DEALING WITH DARWINISM IN A CHRISTIAN UNIVERSITY Earl Aagaard, Ph.D.

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Introduction

Seventh-day Adventist schools and colleges were founded to provide an education that did not alienate children from their Biblical beliefs and Christian worldview. If "the fear of the Lord is the beginning of wisdom", we should never be afraid to incorporate the Biblical perspective into the educational process, whether we are parents teaching our own children, or teachers with a roomful of other people's children. It seems to me that in the U.S., we are not doing a very good job of this basic responsibility. Sadly, I find that significant numbers of my students arrive at college *without* a solid commitment to a traditionally theistic worldview.

I urge Adventist educators to intentionally and overtly evangelize their students for Biblical theism by the "integration of faith and learning". There are two components to this evangelism – the first (the "learning" part) is to regularly, explicitly, and boldly expose the fallacy that is being perpetrated by the materialists in our societies, and that is being repeated and/or reinforced by lazy, unthinking and/or careless theists. The second (the "faith" part) is to regularly, explicitly, and boldly let students know of one's own commitment to a God-centered and Biblical world view.

The fallacy that is spreading through our cultures today is the message that only "religion" is characterized by faith in what we can't see or touch or measure, while "science" limits itself to the hard cold facts, and to those things that can be tested and proved. As we saw last week, every human being is a "believer" in the sense that every human being has commitments beyond what science can demonstrate. It is in the nature of humans to want to spread their faith, and materialistic scientists are only doing what comes naturally when they evangelize for their world view. This "science is only about facts" fallacy is being exposed by the Intelligent Design movement, and I urge every SDA teacher, in science and in other fields, to become familiar with at least the basic argument, and to introduce their students to both sides of the issue, as a "vaccination" against the seductive materialistic influences that surround us.

Part 1: Science is not neutral

"Science as a way of knowing" is the reigning paradigm of Western culture. But, what do we mean when we say "science"? There are multiple definitions for the word, as seen by reference to any dictionary. Furthermore, the definition has undergone "evolution" in the last several decades -- from a "process" dealing with facts, data, and logical explanations, to a "way of knowing" that looks for "natural" causes It looks very much as if the definitions have moved away from "mere science" and have gradually become more like "applied philosophical materialism".

Remember that Richard Dawkins, England's preeminent popularizer of Darwinism, wrote in *The Blind Watchmaker*, (Penguin Books, 1986, page 1) "Biology is the study of complicated things that give the appearance of having been designed for a purpose." Rather than accepting that appearance as part of the data, and investigating the possibility of design with an open mind, Dawkins uses the rest of his book to try to convince (with, in his own words, "all the tricks of the advocate's trade") his readers that the evidence before them is deceptive, and that living things are the products of blind, natural forces, with no input from intelligence of any kind.

Materialists themselves occasionally reveal that they are doing a kind of evangelism. Richard Lewontin wrote:

"We take the side of science in spite of the patent absurdity of some of its constructs, in spite of its failure to fulfill many of its extravagant promises of health and life, in spite of the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment, a commitment to materialism....The primary problem is not to provide the public with the knowledge of how far it is to the nearest star and what genes are made of....Rather, the problem is to get them to reject irrational and supernatural explanations of the world, the demons that exist only in their imaginations, and to accept a social and intellectual apparatus, Science, as the only begetter of truth." (emphases in original)

Scott C. Todd (1999), of the Department of Biology at Kansas State University, makes the materialistic bias of the scientific community even more explicit:

"Even if all the data point to an intelligent designer, such an hypothesis is excluded from science because it is not naturalistic."

It should be apparent that many (or even most) practitioners of science have an atheistic bias, whether consciously or unconsciously. But, this is a relatively new phenomenon. The "fathers" of science: Bacon, Galileo, Kepler, Newton, Boyle, and others, were theists, indicating that the current link between atheism and science is

not a necessary one. It is the object of the Intelligent Design movement to bring the scientific enterprise back from Darwinism to its empirical roots, back to "mere science", in other words.

Part 2: What is Intelligent Design Theory, and what is Darwinism?

