"Why Won't You Take a Stand on the Age of the Earth?"

Dr. Bohlin,

I just read over your article on the <u>Age of the Earth</u> to get Probe's stand on the issue. Apparently, the official stand is officially no stand.

I was wondering after I read this statement of yours: "Biblically, we find the young earth approach of six consecutive 24-hour days and a catastrophic universal flood to make the most sense. However, we find the evidence from science for a great age for the universe and the earth to be nearly overwhelming. We just do not know how to resolve the conflict yet."

How do you (we) know for sure that the earth is millions if not billions of years old? I have been looking into this issue for a while, and I have found that ALL dating methods suffer from one major problem. They are ALL based on Fallible (untestable) Assumptions. Now that is a major problem to probe into because it seems that the main reason why Probe is not willing to hold to and defend the clear written revelation in Genesis is because you believe those dating methods are more trustworthy than Genesis 1.

I believe Rich Milne and I qualified our statement sufficiently. To say that we think the young earth position makes the most sense Biblically does not intend to suggest we believe it is the "clear" written revelation of Genesis 1. There are many conservative evangelical Old Testament scholars who do not hold to it. Men who certainly understand the OT and Hebrew much more than this molecular biologist. If I believed it was the clear revelation of Genesis, I would accept it regardless of the scientific evidence.

What you refer to in the assumptions of dating methods is true especially of the radioactive dating methods. But we explain one of our hesitations in the problem of starlight in the body of the paper. I also find it significant that most young earth geologists and physicists (Russ Humphreys is my source from personal conversations during our ICR Grand Canyon trips together) recognize that radioactive dating methods consistently portray an older-to-younger sequence when going from the bottom to the top. So much so that they are searching for a way incorporate this into their flood model. They don't accept the actual dates but the sequence seems real. Therefore the dating methods are not totally without merit. This is more than just suggestive.

I do understand that an international group, meeting through ICR, is working on a paper concerning dating methods which I anticipate with eagerness.

Respectfully,

Ray Bohlin, Ph.D.

"How Do You View the Age of the Earth?"

Dear Dr. Bohlin,

As a Christian, how do you view the age of the earth? I was wondering how scientists calculate the age of the stars and the earth.

Please see my article <u>"Christian Views of Science and Earth History"</u> which will give a fuller explanation of my view. Briefly, I am currently undecided or uncommitted to any

particular view of the age of the earth. I continue to find the six 24-hour literal day interpretation of Genesis 1 & 2 to be the most convincing, but I find great evidence for long ages for the universe and the earth. Basically I feel that there is not sufficient evidence either biblically or scientifically to decide the issue. We need more time and more data.

The age of the stars is principally determined by what is known as the red-shift. Light from galaxies that are moving away from us is shifted toward the red end of the light spectrum. The farther away the galaxy is the further toward the red, the light is shifted. If galaxies are moving towards us, their light would be shifted toward the blue end of the spectrum. The vast majority of galaxies are shifted toward the red and those which appear to be the youngest also demonstrate the strongest red-shift. There are Christian as well as a few non-Christian astronomers that are critics of this view of red-shifts but the majority find this explanation to be persuasive and authoritative. You may try visiting an astronomy web site from a planetarium for a fuller explanation.

Respectfully,

Ray Bohlin, Ph.D.

"Your

Critique

o f

Sociobiology Makes No Sense"

Perhaps I have severely misunderstood your critique on sociobiology, but as I interpreted it, it makes no sense. From the sociobiologist proposition that all human nature and behavior is shaped solely by evolutional necessity (and what promotes reproduction and survival), it does not follow, as you have asserted, that any significant hope and meaning in life is precluded. I don't know what kind of a faculty member you were talking to, but the question you posed ("What difference does it make if I've reproduced once I'm dead?") is an easy one to answer. The goal of humanity, as believed by sociobiologists, is to pass on its genetic legacy. No single organism is particularly important, but only the collaborative propagation of a species of its genes. Therefore, the difference of whether or not one has reproduced by the time of death is a crucial one. One who dies and leaves no offspring does not pass on any genetic legacy, and is truly, in an evolutionary sense, dead. Those who do leave offspring and die are able to, in an evolutionary sense, live on vicariously through the genes that they pass on to their young, and the genetic legacy continues.

