes of this increase, and proposes a Christian solution firmly rooted in a biblical worldview.*

## An STD Epidemic

Sexually Transmitted Diseases (or STDs) are at unprecedented and epidemic proportions. Thirty years of the sexual revolution is paying an ugly dividend. While a few STDs can be transmitted apart from sex acts, all are transmissible by the exchange of bodily fluids during intimate sexual contact. I want to discuss the severity of the problem as well as what must be done if we are to save a majority of the next generation from the shame, infertility, and sometimes death, that may result from STDs.

The information I am about to share is from data gathered by the Medical Institute for Sexual Health out of Austin, Texas.(1) All of these statistics are readily available from reputable medical and scientific journals.

Today, there are approximately 25 STDs. A few can be fatal. Many women are living in fear of what their future may hold as a result of STD infection. It is estimated that 1 in 5 Americans between the ages of 15 and 55 are currently infected with one or more STDs, and 12 million Americans are newly infected each year. That's nearly 5% of the entire population of the U.S. Of these new infections, 63% are in people less than 25 years old.

This epidemic is a recent phenomenon. Some young people have parents who may have had multiple sexual partners with relative impunity. They may conclude that they too are safe from disease. However, most of these diseases were not around 20 to 30 years ago. Prior to 1960, there were only two significant sexually transmitted diseases: syphilis and gonorrhea. Both were easily treatable with antibiotics. In the sixties and seventies this relatively stable situation began to change. For example, in 1976, chlamydia first appeared in increasing numbers in the United States. Chlamydia, particularly dangerous to women, is now the most common STD in the country. Then in 1981, human immunodeficiency virus (HIV), the virus which causes AIDS, was identified. By early 1993, between 1 and 2 million Americans were infected with AIDS, over 12 million were infected worldwide, and over 160,000 had died in the U.S. alone. Over 10% of the total U.S. population, 30 million people, are infected with herpes.

In 1985, human papilloma virus (HPV), began to increase. This virus will result in venereal warts and will often lead to deadly cancers. In 1990, penicillin resistant-strains of gonorrhea were present in all fifty states.

By 1992 syphilis was at a 40-year high. As of 1993, pelvic inflammatory disease (PID), which is almost always caused by gonorrhea or chlamydia, was affecting 1 million new women each year. This includes 16,000 to 20,000 teenagers. This complication causes pelvic pain and infertility and is the leading cause of hospitalization for women, apart from pregnancy, during the childbearing years.

Pelvic inflammatory disease can result in scarred fallopian tubes which block the passage of a fertilized egg. The fertilized egg, therefore, cannot pass on to the uterus and the growing embryo will cause the tube to rupture. By 1990, there was a 400% increase in tubal pregnancies, most of which were caused by STDs. Even worse is the fact that 80% of those infected with an STD don't know it and will unwittingly infect

their next sexual partner.

## **The Medical Facts of STDs**

Syphilis is a terrible infection. In its first stage, the infected individual may be lulled into thinking there is little wrong since the small sore will disappear in 2 to 8 weeks. The second and third stages are progressively worse and can eventually lead to brain, heart, and blood vessel damage if not diagnosed and treated. The saddest part is that syphilis is 100% curable with penicillin, yet there is now more syphilis than since the late 1940s, and it is spreading rapidly.

Chlamydia, a disease which only became common in the mid-1970s, infects 20 to 40% of some sexually active groups including teenagers. In men, chlamydia is usually less serious; with females, however, the infection can be devastating. An acute chlamydia infection in women will result in pain, fever, and damage to female organs. A silent infection can damage a woman's fallopian tubes without her ever knowing it. A single chlamydia infection can result in a 25% chance of infertility. With a second infection, the chance of infertility rises to 50%. This is double the risk of gonorrhea.

The human papilloma virus, or HPV, is an extremely common STD. One study reported that at the University of California, Berkeley, 46% of the sexually active coeds were infected with HPV. Another study reported that 38% of the sexually active females between the ages of 13 and 21 were infected. HPV is the major cause of venereal warts; it can be an extremely difficult problem to treat and may require expensive procedures such as laser surgery.

