I t might be tempting to get the wrong impression and think that making assumptions in science is bad practice, especially upon reading various writings from the creationist community. Creation scientists, for instance, correctly relate many of the problems inherent in the assumptions of evolutionary geologic dating techniques that tend to yield extremely old ages for the items they test. But do not fall victim to the same fallacy that the evolutionary community makes in assuming too much. As is the case with the fact that scientific theories can be good things (see Miller, 2012b), the practice of making assumptions in science also can be a good thing.

A Scientific Assumption in Practice

Consider a real-world example from the engineering field. Let’s say I want to design a remote control vehicle to be used on a one mile strip of paved road. The road has been maintained the road well, re-paving it when necessary. I have constructed fences around the mile strip of paved road. The road has been blocked off for my use, and I have main

Unreasonable Assumption 1: Abiogenesis

Consider, for instance, the assumption of abiogenesis. In 1960, G.A. Kerkut published The Implications of Evolution. Therein he listed seven non-provable assumptions upon which evolution is based. “The first assumption is that non-living things gave rise to living material, i.e., spontaneous generation occurred” (p. 6). Evolutionary geologist Robert Hazen, who received his PhD in Earth Science from Harvard, is a research scientist at the Carnegie Institution of Washington’s Geophysical Laboratory and a professor of Earth Science at George Mason University. In his lecture series, Origins of Life, Hazen said:

Don’t Assume Too Much: Not All Assumptions in Science Are Bad

Scientific Assumption in Practice

to stone—petrified with silica. Wood petrification occurs in the same way—preserving the shape of wood, and then transforming it to stone. Wood petrification is a uniformitarian process that takes centuries, if not millennia. The timing of this petrification can be determined by carbon dating, which was discussed previously.

The Second Law of Thermodynamics tells us that the Universe is running down and will eventually end in heat death. The universe is not in equilibrium, but is running out of useful energy. Matter, itself, is breaking down. Various elements break down over longer periods of time. The breakdown appears to be at constant rates today. Scientists are able to measure the rate at which parent isotopes decay into daughter isotopes with an amazing degree of accuracy. This ability is an amazing technological feat, surpassed in known human history. However, a major issue arises based on what evolution scientists do with the information that they gather from this process. A specimen is said to be, the more inaccurate the dating techniques are, the more accurate the dating techniques is known to be. The margin of error grows higher and higher. One reason scientists are aware of this fact is because different dating techniques are being used on the same specimen and completely different ages result—often differing by millions of years. It is reason to conclude that the primary reason for this discrepancy is the effect of unreason

Unreasonable Assumption 2: Uniformitarianism

What about uniformitarianism? According to the McGraw-Hill Dictionary of Scientific and Technical Terms, “uniformitarianism” is the concept that the present is the key to the past, the principle that contemporaneous geologic processes have occurred in the same regular manner and with essentially the same phenomenon through-out geologic time, and that events of the geologic past can be explained by phenomena observable today (2003, 2224).

Uniformitarianism is a fundamental assumption of evolutionary geologic. Much of the alleged evidence for deep time—a very old age of the Earth and Unive-rse—is based on the principle of uniformitar-ianism. But it is reasonable to assume that all, or even the majority of “the events of the geologic past can be explained by phenomena observable today” if it could one possibly make such an assertion! How could one know whether or not something could have occurred in the past, and that it was somewhere else at the same time? How could one know whether the assumption was correct? The history that what we have, for instance, completely altered the geological strata? The idea of “catastrophism,” to which creationists subscribe, allows for such phenomena, and is a much more reasonable assumption upon which to interpret geological evidence. Consider, as one example of the effect of catastrophic events on geologic phenom-

Conclusion

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Scientific and Technical Terms

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Reason & Revelation

Catastrophism, on the other hand, is a research scientist at the Carnegie Institution of Washington’s Geophysical Laboratory and a professor of Earth Science at George Mason University.

In this chapter, I will make a case that this is an extremely old geologic age, and it is obvious that the principle of uniformitarianism is required. It is also obvious that we are not able to observe that the Earth is a young geologic object. Therein he listed seven non-provable assumptions upon which evolution is based. “The first assumption is that non-living things gave rise to living material, i.e., spontaneous generation occurred” (p. 6).