One of the earliest ID reference is found in the Bible. In Romans 1:20, the apostle Paul writes, "Ever since the creation of the world his invisible nature, namely, his eternal power and deity, has been clearly perceived in the things that have been made." The argument was most famously expounded by William Paley of England, in Natural Theology - or Evidences of the Existence and Attributes of the Deity Collected from the Appearances of Nature. It is in this book that Paley wrote:

"In crossing a heath, suppose I pitched my foot against a *stone*, and were asked how the stone came to be there; I might possibly answer, that, for anything I knew to the contrary, it had lain there for ever; nor would it perhaps be very easy to show the absurdity of this answer. But suppose I had found a *watch* upon the ground, and it should be inquired how the watch happened to be in that place; I should hardly think of the answer which I had before given, that for anything I knew, the watch might have always been there."

Subsequently, Paley argues

"...that the watch must have had a maker; that there must have existed, at some time, and at some place or other, an artificer or artificers, who formed it for the purpose which we find it actually to answer; who comprehended its construction, and designed its use."

This is hardly a difficulty concept, and we use it constantly in everyday life. Who among us would look at stones scattered on the beach, and not say that for anything we knew, they might have been there forever? And yet.....if the stones were arranged in a particular way (spelling out "love", for instance), only a fool would say such a thing. Is this arrangement really so complex that we are unable to believe it happened by chance?

In California, we see stone apparently cut into columns – shaped quite regularly, looking as if someone had made them. But, in fact, this perfectly natural feature is called The Devil's Postpile. These columns (and others around the world) formed as magma forced from underground cooled and shrank – and the surface was later ground down by the action of a glacier. Perhaps it is this "floor" that immediately identifies the postpile as natural — who could imagine how the columns would be shaped, while still embedded within the mountain? On the other hand, so far as I

know, the circles of standing stones found in many places have never been described as occurring by chance – but why not? What is it that tells us immediately that intelligence was behind this construction? The shapes aren't terribly complex.....yet everyone knows that these circles in Britain, The Gambia, and elsewhere are artifacts made by man, even though we know very little of the makers.

In various places we may see a face apparently cut from the rock – it's often quite realistic, with the various parts of the face easily discernible. What are the odds of the rocks being arranged in such a way that we see a face in them? One way to begin on the problem is to catalog all the places that we see faces of this kind. They can't be so very common – otherwise, no one would make a big thing about any particular one. But, these faces are apparent ONLY from one perspective. If you move a hundred feet to one side or the other, the faces disappear – and they have always been recognized as natural arrangements of rock. Unlike Mount Rushmore – which will never be mistaken for anything but the production of pre-existing intelligence. No human being would ever try to explain the Mt. Rushmore carvings as an erosional feature of the rock, even if (like Stonehenge) memory of its makers is lost in the next 5,000 years and some future explorer stumbles across it.

Finally, what about mere scrapings on the surface of the earth? These might be a bit more difficult. There is nothing complex about some of these scrapings, and superficially, at least, they look very similar.....is there anything about them that can help us decide if they are natural, or if some intelligence actually thought of them ahead of time and then "created" them. Only if we pull back and look at the "big picture" is it possible (simple, really) to distinguish Death Valley, California's "Racetrack" from Peru's Nazca Lines. The Racetrack has been a mystery for a long time, but the circumstances in which we find it has convinced almost everyone that it's a natural occurrence, although no one has seen these tracks formed, and none of the numerous theories about how they are made has been verified. The Nazca Lines have also surrounded by controversy, at least since the first person went up in a balloon and discerned the actual shapes – so long as we were just walking around on the desert floor, they were easily dismissed as natural scrapings without any real explanation. From above, it is perfectly plain that someone planned and executed the figures, despite the fact that we have no idea who did them, when they were done, or how the plan was converted to reality over such huge distances, since modern surveying technology wasn't available to them.

Charles Darwin had read and apparently been convinced by Paley's work on Design. However, on his voyage in the Beagle, Darwin made many observations, and collected many specimens, that were in conflict with the rather naive creationism of his time, and once his doubts formed, he determined to find another explanation for the "apparent" design that Paley described. In his world-shaking book, *The Origin of Species*, he gathered together an enormous amount of contemporary material and wrapped it around one key insight, Natural Selection. This voluminous and relentless exposition of his rather simple thesis (almost certainly not original – see Eiseley, 1979) was utterly convincing to many. It seemed totally scientific, but has been described as owing most of its force to the sheer mass of empirical data Darwin had gathered in support of his ideas. But the book is said to be "one long argument", not a scientific treatise. There are no experiments; nothing that can easily be taken to the laboratory; instead it is really a "story" of beginnings, with an enormous number of examples that offer support for Darwin's vision.

