

“What’s Up With Animal Rights?”

My question is partially about the ‘animal rights’ movement that seems very popular these days. I was curious to know what you thought about the idea of giving animals rights. I have recently read a book about postmodernism and culture by Peter Augustine Lawler – it is not about animal rights, but he makes the statement that: “At the end of history, human distinctiveness is negated. The laughably incoherent ‘animal rights’ movement exists for a moment before the nonexistence of rights.” I don’t know much about the subject of rights, but I was hoping you could possibly recommend some book that touched on the subject from a Christian perspective – not necessarily animal rights, just the philosophy of rights in general- or maybe tell me what you think about what rights are and who has them and so forth.

Former Probe staff member Rich Milne authored an [article on animal rights](#). You are essentially correct that post-modernism dictates an equalization of rights between animals and humans. We are after all just another animal. Non-human animals should be treated no differently than we wish to be treated. Animal rights ethicist Peter Singer now holds a professorship of ethics at Princeton University and is continuing to humiliate himself with the logic of his own position by recently suggesting that bestiality was OK! What else can he say and remain consistent?

Not being a philosopher, I am not familiar with the literature on human rights, but Probe published a book with Zondervan in the 70s which is now out of print titled, *Human Rights and Human Dignity* by John Warwick Montgomery. Montgomery now has the rights to this book and he may have republished it so you may want to do a search on Amazon or elsewhere on the net to find it or a book like it.

Respectfully,

Ray Bohlin
Probe Ministries

“Why Don’t You Cite Young Earth Creationists in Your Material?”

Ray:

I couldn’t help but notice that ICR/Dr. Henry Morris and Answers In Genesis/Ken Ham aren’t cited (or at least I did not see their viewpoints) in some of your material about creation/evolution. Are there points of disagreement? Do you take a stand beyond design that commits to either a young earth or old earth?

I do occasionally refer to writings from young earth creationists. The [article on human fossils](#), for instance, comes directly from young earth creationist Marvin Lubenow’s book *Bones of Contention*. I focus on intelligent design because it is an area that nearly all creationists, young and old earth agree on. At Probe we do not take an official position on the age of the earth question primarily because most of us here, including myself are undecided (see [Christian Views of Science and Earth History](#)) about this critical issue. I agree with Phillip Johnson that we need first to stand united against the current naturalistic filibuster in science by opposing the naturalistic approach to origins and then come back to the age of the earth question later.

Respectfully,

“What About the Ice Age?”

My son told his teacher that he was tired of learning about the Ice Age because there is nothing about it in the Bible and he shouldn't have to learn about things that aren't in the Bible. Any advice?

The quick and simple answer to your question is that yes, there was an ice age, but there is disagreement as to its extent, length of time, and actual time of occurrence. Standard old earth (this would include old earth creationists; see our article [Christian Views of Science and Earth History](#)) rendering concludes that there were several ice ages over the last 50,000 years with the ice advancing and retreating several times. Young earth creationists also accept an ice age but there was only one and it occurred much more recently (within the last 10,000 years) as a post-flood event.

The dilemma you write about can indeed prove difficult for young minds at times. They have difficulty drawing a distinction between learning about something and believing it is true. In my article [How to Talk to Your Kids about Creation and Evolution](#) I address this in section seven titled, “Responding to Evolutionary Theory.” I basically suggest you tell your kids that simply demonstrating knowledge about evolution is not the same as believing it. You can always phrase your answer this way, “According to evolution . . .” This way you can demonstrate you understand the material but not necessarily believe it. I also address this in the section “Cultivate a Teachable Spirit” in the article [Campus Christianity](#).

I think you'll find both of these articles helpful.

Respectfully,

Ray Bohlin
Probe Ministries

The Privileged Planet

An Unwanted Premiere!

In June 2005 I was in Washington D.C. for a most unusual premiere. A film based on the 2004 book called *The Privileged Planet*^{1} was being introduced to an invitation only group of about 200 at the Smithsonian Institution's National Museum of Natural History.

The Smithsonian was approached several months earlier about allowing their Baird Auditorium to be used for this special showing. They asked to see the film. Several people on the museum payroll viewed the film and said great, let's show it. The inquiring organization was The Discovery Institute, the leading organization promoting Intelligent Design in the U.S. and abroad. Discovery was given instructions on how to use the Smithsonian logo on the invitation, was asked for a donation of \$16,000, and told the premiere was a go.

However, when the invitations went out in late May, the Smithsonian was instantly barraged by calls and emails from disgruntled Darwinians demanding that the premiere be canceled. How dare the prestigious Smithsonian give aid and support to the Intelligent Design Movement by allowing this film on its premises? Never mind that the film has nothing to do with biological evolution and natural selection. People

(even some who likely hadn't seen the film or read the book) were on a rampage.

It didn't take long for the Smithsonian to withdraw its co-sponsorship of the event although they said they would honor their commitment to allow the film to be shown. In a letter to Discovery they said, "Upon further review, the Museum has determined that the content of the film is not consistent with the mission of the Smithsonian Institution's scientific research."² Initially, the Smithsonian said Discovery would not be required to make the "donation," but eventually kept \$5,000 for expenses incurred.