In response to the philospher's division of life purpose into 'small letters' (survival/reproduction) and 'capital letters' (ultimate meaning and significance, whatever that means), the sociobiological assertion is that survival and reproduction is the ultimate meaning and significance of life. I think one of your crucial errors is that you assume that knowledge of the cause and origins of human nature actually change the validity of human nature itself, and somehow make our ambitions less "lofty. Well, our nature is what it is and we do what we do. We love our children and spouses with all our hearts, and if we do so only for the sake of evolutionary efficacy, than so be it, but our feelings do not therefore become false and invalid. We at times act selflessly and help others at the

expense of ourselves. But if this behavior is ultimately 'genetically selfish,' ostensibly helping others while really benefiting ourselves, than so be it, but these feelings are nevertheless meaningful. A principal proposition of sociobiology is that we have motives to act of which we are not always consciously aware. That does not mean they do not exist, and if they do exist, then following them does not make our lives inherently worthless.

Perhaps the sociobiological argument is not particularly aesthetically pleasing (which I think is really your main objection), but this is not by any means grounds for a scientific rebuttal.

Sincerely and respectfully,

, Ph.D.

I believe you are the first to question my critique along these lines. I will attempt to answer your objections in the body of your initial message.

Perhaps I have severely misunderstood your critique on sociobiology, but as I interpreted it, it makes no sense. From the sociobiologist proposition that all human nature and behavior is shaped solely by evolutional necessity (and what promotes reproduction and survival), it does not follow, as you have asserted, that any significant hope and meaning in life is precluded. I don't know what kind of a faculty member you were talking to,

He was the head of the department of ecology and evolution.

but the question you posed ("what difference does it make if I've reproduced once I'm dead?") is an easy one to answer.

To be clear, my question was "Once I am dead and in the ground (implying that in a naturalistic worldview since there is no afterlife, my life is absolutely over), what difference does

it make to me NOW?"

The goal of humanity, as believed by sociobiologists, is to pass on its genetic legacy. No single organism is particularly important,

Precisely why I made my question very personal.

but only the collaborative propagation of a species of its genes. Therefore, the difference of whether or not one has reproduced by the time of death is a crucial one.

Not to the species but to me, but I no longer exist.

One who dies and leaves no offspring does not pass on any genetic legacy, and is truly, in an evolutionary sense, dead.

So what? My genes are not me, they are just molecules. If, as E. O. Wilson summarized in *Sociobiology: The New Synthesis*, The organism is just DNA's way of making more DNA, then I don't really matter anyway. And once I am dead and no longer exist (organism), nothing makes any difference to me since I do not exist. That is why the professor said that "ultimately" it doesn't really matter. He got the gist of my question.

Those who do leave offspring and die are able to, in an evolutionary sense, live on vicariously through the genes that they pass on to their young, and the genetic legacy continues.

I don't live vicariously in my genes. They are now part of a new unique creature that combines my genes with a woman's genes in a new and totally unique combination. Even a clone would not be exactly "me" since mutations and recombinations would have occurred, erasing my genetic identity.

In response to the philospher's division of life purpose into

'small letters' (survival/reproduction) and 'capital letters' (ultimate meaning and significance, whatever that means),

Some meaning for existence beyond the mere physical.

the sociobiological assertion is that survival and reproduction is the ultimate meaning and significance of life.

But as I state in the article, without some meaning for life that arises outside of ourselves, there is no meaning in small letters. If we are just molecules, then that's it! We are just molecules, nothing more can be said about us. How those molecules get arranged or persist or are annihilated is totally irrelevant to the ongoing history of the universe. Nothing cares and nothing therefore matters.

I think one of your crucial errors is that you assume that knowledge of the cause and origins of human nature actually change the validity of human nature itself, and somehow make our ambitions less "lofty."

