CAN BELIEVER BE A SCIENTIST?

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In this talk, I want to deal with four issues. They are A. Why should we care about Creation/Evolution controversies? B. The importance of our world-view. C. The two types of science. D. How Darwinism, Creationism and Intelligent Design are related. Each of the next two talks will elaborate on some of what we introduce today.

Seventh-day Adventists have been interested in science for a long time. Perhaps first because of Ellen White's emphasis on health, and the very big presence we've had in medicine and all that that entails. Secondarily, our emphasis on the Sabbath and its foundation in the Genesis story of Creation also puts us in a position where we are unable to avoid conflict with the interpretations of the scientific community. Soon after the turn of the 20th century, George Macready Price began to study the geological literature, and to dispute the uniformitarian interpretations that conventional science was providing. In this, he opposed not just the materialists, who were relatively few at that time, but many fellow Christians who were willing to re-interpret Genesis to mean what it manifestly did not say – that life on earth was immensely old, and had reached the state we see today by a process of "evolution", or change over time. This "theistic evolution" began with God creating a single-celled life form and then using mutations and natural selection to guide the evolutionary process through hundreds of millions or billions of years until man appeared.

You may wonder why Adventists should be concerned about what scientists, or other Christians, say about science – and most specifically about Darwinian evolution. The reason is simple – it is a sad fact that, at least in Europe and the United States, the more education a young person has, the less likely s/he is to hold onto a Christian commitment. Much, if not all, of this falling away seems to be due to the science classes, and the indoctrination into the materialistic world view that they so often give. The Bible even seems to recognize this phenomenon: Jeremiah 8:9 tells us that "The wise men shall be put to shame....they have rejected the word of the Lord....", and Paul writes (1 Cor. 3:18,19a): "If anyone among you thinks that he is wise in this age....the wisdom of this world is folly with God...."

The apparent conflict between the current interpretations of science and the plain meaning of Scripture leads some people serious about religion to turn away altogether from science....I'm convinced that this is a dangerous thing to do. The logic and rationality of science is appealing, especially to the educated. The world we know today, the modern world of airplanes, refrigerators, space travel, mobile telephones, computers, effective surgical and medical care, and so much more, is a direct result of the advance of scientists using the scientific method. If we do not make an effort to properly introduce our young people to this world, they will be vulnerable to the siren song that is part of almost anything that we read or study about science – the implicit or explicit invitation to leave behind their belief in God and the supernatural as the price of entry into the modern world of science. If they are to retain their Seventh-day Adventist, or even their Christian, identity, they need to know the truth – that rational Christians can be scientists, can critique the current scientific materialism on the basis of logic, and that no one has to leave his/her brain outside the door of the church each week. God gave us these marvelous organs, and He wants us to consecrate them to Him and use them to the highest degree possible.

Please understand that the ideas I will be presenting to you in the next several days make up a work in progress. I've been teaching college and university students about this subject at least twice/year for the last 24 years, and in addition, I read articles and books about it regularly. I know that what I say to you here is somewhat different than what I said in a similar venue only three years ago, and it will be different the next time I do it, as well. Your feedback and criticism can be part of the ongoing improvement of this thesis. This subject is wide, deep, and vitally important.

The first thing needed in ANY conversation is that when we use key words, we both understand them to mean the same thing.....the two key words in my title today are "Believer", and "Science" (I know, the word is "scientist"). Let's see if we're all agreed on the meanings of these two words. Please think for just a moment about the meanings. What (or who) is a "believer"? And what is "science"? Take a moment and write on a piece of paper a short description of who and/or what you are thinking of when you read those two words in the

title.....

Now I want a few of you to read what you wrote for "believer", please.....

I'm writing this before we read your responses, but I'm pretty sure that most of you read the word "believer" and wrote down something about religion. Probably you included the word "Christian"; you may have included Jews, Muslims, and so on; but it's highly likely that almost everyone wrote something about a faith in the supernatural. The reason I think you did this is that I did it when I was first given an approximation of this title, and that same conception of "believer" persisted as I wrote almost half of my talk.