However, the examples Darwin used are all instances of the selection of farm animals and other organisms – by man! Think about this for a moment: Darwin described a form of "intelligent design", but used it to convince readers that unguided nature could do the same thing and more! His argument was that the natural variation that everyone can see within a population of organisms, combined with the tendency of all living organisms to overpopulate their environment, would inevitably set up a competition for the necessities of life. This would result in the next generation having MORE of the variations that offered an advantage in the competition. Since organisms surviving the longest were likely to produce the most offspring, it was plain that any favorable variation that could be inherited from the parental generation (no one knew how inheritance worked at the time) would tend to be more prevalent in each subsequent generation, so long as the environment continued to favor it. An essential message of Darwin's thesis was that change comes slowly, step by tiny step, and never in sudden large "jumps". So slow did Darwin imagine these changes that he called them "insensible". He taught that these minuscule improvements accumulate in the bodies of living organisms, and finally, after many millions of years, we can see the stupendous changes, although only by examining the fossil record of animals and plants that lived in the remote past.

Less than 100 years later, in 1949, George Gaylord Simpson could bear witness to his faith, without criticism, in the following words:

"Although many details remain to be worked out, it is already evident that all the objective phenomena of the history of life can be explained by purely naturalistic or, in a proper sense of the sometimes abused word, materialistic factors. They are readily explicable on the basis of differential reproduction in populations (the main factor in the modern conception of natural selection) and of the mainly random interplay of the known processes of heredity.... *Man is*

the result of a purposeless and natural process that did not have him in mind " (emphasis added)

The 1950s and '60s were the high point of Darwinist supremacy, including the Centennial of *The Origin of Species* in 1959. But under the surface, questions continued to be asked, and more and more people were willing to speak up, rather than parrot the party line.

Finally, in 1989, an academic lawyer (tenured at UC Berkeley, and with nothing to fear from the scientific community) named Phillip Johnson visited London, and read *The Blind Watchmaker*. Johnson had recently returned to his boyhood faith, but didn't know anything much about Creation and Evolution. His initial reaction to Richard Dawkins' book was that, if this was the best evidence that the scientific community had for the materialistic origins of life and current diversity, then a serious fraud was being perpetrated on a too-credulous public. The modern Intelligent Design movement had its genesis in a London hotel. He asked some scientific colleagues for book recommendations, and after reading Michael Denton's book, described yesterday, Johnson decided to deal with a single, very basic question: *Did the scientific evidence available actually support the proposition that mutations and natural selection were the creative force that is essential to the Darwinist claims?*

In a series of public lectures, well-publicized debates, and sharply worded essays and reviews, Phillip Johnson took his case to the public, eventually promoting his own (1991) book, *Darwin On Trial*, and constantly reiterating his question about the adequacy of the Darwinian explanation. Young scientists, philosophers, mathematicians, and others dissatisfied with the scientific dogma of the day, read his work or heard him speak, and began to get in touch with Johnson and with each other. This task was greatly eased by the Internet, as Johnson established an e-mail reflector for the group to share ideas, criticisms, and news.

The earliest efforts of what became today's Intelligent Design Movement were books written by a lawyer and by a couple of philosophers, and these were easy for the scientific mainstream to ignore. The first really effective "shot across the bows" of materialism was fired in 1996, when Michael Behe, a working biochemist, published *Darwin's Black Box*. In his book, Behe pointed out (as Denton had, ten years earlier) that the cell, far from being a "simple little lump of albuminous combination of carbon", as thought in Darwin's day, was actually an entire factory, filled with molecular machines of stunning precision and complexity. Within this factory, there are numerous individual machines and cellular systems in which varying numbers of parts work together in such a way that they will only function *if every single piece is*

in place. Removal of any piece does not reduce the machine's efficiency; it eliminates entirely the function of the organelle, just as it would in a mousetrap. He called this situation "irreducible complexity", and it was a dagger aimed at the heart of Darwinism.

