

“IN THE BEGINNING . . .”

(Essay by Stanley A. Huseland to the Indianapolis Literary Club, October 19, 2009)

This essay is a result of curiosity run amok.

It all began when one of my distinguished colleagues gave a learned dissertation here a year or two ago, and in a brief aside, made reference to the religious rivals to the theory of evolution, and named them as “creationism” and “intelligent design.” I thought that my colleague was implying they were two terms for the same idea, that creationism was more or less interchangeable with intelligent design. At the time I had become interested in the fairly recent term called “intelligent design,” and was inclined to defend it. But I also realized I knew almost nothing about it. In a rare burst of humility, I decided I should learn before speaking; I should research before drawing conclusion.

So I did. My quest took me through Charles Darwin, through the Tennessee Scopes trial of the 1920s, through a more assertive stance of evolutionary scientists beginning in the 1930s, to the present. I saw conflicts occasionally pitting science against religion, and believers against non-believers. I even peered into our schools, where occasional rear-guard conflicts occur over the merits of teaching alternatives to Darwinian evolution and its perceived gaps and flaws.

Tonight I will take you into my probe as to where intelligent design fits into all this. Because this tends to be a controversial topic, I will leave abundant time for you to weigh in with questions or comments.

First, the base question: Is this a bi-polar debate, as I thought I heard in my colleague’s description, between secular evolutionary science on the one hand, and believers in God on the other?

Or are there three distinct and different concepts; that is, the secular scientists, the creationists, and a third view that stands apart from both of these, and espouses the possibility or probability of evolution by intelligent design? My view is that the discussion properly is a tri-partite one. I will present what I learned, as objectively as I can, using the words of each concept’s proponents to illuminate the subject.

Here’s what I propose to do--Explain each of these concepts as they relate to two core questions:

- 1. How did the first spark of life occur on planet earth? and**
- 2. How did man--homo sapiens--come to be?**

We start with essential definitions. I begin with the definitions of creationism and of Darwinian evolutionary theory on these questions, because these two ideas are most commonly known and understood.

The definition of creationism is relatively simple. It is the story in the Old Testament Book of Genesis of how God created the earth, and then Adam and Eve. Thus to my core question, the first spark of life occurred, creationists believe, when God created life, and then man, in the Garden of Eden by divine intervention. Adherents of creationism typically believe in the literal accuracy of the Biblical account, although some believe that its essence is true, but the detailed account is just Hebrew tradition put to writing.

The conflict between literal creationism and evolution is obvious. Mainstream scientists who generally support the theory of evolution find the literal interpretation of creationism an easy foe. There is a mountain of scientific evidence that the earth is billions of years old, that species evolve over time, and that the human species clearly is related in some way to the family of mammals, and specifically to primates, all this in stark conflict with creationism.

Secular evolutionary science flies generally under the banner of Darwinism, as it was espoused by Charles Darwin in 1859 in his book “on the Origin of Species.” His concept has been modified over the years by both cultural and scientific developments. I will use Darwinism as a shorthand to describe what some call neo-Darwinism today to describe this scientific theory that is generally supported by mainstream scientists in the field.

Which brings us to Charles Darwin himself. He was the 19th Century naturalist who changed the world of evolutionary science. Did Darwin develop the theory of evolution? Surprisingly, I learned he did not.

Ideas about evolution had been circulating within the scientific community for at least half a century before Darwin sprang into the public imagination. What Darwin DID develop was the theory that evolution of species occurs as a result of “natural selection.” Those with advantages in strength, size or intelligence have a better chance to reproduce, and these advantages are preserved in a changing species. As one writer stated simply: “Why does a giraffe have a long neck? Because the short-necked ones have failed to leave offspring.

Darwin’s discovery of the role of natural selection gave birth to the collateral phrase “survival of the fittest.”

So Darwin was not the father of the theory of evolution, but more properly the father of the theory of natural selection as an explanation for evolutionary change evident in nature.