However, before I was finished, I received an e-mail posting from Philip Johnson, the lawyer who wrote *Darwin on Trial* (1991). It was a fascinating story about the "Index" of forbidden books that the Catholic Church used to put out [the practice was ended in 1966]. Phil's note said that today it's the scientific community that seems determined to protect their materialist dogma from various writings that are filled with "heresy"- something that I would have been inclined to doubt, had I not been involved in following the Intelligent Design Movement since the early 1990s. One of the best examples of this "censorship" is found on the DVD *Icons of Evolution*, where the story is told of a high school teacher in Washington state (USA) who was forbidden to read to his students, or even to provide them with copies of, an article published in Science magazine. The only reason was because it spoke positively about a critique of evidence currently being used in high school and college textbooks to support Darwin's theory of the origin of species.

This reminded me of something that is absolutely true about human beings – that is, we are ALL "believers" in something. "Belief" is required when we can't actually show something to be true – no one "believes" in gravity, since it can be demonstrated so easily. On the other hand, well-married folk "believe" that their spouse is faithful to them, despite the fact that (in fact, precisely because) we can never prove this. Christians "believe" that God exists, since there is no experiment we can do to show definitively that it is true. It's not just believers in God, either. Atheists, agnostics, deep ecologists, Gaia fanatics, etc. also "believe" in things that they cannot demonstrate, even if it's only the faithfulness of a spouse, or that nothing exists except matter and energy. And every believer, of whatever variety (plainly this means every human being), must deal with science at some level or another. For a scientist, that "some level or another" most often

involves interpreting the data collected from the natural world using a basic set of assumptions that s/he makes about the way things are in this universe. Nobody begins to study the stars, or the human body, or the molecular genetics of the cell, with a mind that is empty of presuppositions, like a "clean slate". Everyone brings some basic assumptions to the task of scientific interpretation of the empirical evidence.

Most of us recognize that past experience prepares us for future experiences, and powerfully influences how we will react to them. An abused child becomes an abusing adult far more often than a child who was raised properly. An adult who is deathly afraid of dogs was probably bitten, or otherwise traumatized, by a dog at some earlier time. We've all know people who, in miserable circumstances, remained cheerful and upbeat, as well as others, who under the identical conditions, spent their time complaining and making life unbearable for everyone around them. In each case, it is how the individual perceives his circumstances, far more than the circumstances themselves, that determines his level of happiness or misery.

These are mundane analogies for what is often called a person's "world-view". Perhaps one's most basic decision, from which many future choices flow, is whether one is going to believe in a Higher Power, or not. I will oversimplify a bit by saying that "naturalists" (or materialists) are those who believe that there is no "Higher Power", that the universe comprises only matter and energy. "Theists", on the other hand, do believe in a Higher Power, some cosmic intelligence outside of what we perceive as the "natural" world. Theists believe, at some level, what John's gospel tells us in the first verses of chapter one:

"In the beginning was the Word....all things were made by Him and without Him was not anything made that was made."

The universe is not eternal; it has a beginning; and before it existed there was "logos". The "naturalists", represented today by those who accept Darwinism in the form described earlier, believe instead something more like this:

"In the beginning were the particles, and the particles became man, and man imagined God."

Please be very clear on this: naturalists should NEVER be identified as those who "do not believe" in this or that. Naturalists are believers just like the rest of us – they simply have different beliefs. This is a really important point, and it will be made plain later on why we must always insist upon it.

Now let's move to "science" -- again, I want some of you to read to the group what this word brought to your minds....

Remember, I'm writing this before hearing your responses, but (if I were a betting man) I'd bet that virtually everyone wrote something about Chemistry, Physics, Computers, etc., or about the scientific method, or about "facts", measurements, and so on. Raise your hand if you wrote the word "story" anywhere in your definition. I'm guessing that very few of you used that word. It appears that most people have only a partial picture of what "science" really is, not realizing that this one word is an "umbrella" term to cover some very diverse activities. The confusion is fostered, I believe, by the scientific community, mostly without intent (although in some cases it appears to be on purpose). It continues to exist largely because almost no one is instructed in how to think about it.