The human papilloma virus can result in precancer or cancer of the genitalia. By causing cancer of the cervix, this virus is killing more women in this country than AIDS, or over 4,600

women in 1991. HPV can also result in painful intercourse for years after infection even though other visible signs of disease have disappeared.

And of course there is the human immunodeficiency virus, or HIV, the virus that causes AIDS. The first few cases of AIDS were only discovered in 1981; now, in the U.S. alone, there are between 1 and 2 million infected with this disease. As far as we know, all of these people will die in the next ten years. As of early 1993, 160,000 had already died.

A 1991 study at the University of Texas at Austin showed that 1 in 100 students who had blood drawn for any reason at the university health center was HIV infected. While the progress of the disease is slow for many people, all who have the virus will be infected for the rest of their life. There is no cure, and many researchers are beginning to despair of ever coming up with a cure or even a vaccine (as was eventually done with polio). In 1992, 1 in 75 men was infected with HIV and 1 in 700 women. But the number of women with AIDS is growing. In the early years of the epidemic less than 2% of the AIDS cases were women. Now the percentage is 12%.

## **Teenagers Face a Greater Risk from STDs**

Teenagers are particularly susceptible to sexually transmitted diseases or STDs. This fact is alarming since more teens are sexually active today than ever before. An entire generation is at risk and the saddest part about it is that most of them are unaware of the dangers they face. Our teenagers must be given the correct information to help them realize that saving themselves sexually until marriage is the only way to stay healthy.

The medical reasons for teens' high susceptibility to STDs specifically relates to females. The cervix of a teenage girl has a lining which produces mucus that is a great growth medium for viruses and bacteria. As a girl reaches her 20s or

has a baby, this lining is replaced with a tougher, more resistant lining. Also during the first two years of menstruation, 50% of the periods occur without ovulation. This will produce a more liquid mucus which also grows bacteria and viruses very well. A 15-year-old girl has a 1-in-8 chance of developing pelvic inflammatory disease simply by having sex, whereas a 24-year-old woman has only a 1-in-80 chance in that situation.

Teenagers do not always respond to antibiotic treatment for pelvic inflammatory disease, and occasionally such teenage girls require a hysterectomy. Teenage infertility is also an increasing problem. In 1965, only 3.6% of the married couples between ages 20 and 24 were infertile; by 1982, that figure had nearly tripled to 10.6%. The infertility rate is surely higher than that now with the alarming spread of chlamydia.

Teenagers are also more susceptible to human papilloma virus, HPV. Rates of HPV infection in teenagers can be as high as 40%, whereas in the adult population, the rate is less than 15%. Teenagers are also more likely than adults to develop precancerous growths as a result of HPV infection, and they are more likely to develop pelvic inflammatory disease.

Apart from the increased risk from STDs in teens, teenage pregnancy is also at unprecedented levels, over 1 million pregnancies, and 400,000 abortions in 1985. Abortion is not a healthy procedure for anyone to undergo, especially a teenager. It is far better to have not gotten pregnant. Oral contraceptives are not as effective with teenagers, mainly because teens are more apt to forget to take the pill. Over a one-year period, as many as 9 to 18% of teenage girls using oral contraceptives become pregnant.

Our teenagers are at great risk. In a society that has abandoned God's design for healthy meaningful sexual expression within marriage, our children need to be told the truth about the dangers of STDs.



## Is “Safe Sex” Really the Answer?

I must now take a hard look at the message of “safe sex” which is being taught to teens at school and through the media across the country.

Some people believe that if teens can be taught how to use contraception and condoms effectively, that rates of pregnancy and STD infection will be reduced dramatically. But the statistics and common sense tell us otherwise. At Rutgers University, the rates of infection of students with STD varied little with the form of contraception used. For example, 35 to 44% of the sexually active students were infected with one or more STDs whether they used no contraceptive, oral contraceptive, the diaphragm, or condoms. It is significant to note that condoms, the hero of the “safe sex” message, provided virtually no protection from STDs.