Darwin is an interesting historical figure, quite aside from his scientific findings. This man, who is regarded by some as a threat to belief in God, early in his life had the ambition of becoming an Anglican minister, and earned a Cambridge degree in theology. But in his heart he yearned to be a naturalist. He arranged to share a voyage on the ship “Beagle.” This trip clearly was central to the insights regarding “natural selection.” He waited 20 years before launching his scientific revolution with his book. Did Darwin believe in God? We know his wife did devoutly. Some suggest that for her sake Darwin avowed that his theory was not incompatible with a belief in God. Others were not so sure. The notion that life on earth is a mindless accident without purpose or meaning seemed hard to swallow for some, then and now.

Over the next half century, Darwinism was accepted as merely a plausible theory, as the religious community seemed unthreatened by its co-existence. But the lines began to harden as the 1925 Scopes trial demonstrated. It was a show trial, arranged by activists on both sides, eager for a nationally publicized showdown. Tennessee law won the battle as Mr. Scopes was convicted, but the Darwinists behind the mighty voice of Clarence Darrow won the war.

By the 1930s, the creationists were in eclipse, and Darwinism was championed by scientists who considered themselves secular humanists. Some, but not all, declared themselves to be atheists or agnostics. Those who had long muted the conflicts between science and religion yielded to a more polarized debate. Darwinian scientists now worked aggressively to drive the creationists to the sidelines. This continues to this day. The leading spokesman for Darwinism, Dr. Richard Dawkins of Oxford University is also an outspoken activist for atheism on the world stage.

Dawkins and like-thinking scientists have drawn a line in the sand. Scientists believe in natural causes for all matters, in a creed called materialism. This creed governs the origin of the planet and the origin of all species including man. Thus by definition, if one supports a supernatural explanation, or even the mere possibility of a supernatural explanation, one stands outside the boundaries of scientific mainstream. Thus Darwinian science, by definition, trumps opposing concepts relating to theist beliefs.

Darwinism has stood up well as scientific advances have occurred over the last 150 years. Scientists say that natural selection remains the primary basis for evolutionary change. However, instant mutation within species now is recognized as a secondary basis. DNA research also is beginning to open new avenues of studies, and to date has done little to disturb Darwin’s vision of how evolution occurs.

So what is the Darwinian answer to my core questions? How did the first spark of life on earth come to be? Scientists generally admit they don’t know for sure. The prevailing view is that there once existed in the early formation of the earth a

primordial swamp of the necessary elements, and that perhaps a lightning bolt transformed these chemicals into a living thing. This is known as the Oparin-Haldane hypothesis. Although it is speculative, it tends to be accepted because it is a necessary premise for evolutionary development.

And how did homo sapiens come to be? Moderately embarrassed by so-called “missing links,” Darwinists believe that man developed as a branch of the primates. Some believe man evolved directly from the apes, others that both apes and man had common parallel ancestry going back to a more primitive species. Search for more definitive evidence of man’s lineage goes on. Recent discoveries, dubbed Lucy and Ardi, strengthen the view that man is a distant cousin, not a direct ancestor of the apes.

So much for the fundamentals of creationism and Darwinism. The latter is formidable in the debate, given its reliance on the scientific method. Literal creationism relies not only on faith, but the need to reject most or all of the scientific underpinnings of the Darwinian evolution.

This brings us to the concept called “Intelligent Design.”

First some definitions: The Columbia Encyclopedia explains intelligent design as:

(And I quote) “A theory that some complex biological structures and other aspects of nature show evidence of having been designed by an intelligence. Such biological structures are said to have intricate components that are so highly interdependent and so essential to a particular function or process that the structures could not have developed through Darwinian evolution, and therefore must have been created or somehow guided in their development.

(Still quoting) “Although intelligent design is distinguished from creationism by not relying on the biblical account of creation, it is compatible with a belief in God and is often explicitly linked with such a belief. Also unlike creationism, its proponents do not challenge the idea that the earth is billions of years old, and that life on earth has evolved to some degree.