What I want you, as well as my students (and yours), to recognize, is that the term "science" is being used to cover two very different enterprises. One of these best characterized as "empirical science" (or laboratory science), and the other as "historical science". Empirical science is what I was betting most of us wrote down when we looked at the word "sciences" – it's what we're all taught in school when the subject is the "scientific method". This method of learning involves 1) making observations and asking a question, 2) formulating the hypothesis (or "trial answer", or "story") that helps explain the observations by answering the question that we asked, and 3) devising and carrying out an experiment that will test our hypothesis, to help decide whether the "story" we told is accurate, whether our "trial answer" is correct or not.

Once the data from the experiment are in and the statistical tests have been applied, our results may provide support for the trial answer we chose (they can <u>never</u> "prove" it). If this is the case scientists will usually devise new experiments to test, and try to disprove, the hypothesis. This is the method first described by Francis Bacon over 400 years ago.

Of course, the results of our experiment may "refute" the hypothesis. They may be completely out of harmony with what must be true if our hypothesis is true. An example is when ornithologists attempted to discover why birds are so much more efficient than mammals at extracting oxygen from the air they breathe. Air passes through a bird's lung in only one direction, rather than in-and-out, as in all mammal lungs, including ours. The hypothesis was

that birds use a "counter-current gas exchange" system in their "lungs" that is, as the air moved through the lungs, the blood would be moving in the opposite direction, thus greatly enhancing the amount of oxygen that can be extracted (fish use such a counter-current in their gills, which is why they can get enough oxygen from water, which holds very little). In birds, the "plumbing" that directs air to enter the lung from the rear and exit it in the front, was easy to alter, surgically, and the researchers modified a duck so that the air moved in the opposite direction to the normal. If the hypothesis were correct, having the air moving from front to back would have drastically reduced the amount of oxygen the bird extracted from the air it breathed, thus making it highly likely that a counter-current was the explanation for the bird's respiratory efficiency. However, after undergoing the operation, the duck was put on a treadmill and was found to extract oxygen at exactly the same rate as before its operation. The counter-current hypothesis was rejected - and while the experiment could not tell us how birds DO achieve their efficiency, it was definitive that they don't use a counter-current gas exchange, as bony fish do.

The power of Bacon's vision of science, as practiced today, comes partly from his emphasis on "reductionism", or experimentation on small fragments of a larger problem, so that by gradually gaining an understanding of the various pieces of the issue at hand, we can eventually discover enough to understand the whole. Bacon also wrote that it was essential to carefully record every step in an experiment, so that other investigators could repeat the procedure in order to see if they got equivalent results. Only when numerous experiments were done in the same way, and confirmed the initial findings, did Bacon say we had achieved "knowledge". This is how the Wright brothers learned to fly; and that led to the Ford Trimotor, the DC-3, and then the 707, the 747 and other jet airliners. Furthermore, it was the scientific method being applied by many brilliant minds that took man to the moon; that has given us refrigerators and freezers, radios and televisions, computers and cell phones, and every other technological marvel that makes our lives so much easier and more pleasant. In addition, we owe the medical revolution to the same type of empirical science. Painstaking work by empirical scientists in their laboratories, carefully repeated by colleagues following the protocols of earlier experiments in order to confirm (or refute) the original findings, has produced vaccines, medical and surgical equipment and techniques, and all the wonders that we take for granted while they give us long and healthy lives our great grand-parents could only dream of!

The second type of science – historical science – is different in a fundamentally important way. Unlike physics, unlike chemistry, unlike much of biology, practitioners of historical science cannot go into the laboratory to do an experiment and see if their story is accurate. There is no way to test their hypotheses in any definitive manner. Historical scientists collect data in the field, and uses those data to reconstruct the past in ways that are as true as possible to the evidence that is available. Like empirical scientists, those who work in historical fields look at the evidence and then "tell a story" that explains the data that has been discovered. Plainly, no story can accommodate every single piece of evidence in hand, and equally importantly, there is often more than one story that appeals to us (depending on our world view) and, at the same time explains the data more or less well. The difference in historical science is that our world-view can play a larger part, since there is no way to conduct an experiment that will objectively test the story being told. We cannot know, in the Baconian sense, that any particular story is correct.