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Evolutionists have no qualms openly acknowledging the assumptions inherent in evolutionary dating techniques, since without these assumptions in place, there would be nothing to date. Earth or anything else in the universe, is left to the use of science to identify them. The reason for this is that we have no trace of helium left, since helium atoms are known to be tiny, and unless something else is inserted, how is it possible that a rock's decay process can be dated? For example, the assumption of naturalism and the supposed “rates” of radioactive decay have been shown time and again to be flawed. (Dalton; cf. Miller, 2012d), since He is non-natural. Humans might have been initially composed of more than one element that blended together during a geologic phenomenon known as a “complex geological history.” In November 2011 by Jack Horner (the most famous dinosaur fossil hunter in the world), he admitted that “scientists have eggs” (2011), and those eggs have driven evolutionists to “discover” and “allege” things that are not what the evidence actually demands. In fact, Sascha Vongehr summarized Horner’s speech (about the eggs of several dinosaurs), saying, “Scientists have a big huge egg and are therefore some of the easiest fooled people around” (2012). Dr. Rex Dalton, a longtime writer for the journal Nature, penned these words in 2008, “One broken egg, 10,000 years of unquestionable judgments, some driven by a lust for headlines, have left dinosaur nomenclature in disarray, according to a new study” (2008, emp. added). The studies, conducted by paleontologist Michael Benton of the University of Bristol, England, and palaeontologist Ynys Jones “(there’s)” (2008, emp. added), according to this modern definition of “science,” anything non-natural is ruled out. In other words, science must be approached through the assumption of naturalism and materialism. Therefore, God is deemed unscientific by this definition (even though He is non-natural), and is therefore some of the easiest fooled people around” (2012). Dr. Dalton, a longtime writer for the journal Nature, penned these words in 2008, “One broken egg, 10,000 years of unquestionable judgments, some driven by a lust for headlines, have left dinosaur nomenclature in disarray, according to a new study” (2008, emp. added). The studies, conducted by paleontologist Michael Benton of the University of Bristol, England, and palaeontologist Ynys Jones “(there’s)” (2008, emp. added), according to this modern definition of “science,” anything non-natural is ruled out. In other words, science must be approached through the assumption of naturalism and materialism. Therefore, God is deemed unscientific by this definition (even though He is non-natural), and is therefore some of the easiest fooled people around” (2012). Dr. Dalton, a longtime writer for the journal Nature, penned these words in 2008, “One broken egg, 10,000 years of unquestionable judgments, some driven by a lust for headlines, have left dinosaur nomenclature in disarray, according to a new study” (2008, emp. added). The studies, conducted by paleontologist Michael Benton of the University of Bristol, England, and palaeontologist Ynys Jones “(there’s)” (2008, emp. added), according to this modern definition of “science,” anything non-natural is ruled out. In other words, science must be approached through the assumption of naturalism and materialism. Therefore, God is deemed unscientific by this definition (even though He is non-natural), and is therefore some of the easiest fooled people around” (2012). Dr. Dalton, a longtime writer for the journal Nature, penned these words in 2008, “One broken egg, 10,000 years of unquestionable judgments, some driven by a lust for headlines, have left dinosaur nomenclature in disarray, according to a new study” (2008, emp. added). The studies, conducted by paleontologist Michael Benton of the University of Bristol, England, and palaeontologist Ynys Jones “(there’s)” (2008, emp. added), according to this modern definition of “science,” anything non-natural is ruled out. In other words, science must be approached through the assumption of naturalism and materialism. Therefore, God is deemed unscientific by this definition (even though He is non-natural), and is therefore some of the easiest fooled people around” (2012).
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Can God do everything?

Both Christians and atheists generally have assumed that if the God depicted in the Bible exists, He can do anything—since He is represented as being all-powerful. However, this assumption is incorrect. The Bible does not claim that the omnipotence of God implies that He can do anything and everything. Instead, it recognizes the limitations of its own knowledge and understanding of the divine nature. In fact, the Bible pinpointed specific things that God cannot do. For example, the Bible states unequivocally that God cannot lie (Numbers 23:19), not in any way (Israel's Tabernacle, Numbers 24:23), and that of its kind (cf. Miller, 2012c). So again, according to the scientific evidence, life could not have naturally come from nothing. It had to have come from preexisting material. Something outside of “nature”—outside the Universe. Naturalism does not work in explaining the scientific evidence on these points, but it offers an explanation for the origin of the Universe or life in keeping with the evidence. So would it not be reasonable to re-define “science” in such a way that no option is eliminated from consideration based on the faulty assumption of naturalism?