How can this not be so? From Darwin to today, evolution is said to be without direction and without purpose and we are mere accidents of history. This is not a conclusion of evidence, but of philosophy. For many it is a specific attempt to remove any form of God from the equation of who we are and where we came from. Once that is done we are free to make our own rules. When Richard Dawkins writes that Darwin made it possible to be an intellectually fulfilled atheist, he means it, at least partially, for the purpose of the freedom from any kind of imposed morality. Dawkin's watchmaker is not only blind, but totally without sympathy to whatever outcome comes about through natural selection. Specifically as to whether I reproduce or not.

Well, our nature is what it is and we do what we do. We love

our children and spouses with all our hearts, and if we do so only for the sake of evolutionary efficacy, than so be it, but our feelings do not therefore become false and invalid.

Certainly it becomes false and invalid, because I am only being manipulated by my genes which have been formed by thousands of generations. I am not really choosing, just reacting according the program established by natural selection.

We at times act selflessly and help others at the expense of ourselves. But if this behavior is ultimately 'genetically selfish,' ostensibly helping others while really benefiting ourselves, than so be it, but these feelings are nevertheless meaningful.

How can they be "meaningful" if they are ultimately selfish and not altruistic at all? That's why Trivers adds the word "reciprocal" in front of the word because simple altruism no longer exists in a sociobiological world.

A principal proposition of sociobiology is that we have motives to act of which we are not always consciously aware. That does not mean they do not exist, and if they do exist, then following them does not make our lives inherently worthless.

Certainly they exist, but their source is crucially important. If I pull the string on a Chatty Cathy doll and she says, "I love you," does she really love me? Of course not. But we are no different according to sociobiology. We are both complex arrangements of molecules uttering responses based on an internal program conditioned to respond to outside stimuli (pulling a string or gazing at our newborn's cute and cuddly face).

Perhaps the sociobiological argument is not particularly

aesthetically pleasing (which I think is really your main objection), but this is not by any means grounds for a scientific rebuttal.

Indeed, it is not aesthetically pleasing, but sometimes truth is hard to take, agreed. But that is not my problem. There is no purpose beyond survival and reproduction which is merely an illusion perpetrated on us by our brains which has been constructed by natural selection to simply aid survival and reproduction, not to recognize truth. And our entire body doesn't really matter, just our genes which are simply reproducing themselves because that's just what DNA does. But DNA is just a mindless molecule with no purpose or goal or direction. How then can we have any?

Respectfully,

Ray Bohlin, Ph.D. Probe Ministries

"Is Cloning Inherently Evil?"

I have several questions about cloning.

- 1) I understand the dangers of cloning, which in themselves are enough to warrant banning the practice. But I'm trying to understand if there is there anything inherently evil or antibiblical about cloning (for reproductive purposes). Is it simply a technology, comparable to in vitro fertilization, that could be used for good or evil, or is there something inherent in it that is against God's will? (Perhaps removing the nucleus of the original egg cell?...I just don't know)
- 2) I'm wondering about the biblical laws against sexual

relations with a close relative (brothers and sisters, nieces and nephews, etc. from Leviticus 18). Is it true that children born to parents who are close relatives are more likely to be deformed? And if so, is there a known reason this occurs genetically? And to relate that to cloning, is this possibly why clones are often deformed? I wonder if the deformations are a result of problems with the "process" or if there's a "built-in" reason that cloning will always, on the whole, fall short of sperm-and-egg conception?

3) How long would the cloned human embryo in November 2001 have lived in order to divide to six cells? Is that a matter of seconds, minutes, hours, days? I imagine it's very short but wondered how short.

You ask some good questions. Here are my brief responses.

Is there anything inherently evil or anti-biblical about cloning?

1. The only inherent evil in cloning that I see is the resulting devaluing of the individual, since you have brought this particular person into existence for a reason that is beyond simple reproduction in marriage. This places unrealistic expectations on the clone and tells them their value lies in those expectations and not on their intrinsic value as a human being. Some hold that the process itself is evil since it clearly deviates from the God-ordained union of sperm and egg. But that is also the case with identical twins. The second twin was the result of a budding process delayed from the initial union of sperm and egg, similar to cloning.

Is it true that children born to parents who are close relatives are more likely to be deformed? And if so, is there a known reason this occurs genetically?