As a Fellow of the Discovery Institute's Center for Science and Culture I was issued an invitation, and as the storm of controversy raged in *The Washington Post* and *New York Times*, I decided to get myself to Washington for this controversial and special event.

The premiere itself was a bit of an anticlimax after all the fuss. Several local scientists, national TV and newspaper media, a Congressman from Texas, and other local dignitaries were treated to a special showing and question and answer period with the authors, Gonzalez and Richards. The reception was held two floors up in the Hall of Geology, Gems, and Minerals.

Most in attendance were quite impressed . . . and mystified! They were impressed with the quality and premise of the film and mystified how a purely scientific film could be so misrepresented. In what follows, we'll explore the thesis of the book and film and see what all the fuss is about. For now, just remember science is pursued by *people*, and everyone has a worldview that can alter dramatically how science is perceived and what counts as science.

Is the Moon Just for Signs and Seasons?

When I was in the seventh grade, I remember standing in my best friend's backyard with a box over my head in broad daylight. On one end of the box was a small pinhole. On the inside of the box, against the opposite side of the box from the pinhole, was a small piece of aluminum foil. The pinhole, when facing the sun, made a small circle, maybe one-half inch in diameter, on the aluminum foil wall. As the partial solar eclipse progressed, I could watch the progress of the moon shadowing the sun inside the box. I was fascinated that I could safely watch the partial solar eclipse with such a simple device.

You could watch partial solar eclipses on every planet in our solar system with a moon. But earth is the only planet where a full or total solar eclipse can be seen. It turns out that our moon is $1/400^{\text{th}}$ the size of the sun. But the sun is 400 times farther away from earth than the moon. So when the moon comes between the sun and the earth a small portion of earth experiences a total solar eclipse, meaning the sun is fully blocked out by the moon.

When a total solar eclipse occurs, the sun is fully blocked out by the moon darkening the earth and providing a unique glimpse of the sun's atmosphere or corona. Normally the sun's corona is overwhelmed by the sun's brightness, but in an eclipse the moon so completely shuts out the sun that the corona shines brightly for a few minutes. It is then that scientists can measure the light spectrum of the corona which reveals what is burning inside the sun. Otherwise we would not be able to measure the elemental makeup of the sun. So the fact that earth experiences a total eclipse of the sun makes our planet unique in the solar system with respect to what we can learn about what goes on in the sun's interior.

If that was all that was unique about our moon, we could write

it off as a curious coincidence. But the size, shape, and orbit of our moon do more for human life than just give us a glimpse of the sun's atmosphere every so often. Without the moon, life as we know it on earth would be impossible.

It turns out that our moon is just the right size and distance from the earth that, in conjunction with the gravity of the sun, it causes substantial diurnal [daily] tides which mix the waters of the oceans, evening out their temperature and stirring their nutrients. With no moon, or a few smaller moons, the tides would lessen greatly in intensity, therefore reducing this mixing effect. Life would be limited to the upper few feet of the oceans, and complex life would be hard pressed to survive.

Is Earth's Atmosphere Just for Breathing?

The book and film, *The Privileged Planet*, reveal many other earth systems as well that combine to make earth unique for life and scientific discovery.

Take a deep breath. Now exhale! No, this is not the latest Probe Ministries exercise routine. If you did what I just recommended on any other planet in the solar system, you'd be dead right now.

Our atmosphere of mostly nitrogen, oxygen, and just the right amount of water and carbon dioxide provides so much more than breathable air. We so easily take it for granted every time we breathe. Earth's closest planetary cousins, Venus and Mars, have atmospheres dominated by carbon dioxide. Venus's atmosphere is so thick you can't see through it, and it creates surface temperatures as high as 900 degrees Fahrenheit. Mars' thin carbon dioxide atmosphere contributes to such cold temperatures that carbon dioxide freezes at the poles.

Guillermo Gonzalez and Jay Richards, in their book *The*

Privileged Planet, tell you more than you thought possible about the unique parameters of our atmosphere in allowing life and scientific discovery. Nitrogen, for example, is necessary for life as a critical component of the building blocks of DNA and proteins. Our atmosphere of seventy percent nitrogen also allows for a transparent atmosphere that allows light as we face the sun and dark nights that allow us to see the stars.

Oxygen, of course, is necessary for animal life, and our atmosphere contains just enough to support life and not so much as to poison life. Oxygen is also a transparent gas, keeping our atmosphere transparent for observation of our dark night skies.

Water as well is necessary for life, but water in our atmosphere, along with nitrogen, oxygen, and carbon dioxide, creates an atmosphere that is breathable but also is the best atmosphere to transmit light in the visible spectrum. Water also creates clouds over about two thirds of the earth at any one time. Clouds help control our temperature by reflecting some of the sun's energy back out into space.

