Naturalism and Providence

by John K. Reed, PhD

Editor's note: This article is a synopsis of the major work published in the CRSQ by Reed and Williams (2011). Dr. Emmett Williams was called home April 21, 2011.

any mistakenly think that naturalism is a fact, a necessary part of science, and proof that Christianity is false. It is a culturally powerful idea, but the term is equivocal (Table 1), and only sound theology can defeat it. Some Christians think they have solved the problem by drawing a distinction between "metaphysical naturalism" and "methodological naturalism," conflating the traditional scientific method "methodological naturalism." They tend to be driven by secular red herrings-arguments about miracles and accusations of "god-of-the-gaps" reasoning.

The key to defeating naturalism lies in understanding that science was never the enlightened answer to Christian "superstition." Instead, secularism hijacked science to attack Christianity. The "science vs. religion" meme is false and harmful to both science and religion, but it provides the context for secularists to slide from "methodological" to "metaphysical" naturalism. Properly ending naturalism requires four steps: (1) demonstrate that metaphysical naturalism is self-refuting, (2) show that methodological naturalism is unnecessary, (3) redirect the red herring arguments, and (4) recover an orthodox understanding of the doctrines of Creation and Providence.

Metaphysical naturalism beats itself

Metaphysical naturalism is a distinctive post-Christian worldview from the Enlight-enment (Stark, 2003). It is vulnerable via science since science is essentially Christian. It was conceived as limited, contingent, and upheld by Scripture (Glover, 1984; Hooykaas, 1972, 1999). In practice, science was distinct, but it remained depen-

Table 1. Distinct aejinitions of	паштанѕт	snowing
basis for modern errors	of equivocation	on.

Context	Definition	
WORLDVIEW	Comprehensive view of reality, spanning theology, philosophy, science, history, etc. Materialist, positivist, and uniformitarian.	
METAPHYSICS OF MATERIALISM	Assumption of atheism; ultimate reality matter or energy changing through time by random, inherent processes.	
LIMITED METHOD OF SCIENCE	Domain of science is natural phenomena style of investigation is empirical, open, testable, and cooperative.	

dent on theology, which justified its presuppositions. For example, God was free to create according to His will, unconstrained by external rational principles. Therefore we understand nature inductively, not deductively. In short, "religion and science not only were compatible; they were *insep*arable" (Stark, 2003, p. 3, emphasis added).

Science was distorted in several steps. Thinkers began to see both the practice and theory of science as separate from Christianity. Downplaying the theology opened the door for it to be dismissed. The Bible went from science's foundation to the focus of its criticism. This transition was mirrored by people's view of themselves in relation to God. When science was born, everyone knew that God ruled the world. Over time, the regularities of providence became "laws of nature." Newton's synthesis convinced people that science was autonomously powerful. Descartes' doubting reinforced the dismissal of authority, and Locke's tabula rasa encouraged an unrealistic view of man's objectivity. Soon, both man and natural law were decoupled from God (Table 2).

For a time, deism kept a figurehead creator who withdrew after imbuing nature with self-perpetuating laws. Nature went from being the domain of God's immanence

to a playground for man's scientific genius. Modern atheism first co-opted science and then used science to co-opt culture. If nature and its "laws" were absolute, there was no need for the "God hypothesis."

This was the grand age of science, when it seemed to the leading scholars of the humanity that the sure road to understanding all things had finally been discovered in science and its Rosetta stone, the scientific method (Bauer, 1994, p. 34).

Scientists lost their theological groundings and made sure everyone else did, too, by creating a mythology that pictured science as a secular force freeing mankind from religion.

Allowing the mechanistic method of science to drive people to a mechanistic worldview is *the fundamental error* of modernity. Christianity has begun to wake up, but the results are mixed. Many arguments are incomplete, inconsistent, and misdirected. They do not address the false premises of secularism. They do not link confidence in truth to the integrity of the Bible. They keep looking for compromises to save a secularized science rather than taking it back. In spite of these shortcomings, prog-

... continued on p.2

Naturalism ...continued from page 1

ress has been made; when atheists confront informed Christians, they invariably lose.