Will condoms prevent HIV infection, the virus that causes AIDS? While it is better than nothing, the bottom line is that condoms cannot be trusted. A study from Florida looked at couples where one individual was HIV positive and the other was negative. They used condoms as protection during intercourse. Obviously these couples would be highly motivated to use the condoms properly, yet after 18 months, 17% of the previously uninfected partners were now HIV positive. That is a one-in-six chance, the same as in Russian roulette. Not good odds!

Condoms do not even provide 100% protection for the purpose for which they were designed: prevention of pregnancy. One study from the School of Medicine Family Planning Clinic at the University of Pennsylvania reported that 25% of patients using condoms as birth control conceived over a one-year period. Other studies indicate that the rate of accidental pregnancy from condom-protected intercourse is around 15% with married couples and 36% for unmarried couples.

Condoms are inherently untrustworthy. The FDA allows one in 250 to be defective. Condoms are often stored and shipped at unsafe temperatures which weakens the integrity of the latex rubber causing breaks and ruptures. Condoms will break 8% of the time and slip off 7% of the time. There are just so many pitfalls in condom use that you just can't expect immature teenagers to use them properly. And even if they do, they are still at risk.

Studies are beginning to show that school-based sex education that includes condom use as the central message does not work. A study in a major pediatric journal concluded that "the available evidence indicates that there is little or no effect from school-based sex-education on sexual activity, contraception, or teenage pregnancy."(2) This study evaluated programs that emphasized condoms. Over \$3 billion dollars has been spent on sex- education programs emphasizing condoms with little or no effect! In addition, programs that emphasize condoms tend to give a false sense of security to sexually active students and make those students who are not having sex feel abnormal. Hardly the desired result!

The list of damages from unmarried adolescent sexual activity is long indeed. Apart from the threat to physical health and fertility, there is damage to family relationships, self-confidence and emotional health, spiritual health, and future economic opportunities due to unplanned pregnancy. Condom-based sex-education does not work.

## **Saving Sex for Marriage is the Common Sense Solution.**

I have been discussing the epidemic of sexually transmitted diseases that is running rampant in this country and around the world. Diseases such as chlamydia, human papilloma virus, herpes, hepatitis B, trichomonas, pelvic inflammatory disease, and AIDS have joined syphilis and gonorrhea in just the last

30 years. There is no question that the fruits of the sexual revolution, or sexual convulsion as one author put it, have been devastating. I have also shown how our teenagers are at a greater risk for sexually transmitted diseases than are adults and that sex-education based on condom use is ineffective and misleading. There is only one message that offers health, hope, and joy to today's teenagers. We need to teach single people to save intercourse for marriage.

Sex is a wonderful gift, but if uncontrolled, it has a great capacity for evil as well as good. Our bodies were not made to have multiple sex partners. Almost all risk of STD and out of wedlock pregnancy can be avoided by saving intercourse for marriage. And it can be done.

Statistics show clearly that in schools that teach a sex education program that emphasizes saving intercourse for marriage, the teen pregnancy rate drops dramatically in as little as one year. In San Marcos, California, a high school used a federally funded program ("Teen Aid") which emphasizes saving intercourse until marriage. Before using the program there were 147 pregnancies out of 600 girls. Within two years, the number of pregnancies plummeted to 20 out of 600 girls.(3) In Jessup, Georgia, upon instituting the "Sex Respect" program, the number of pregnancies out of 340 female students dropped from 17 to 13 to 11 to 3 in successive years.

Delaying intercourse until teens are older is not a naive proposal. Over 50% of the females and 40% of the males ages 15 to 19 have not had intercourse. While not a majority, they are living proof that teens can control their sexual desires. Current condom-based sex-education programs basically teach teenagers that they cannot control their sexual desires, and that they must use condoms to protect themselves. It is not a big leap from teenagers being unable to control their sexual desires to being unable to control their hate, greed, anger, and prejudice. This is not the right message for our teenagers! Teenagers are willing to discipline themselves for

things they want and desire and are convinced are beneficial. Girls get up early for drill team practice. Boys train in the off-season with weights to get stronger for athletic competition. Our teens can also be disciplined in their sexual lives if they have the right information to make logical choices. Saving sex for marriage is the common sense solution. In fact, it is the only solution. We don't hesitate to tell our kids not to use drugs, and most don't. We tell our kids it's unhealthy to smoke, and most do not. We tell our kids not to use marijuana, and most do not.