Without water in our atmosphere, we never would see a rainbow. Rainbows prompted scientists of the seventeenth century to search for an explanation of the rainbow's beauty and mystery. This search eventually resulted in understanding the solar spectrum and the effect of prisms in bending light of different wavelengths.

Carbon dioxide is life's major source of carbon, that versatile and stable element absolutely necessary for life of any kind. If earth were just five percent closer to the sun, however, we would end up much like Venus: nothing but carbon dioxide resulting in a runaway greenhouse effect and totally uninhabitable planet.

Once again, earth is shown to be just right—just right for life and just right for scientific observers. What an amazing

coincidence!

More and more, scientists are coming to realize that the earth is not just some insignificant pale blue dot orbiting around an insignificant star. Our planet seems designed not just for life, but for scientific discovery as well.

So the Earth Has Oceans, Crust, Mantle, and Core. So What?

The starship *Enterprise* from *Star Trek* used a nifty force field deployed around the ship to protect it from oncoming photon torpedoes. During an attack, those on the bridge were always concerned with how the “shield” was holding. There was great consternation if energy levels dipped low enough to make the shield ineffective.

Our planet earth has a similar protective shield. Earth possesses a magnetic field around it that shields us from the harmful solar wind. Our atmosphere would be slowly stripped away without our magnetic field. This magnetic shield is generated because the earth is just the right size to maintain a hot liquid iron core. The heat from this core convects through the mantle, creating plate tectonics and electricity. The electricity generates our magnetic field. But you have to have the right size planet with a molten metallic core and a crust that weakens somewhat due to chemical reactions with water so it will bend and not break. All this benefits life.

The size of earth is important for other reasons. A smaller planet would lose its atmosphere much too readily, and its interior would cool too quickly, eliminating the protective magnetic field. A more massive earth would retain too much of harmful gases such as methane. On a more massive planet, the thicker atmosphere would make breathing much more difficult.

Earth's voluminous quantities of water are also extremely necessary for life and even for technological life. Water

helps regulate our atmosphere and, of course, provides the perfect soluble medium for life. Water is perhaps the most unique molecule in the universe with its unique solvent properties coupled with the fact that ice floats instead of sinks like all other solid/liquid pairs. This unique feature means that when temperatures are cold enough for water to freeze, only the top layer freezes and life can go on below the ice. If ice sank, then all liquid water would eventually freeze and life would be extinguished in some environments every winter.

In order for earth to maintain its watery oceans it needs to be the right distance from the sun. As noted earlier, if the earth were just five percent closer to the sun we would end up like Venus with thick hot clouds of carbon dioxide for an atmosphere. If we were just twenty percent farther away we would end up like Mars, a frozen wasteland. The heat coming from our just right liquid core also helps maintain our watery home.

All in all earth is a remarkable place for its size, distance from the sun, elemental make-up, size and closeness of the moon, presence of water, stable liquid iron core that generates a magnetic field, and so many other features. The suspicion of design and purpose quickly arises.

Has the Earth Been Designed for Multiple Purposes?

In many circles of academia, the idea that our earth is both designed for life and for scientific discovery is both surprising and resented. For years the notion that we are just an insignificant planet circling an ordinary star, otherwise known as the Copernican Principle, has dominated the physical sciences.

But discovery after discovery has altered that view, and has brought many kicking and screaming to a design perspective.

Simon Conway Morris, a paleontologist from England, is quoted on the dust jacket of *The Privileged Planet* as saying:

In a book of magnificent sweep and daring, Guillermo Gonzalez and Jay Richards drive home the argument that the old cliché of no place like home is eerily true of Earth. Not only that, but if the scientific method were to emerge anywhere, Earth is about as suitable as you can get. Gonzalez and Richards have flung down the gauntlet. Let the debate begin; it is a question that involves us all.

The book and film of the same name have been wildly successful and controversial. At the Washington premiere I discussed earlier, scientists and legislators agreed that the thesis the authors propose is deserving of wide discussion.

A father brought his eight-year old son to a showing of the film we sponsored at Probe Ministries. I privately thought he would be too young. They had to leave before the film was done, but they purchased the DVD before they left and finished viewing it at home. As soon as Mom walked in the door, the eight-year old promptly began to explain the intricacies of solar eclipses, the size of the moon relative to the sun, and how these factors were not only a boon for life but also for scientific discovery.

The film does an excellent job of taking sometimes complex scientific concepts and communicating them in a way that most anybody can appreciate. This film deserves as wide a distribution as possible.

But because much of the scientific community remains locked in a purely naturalistic worldview, the perspective of purpose and design will continue to be resisted. However, parents and educators can readily use this excellent resource to simply investigate the facts and help to eventually gain Intelligent Design a much deserved place at the roundtable of scientific inquiry.

One other comment from the dust jacket says it well:

Not only have Guillermo Gonzalez and Jay Richards written a book with a remarkable thesis, they have constructed their argument on an abundance of evidence and with a cautiousness of statement that make their volume even more remarkable. In my opinion, *The Privileged Planet* deserves very special attention.