2. Children resulting from incestuous relations do have a

higher incidence of genetic deformities which is the reason for state laws forbidding them. All of us harbor harmful recessive genes in single copies that are not expressed because they are masked by normal dominant gene copies. Siblings and first cousins will share many of these same recessive genes because the genes came from the same parent or grandparent. But when close relatives have sexual relations and a child results, these shared family recessive genes can be paired in a homozygous condition which allows the recessive harmful gene to be expressed. Such children are not always born with these defects but the chances are much higher than normal.

But this probably has little to do with the problems faced by cloned embryos. Nobody really knows what is going wrong with the cloned embryos but my suspicion is that the process of removing the original nucleus in the egg and the subsequent placement of the new nucleus in the egg cell disrupts the complex and intricate arrangement of important signal proteins in the egg cytoplasm and membrane. Rearrangment of this critical spatial orientation could put important proteins in the wrong places, meaning early development signals are missed or misplaced. This would have devastating consequences for the embryo. If this is the case, then at least current cloning techniques may never be able to escape the low success rates currently experienced.

How long would the cloned human embryo in November 2001 have lived in order to divide to six cells?

3. The cloned embryo which reached the six cell stage was probably no more than 3-4 days old when it stopped dividing.

Hope this helps.

Ray Bohlin Probe Ministries

"How Do Christians Respond to the Fact of Evolution?"

After reading one of your articles on Creation vs. Evolution I understood every aspect of their respective arguments, I was just a little a confused as far as Christian responses to the arguments. Do Christians acknowledge evolution but then just say that God has pre-ordained this evolution to happen? Or do Christians just ignore the fact that evolution exists? Maybe I am making this too complicated. If Christians can see that an organism changes over time to adapt with the environment for absolutely no apparent reason, does this mean that they acknowledge this change happened for no apparent reason thus evolution, or just that God made this change possible?

Christians respond differently to the questions you propose. Some Christians, indeed, suggest that God ordained the evolutionary process as His means to create. These usually refer to their position as theistic evolution or evolutionary creation. As far as I know, no Christian ignores that "evolution" happens. All recognize microevolution as a real process in response to environmental change. This does not require mutation or the establishment of new genetic or morphologic systems. Change over time is only one form of evolution, which no one objects to. What we believe there is insufficient evidence for, is the notion that all life forms today are descended from a single original life form that itself evolved from purely chemical precursors around 4 billion years ago.

I hope this helps.

Respectfully,

"Help Me Counter My Prof's Teachings on Horse Evolution"

I'm a senior at _____ in Agricultural Business Management. In one of my Range classes the professor has laid the foundation for the entire class on evolution. Using the common picture of horse evolution (hyracotherium to equus) he is saying that rangeland plants and systems have co-evolved with large ungulates. I'm struggling on just how he can give the theory of evolution such validity, the difference between adaptation and evolution, and finding information that I can use to refute some of his ideas. I don't want to argue with him but just want a chance to exchange ideas. If you can direct me to any information or resources on this specific topic, I would appreciate it. Thanks.

The best source of information on the horse series can be found in Jonathan Wells book, *Icons of Evolution* (2000) from InterVarsity Press. He has a full chapter on the subject as well as a chapter on Archeopteryx and the bird-like fossils. The book is easily obtainable at Amazon.com and some Christian Bookstores. Wells has also responded to some of his critics and negative reviews on the Discovery Institute's website at www.discovery.org. He also has other material at Access Research Network, www.arn.org. I would check on both sites for other helpful material.

Respectfully,

Dr. Ray Bohlin

"Can You Recommend Good Books on Intelligent Design?"

Grace and peace to you, Dr. Bohlin:

I am a returning college student and a home-schooling parent. In my classes I find myself facing animosity toward those of us who reject evolution. I want to be able to defend myself in class as well as prepare my children to do the same. I want to be able to say to my children and in class, "I believe [THIS], because [of THIS]; and here's the difference." I know there is good information available on Intelligent Design and Creationism, but I simply do not have the ammunition of knowledge and information that I desire.