It is normal and healthy not to have sex until marriage. Sexually transmitted diseases are so common that it is not an exaggeration to say that most people who regularly have sex outside of marriage will contract a sexually transmitted disease. Not only is saving sex for marriage the only real hope for sexual health, it is God's design. God has said that our sexuality is to blossom within the confines of a mutually faithful monogamous relationship. What we are seeing today is the natural consequence of disobedience. We need to reeducate our kids not just in what is best, but in what is right.

## **Notes**

1. Medical Institute for Sexual Health, P.O. Box 4919, Austin, TX 78765.
2. I.W. Stout, et al., *Pediatrics*, 1989, 83:376-79.
3. Joe S. McIlhaney, Jr., *Safe Sex* (Grand Rapids, Michigan; Baker Book House, 1991), p. 86.

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# Darwin on Trial: A Lawyer Finds Evolution Lacking Evidence

*Darwin on Trial* is the title of a book on evolution that has ruffled the feathers of the secular scientific community. Though a Christian, author Philip Johnson critiques evolutionary theory from a secular standpoint as he examines the philosophical games many scientists play to protect their evolutionary ideology.

## Evolution as Fact and Theory

Johnson, a law professor at the University of California at Berkeley, attacks head-on the often-heard statement that evolution is both a fact and a theory, an evolutionary dogma that has been a major source of confusion for a long time. Evolution is a fact, Darwinists say, in that they know that evolution has occurred. It is a theory in that they are far from understanding the mechanisms by which evolution has occurred. In the eloquent words of evolutionist Stephen J. Gould,

*Evolution **is** a theory. It is also a fact. And facts and theories are different things, not rungs in a hierarchy of increasing certainty. Facts are the world's data. Theories are structures of ideas which explain and interpret facts. Facts do not go away while scientists debate rival theories for explaining them. Einstein's theory of gravitation replaced Newton's, but apples did not suspend themselves in mid-air pending the outcome. And human beings evolved from apelike ancestors whether they did so by Darwin's proposed mechanism or by some other, yet to be discovered. (Evolution as Fact and Theory)*

There are numerous problems with this explanation. First, if evolution is a fact, then evolution is equivalent to data. This hardly seems appropriate. Second, the comparison of evolution to gravity is misleading. We can go into any apple orchard and observe apples falling from trees. But where do we go to observe humans evolving from apelike ancestors? Apples falling from trees fits into the category of science we can term **operations science** which utilizes data that are repeatable and observable at any time. Humans evolving from apelike ancestors, however, would fall under the category of **origins science**. Origins science involves the study of historical events that occur just once and are not repeatable. We can only assemble what evidence we have and construct a plausible scenario, much like the forensic scientist Quincy did in the old television show. The so-called facts of human evolution, by Gould's own definition, are the fossils and the rock layers they are found in. That humans evolved from apelike ancestors is a theory that attempts to explain and interpret these facts.

Later in the same article Gould states the real definition of fact under which evolution fits. He begins by saying that fact does not necessarily mean absolute certainty. Then he says, "In science, fact' can only mean confirmed to such a degree that it would be perverse to withhold provisional assent.'" In other words, evolution is a fact because a majority of scientists say so, and you are "perverse" if you do not agree. We quickly begin to see that evolution holds a privileged place in the scientific community, which will go to extraordinary lengths to preserve that status.

## **A Theory in Crisis**

Johnson's book, although the most recent, is not the first to question evolution's status as fact. Michael Denton, an agnostic medical researcher from Australia, caused quite a storm with his 1985 book, *Evolution: A Theory in Crisis*.