Notes

1. Guillermo Gonzalez and Jay Richards, *The Privileged Planet* (Washington D.C.: Regnery Publishing, Inc., 2004).
2. June 1, 2005 entry on Discovery Institute's blog at www.evolutionnews.org/2005/06/.

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“You Misguided Piece of **!”**

What the h*ll are you, you misguided piece of sh**!!! What did your so called 'God' snap his fingers and wham! earth is 'created' hehe you are an idiot. Where is your God anyway? Floating up in the atmosphere somewhere? Religion is something misguided humans look for when their life is in the dumps (eg. crops fail, someone dies etc etc), they want to believe in something..... which does not exist. Homo sapiens increased brain size has allowed it to think of things like this. That is all Christianity is, you can believe in it but don't expect other people to believe a falicy.[sic]

Thanks for taking the time to visit at least one of my articles; whether you actually read anything I can't tell from

your message. Unfortunately your comments follow a rather common pattern of showing a lot of bluster with no substance. If you think I have made an error of fact or judgment, I would be glad to discuss something specific with you. I am sorry you have such a low opinion of people of faith (who, by the way, in reference to your comment about other people not believing it, are in the vast majority). It sounds to me like you are more mad at God than convinced of His nonexistence.

Respectfully,

Ray Bohlin, Ph.D.
Probe Ministries

“Help—My Daughter Just Attempted Suicide”

My 19-year-old daughter has been hospitalized because she has tried to commit suicide. This has not only created a moment of crisis with in our immediate family but a very big puzzling question. Why would a person who professes to believe in Christ attempt to commit suicide? What should I say to her? How can I tell her that Christ is bigger than any of her problems may be?

Please know that I will be praying for your daughter and your family in this difficult time.

Teenagers are universally having a difficult time sorting out their lives in this new millennium. There are so many competing pressures and influences that they easily get overwhelmed. While suicide is indeed a drastic measure, it is more common today among our youth than ever before.

If your daughter is a believer, as you suggest, she might be wondering where is God in her life and circumstances. She may have a false expectation that knowing God should make everything better. While Proverbs makes clear that we are better off living with wisdom and insight, there are no guarantees against trouble. In fact Jesus warned that we would have tribulation in our lives. We can often see the ungodly and wicked succeeding in life and wonder why we should bother doing things right. Asaph wondered the same thing in Psalm 73. Check out my article on [Where Was God on 9/11?](#) for an exposition of this important Psalm.

She may also rationalize that heaven will be a far better place than earth and why not get there sooner if her life seems impossible for whatever reason. This logic is hard to refute especially since we believe in the eternal security of the believer. Suicide does not forfeit your place in heaven if you are a true child of the King.

If she is not truly a believer then she needs the hope only He can bring. Images of the Good Shepherd from Psalm 23 and John 10 (especially verses 9, 11, 14, 15, 27, 28, and 29) can be very helpful to someone struggling to make their way in this messy world. The entire Gospel of John may be a good project for the two of you to read together.

So what do you say? First, you assure her of your love and commitment to her no matter what she has done. As her father, you carry the major load in communicating your love and acceptance of her no matter her failures or perceived inadequacies. You must depend on the Lord to allow you to see her through Jesus' eyes.

Second, she needs to understand that God is sovereign and has planned out her life. In our relationship with Him we need to seek His wisdom and guidance not our own. Things may look bad now but she can't see her life ahead as the Lord does. There is a reason for everything even when it doesn't make sense to

us. She may not be ready to trust God with her life yet but she needs to know you trust God with her life.

Third, there is undoubtedly some deep seated need or hurt in her life that causes her to disrespect herself so much. She will likely need counseling to uncover this. But she will need your support through the entire process. You may need to face a failure on your own part in her life that you are unaware of. You have to be willing to face whatever it takes to bring her back to wholeness. For awhile you will need to supply the courage she needs to face every day. You can't do this in your own strength. Remember Isaiah 40:31:

But those who hope in (or wait upon) the LORD
will renew their strength.
They will soar on wings like eagles;
they will run and not grow weary
they will walk and not be faint.

Take courage, for your Savior has overcome the world and there is nothing impossible to Him.

Respectfully,

Dr. Ray Bohlin

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The Continuing Controversy over Stem Cells: A Christian

View

Dr. Ray Bohlin brings a biblical worldview to this intersection of ethics and science. From a Christian perspective, is it right to harvest and destroy embryonic stem cells for the hope of possible finding a treatment for some diseases?

Different Kinds of Stem Cells

Stem cell research grew into a major issue in the 2004 election and will continue to be discussed and argued for years to come as research continues to make progress. Unfortunately, most people continue to be misinformed about the real issues in the discussion.

Most articles in the media fail to distinguish between the different kinds of stem cells and the different ethical questions each of them presents. Several states either already have or are working to get around federal restrictions on embryonic stem cell research in order to keep the research dollars at their state research universities.

So the controversy has far from abated. In order to think our way through this we will need some basic information. First, we need to understand some things about stem cells in general and the types of stem cells available for research.