If the scientific evidence points to something—i.e., Someone, supernatural, why not be allowed as scientists to follow the evidence where it leads? Just because one cannot empirically observe something happening does not mean that one cannot use science to determine who did what, how they did it, when they did it, where they did it, and with what they did it. Forensic scientists engage in this process every day. Indirect evidence is a legitimate source of scientific information, and the Universe is saturated with indirect evidence for the existence of power.

As an approach to science, naturalism contradicts the scientific evidence, and what’s more, it contradicts itself. The naturalist says that everything must be explained through natural processes. However, naturalism requires unnatural phenomena—like abiogenesis and the spontaneous generation of life. This is not a logical contradiction of science, because of the evidence for or against God, but because of the assumption of naturalism. Again we ask, is this a reasonable assumption?

Remember that not all assumptions in science are unreasonable. If an assumption does not significantly alter the end results, it may be a fair, legitimate assumption. However, the assumption of naturalism significantly alters the scientific apparatus of investigation and a set of pre-conditions of being allowed or not being allowed as scientists to follow the evidence where it leads? Just because one cannot empirically observe something happening does not mean that one cannot use science to determine who did what, how they did it, when they did it, where they did it, and with what they did it.

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D. John Sanford is a plant geneticist and inventor who conducted research at Cornell University for more than 25 years. He is known for significant contributions to the field of transgenic crops, including the invention of the biologic process (“gene gun”). Like many in his profession, he was fully invested in what he terms the “Primary Axiom” of modern science, namely that “man is merely the product of random mutations plus natural selection” (Sanford, 2008, p. 5; italics in orig.). He argues that this cornerstone of modern Darwinian thought is almost universally accepted and rarely, if ever, questioned. In Genetic Entropy and the Mystery of the Genome, Sanford proceeds, not only to question the Primary Axiom, but to expose completely the faulty genetic framework upon which the ideology is built.

In the first portion of the book, Sanford builds an analogy for the reader to make complex genetic concepts more palatable to non-scientists. He uses the analogy of comparing our genome—the sum total of all of our genetic makeup—with an instruction manual. The DNA sequences that make up our genes, regulatory elements, chromosomes, etc., are compared with letters, words, chapters, and volumes. The term “gene” is not to be taken as synonymous with “trait.” Mendelian genetics dealt in “traits” (e.g., blue eyes) that were defined as “genes.” Our modern understanding of genetics demonstrates that while many genes impact phenotype (observable traits), genes are not the same as traits. He builds on this analogy throughout the book using many powerful illustrations.

When we view the genome as an instruction manual, it is not hard to imagine how instructions in that manual may change simply by randomly changing letters in the manual. These changes are analogous to the random changes in our genome that are referred to as mutations. Mutations can be as simple as a single “letter” (i.e., a nucleotide) being changed or as major as the loss or duplication of an entire “book” (i.e., a chromosome). Our genome includes six billion “letters” split into 46 “volumes” (in a typical body cell, 23 chromosomes in reproductive cells). It is clear, though, that randomly changing letters in an instruction manual would not provide new and useful information.

Sanford argues that, based upon modern scientific evidence and the calculations of population geneticists (who are almost exclusively evolutionists), mutations are occurring at an alarmingly high rate in our genome and that the vast majority of all mutations are either harmful or “nearly-neutral” (meaning a loss for the organism or having no discernible fitness gain). Importantly, Sanford also establishes the extreme rarity of any type of beneficial mutations in comparison with harmful or neutral mutations. Indeed, “beneficial” mutations are so exceedingly rare as to not contribute in any meaningful way. [NOTE: “Beneficial” mutations cannot be defined from a gain in information, but instead, these changes predominantly involve a net loss of function to the organism, which is also not helpful to the Primary Axiom; see Behe, 2010, pp. 419-445.]

Sanford concludes that the frequency and generally harmful or neutral nature of mutations prevents them from being useful to any scheme of random evolution.

Using his analogy, imagine a manual for assembling a child’s wagon. Would randomly changing letters in the manual improve the manual? Would duplicating sections of the manual improve it? Clearly these types of changes would destroy information, not improve it. (having two copies of the same information is not necessarily of benefit, since there is no real mechanism present for one copy while mutating another). But Sanford extends the analogy further. He suggests that the Primary Axiom is analogous to such random changes not only could change the wagon, but these random “mutations” would evolve the wagon into a car and eventually a plane, and then even a space shuttle. No one would argue that random changes in the manual for a wagon would eventually give rise to instructions for a space shuttle. However, Sanford argues this is exactly the situation with regard to evolution. Evolutionary mutations form in an evolutionary context as being the wagon, humans would easily be a space shuttle by comparison!