The real challenge in Behe's analysis lies in the hyper-gradual nature of evolutionary change envisioned by Charles Darwin and his followers. Quite simply, if all the pieces must be present in order for a cilium, or other organelle, to function and give its owner an advantage, then no one can imagine, much less show, how the pieces could be accumulated step by tiny step. Only if a cilium were "created" all at once, could it give survival advantage, and thus be retained and passed along to future generations. Darwin himself, in *The Origin of Species*, laid out a way to disprove Evolution by natural selection:

"If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down."

Michael Behe claimed that science has found not one such organ, but an entire cell full of them, and that this data relegates Darwinism, as a mechanism for origins, to the proverbial scrap bin for theories that have been tested and found wanting. The weakness of the Darwinist position is perhaps best exemplified by a major exposition of "the answer" to irreducible complexity. Richard Dawkins wrote *Climbing Mount Improbable*, saying that even if a single leap from sea level to the top of the mountain (attaining a cilium all at once) is impossible, there is a path around the back of the mountain, where each tiny step upwards is not only more probable, but easy, even inevitable. By accumulating these tiny (and beneficial) steps, we arrive at the top of the mountain, which was impossible to attain with one big jump. Compare this scenario to another: If you don't think you can win a lottery jackpot of a million dollars (the leap up the cliff), since it is far more likely that you will win a \$100.00 prize, you can easily (inevitably?) accumulate the one million dollars by winning 10,000 prizes of \$100.00 each. The fallacy in this reasoning should be obvious to "mere scientists", but it is apparently not so plain to "true believers".

Part 3. Why Intelligent Design is "more scientific" than Darwinism

Darwinism owes its popularity and staying power within the scientific community to its materialistic core, so attractive to those with a materialistic world view. But, science itself is beginning to suffer from the straitjacket into which it has been shoved. By eliminating an entire class of explanations from consideration (the very explanations that address the newest discoveries coming out of the Biology

laboratories), Darwinists have assured that they will have only increasingly lame "just-so stories" to explain much of what we know.

Until very recently, Intelligent Design was in the same boat – it was mainly a collection of stories and analogies. The ID position was not put on a fully scientific footing until 1998, when Bill Dembski published his monograph, *The Design Inference*. William Dembski has doctorates in both mathematics and philosophy, as well as earned degrees in theology and psychology, plus two fellowships from the National Science Foundation. His book offered a "signature" for design – the presence of what he calls "specified complexity" (or "specified small probability"). That is to say, design is recognized in highly improbable events (complexity) that also make up an independently identifiable pattern (specification).

This concept is what makes the examples of intelligent design given above so obvious to each of you, and is doubly familiar to anyone who has seen the movie Contact (from Carl Sagan's book of the same name), which was made several years ago. In the film, scientists are receiving and analyzing radio signals from outer space. To our ears, it sounds like a lot of static, but a whole bank of computers is listening for patterns. When, through the static, what sounds like Morse code is heard, the scientists are all on the alert. And when the computers interpret the code to be a sequence of prime numbers, in precise order from the lowest through progressively higher primes, everyone listening knows that this radio signal is the result of intelligent design. Among the random dots and dashes streaming in from outer space, the Morse code for 1,3,5 would have gotten everyone's attention, but provoked little excitement. It is true that the probability of that sequence of three numbers occurring is small, but it isn't so small that we can't imagine it happening by chance. However, when these three numbers were followed by the codes for 7,11,13,17,19,23,29,31, etc. even the movie's naturally skeptical characters were convinced. The highly improbable sequence of dots and dashes, conforming to a pattern that could be known ahead of time, was recognized by the scientists in the film as being the product of intelligence. And it was more than just the people in the film who were convinced -- no film reviewer wrote that they were foolish to accept such a proposition, and no scientist complained about the "non-scientific" premise of the film. In fact, the U.S. government poured millions of dollars into the "Search for Extraterrestrial Intelligence" by almost precisely this method, until they finally insisted that private donations take over the financing.

The 1968 film, 2001: A Space Odyssey, shows us that it doesn't take a string of prime numbers to indicate intelligence to "mere scientists", or just reasonable human beings with open minds. In the film, a monolith appears at various times and places.