Metaphysical naturalism is ultimately defeated by logical assaults on its foundational axioms. Enlightenment savants hijacked science. Science is essentially Christian; its axioms are justified by theology (Table 3). Attacks on Christianity via science are thus contradictory (D'Souza, 2008; Keller, 2008; Klevberg, 1999; Lisle, 2009; Pearcy and Johnson, 2008; Reed, 1996a, 1996b, 1998; Reed et al., 2004; Sarfati, 2010). If the presuppositions of naturalism are also justified by Christian theology, then contradiction is demonstrated and naturalism is formally invalid. It survives today only by the faith commitments of its devotees and cultural inertia.

Methodological naturalism is irrelevant

For secularists, methodological naturalism is a logical extension of their worldview. Scientists ignore God because He does not exist. Science proves it and methodological naturalism is a prerequisite to science. But this view is flawed, and since Kuhn (1962), there has been a growing critical reaction to it. Some now question whether there even is a scientific method (Bauer, 1994), and others question whether science can even be defined (Hogan, 2010; Laudan, 1983).

For Christians, methodological natural-

Table 2. Progression from methodological to metaphysical naturalism from a theological perspective on God's relationship to nature.

Progression	DESCRIPTION	TIME PERIOD
God upholds Creation by His constant, immanent power, "Not a sparrow falls"		Medieval - Reformation
Natural Law	God is rational, immutable, infinite, and eternal. Therefore, His mode of upholding Creation is predictable and rational.	Medieval - 1600s
Invariant Natural Law	Emphasis on science grows; links to theology weaken. Success of science leads some to believe "laws" are both natural and invariant.	Enlightenment
Absolute Natural Law Naturalism as worldview excludes theology and first order philosophy. Science is path to truth; thus it is essential that nature and her laws are absolute.		1800s - present

ism forces uncomfortable questions. Why does the Christian worldview have no apparent relevance to science? Why does science lead many to conclude Christianity is false? Why must we ignore God to have science? Why does the method of science outweigh the goal of truth?

There are several Christian responses. Poe and Mytyk (2007) claimed that the term "methodological naturalism" was coined by philosophy professor Paul de Vries of Wheaton College in 1986. But rather than redeeming science from naturalism, de Vries tried to sanctify it in the scientific meth-

od, a mistake repeated by Poe (2008). They were driven by a perceived need to "triangulate" between creationism and atheism. There are two contemporary Christian schools advocating methodological naturalism: "complementarians" and "theistic scientists" (Table 4). Complementarianism is prevalent among progressive creationists and theistic evolutionists. They argue that science requires the presumption of natural causes to offset the "god-of-the-gaps" accusations by secularists (Moreland, 1997).

"Theistic scientists" see a slippery slope between methodological and metaphysical

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Creation Matters

ISSN 1094-6632 Volume 18, Number 2 2013

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Table 3. Examples of essential elements of science that are only justified by Christianity.

ELEMENT	DESCRIPTION	JUSTIFICATION
Empirical & Inductive	Nature is investigated by observation and experimentation. No rational principal underlying phenomena.	God was absolutely free to create as He wished. Therefore, we understand it by looking at what He made, not by seeking a controlling principle.
Rational	Nature and the rules governing its operation will be rational. It will "make sense."	God is rational and wise. Therefore, creation will reflect those attributes: "Thinking God's thoughts after Him."
Cooperative	Disparate men can work on disparate details with the confidence that their work will all fit together.	Unity of truth depends on its unitary sourceGod. Bits and pieces of truth are still true.
Man, the scientist	Men can understand nature, standing outside the system as an objective observer. Failure to understand is an incentive to keep working, not give up.	Man, created in God' image, transcends nature. Dominion implies the capacity to comprehend what God has made.
Uniformity	Nature operates by regular principles that transcend time and space. "Laws" apply throughout the cosmos and time, and are thus predictable.	God is immutable, infinite, and eternal. These attributes lead to the expectation of uniformity in what He made.

naturalism. Plantinga (1997, p. 143) called it "provisional atheism." Plantinga's basic rationale for "theistic science" comes from his understanding of spiritual warfare (1997, p. 143):

But many other areas of science are very different; they are obviously and deeply involved in this clash between opposed worldviews....