In the next section of the book, Sanford examines natural selection and asks whether “nature” can “select” in favor of the exceedingly rare beneficial mutations and against the deleterious mutations. The concept of natural selection is generally that the “fittest” mutations result from sexual reproduction, their environment will survive and reproduce, while the less fit will not. Sanford points out that this may be the case with some organisms, but more commonly, selection involves chance and luck. But could this process select against harmful mutations and allow less harmful or even beneficial mutations to thrive? According to Sanford, there are significant challenges to this notion. One such issue is the cost of selection. The cost of selection means that a portion of a population must be “spent” (i.e., removed) in order to “pay” for the selection process. To put this idea in human terms, what percentage of the population could be removed or kept from reproducing in order to promote selection? The numbers are exceedingly high according to Sanford—possibly higher than 50%—which would be completely unrealistic in any society today. Another issue is the “blind” nature of the process. Nature cannot “see” what potential future organisms could exist, and therefore, there is no means for selecting for or against traits—other than chance. Sanford concludes that selection cannot overcome the accumulation of harmful mutations and has no real power to “select” against mutations around, due to the extreme rarity of those mutations and the fact that selection is blind. Thus, even with the ability to select—artificially or otherwise—the accumulation of mutations continues unabated.

In the final section of the book, Sanford illustrates the dire situation of the human genome. Imagine an instruction manual of tens of thousands of pages in which random changes have been made every time it is copied. Who would trust such a manual? How many changes would it take to make the manual unusable? How long before the manual no longer makes a functional product? It is a testimony to the nature of our genome that we are still alive in spite of the level of decay. Again, Sanford points to the accumulation of deleterious mutations and argues that our genomes are not evolving to something greater; we are decaying and degenerating. In other words, our genomes at one point were in far better shape than they are at present. The decay process has taken a huge toll. This process he terms “genetic entropy.” He suggests that this decay trend is not only real, but it is an inevitable result of the random, natural accumulation of mutations in our genome. Thus, not only do mutations lead to decay, they do not lead to any meaningful increase in information— which is absolutely required by the Primary Axiom. In order for organisms to evolve from one form to another, new genetic information is needed in order to provide “instructions” for building the proteins and other features of the organism. Sanford clearly establishes that any expectation of getting new, useful information from these random processes is a completely blind trust in an impotent process. His book also provides an appendix with several FAQs and arguments against the Primary Axiom, along with answers to some counterarguments.

In conclusion, Sanford’s book builds a strong case against the Primary Axiom using modern scientific information combined with powerful, yet simple, logic. His arguments are solid but written on a level that can be understood by students and non-scientists. He clarifies several misconceptions about mutations, natural selection, and the overall decay of the genome. He accurately describes the concept and reality of genetic entropy, and he concludes from that principle our dependence upon the One who designed everything. Rather than viewing life as a purposeless by-product of the Primary Axiom, Sanford argues that genetic entropy points us to our need for and reliance upon God as the Creator. Perhaps this system of genetic decay is simply one more way God reminds us of the Fall (Gen 3) that ushered in our complete dependence upon Him.

REFERENCES
A.P.’s First Audio Book

Five years ago, Apologetics Press released what has become our flagship Christian Evidences book: *Surveying the Evidence*. This volume reviews the evidence for the truthfulness of the Christian religion. It presents proof for the existence of God and Creation—evidence that refutes atheism and evolution; it includes valuable information on dinosaurs and the age of the Earth; it offers facts that undergird the Bible’s inspiration, uniqueness, and reliability; it provides evidence for the historicity and deity of Christ; and it even includes material on God’s great plan to save man. Designed to assist the non-Christian who is in search of the Truth, the volume also prepares a Christian to teach others the facts that set Christianity apart from all other religions.

We are now extremely delighted to be able to offer to the public this outstanding resource in the format of an audio book. Read by professional narrator Jay Webb, the entire book—13 chapters accompanied by thought-provoking questions—is now available for purchase on five CDs or for downloading to your electronic device. Simply go to the A.P. Web site, click on “Store” in the left hand column, then click on “Audio Books,” and follow the directions for downloading *Surveying the Evidence*.

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Dave Miller