What are stem cells? Stem cells are specialized cells that can produce several different kinds of cells in your body. Just like the stem of a plant will produce branches, leaves, and flowers, so stem cells can usually produce many different kinds of cells within a particular tissue.

There are over one trillion cells in your body. Most will only divide a few times. For instance, when you were born you basically already had all the brain and neural cells you would need. As you grew, those cells simply got bigger. However,

other tissues need a constant renewing of cells. The lining of your intestines, stomach, skin, and lungs constantly slough old cells and need replacements. Your blood cells constantly need replacing. In these kinds of tissues, specialized stem cells continually produce new cells.

There are skin, bone marrow, liver, muscle, and other types of stem cells in your body. These are referred to as *adult* stem cells. Other common types of stem cells are those found in umbilical cord blood. Even though these are fetal tissues, they are referred to as adult stem cells because they are already differentiated to a large degree. There are no ethical difficulties in using these stem cells for research and therapy.



Now, what are *embryonic* stem cells? Embryonic stem cells exist only in the earliest embryo just a few days after fertilization. This is referred to as the *blastocyst*. The blastocyst contains a small cluster of identical cells called the inner cell mass. These cells eventually form the baby and therefore can produce all the cells of the body. These are embryonic stem cells (ESC). In order to retrieve them, the embryo is destroyed.

Here then is the problem. While adult stem cells offer no ethical difficulties—but are not likely to be as versatile as embryonic stem cells—embryonic stem cells can only be obtained by destroying the embryo.

The Promise of Adult Stem Cells

What is the overall hope for stem cells? Why are they so sought after?

Essentially, it is hoped that stem cells can be used to treat and even cure diseases like diabetes, Parkinson's,

Alzheimer's, and brain and spinal injuries. These are primarily degenerative diseases where certain cells no longer function as designed due to genetic defects or injuries. Generally it has been believed that embryonic stem cells offer the most hope since we know they can become any cell in the body.

But embryonic stem cells require the destruction of the embryo where adult stem cells can be harvested from the individual that needs to be treated. First, this involves only informed consent and is ethically non-controversial. Second, since the person's own cells are used, there is no chance of rejection of the cells by the patient's immune system.

In the last few years important discoveries have been made concerning certain types of adult stem cells. Essentially, we have learned that adult stem cells can switch tissues. Bone marrow stem cells seem to be the most versatile. They have been coaxed to generate new muscle, neural, lung and other tissues.

Additionally, we have learned that adult stem cells migrate throughout the body in the blood. It appears that adult stem cells are somehow informed of injury in the cell and can migrate from their source to the injury and begin at least modest repairs.

In January 2002, a group from the University of Minnesota announced what they called the ultimate adult stem cell. In creating an immortal cell line from bone marrow stem cells, early tests showed that these stem cells could become either of the three early tissues in an embryo that eventually lead to all the cell types of the body. This showed that adult stem cells are far more versatile than previously believed.

Last year the National Institutes of Health spent \$190 million on adult stem cell research and \$25 million on embryonic stem

cell

research. Clinical trials are already underway using bone marrow (adult) stem cells for treatment of heart attacks, liver disease, diabetes, bone and cartilage disease, and brain disorders. Adult stem cells can even be injected intravenously in large quantities, and they will migrate to where the injury is located. With such promise coming from adult stem cells it is hard to justify the use of problematic embryonic stem cells.

The Promise and Peril of Embryonic Stem Cells

Embryonic stem cells have always held the greatest promise for research and therapies because we know for certain that they can become any of the over 200 types of cells in the body. All we needed to do was learn how to control their destiny and their potential for unlimited growth.

As mentioned previously, the major ethical problem with embryonic stem cells is that the early embryo, the blastocyst, must be destroyed in order to retrieve these cells. It is my firm conviction that this earliest embryo is human life worthy of protection. Once the nucleus from sperm and egg unite in the newly fertilized egg, a biochemical cascade begins that leads inevitably to a baby nine months later as long as the embryo is in the proper environment.

But there are other problems aside from the ethical barrier. The proper chemical signals to direct stem cells to turn into the cells you want are unknown. This is certainly the goal of research. Human embryonic stem cells have been coaxed to differentiate but since nearly all of the experimental work to date has been done with embryonic stem cells from embryos leftover in fertility clinics there are immune rejection problems. These foreign cells are treated like they were from

an organ donation.

Additionally, these cells are programmed to undergo rapid cell division. In China a man with Parkinson's was treated with human embryonic stem cells which turned into a tumor (teratoma) in his brain that killed him. The power of these cells is also a source of their peril.

In summary, embryonic stem cells possess uncertain promise. They require the death of the embryo. All therapies with any kind of stem cell are experimental and may not work. Right now, too much is being promised, and coverage in the media has been biased toward embryonic stem cells and is inaccurate.