It is a simple shape – a polished rectangular block shaped much like an enormous domino – but it is immediately obvious to anyone who sees it, that it did not occur naturally. Never do natural processes give us such an object. Like Paley's pocket watch, the monolith appeals to us as a designed object because we immediately recognize the impossibility of a natural origin. (see http://www.2001principle.net/)

Unlike Paley, who depended on our intuition to infer design, Dembski carefully outlined an objective method for detecting his signature of design. Any string of 23 letters is highly unlikely to occur – a student of statistics can very quickly tell us the chances of randomly producing any particular string. Each position has a 1 in 26 chance of having any particular letter of the alphabet, if every letter is equally likely to appear. All of these probabilities must be multiplied together to get the probability of the entire specific string. So, MNBVCXZASDFGHJKLPOIUYTR fulfills the first part of the criterion - it is of vanishingly small probability (one chance in 26 raised to the 23rd power, or about one in 2,600,000,000,000,000,000,000,000). However, EVERY such string of letters that make up apparent gibberish is equally unlikely, and most people would look at such a string and conclude (correctly) that it was random. However, if the string of 23 letters was METHINKSITISLIKEAWEASEL, we would have a highly unlikely order of letters, as before, but with the added second criterion – this letter order is "specified", that is, the letters are arranged in a sequence that matches a recognizable pattern. There is no one who reads the English language who, seeing such a string, would say that the sequence occurred randomly. They would know that a human being (and not just any human being - someone familiar with Shakespeare) had arranged them in that order. Notice that we might miss an intelligent ordering of the letters if the sentence were written in a language we don't understand.

This particular phrase was not chosen at random by Dembski. It is (mis)used by Richard Dawkins in *The Blind Watchmaker*, to illustrate his contention that achieving such specified complexity is not as difficult as the Intelligent Design theorists say. Dawkins tells us that it is obvious that a random process will never assemble a protein, any more than a monkey hitting at the typewriter keys will come up with the words of Shakespeare. BUT, he says, natural selection is the key to solving the problem. If a monkey sits and types at a computer keyboard; and if there is a string of letters on the screen (QWERTYUIOPLKFDSAZXCVBNM); and if there is a "target phrase" of "METHINKSITISLIKEAWEASEL"; and if, every time the monkey types a string of letters in which one of the letters corresponds to the "correct" one at that particular position in the target phrase, the result of that keystroke is "selected" and saved; then, it would take a relatively short time to achieve the desired phrase.

Of course, Dawkins is correct, as far as he goes. But in his zeal to solve the problem by naturalistic means, he is ignoring the critical differences between the Darwinist and the ID approaches. First, the very concept of a "target phrase" is ruled out by the Darwinian view. The title of his book is "The Blind Watchmaker", and in its very first chapter, he assures us that Darwinism involves no planning, no knowledge of the future, and no design. But, in his analogy, each letter typed by the monkey is scrutinized in terms of a phrase that the computer programmer had in mind, a phrase programmed into the computer's memory. In nature, according to Dawkins, there is no "programmer", and thus, no way for any "thinking ahead" by anyone or anything to some irreducibly complex improvement at which we would like to arrive. Secondly, Darwinism requires that each change be selected solely on the basis of its present-day value for survival. In the analogy, there is no more meaning in MWERTYUIOPLKJHGFDSAVBNL than there is in the original string, although two of the 23 positions (1 and 23) now have the correct letters. If the string of letters were required to be functional at communicating the message, neither of these strings would have an advantage, since unless the reader already had the target phrase in mind (something specifically denied to natural selection), there would be no way of knowing which string was "better"; closer to "METHINKSITISLIKEAWEASEL."

Richard Dawkins is a well-educated and very bright man...how can he have made such a series of elementary category errors? Errors overlooked by his editors, his reviewers, and the entire scientific community. Michael Behe explains this apparent anomaly. In Darwin's Black Box, he tells us that today's scientists are like detectives carefully investigating a room, observing and measuring, as they try to account for the death of a crushed and flattened body on the floor. Their textbook, which they carry with them and consult on every occasion, is *Everything You Need* To Know To Be A Detective. EYNTKTBAD says that detectives "always get their man", so they are looking for a man, and totally ignoring the large gray elephant standing in the corner. Because of his commitment to materialism, Dawkins is unable to see the "elephant" of intelligent design gazing at him from the pages of his own book. Further, since science textbooks from K-12 and beyond teach that the physical laws of the universe, chance events, and natural selection are sufficient to account for life and its variety, editors, reviewers and most scientists are also totally ignoring the concept of intelligent design, the elephant that can account for the insoluble problems facing the scientific community.