Archaeology is a recognized science in today's world, and it uses many laboratory techniques developed by physicists, chemists, and even biologists. However, archaeology has no empirical method that can test, for example, the hypothesis that David and Solomon's kingdom never existed as described in the Bible. All they can do is dig for evidence, read texts for references to kingdoms in that part of the world, and then fit the evidence together into a coherent account. Today, many archaeologists do not believe that David's kingdom was as extensive or as wealthy as the Old Testament tells us. There are vigorous arguments within the field, due to the impossibility of an objective test of competing hypotheses. The same is true of paleoanthropology, the science of ancient man and our alleged fossil ancestry. Because of the inevitable uncertainty about alternative hypotheses, there are constant arguments within the field: arguments about which fossil is the "missing link"; or about whether this or that fossil is part of man's "ancestral line" or simply an extinct dead end; etc. This particular kind of argument never occurs in aeronautical engineering, for instance, because any such disagreement can be settled in short order by placing competing designs in a wind tunnel and measuring the outcomes, thus showing who is right and who is wrong.

However, the arguments we see in "historical science" are found not only in what we all can recognize as historical sciences such as Archaeology or Paleoanthropology. They are also found under the umbrella of "laboratory

sciences". For instance, astrophysicists argue about what happened during the first few seconds after the "Big Bang", believed to have occurred more than 10 billion years ago. No one has yet found a videotape of that event, so that all the scientists can do is examine the (very limited) evidence available, then use mathematical equations to tell a story of what may have happened as the universe was being born, and argue with their fellows who see it differently. Likewise, in chemistry, there is an ongoing attempt to model the early earth's atmosphere, in order to figure out how life on the earth got started by strictly physical processes. By looking at the oldest rocks that can be found, and combining the clues about early atmospheric conditions that can be found there with current knowledge of chemical reactions, scientists have built apparatuses to simulate what they think the early earth's atmosphere may have been like. Obviously, there is no way to know the level of reality represented by these simulations. Origin of Life research uses many scientific techniques, and is carried out in the laboratory, but it is squarely in the category of "historical science" because when the researchers ask questions about the early earth, the answers they come up with can neither be checked and confirmed, nor definitively refuted.

Perhaps the most familiar example of an "historical" aspect of what we usually recognize as an "empirical science" is in biology. I am going to call the currently accepted "scientific" explanation for the origin of life and its phenomenal diversity "Darwinism"; this is the story that life emerged as the result of chemical evolution, and that the first living cell gave rise to every variety of life on earth. The origin of life, in this scenario, was accomplished by the random interaction of chemicals to form the molecules necessary, including DNA; the various forms of RNA; many thousands of proteins; including hundreds of enzymes essential to the operation of a cell; cellular machinery; the cell membranes; and so on. Once this cell existed, it gradually evolved into other types of cells, then into multi-cellular creatures, and finally into the millions of different species seen on earth today, including those of us sitting in this room. This miraculous transformation was accomplished solely through "mutations" in the DNA molecules making up the genetic code – random changes in the arrangement of the four "letters" from which our DNA code words are formed. These changes produced minor differences in the way the organism was structured, and these differences (or traits) were then acted on by the environment, in a process that Darwin named "natural selection". Organisms with favorable changes reproduced themselves more, and their offspring were more likely

to have the traits, so that the average appearance of the population changed over time.

It must be admitted that there is a great deal of evidence that can be rationally interpreted by employing the Darwinian story of how populations of organisms change to cope with their environment better – this is often called "micro-evolution". I'm not aware of any case where a speciation event has actually been documented by science, but given current knowledge, it is a plausible explanation for the existence of wolves and coyotes, or the waterbuck, kob, and other species of antelope, or the 100+ species of African weavers.

On the other hand, the Darwinian explanation of the origin of life, the origin of the genetic (DNA) code, and the origin of the many different animal body plans (sometimes termed "macro-evolution") is contradicted by much of the empirical evidence that science has accumulated. Remember that both these parts of the Darwinian "origins story" lie squarely within the realm of "historical science" - neither can be tested in the laboratory in such a way as to disprove it, or to confirm that it is correct. Darwinism, despite its current status as "scientific fact" is (like Creation) simply a series of stories that are told to explain the origins of the living world, incorporating as much of the evidence as possible. It appears to do a good job in some areas, but it has significant amounts of disconfirming evidence in other areas. Darwin's hypotheses about the past cannot be tested by experiment, and there are other stories that explain the evidence – in fact, some of the alternative stories are more robustly supported by the newest scientific evidence available.