When these difficulties and question marks are considered in the light of the exciting promise of adult stem cells, which are already producing positive results in human clinical trials, the pursuit of embryonic stem cell research is questionable at best. Just recently a major U.S. journal reported that bone marrow stem cells show great promise in treating the diseased lungs of cystic fibrosis patients.^{1} CF is the most common fatal genetic disorder in the Caucasian population. Adult stem cells continue to outperform embryonic stem cells.

Stem Cells and the Last Election

The first human embryonic stem cells were isolated from embryos donated from fertility clinics in 1998. Prior to that, Congress had passed—and President Clinton had signed—legislation that prohibited the use of federal money for the destruction or use of human embryos for research purposes. This was seen as worthy even for pro-choice advocates because no one wanted to go down the road of using even the earliest human life for research purposes.

When President Bush took office in January 2001, pressure had already come from the medical research community to revise

this restriction so federal grants could be used to explore this promising research avenue. Adult stem cells were still viewed as being too restricted for general research use in humans. In August 2001, President Bush issued his now famous compromise

of allowing federal funds to be used to research embryonic stem cells already isolated from human embryos, but keeping in place the restriction for using federal dollars for destroying human embryos to obtain additional cell lines.

The National Institutes of Health estimated that there were already over sixty human embryonic stem cell lines isolated around the world that would be available for research purposes. The President was criticized by pro-life advocates for allowing any federal money for research on embryonic stem cell lines, and the medical research community criticized the President for not allowing federal research money for the creation of new embryonic stem cell lines. If everybody is unhappy, it sounds like a good compromise!

The events of September 11, 2001 quickly removed this controversy from the public's attention, but the 2004 presidential election

brought it back front and center. The Bush administration, supported by the President's Council for Bioethics, continued to argue against federal money for the destruction of embryos.

The Kerry campaign seized what they saw as an opening and began claiming that they would lift the ban on stem cell research. They enlisted Ron Reagan to deliver this message at the Democratic National Convention in July, 2004. Ronald Reagan had recently passed away from Alzheimer's, and many were claiming that embryonic stem cell research could bring a cure for Alzheimer's disease.

There were several problems with this message. First, President Bush never banned stem cell research. The Administration was funding adult stem cell research at about

\$190 million a year and embryonic stem cell research at about \$25 million a year. Private money was always legal to use, but private investors were staying away because of the ethical problems and the lack of progress.

Second, researchers had already testified on Capital Hill that Alzheimer's was likely not curable by treating the brain with stem cells since it was considered a whole brain disease and cell replacement would not do much good. The media just couldn't get it right.

The Distortion and the Hype of Embryonic Stem Cells

Those of us who are opposed to the use of embryonic stem cells for research are routinely accused of being hard-hearted toward those whose maladies can be addressed with stem cell research. Of course, this is not the case. We fully support adult stem cell research, but even if adult stem cells prove problematic in some cases I would still not support embryonic stem cell research when the embryo must be destroyed to obtain them.

When we think about saving lives we must count the cost. Is relieving the symptoms of disease worth the cost of the lives of the weakest and most defenseless members of society? Treating embryos with careless disregard will lead to further abuses down the road.

One of the problems with embryonic stem cells was the possibility of immune rejection. To avoid this, many want to clone the affected individual and use the embryonic stem cells from the clone. But this treats the human embryo as a thing, a clump of cells. The basis of this ethic is strictly "the end justifies the means." Even the term "therapeutic" is problematic. The subject is destroyed.

Many try to get around the destruction of the embryo problem by claiming the blastocyst is just reproductive cells and not a person. Medical mystery writer Robin Cook gave us an example in his most recent thriller, *Seizure*.^{2} In the book a medical researcher appears before a Senate committee and says, "Blastocysts have a potential to form a viable embryo, but only if implanted in a uterus. In therapeutic cloning, they are never allowed to form embryos. . . . Embryos are not involved in therapeutic cloning."^{3} Hm!

Later in the epilogue, Cook, who is an MD, says, "Senator Butler, like other opponents of stem-cell and therapeutic cloning research, suggests that the procedure requires the dismemberment of embryos. As Daniel points out to no avail, this is false. The cloned stem-cells in therapeutic cloning are harvested from the blastocyst stage well before any embryo forms. The fact is that in therapeutic cloning, an embryo is never allowed to form and nothing is ever implanted into a uterus."^{4}

Cook is greatly mistaken. A 1997 embryology text states plainly that "The study of animal development has traditionally been called embryology, referring to the fact that between fertilization and birth the developing organism is known as an embryo."^{5} So let's be very careful and pay attention to what is said. Some are trying to manipulate the debate by changing the "facts." We must promote the incredible success and continued promise of adult stem cells while continuing to spell out the long term peril of embryonic stem cells.

Notes

1. Wang, Guoshun, Bruce A. Bunnell, Richard G. Painter, Blesilda C. Quiniones, Nicholas A. Lanson Jr., Jeffrey L. Spees, Daniel J. Weiss, Vincent G. Valentine, Darwin J. Prockop, "Adult stem cells from bone marrow stroma differentiate into airway epithelial cells: Potential therapy

for cystic fibrosis” PNAS online, www.pnas.org (accessed December 22, 2004).