The heart of Dembski's insight is found on page 134, in the "explanatory filter" he has devised for detecting, or rejecting, design. The phenomena we see on a daily basis can be separated into three categories. The first of these is "necessity"; what

happens is the result of some law that determined the outcome. This means that events can be predicted ahead of time, because they happen the same way whenever the original conditions are the same. Dropping a book on one's foot is a good example of the result of necessity, or law. As is a bottle filled with water that breaks when put in the freezer and the water expands as its hydrogen bonds become rigid. Second, something may be due to "chance"...the result of random occurrences over which no one has any control, and which might turn out very differently if the experiment were run again. Encountering a good friend exactly at lunch-time, outside the door of a new restaurant that neither of you had planned to meet at that day, is an example of a chance occurrence. Finally, there is "design". Events are assigned to the "design" category only when we are unable to put them into the other categories. If you go to your regular lunch-time spot on your birthday, and as you walk in you notice that most of your co-workers are sitting at various tables around the restaurant, you will be excused for thinking that this is not a chance occurrence. Of course, it is possible that they all just happened to pick this day to eat at the place you are known to go for lunch every day, but it is not very probable. It is much more likely that at some point, "Happy Birthday to You" is going to break out, and there will be a cake with ice cream placed at your table, with everyone congratulating you on your 40th birthday! In other words, their presence in the restaurant is not the result of law, or of chance, but of design.

Some critics have raised the possibility of unlikely coincidences fooling us into thinking (falsely) that design is present. Dembski refutes this objection using the (historical) example of the Shoemaker-Levy comet, that apparently impacted the planet of Jupiter exactly 25 years, to the day, after the Apollo 11 moon landing. Although some might think that such startling correlations/coincidences must be attributed to design, the complexity-specification criterion is sufficiently robust to resist this problem. The key is to set the probability that triggers a judgment of design sufficiently high. Dembski writes that if we allow the moon landing to be a specification for the comet crashing into Jupiter (a real stretch of the imagination, in itself); and then if we assume that the comet could have crashed at any time within a calendar year; and if finally we assume that the "comet crash" came at the same time, to the very second, as the moon landing 25 years earlier, the probability of this exact occurrence is about 1 in $100,000,000 (10^{-8})$. This is actually not terribly improbable. In The Design Inference, Dembski suggests that the "universal probability bound" should be set at 10^{-150} . Anything MORE likely than

would be due to chance. Only if it were LESS likely than this would it be ascribed to design.

The reason that all of this is so exciting to the "design crowd" is that we no longer need to argue about whether something is or isn't designed; could or could not have come about by random means. Complexity and specification are both "testable" and "quantifiable" characteristics, and Dembski has established an objective method for testing structures, processes, DNA sequences, etc. to determine if they are the result of law, chance, or design. This isn't really "new" science, either. It borrows from the same kind of work that goes on constantly in archaeology, in forensic science, etc. These branches of science examine patterns to determine whether they are produced by intelligence (a tool, or a murder) or by chance (a rock, or an accident). The methods are commonplace, and the process is reasonably well understood.

This is a watershed in the science of origins. Today, it is Intelligent Design that is testable; that is falsifiable; and that best fits the current data. It represents the most scientific way of looking at the world. This is very good news indeed, because the Biblical story of Creation is fully compatible with ID, even though the specifics are not in any way "proved" by these new developments. There is still a need for faith. However, I contend that all Christian teachers (especially in the sciences) should get at least a basic understanding* of the Intelligent Design argument and its implications, and share it with their students. (And yes, you can do it!)