Denton's point is that orthodox Darwinism has such a stranglehold on the biological sciences that contradictory evidences from fields such as paleontology, developmental biology, molecular biology, and taxonomy are passed off as intramural squabbles about the process of evolution. The "fact" of evolution is never really in question. Like Johnson, Denton points out that Darwinism is not a fact. It is a mechanistic theory that is still without a mechanism. While moths and fruit flies do respond to environmental stimuli, our observations of this process have been unable to shed any light on the means by which we have come to have horses and woodpeckers and wasps. The origin of complex adaptations has remained a mystery. The fossil record is pockmarked with gaps in the most embarrassing places. Darwin predicted innumerable transitional forms between major groups of organisms, yet the few transitions that are suggested are surrounded in controversy. Another "fact" that fails to withstand Denton's scrutiny is the assumption that similar biological structures owe their similarity to a common ancestry. Homology, which studies these similarities, assumes for example that the forelimbs of amphibians, reptiles, birds, and mammals are similar in structure because they evolved from the same source. Denton reveals, however, that these same classes of vertebrates go through remarkably different stages of early embryological development. This was certainly not a prediction of Darwinian evolution. Even more importantly, Denton reports that comparison of the sequences of proteins from different organisms actually supports the pre-Darwin system of classification, which was based on creationist principles.

Also, the many chemical evolution scenarios are caught in numerous intractable dilemmas that offer little hope of resolution (see *Scientific American*, Feb. 1991).

## **Rules of Science and Evolution**

Another issue that Philip Johnson treats in his book is the

fact that the rules of science tend to be stated and followed differently depending on whether you are talking about evolution or creation. Professor Johnson refers specifically to Judge William Overton's decision striking down the Arkansas Creation/Evolution Balanced Treatment law. In his written decision, which was reprinted in its entirety in the prestigious journal *Science*, Judge Overton reiterated five essential characteristics of science that were given by opponents of the bill during the trial. Science, in the judge's opinion, must be:

- *Guided by natural law*
- *Explanatory by reference to natural law*
- *Testable against the empirical world*
- *Tentative in its conclusions—that is, not necessarily the final word*
- *Falsifiable*

Judge Overton decided that creation-science does not meet these criteria since it appeals to the supernatural and is therefore not testable, falsifiable, or explanatory by reference to natural law. Johnson points out that philosophers of science have been very critical of the definitions of science given in the decision and have suggested that the expert witnesses provided by the ACLU attorneys got away with a philosophical snow job. Critics have pointed out that scientists are not the least bit tentative about their basic commitments, especially about their commitment to evolution. From my own experience, all one has to do is attend any scientific meeting to see that some scientists are anything but tentative about their ideas. Also, scientists study the effects of phenomena (such as gravity) that they cannot explain by natural law. Finally, critics have noted that creation-science, as proposed by the Arkansas law, does make empirical claims (such as a young earth, worldwide flood, special creation). Mainstream science has said these claims are demonstrably false, which raises the interesting question,



How can creation-science be both unfalsifiable **and** demonstrably false at the same time? Johnson clearly reveals that what is really being protected by these rules of science is not necessarily evolution, but the philosophical doctrine known as *naturalism*. According to Johnson, "Naturalism assumes the entire realm of nature to be a closed system of material causes and effects, which cannot be influenced by anything from the outside." While this doctrine does not deny the existence of God, it certainly makes Him irrelevant. Science, therefore, becomes our only reliable path to knowledge. The issue as Johnson states it, is

*...Whether this philosophical viewpoint is merely an understandable professional prejudice or whether it is the objectively valid way of understanding the world. That is the real issue behind the push to make naturalistic evolution a fundamental tenet of society, to which everyone must be converted.*

The consequence of this kind of thinking is that evolution is made the basis of ethical and religious statements, which is precisely what most evolutionists find repulsive about creation.