2. Robin Cook, *Seizure* (New York: Berkeley Books, 2003), 429.

3. Ibid, 32-33.

4. Ibid, 428.

5. Scott F. Gilbert, *Developmental Biology*, 5th ed. (Sunderland, Mass.: Sinauer Associates, Inc., 1997), 3. Later in the same text, Gilbert clearly equates the blastocyst and embryo when he says on page 185, “While the embryo is moving through the oviduct en route to the uterus, the blastocyst expands within the zona pellucida.” Gilbert seems to have had a change of heart between his fifth edition and the sixth. In the sixth edition of his textbook Gilbert defines embryology differently. “The study of animal development has traditionally been called embryology, from that phase of organisms that exists between fertilization and birth.” This is on page 4 of the new edition and curiously leaves the word embryo out of the definition of embryology. Perhaps Cook and Gilbert know each other!

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See Also:

- [The Controversy Over Stem Cell Research \[2001\]](#)
 - [Putting the Brakes on Human Genetic Engineering](#)
 - [Stem Cells and the Controversy Over Therapeutic Cloning](#)
 - [Probe Answers Our E-Mail: “Your Anti-Stem Cell Research Position Disregards Diabetics”](#)
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“When Does Human Life Begin?”

I am in an exchange of views with someone in regard to the question of when life begins. He is a very well read and educated person, however I cannot vouch for what or who he reads! According to him, “There is no hard line to draw where life of a human being begins. We only know that as soon as the sperm cell and egg fuse, the resulting cell bears the genetic and biochemical potential to become a new human person. Everything else is an opinion, not science, only God knows at what stage the life of a human person really begins.” What recommendations might you have in dealing with this discussionspurred by the stem cell research issue during the election.

Your friend is essentially correct from a scientific perspective, but what he cites is very important. Having the full genetic and biochemical potential to develop into a baby in nine months is the only certain point of demarcation. Anything else will be an arbitrary point chosen largely for convenience. So why not establish fertilization as the point at which human life ought to be protected?

U.S. law was originally quite clear that where there was doubt, err on the side of life. Now we choose to err on the side of death just so we can pursue the next series of experiments. Nobody wants to worry about what if we’re wrong? We just redefine life so we can proceed ahead. And those who think religious

perspectives should be
left out are fooling themselves. If scientifically we cant
make any other clear
point of reference then the point you do choose has been
chosen for reasons
other than science, which means personal values and beliefs.
This should be
a lesson that so-called personal values intersect with facts
all the time
and they truly cannot be separated.

Of course, biblically and theologically, the line of
demarcation is quite clear.

Beginning with Psalm 139:13-16,

*13 For You formed my inward parts; You wove me in my mother's
womb.*

*14 I will give thanks to You, for I am fearfully and
wonderfully made; Wonderful are Your works, And my soul knows
it very well.*

*15 My frame was not hidden from You, When I was made in
secret, And skillfully wrought in the depths of the earth;*

*16 Your eyes have seen my unformed substance; And in Your
book were all written The days that were ordained for me,
When as yet there was not one of them.*

followed by Isaiah 49:1,

*Listen to Me, O islands, And pay attention, you peoples from
afar. The LORD called Me from the womb; From the body of My
mother He named Me.*

Psalm 51:5,

*Behold, I was brought forth in iniquity, And in sin my mother
conceived me.*

and Jeremiah 1:5,

“Before I formed you in the womb I knew you, And before you were born I consecrated you; I have appointed you a prophet to the nations.”

The Scriptures clearly indicate that a person made in the image of God is present even before there is a biological manifestation of such.

I would basically tell your correspondent that he has helped make your case for protecting the earliest life. Fertilization is the only sure point of demarcation.

We were all once a blastocyst and even a fertilized egg. But none of us was ever just a sperm or egg cell.

Respectfully,

Ray Bohlin, Ph.D.
Probe Ministries

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Dr. Ray Bohlin Responds to Attacks on Intelligent Design

To the editor of *Newsweek*:

Jonathan Alter must have thoroughly enjoyed writing this incredibly polemical piece, taking full advantage of every stereotype, argument from authority, straw man, and

unsupported assertion his space would allow. He craftily gives credit to scientific sounding arguments against evolutionary theory while claiming they have all been discredited without mentioning the well-reasoned answers to these criticisms. As an example he cites Ken Miller's criticism of ID without mentioning that Miller himself has been respectfully answered, critiqued and refuted.

If simply rehashing the old science vs. religion argument is the best the media and the general science community can do, the battle is over. I have been making a scientific case against Darwinism and for Intelligent Design for over thirty years. As one credentialed in science, a Discovery Institute Fellow and one of the first 100 signers (now over 400) to their statement of scientific skepticism about Darwinism, I can tell you that our ranks are swelling and our case getting stronger all the time. Pieces like Alter's only show us and Newsweek's readers, the bankruptcy of the Darwinian paradigm.

Raymond G. Bohlin, Ph.D.
President, Probe Ministries

I would like to make some additional comments here.