(Still quoting) “The theory does, however, necessarily reject standard science’s reliance on explaining the natural world only through undirected natural causes, believing that any theory that relies on such causes alone is incapable of explaining how all biological structures and processes arose.” (end of definition)

The Intelligent Design Network, located in Shawnee Mission, Kansas, focuses on “origins science,” and injects a legal purpose as well. They say: “We believe objectivity in the institutions of science, government and the media will lead not only to good origins science, but also to constitutional neutrality in this subjective, historical science that unavoidably impacts religion.”

In bringing up constitutional neutrality, the Intelligent Design Network somewhat confirms the suspicions of some Darwinians. They assert that Intelligent Design was invented to cloak its religious roots, and that it is merely creationism in new clothes. They further note that the movement was created by the Discovery Institute in Seattle shortly after a federal court ruled against religious objections to Darwinism in a 1987 Pennsylvania school case.

Whatever the motives, intelligent design has adopted a scientific framework to replace the overtly religious stand of creationism. Mainstream scientists had essentially discredited creationism in the media and in the culture at large, as an alternate explanation for Darwinism. They had effectively left believers in a God no easy place to stand in the scientific debate. They had chased creationism out of the public square, including public schools, by appealing to church vs. state arguments.

And how does intelligent design answer the questions on the origin of life or the ancestry of man? Their adherents have no answer of their own, but point out that Darwinian science does not either. They are satisfied to admit they just “don’t know,” and wish the mainstream scientific community would be more candid in admitting the same.

If creationism became impotent in the public debate, intelligent design has proved to be a persistent and nettlesome adversary that drives many in the scientific community, particularly so-called hard-liners, up the proverbial wall.

They have sought to create a new science, focused on evidence of design in nature. They study and analyze a system’s components to determine whether various natural structures could be the product of chance . . . natural law . . . intelligent design . . . or some combination thereof. The eye is often cited as an example of a complex organ whose interdependent parts could not have any practical use by themselves, if developed in evolutionary sequence, but must have developed simultaneously to work.

The Discovery Institute, a major center of intelligent design thinking, is bold and brassy in the escalating battle with Darwinian scientists. Just before a PBS documentary was to air debunking most criticisms of Darwinism, the Discovery Institute released a statement of 100 scientists with a counter-attack. In it the scientists proclaimed “skepticism” for the ability of random mutation and natural selection to account for the complexity of life.”

The intelligent design movement continues to assert itself noisily. Last year a pro-intelligent design documentary entitled “Expelled,” was released, featuring Ben Stein, the actor, humorist and economist. Its thesis was that credentialed scientists daring to defend intelligent design have been systematically expelled from academia and any semblance of intellectual respectability. The film described the ostracism

and expulsion of several academics who sought within their institutions a fuller discussion of the precepts of intelligent design and/or the gaps in evolutionary theory.

The scientific response to Stein and the film “Expelled” in the academic press was blunt and brutal. If Stein had hoped to carve out a tolerant niche for his intelligent design defenders, he failed.

Dr. Dawkins from Oxford promptly retaliated by persuading the University of Vermont to cancel a speaking appearance by Stein.

Most Darwinian scientists deny organized exclusion of the scientific heretics defending intelligent design. But occasionally there is a candid admission that they consider the door closed.

Richard Lewontin, Harvard zoologist, is quoted as saying: “We have a commitment to materialism . . . We cannot allow a Divine foot in the door.”

And our Oxfordian atheist Dr. Dawkins gently proclaims: “If people think God is interesting, the onus is on them to show there is anything out there to talk about. Otherwise, they should shut up about it.”

There is little likelihood they will shut up, given the mutual bad blood that exists, and the new sophistication of the intelligent design critics. Let the scientists abuse and mock the creationists, but the intelligent design folks will fight on.

They continue to build a framework for a scientific basis to detect design features in nature. This is important to distancing themselves from the Creationists, solidifying their dedication to the scientific method, and establishing themselves as “in-effect” secular critics of the prevailing Darwinian theories.

But their principal energy is reserved for attacking “the soft under-belly” of Darwinism, the speculations that relate to (1) the origin of life and (2) the missing links in human ancestry.