Despite the fact that the Darwinist story about origins is in a completely different category from the empirical science practiced in the science laboratories of the world, you will all have noticed that this expansive evolutionary story is presented in textbooks and the popular media (magazines, newspapers, television, etc.), as a "fact", known to be true in the same sense as gravity or the sphericity of the earth. Furthermore, any rival to the Darwinian story is resisted with great energy. Often those who represent the Darwinist position ignore the scientific issues involved, resorting to rhetorical devices such as appeals to authority; constructing and then demolishing a straw man; and name-calling. An example of the latter is found in a book review by Richard Dawkins (1989): "It is absolutely safe to say that if you meet somebody who claims not to believe in evolution, that person is ignorant, stupid or insane (or wicked, but I'd rather not consider

that)." This sort of tactic is not a sign of confidence in one's arguments; rather we are being provided with significant evidence that Darwin's story of origins is a belief system, rather than a scientific proposition to be tested and perhaps disproved.

In fact, if you think about it, the Darwinist explanation of the universe is the only option currently available for those who reject an Intelligence beyond our own as the Creator. If there is no God who intervenes in the history of this earth, then something very similar to Darwinism simply must be true there is no viable alternative. Today, Charles Darwin's vision of the naturalistic origin of all life is accepted as "gospel" by the mainstream scientific community. It is not to be questioned, and it is never subject to testing or critique. Think about it -- the basic "scientific" story of origins has been in place for over 150 years! During that time whole new biological fields have come into existence, with discoveries that impact directly on the question of the origin and development of the various life forms. Yet none of this has had any substantial effect on the materialist "creation story". DNA has been discovered and described; our knowledge of the cell has exploded; the study of molecular genetics and embryonic development is generating both knowledge and money at fabulous rates; and yet the basic story that Darwin told in 1859 is still being defended, despite the abundance of (often contrary) evidence being gathered in laboratories all over the world. It is this fact that qualifies naturalistic scientists as "believers" at one end of the "origins spectrum".

Let me illustrate the otherwise inexplicable failure to distinguish empirical and historical science with an excerpt from the magazine Popular Science. The author is reporting on the failure of United States public school science education, and the examples he uses to make his point are a mixture of two fundamentally different categories. In fact, I believe that part of our problem in U.S. science education is that science textbooks are presenting unsubstantiated beliefs as if they were scientific data – how can we expect our students not to end up confused? As you can see, this Popular Science article clearly illustrates the failure to make the crucial distinction between empirical and historical science – only someone with a Darwinist world-view could put such distinct examples in the same box! We <u>must</u> teach our students to understand and appreciate this distinction if we want them to implement a rational approach to "the sciences" as Seventh-day Adventist Christians.

Having placed the Darwinists on our continuum, let's look at how the "other sort of believers" (the ones who accept the existence of a personal God Who created and upholds the universe and all it contains, including this earth and its inhabitants), have related to all of this. In the last 100 years or so, most such believers have reacted in one of two ways. First are the "fundamentalists", best represented by the "creation-scientists" who have formed educational institutes; raised lots of money; created museums of earth's origins; taken people on educational field trips; done research into problem areas; organized "creation/evolution" debates in public forums; and evangelized on behalf of Creation as a means of introducing people to Jesus Christ. In some cases, educational institutions (primary and secondary schools, as well as colleges) have been established, professors with doctorates recruited, and attempts to achieve scientific respect and acceptance have been made. Although many good things have occurred, in no case of which I am aware, has this last aspiration been successful. There is a lot of prejudice against the biblical view, especially if one holds a more literal view. The creation-science people occupy a position on the other end of the spectrum from the Darwinists. They are almost always under attack, often unfairly, and in their frustration and zeal, they are not always as meek as might be ideal. In the U.S., they have said that their creationist beliefs are just as scientific as Darwinism, and should be taught in taxpayer-funded public schools. They may very well be correct, and God can certainly use even the weakest vessels among us, but creation-science has no influence in the scientific community, either for creationism or (I fear) for Jesus Christ. Furthermore, American courts have branded it as religion, and banned it from public schools.