Conclusion

The Intelligent Design movement is crucially important for all Adventist educators, especially for those in science, who wish to integrate faith and learning in their classrooms. This is because this perspective reveals an important truth about the scientific community today, specifically about the "science" of Origins – a truth that our young people need to know. Darwinism presents itself to us as strictly a product of empirical observations, and flatly states that its scenario of "slime to man" is a "fact" supported by all of the evidence. Our students need to learn that the Darwinists are as much believers as we are, that their position ALSO rests on faith, and that the current evidence is actually more compatible with the general thrust of the Biblical view than it is with the Darwinist one. The overall objective of my three presentations is A. to convince all SDA teachers, particularly those dealing with biology, of the importance of teaching their students about Intelligent Design, and B. to assure them that they can do this and retain their intellectual honesty.

However, I am also convinced that this is not the end of our responsibility. SDA science teachers (as well as all other teachers) should also be role models of rational, thoughtful, and educated (perhaps even scientifically trained) people who are simultaneously men and women of faith, willing to accept the authority of Scripture. I must confess that I spent several years inadvertently failing students in my college classes (as well as their tuition-paying parents) in this regard. I assumed that students would know that I accepted the Creation story as factual, since I was teaching in a Seventh-day Adventist institution, and the church has made it part of what we believe. This was a mistake – students who listened to me teach them about Darwinism wondered what I, their teacher, really believed. Now, I go out of my way, regularly during each class and in every term, to make it abundantly clear that I accept the Bible account as true, just as it is written.

Some have asked me how can I affirm such a "fundamentalist, literalistic interpretation of Scripture"? For me, it comes down to the central doctrine of the Christian faith – the Story of Redemption. Anything, clearly taught in Scripture, that is essential to a coherent and convincing Story of Redemption, I take literally, regardless of the current state of the scientific evidence. Remember, I'm not saying that the scientific evidence contradicts my belief – I've tried to show you that traditional SDA views of Creation are compatible with the newest discoveries in the biology labs. But these discoveries certainly don't "prove" that my origins story is the correct one. There are other stories that are also compatible with the empirical evidence, even though they may have other problems**.

What this means is that every origins story involves at least a small leap of faith. It is essential that we share with our students, an important truth: there is no story about origins, including the various Christian formulations, and including Darwinism, that has no significant scientific problems. Many origins scenarios also pose serious theological questions. At some point, we all have to choose what to believe for ourselves, based on our personal weighing of whichever forms of evidence that we accept, and how to balance the various agreements and disagreements. I have always chosen the origins story that makes the most spiritual sense to me, and for the time being, I just have to live with the scientific questions it raises. Intelligent Design has already made this part of my life a lot easier, and I see even more promise for the future.

If there are students who are shocked by my "unscientific attitude", I ask them what they think Richard Lewontin, or Stephen Jay Gould, or Richard Dawkins, or even Charles Darwin would say (or would have said) about their belief in the spontaneous generation of life.... Every materialist testifies to his faith in spontaneous generation

whenever the subject comes up — despite the fact that all of the experiments to show how it might have happened have been failures, even with the substantial "cheating" that was done in setting them up, as clearly exposed in Thaxton's book, *The Mystery of Life's Origin*. The reason for their abandonment of empiricism, and the resort to faith, in the matter of life's origin is easy to find. *Whenever* someone (whether they are creationist or evolutionist is immaterial) is faced with data and an interpretation that flatly contradicts her worldview, she falls back on faith. This is not a "religious" tendency, it is a "human" tendency — we are all "believers", remember?. This fact must be made clear (using examples as often as possible) to our students again and again and again. It is like an "inoculation" against the abandonment of their faith in the face of the daily assault that is being made against it.

Finally, it is distressingly common to find Seventh-day Adventist teachers who do not find it possible to affirm a literal, seven-day creation as described in the Bible. This is not, in my opinion, a praiseworthy "scientific attitude" in an SDA teacher. We know that every materialist professor, wherever he is teaching, will testify proudly to his faith in the spontaneous generation of life, regardless of the state of the scientific evidence, because it is an integral part of his world-view. If a professor believes that "In six days, God created the heavens and the earth, the sea and all that in them is", as the Bible reports, then he should be willing and eager to say so to his students, to explain the reasons for his belief, and to share the scientific evidence that is consistent with the Bible story, along with the challenges and how he deals with them. Anything less than this abandons his students to the dogmatic materialistic culture around them.