1. Alter magically proclaims that "One of the reasons we have fewer science majors is the pernicious right-wing notion that conventional biology is vaguely atheistic." How does he know that? Of course he just states it as a bald assertion, expecting us to just believe it because he says so. His claim might be true, but he is clearly trying to blame doubts about evolution for the U.S.'s perceived sputtering in science. Need a whipping boy? Try "right-wing fundamentalists." Some will believe that every time.

2. He says that offering ID as "an alternative to evolution in ninth-grade biology is a cruel joke." Nowhere has anybody made such a request. Even in Dover, PA, the disclaimer by the school board simply offers ID as something students might

explore. It is not officially offered in the classroom as a competing theory. Discovery Institute itself maintains that ID is not ready for such treatment.

3. In the same paragraph, Alter says "ID walks like science and talks like science but, so far, performs in the lab worse than medieval alchemy." I guess that was supposed to sting. What Alter doesn't realize is that in molecular and cell biology, in particular, the language of design is everywhere in describing the workings of the incredible molecular machines inside the cell. They just claim that natural selection produced them with no real attempts to explain how. And as a mechanistic theory, evolution should be able to. So in reality, ID is used all the time in biological research, even by evolutionists, you just can't call it that if you want your work to be published.

4. Alter drags the ever present Kenneth Miller into his discussion. He mentions, parenthetically, that Miller attends Mass every week. So what? It's a double standard to allow Miller's attendance at church serve to further his credibility when my association with a Christian ministry has been used to discredit my testimony and somehow claim that my scientific reasoning is now suspect. Nobody ever mentions Miller's possible conflict of interest in his defense of evolution and criticism of ID. Kenneth Miller is coauthor of a well-known high school biology textbook that strongly promotes evolution as the grand unifying principle of biology. If evolution is dethroned, he loses money and his reputation. How come his reasoning isn't compromised?

5. Alter claims that science and religion are not at odds over evolution. Fine. But science is at odds with the Darwinian mechanism and there have always been doubts. As I said in my letter to the editor, the scientific case for ID only grows stronger and the debate is here to stay. Let them keep making the science vs. religion argument and the more thoughtful and reasonable among us will see through the smoke screen and will

give ID a chance. That's all we ask.

6. Alter makes it seem that the appeal to science standards and school boards is a last ditch effort when all else has failed. In reality, these are true grassroots efforts by people who have read the books and want the truth taught to their children. Many have been frustrated for years that their kids are exposed to an evolutionary filibuster in school and are encouraged that there is a growing scientific revolt in support of their concerns. The *Time* article mentions that 30% of surveyed biology teachers felt pressure to give evolution a short treatment by concerned parents. What about the greater than 50% of students (far more vulnerable to pressure than adult teachers) who have felt bullied by evolution for decades?

7. All this negative publicity is actually a good thing in the long run. As long as the silly arguments are answered, we gain new adherents with every wise-cracking, arrogant article. Why? Because reasonable people see through all the fuss eventually and realize that something funny is going on. After that they read Behe, Dembski, Meyer, Gonzalez, Richards, Nelson, Wells, Thaxton, Bradley, and other ID leaders and it all begins to come together. May our tribe increase!

See Also:

- [Mere Creation: Science, Faith and Intelligent Design](#)
- [Dr. Bill Dembski's response to Steven Pinker's Assault on ID in *Time* on his blog, "Uncommon Descent"](#)

“Is Faith Fact, or Are They Opposites?”

A fellow Christian friend and I recently got into a discussion over faith and facts, and I would like your opinion on the subject. It started by her asking me “Is faith fact?” Well I replied yes, because our faith is grounded in the fact of the resurrection, our faith has to be based on something true or our faith is in vain. She was arguing faith is not fact and it takes faith to believe in the resurrection in the first place and she said because we walk by faith not sight that facts are a “worldly” way of doing things. I feel the Bible teaches fact and reason as being viable and complimentary to faith. I would appreciate your biblical opinion on this subject.

Facts and faith are different things, and both are necessary. In Acts 17 and 1 Corinthians 15 Paul exhorts his readers and listeners toward an examination of the facts. Paul clearly believed that the facts of creation, Jesus’ life, death, and resurrection, made his case for the deity of Christ reasonable. Facts rarely prove a point but they do indicate its reasonableness. (That is why in a court room you are asked to convict beyond a “reasonable” doubt, they don’t say beyond any doubt). What matters in faith is the object of our faith. I can believe the sun will not rise tomorrow, but the facts argue that this is not a reasonable faith. The same is true of our faith in Christ. I cannot prove that he lived, died, and rose from the dead, but I can gather facts of history which make that conclusion not only reasonable, but I believe, compelling. Based on my faith in the reality and person of Jesus Christ, I also have faith in the truth of what he said about spiritual things and future events. There are few facts if any to back up his statements, only those which verify his person and events which are significant enough to believe whatever he said, but there are no specific facts to back up

his claim that He will come again.

I hope this helps.

Ray Bohlin

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