In between these two extremes has been found the vast majority of traditional Christians, most of whom recognize the importance of the Creation story (and may even agree, in principle, with the creation scientists), but who don't want taxpayer money being used to teach the Bible story in public schools. Their attitude to the excesses of the "evolution/creation wars" has been, in large part, "a pox on both your houses!". Their silence has led to the widespread perception that there are really only two choices available to us: some form of Darwinism, or youngearth Creationism, and this has led – in the United States, at least – to the total domination of taxpayer funded education by the materialistic Darwinian view. Where 80-90% of Americans believe that God was involved in the creation of man at some point in the past, no child in public school can be taught anything except that man evolved from primitive ape-

like creatures by random genetic changes and natural selection over millions of years.

Seventh-day Adventists have been something of an "exception that proves the rule" in all of this. We have consistently upheld the traditional view; we have formed a research institute (the GRI); and we generally teach a more or less literal sort of creationism in our schools and colleges. However, we have also encouraged our college graduates to study geology, paleontology, and other earth sciences at secular universities, and we have almost always been careful not to identify ourselves with the "creation scientists". While our reputation has been protected by this course, our influence in the debate has been little greater than that of the more outspoken and fundamentalist creation scientists.

But, today, there is a "third way" that seeks to stop the unproductive struggle between the two extremes on our Figure. In the middle is where the "real scientists" reside – those who are willing to tentatively allow into the scientific marketplace any logical hypothesis that is supported by the empirical evidence. They say that the complexity and order we see in the universe, and more specifically in the construction of living things, cannot be explained by strictly natural (or material) means, but must have had a designing intelligence. According to this way of looking at things, science should not teach materialism because the evidence doesn't support the hypothesis, and can never refute it. Likewise, Creationism should not be taught as part of science because there is no test that would either substantiate or rule out a Creator. This way of looking at science is called "Intelligent Design" (ID), and it has a very long history, dating back to Bible times (see Romans 1:20) and even before. The modern form was formulated by William Paley in 1802, when he wrote that examining a watch, with its intricate construction obviously made for a purpose, assures us that the watch had a designer. This perspective was largely abandoned after Darwin, but it was revived in 1984 and really took off in 1991.

Since (as I hope I have convinced you) every human being, scientist or not, is a "believer" in something, it appears that these are the three major options for any approach to "the sciences". We can continue to occupy one end of the continuum or the other – that is, we can insist on bringing untestable, empirically unsubstantiated hypotheses (Darwinism, or Creationism) into the laboratory and the classroom, and continue our unproductive fighting – OR, we can all meet together in the middle. Darwinists will be free to believe in

a materialistic origins story and Creationists can continue to believe that God created life and its diversity in six days a few thousand years ago. But when working with other scientists, or when teaching in the science classroom, all will be modest when speaking about origins, and claim the mantle of science for no more than the current evidence will support. Darwinists will have to admit that "complex specified information" has never been seen to be generated from random processes, but always from a pre-existing intelligence that designs it. Creationists will have to admit that the scientific evidence is insufficient to identify the designer and the specifics of how He worked.

Darwinists have strongly resisted this "move to the center".....waging a political campaign against ID by dishonestly saying that it is nothing more than Creationism in another guise. They seek to win by manipulating definitions rather than by engaging the actual argument. It's pretty obvious why they are doing this – if one accepts the Figure, the core of Darwinism is a non-scientific hypothesis that one must accept on faith, and they don't wish to admit this. The core is not speciation (or micro-evolution) – everyone, including almost all Creationists, accept the kind of changes we can observe when animals or plants are crossed and their offspring are then selected for some trait and bred again, finally producing another breed of dog, or another apple variety. The non-scientific core of Darwinism is the assertion that new and beneficial traits can arise by the appearance of new information without any intelligence being involved.

It seems plain that creationists, including traditional Seventh-day Adventists, who believe that life on earth was designed, ought to be more comfortable than a Darwinist fitting into the Intelligent Design "box". In fact, any reasonably traditional Christian, as well as Jews, Muslims, and many other religious people should find themselves comfortable there. Yet it is a sad fact that a lot of Christians are not terribly enthusiastic about the Intelligent Design movement. I believe that there are a couple of reasons for this. The first is because telling someone about Intelligent Design is not a very useful tool for evangelizing people into your particular church. To be blunt, here is nothing about ID that would convince someone that God created life on this earth in six days and rested on (and sanctified) the seventh-day Sabbath. But, this is a really short-sighted reason for non-support.