Unfortunately, with so many works available, I am at a loss as to where to begin. Thus, could you recommend a few? Are there any that force evolutionists to base their critical examinations mainly (or exclusively) upon emotional arguments? (I.e., points that naturalistic "science" cannot honestly ignore or refute.) Alternatively, could you recommend an assortment that, when combined, thwart the mass of evolutionist droning? (And a good order in which to read/study the works.)

I honor you for your desire to become more knowledgeable in this important arena. I wish there were more Christians like you.

Below is a brief annotated bibliography in the order I feel they should be read by someone just starting out.

- 1. For an overview of the many issues and publishing events surrounding this question, you can start with the Probe book Creation, Evolution, and Modern Science, (Kregel, 2000) which I edited. This will introduce you to several topics without going into too much depth. This link will give you some more information.
- 2. Darwin On Trial by Phillip Johnson (IVP 1991). Phil Johnson has emerged as the leader of the Intelligent Design movement and here lays out in logical manner some of the important evidential problems with evolution as well as the all important academic and educational problems. See this related article.
- 3. Reason in the Balance by Phillip Johnson (IVP 1995). Here Johnson lays out just what is at stake in this naturalism vs. theism clash within the culture in law, science, and education. Not his most popular book, but by his own admission, his most important book. See this related article.
- 4. Icons of Evolution by Jonathan Wells (Regnery, 2000). A superb expose' of the ten most popular evidences for evolution in high school biology textbooks. The evolutionary and educational communities are falling all over themselves trying to explain or discredit this book. They are looking more and more foolish as time goes on. See this related article.
- 5. Darwin's Black Box By Michael Behe (Free Press, 1996). This is a narrower work explaining the necessity of intelligent design in understanding the molecular workings of the cell. Not as technical as you think. I have a good review of it in Creation, Evolution and Modern Science. See this related article.
- 6. Intelligent Design by William Dembski (IVP, 2000). Dembski shows how important Design is within a broad perspective across disciplines while also demonstrating the academic

rigor of a design hypothesis. <u>See this related article.</u>

- 7. Defeating Darwinism by Phillip Johnson (IVP, 1997). A short book for students, parents and teachers highlighting the critical thinking skills needed to weave through the mine fields of the creation/evolution controversy. See this related article.
- 8. The Wedge of Truth by Phillip Johnson (IVP, 2000). Johnson's latest book, providing an update and analysis of the current controversy and an explanation of overall strategy (The Wedge). Insightful and quotable as always.

There are other books to help you in specific areas and anthologies to offer more technical perspectives of important aspects of the controversy, but these should get you started.

There are reviews of books 2-7 on our website in the science section. URLs listed at the end of each description.

Respectfully,

Ray Bohlin Probe Ministries

"What are the Best Scientific Evidences for a Young Earth/Old Earth?"

I read with great interest your article on the Origins Web site "Christian Views of Science and Earth History." I am doing research on this age issue, focusing on the scientific

data especially. The earth is either young or is old. You said it well, "all truth is God's truth." I am looking for the best scientific evidences for a young earth/old earth and want to investigate what the other side would say to those opposing arguments. Can you help me out with this?

There are several books I can recommend.

From a biblical perspective, there is a recent volume titled *Three Views on Creation and Evolution* edited by J. P. Moreland and John Mark Reynolds in the Counterpoints series from Zondervan (1999). Hugh Ross has his *The Genesis Question* for an old earth perspective, and there is Henry Morris's *The Genesis Record* and John Whitcomb's *The Early Earth* from a young earth perspective.

From a scientific perspective, Hugh Ross wrote his definitive biblical and scientific treatise on the old earth called Creation and Time in 1994 from NavPress. Young earth creationists Van Bebber and Taylor published a response titled Creation and Time: A Report on the Progressive Creationist Book by Hugh Ross also in 1994 from Eden Productions. ICR (The Institute for Creation Research) has published numerous technical monographs on a young earth which can be viewed and ordered at www.icr.org. Other young earth books, including Russ Humphrey's Starlight and Time can be found there, as well the Answers Genesis at in website, a s www.AnswersinGenesis.org. Hugh Ross' organization Reasons to Believe also has online ordering at www.reasons.org.

This should give you more than enough to get started on.

Respectfully,

Ray Bohlin Probe Ministries