John Horgan of *Scientific American* magazine observed. “If I were a creationist (no doubt he believed this included intelligent design), I would cease attacking the theory of evolution . . . and focus on the origin of life. This is by far the weakest strut of the chassis of modern biology.”

And that unease relates to the Oparin-Haldane hypothesis, mentioned earlier.

Eager to close this gap in origin science, Stanley Miller and Harold Urey took to their laboratory in 1953. After many electrifying efforts, they were able to create amino acids, which are necessary ingredients to life, but are not in themselves life.

Nonetheless Miller and Urey declared victory, and for more than half a century, no further publicized attempt has been made to prove the Oparin-Haldane hypothesis. Intelligent design advocates point out further that any single cell--even a primitive one--is an incredibly complex organism, requiring a natural accident of incredible complexity.

Another scientific embarrassment is a favorite of skeptics. It relates to the “missing link” that would help fill a gap in the evolutionary path of early mammals to the human being. Scientists look back with sadness at the episode of Piltdown man. In 1912 fragments of a skull were discovered in a gravel pit in the south of England. The so-called fossil became known as the Piltdown Man. Appearing to be the ideal missing link, it instantly achieved worldwide attention. Forty years and mountains of publications later, Piltdown Man was proved to be a forgery, the ingenious juxtaposition of a human skull and the jaw of an orangutan. A skeptical scientist in 1923 called it a hoax, but it took 30 more years for scientists generally to admit they had been duped. The Piltdown forgery illustrates the eagerness by which some scientists will accept what they want to believe. Scientist Richard Leakey said the same, more delicately, in his book “Origins.” “Because theories in paleontology are often constructed from relatively little data, in that field the danger of over-interpretation, and therefore biased theories, is particularly acute.”

In the more recent “take-no-prisoners” debate between Darwinians and Intelligent Design advocates, no such candid admission of bias or error is likely.

Intelligent design is gaining little traction in the scientific community. Both sides are stiff-necked and dogmatic.

But the intelligent design crowd is learning a lot about public relations and taking its case to the general public. The Ben Stein movie “Expelled” was just one example. Elaborate internet advocacy from the Discovery Institute in Seattle and the Intelligent Design Network in Kansas keep the debate boiling.

We can all agree that public opinion is not a basis for determining the ultimate truth of either a scientific theory or of religious faith. But if intelligent design represents the middle ground for those who combine a belief in God and a belief in Darwinian evolution, then there is fertile ground indeed, in a public relations sense. Various polls suggest that between 80 and 90 percent of Americans profess a belief in God. At the same time a Zogby poll has suggested that a high percentage of the public accepts the teachings of Darwinian evolution. The overlap is the middle ground. If you think a belief in Darwinism and a belief in God are incompatible, you are probably either a Creationist, or a Darwinian absolutist. But the average person, who has probably not put much intellectual effort into reconciling evolution and religious faith, would seem to be open to a plausible middle alternative, one that accepts the scientific method and most of the scientific observations of Darwinism, but does not eliminate faith from the formula.

Now a few of my subjective observations about all this. The Darwinians have an enormous advantage in scientific findings from Darwin to the present, even as new discoveries relating to mutations, DNA, and the human genome, have not jostled the main theme of evolution by natural selection.

Creationists are entitled to their faith and their beliefs. However, they have little standing to challenge nearly every scientific conclusion in astronomy, geology, paleontology, and biology in the scientific debate.

Intelligent design may or may not be creationism in disguise, but it presents a far more appealing basis for challenging the Darwinians. Their new science of detecting design in nature is too new to have much substance, and at this point is too subjective to attract many outsiders. While these concepts are being fleshed out, intelligent design advocates are most comfortable when on the attack, twitting Darwinians for ignoring weak answers for origin of life and origin of man.

There are major gaps in Darwinian theory. It is true, as Darwinians say in defense, that the absence of evidence is not evidence of its absence. Fair enough. But then scientists have no way--so far--to disprove that . . . underlying evolution and all the laws of nature . . . might be the hidden hand of a designer.

For my part, I believe both camps should be more flexible and tolerant, less cocksure and hostile. Each could benefit from just a modicum of civility.