Remember, I'm urging support for ID <u>not</u> as the only belief that Christians can have about Creation, but as a "scientific" alternative to the dominant but

unsubstantiated belief in materialism; as "mere science" that everyone ought to be able to come together on. If we can use scientific evidence to convince nonbelievers that there may indeed be an Intelligent Designer, it will certainly help them understand why innocent human life has been held to be sacred by 2,000 years of Christian teaching and practice, and we are far more likely to enlist their support for laws protecting life from conception until natural death. They may even ask us about our conception of the Designer!

The second reason that more traditional believers are uncomfortable with Intelligent Design is that the ID "box" also has room for those who believe that God created life, and then used the evolutionary process to "create" the different forms of fossil and living plants and animals. This is not good news to many, who like me, derive their Origins hypotheses from the Bible. What we need to understand is that right now, the Darwinists have managed things so that their theory is the ONLY one with scientific status – the ONLY one that students in a government school can hear. This is despite the fact that there is substantial empirical evidence that argues strongly AGAINST Darwinism and in favor of ID, as we will see later on. If we are to remedy this situation, and it is very important that a remedy be found, we will have to be brutally honest about what is part of science, and what is not. Intelligent design is a fully scientific hypothesis, while Creation by a loving God is not. We need put aside our disputes with other Christians who interpret the Bible differently (even though I think they are mistaken) in order to support ID as "mere science", so that students who enter public schools and universities as Christians can be taught science in an honest way. If this is done, young Christians will see that it is possible to believe in God as the designer and still be rational. In fact, belief in a designing intelligence is the MORE rational course, given what we know today, and what is coming out of the research labs. Once students see this, they won't feel compelled to choose between their science teachers and their faith traditions – they can be genuinely Christian as well as scientists.

Finally, I want to briefly speak about why it is so important to society as a whole that the Intelligent Design perspective be restored to its historic and rightful place in our public life, as well as in our science. In short, "Ideas Have Consequences". If a society believes that man is the creation of a supreme being, who established the "natural laws" and instructed us as to the best way to live in order to find peace and harmony amongst ourselves, then we will find that society is ordered in one of a small constellation of

patterns. All of these center on governments acting to enforce the rules designed to protect the weak from coercion or aggression by the strong; and to establish an arena in which individuals may succeed or fail according to their talents, their effort, and the workings of chance occurrences for good or ill. On the other hand, if society orders itself on the foundational thought that man is just another animal, derived from primitive ape-like creatures that evolved according to the dictum "survival of the fittest", then there is no principled argument against the strongest in society grabbing the reins of power and using that power to reward their friends and family at the expense of citizens who are out of favor. History is very clear about this. The overarching law of any society based on Darwinism has no principled defense against "might makes right" because ideas like "cooperation" and "charity" are not mandates, just "strategies" that are valued only if they lead to increased power and reproductive opportunities.

Today we see governments encouraging and profiting from gambling; supporting, encouraging, and taxing prostitution; recognizing same-sex "marriage"; legalizing the killing of the young, the old, and the infirm; and doing many things that are forbidden by a traditional commitment to natural law that grows from the ID perspective. The reasons why these (formerly aberrant) behaviors are appearing in Western societies are spelled out in Phillip Johnson's second book, "Reason in the Balance" where he explains the effects of a commitment to Darwinism on education, law, and other important facets of our life together. Another important book in this genre is "Created from Animals – the Moral Implications of Darwinism" by James Rachels, an American philosopher. These two books make it very plain that the ideas our society builds on will surely have consequences in what kind of society we live in. There can be no question that Christians should resist the current drift toward Darwinist (materialist) assumptions as the basis for our societies, and a restoration of the Intelligent Design perspective is our best defense.

In closing, I believe that a (Christian) believer's approach to the sciences should incorporate:

- A. respect for the scientific enterprise in the empirical realm,
- B. <u>caution</u>, and analytical thinking, in historical science areas, wherever found, and
- C. support for the Intelligent Design perspective as it seeks to establish itself as a valid partner in the scientific effort.

We need to do this in order to keep our young people in the church. We also need to do this to keep our societies from falling apart morally.

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