## **Darwinist Religion**

A frequent refrain from evolutionists is that the evolution/creation debate is actually a collision between science and religion. If creationists would just realize their view is inherently religious and that evolution is the scientific view, then there would be little to disagree about. Evolution belongs in the science classrooms and creation belongs only in the philosophy and religion classrooms. What gets left behind in this discussion, either intentionally or unintentionally, are the very firm religious implications of atheistic naturalism with evolution as its foundation. We only need to look at a few sources to see the religious nature of

evolution. The first source is the blatantly religious statements of certain evolutionists themselves. Philip Johnson quotes the evolutionist William Provine as stating quite categorically that:

- *Modern science, i.e., evolution, implies that there is no purpose, gods, or design in nature.*
- *There are no absolute moral or ethical laws.*
- *Heredity and environment determine all that man is.*
- *When we die, we die, and that is all there is.*
- *Evolution cannot produce a being that is truly free to make choices.*

Statements such as these make it quite clear: the belief that science and religion are different spheres of knowledge is complete nonsense.

A second source that establishes the religious nature of evolution is the attacks of evolutionists on the God of the Bible using evolutionary principles. In his chapter on natural selection, professor Johnson provides an example from evolutionist Douglas Futuyma. Futuyma states that a Creator would never create a bird such as the peacock, whose six feet of bulky feathers make it easy prey for leopards. (Johnson turns the tables, however, by asking why natural selection would favor a peahen that lusts after males with life-threatening decorations.) It has always amazed me that people who claim that there is no God sure seem to have an intimate knowledge of what He would be like if He did exist. At any rate, if evolution can be used to discredit certain notions about the character of God, then evolution is indeed making religious statements. A third indication of the religious nature of evolution is the knee-jerk reaction of the evolutionary establishment against any statement that even hints that evolution is a tentative theory. In 1984, a group of scientists who are Christians but who do not identify themselves with creation scientists published a booklet

entitled *Teaching Science in a Climate of Controversy* and mailed it to thousands of school teachers. The general idea of the booklet was to encourage open-mindedness on certain issues and controversies regarding evolution. Evolutionists quickly chided the publication as a clever disguise of creationism. To quote Johnson, "The pervasive message was that the ASA [American Scientific Affiliation] is a deceitful creationist front which disguises its Biblical literalist agenda under a pretense of scientific objectivity." In other words, anything that smells of God must be creationist and must be stamped out.

## **Darwinist Education**

In the later chapters of Johnson's book, he analyzes the reaction of evolutionists to the challenges that have been leveled against them. It is here that he perhaps makes his greatest contribution. One of these reactions has been to wage what is essentially an evolutionary filibuster in educating the public about evolution. Johnson cites the experience of the British Museum of Natural History when it opened an exhibit on evolution in 1981. The exhibit presented Darwinian evolution as **one** idea and **one** possible explanation. Creation was cited as another view. This tentativeness was too much for some scientists to bear. A firestorm of criticism appeared in the British science journal *Nature*. Many were furious that the museum would actually go public with doubts about evolution, doubts that had previously been reserved for discussion among evolutionary scientists alone. The criticism was so severe that the museum eventually removed the exhibit and replaced it with a more "traditional" evolution exhibit. One of the Museum's top scientists, Colin Patterson, made a similar reversal concerning his view that he required faith in order to accept evolution. The criticism eventually convinced him to discontinue making these statements public.

In the United States, the Science Framework adopted by the

state of California in 1989, which has a significant effect on the content of science textbooks, contained this statement concerning evolution: “[Evolution] is an accepted scientific explanation and therefore no more controversial in scientific circles than the theories of gravitation and electron flow.” This assertion is nothing more than an appeal to authority and has nothing to do with legitimate scientific evidence. As a result of this statement, evolution is being included in science textbooks at increasingly lower grade levels. The purpose is clear: if students can be indoctrinated in evolution early enough and often enough, perhaps all this controversy can be avoided.

## **Conclusion**

In summary, I have pointed out that many critical predictions of Darwinian evolution have not been fulfilled. As a result, naturalistic atheism, the underlying philosophy of much of the evolutionary establishment, has been threatened. The response of many evolutionists has been to issue increasingly dogmatic statements that appeal to authority, not to evidence, play semantic word games where evolution is called both a fact and a theory, and wage an educational filibuster aimed at squelching all dissent. The evolutionists are not likely to abandon these tactics anytime soon, but until they do, they can expect even more criticism from scholars such as Professor Philip Johnson.