Think about the mission of the church that our pioneers had in mind when our schools and colleges were set up in the first place. Are we really joining in that mission when we fail to show our students the truth that their traditional beliefs are compatible with much of what science tells us about the earth and its life? I'm not suggesting that we lie at any point – we must be equally honest about the incompatibilities and how we deal faithfully with them. But remember how much human and financial capital our church and its members have spent, and continue to spend, on educating our young people. It seems to me that if we, as teachers, cannot in good conscience help to establish our young people in the Biblical faith of our fathers, then we need to be teaching where we do not undermine the cause we claim to support and which we are being paid to advance.

Addendum: There is a wonderful website with numerous articles about Intelligent Design (these can be downloaded – the handout is from this website), a subscription offer for the journal *Origins and Design*, and a list of books, audio and video tapes, and study kits about Intelligent Design. All these products can be ordered, using a credit card, from the

site's secure server. In addition, there are links to related websites, and a discussion forum which one can read, or even join in to ask questions or to make a point. All of this can be found at: www.arn.org.

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*The two books that I think EVERYONE should read are Darwin on Trial, and Icons of Evolution. DoT lays out the case for Intelligent Design, and against Darwinism, in a form that can be understood by everyone, even those with no training in science. IoE takes the 10 most commonly cited "evidences" that are said to add up to "proof" of Darwinism, and explains how they are exaggerated, false, or misused by "true believers" in materialism. It can be understood by high school students, yet its scientific base is absolutely solid. Reading and understanding these two books would make it possible for anyone to do a basic defense of ID and expose the belief structure that underlies Darwinism.

** The Biblical approach to Origins seems quite clear to me. The central story of Scripture is that God created a perfect world, including humankind and all other life. Sin then entered the sinless economy of this earth and spoiled it. But God had arranged for man's redemption through His own incarnation; the perfect and sinless life of Jesus Christ, and then His death on the cross to pay the price for our rebellion. Our eventual salvation was prefigured by Christ's Resurrection and return to heaven, and we look forward to His second coming to take us home to live with Him forever.

This Story of Redemption is both coherent and convincing, as has been shown by Christian evangelists ever since the disciples preached their sermons on the Day of Pentecost. Today, scientific naturalism offers an alternative story about Origins, but (in my opinion) accepting even part of it will inevitably lead to a disaster for human equality and for the sacredness of human life. Unfortunately, even from within Christianity itself, many are urging the rest of us to compromise the Biblical story in order to produce an origins myth that is more compatible with the one being told by the Darwinists. We are told that we should abandon the Genesis story for "theistic evolution", or "continuous creation", or "multiple creations"; all of these extending God's creative efforts over millions of years, and making man the result of an extended "developmental creation". I urge you to reject this seductive appeal – it may look good in the short run, but over time I'm convinced that it will produce only loss, and lead to disaster.

Historically, churches that have abandoned the Genesis story eventually "mature" until they also refuse to accept the factual nature of the miracles reported in Scripture; that Jesus was God incarnate; and that He experienced a bodily Resurrection and return to heaven. Sometimes this progression takes many years, other times it happens quite quickly, but the position of accepting the Gospels as history while rejecting the historical status of the first 11 chapters of Genesis has always been unstable. Invariably, those who refuse to believe that Creation occurred in seven literal days or that there was a Flood that destroyed the earth, cite the scientific evidence as their reason.

Here is the core problem as I see it: having accepted the proposition that scientific data and interpretation should be used to determine what to believe about the stories told in Genesis, it is not long before the logic of this hermeneutic takes over. The New Testament stories about miracles of healing, feeding the five thousand, raising the dead, and so on are also rejected, to be explained by some natural means. Finally, "intellectual honesty" demands that they be consistent in their Biblical interpretation – and science, both historical and empirical, rejects the proposition that a dead person can come back to life. So, the Resurrection of our Lord must be reinterpreted to fit the current scientific consensus, and the process is complete. Reason has triumphed over Revelation.

Please take the traditional Biblical approach to Origins. When you are urged to consider something else, tell the person you are talking to that you'll discuss the possibility AFTER they tell you the Story of Redemption within the framework that they are suggesting. A coherent and convincing story of Sin and Salvation must be more important to Christians than adjusting our beliefs about Origins to align them more closely with the current scientific consensus.