Like Moreland (1997), Plantinga (1997, p. 147, emphasis his) suggested that, "...there is a different and unspoken reason for this obeisance to methodological naturalism: fear and loathing of God-of-the-gaps theology." He suggested instead that Christians embrace a dualism: "Duhemian science," named for the early 20th century historian of science Pierre Duhem and "theistic science" or "Augustinian science." If Plantinga's concept (1997, p. 151) is accepted, the two sciences would have their own sphere:

So there is little to be said for methodological naturalism. Taken at its best, it tells us only that Duhemian science must be metaphysically neutral and that claims of direct divine action will not ordinarily make for good science.... Perhaps we should join others in Duhemian but science; we should also pursue our own Augustinian science.

Brand (2006) proposed three models of science and religion:

- No relationship between science and religion. Science provides truth; theology does not. Brand rejects the positivist tunnel vision of science, noting that it is a search for objective truth, not a game won by methodology.
- 2. Science and religion are parallel but separate. Both provide truth, but science can critique religion while religion cannot return the favor.
- Interaction between science and religion. Both are sources of truth and should interact.

He rejected the first two and argued for the third, calling for science and religion to cooperate in the quest for truth. His figure 2 summarizes his views on integrating the two domains. But Brand appeared to place science and Christianity on a level playing field. This view is untenable, because science is *contingent* upon theology, and therefore subordinate to it.

Although both Brand's and Plantinga's views are improvements on Complementarianism, they do not reach the root of the problem—methodological naturalism is unnecessary. The founding fathers of science did not need it, nor do we. It is just a redundant secular overlay on the traditional method of science (**Table 5**).

"Miracles" and "god-of-thegaps" arguments are false dilemmas

Christians have generally failed to understand that arguments about miracles and "god-of-the-gaps" reasoning are laced with unaddressed presuppositions. Examined from the Christian worldview, they are both non-issues. Modern arguments against miracles are traced to Hume (1748) who deemed them impossible, since empirical knowledge requires repeatability. Christians have answered, but few have attacked the contradictory assumptions of secularists. Some Christians even seem embarrassed by miracles, especially with regard to science:

We suggest, however, that God is economical with miracles and that he has employed them mainly in the service of redemptive history.... Arbitrary, unobserved miracles performed during the work of creation would have had absolutely no impact on people and would not serve to confirm the presence of God or the pronouncement of the word because no one was there to observe them.... Biblical miracles like the virgin birth, the resurrection or Jesus' walk-

Table 4. Three ways in which Christians approach science and its method, based on Moreland, (1997); Plantinga (1997); Poe and Mytyk (2007); and Reed and Williams (2011).

ISSUES	COMPLEMENTARIAN	THEISTIC SCIENCE	TRADITIONAL BIBLICAL
"God-of- the-Gaps"	No gaps in causal fabric; thus, natural explanation precludes God.	Real gaps in causal fabric are "filled" by God's direct intervention in nature.	Straw man; man's finitude guarantees limits of knowledge
Methodological Naturalism	Strong support of methodological naturalism	Weak support; science has dual aspect: 'Duhemian' and 'theistie'.	Traditional method of science is not identical to meth. nat. Issue is truth, not method.
Structure of Knowledge	Level playing field; at times tilted towards science.	Level playing field; distinct worldviews have distinct science.	Bible superior to man's knowledge; sets boundaries and justifies science.
God & Nature	Semi-deistic view of reality.	Strong on doctrine of Creation; weak on doctrine of Providence.	God intimately involved in world; manifested by works of Creation & Providence.

ing on water were powerful signs to the observers to confirm the divinity of Christ but such miracles have no bearing on the daily practice of scientific geology. Such miracles have no effect on historical reconstructions of the Earth's past, nor do they affect the laws of physics or the course of chemical reactions.... What would be a problem, however, is the introduction of arbitrary or capricious miracles with no compelling reason from the biblical text for assuming their existence. Assuming such miracles would make the pursuit of historical sciences more problematic (Young and Stearley, 2008, pp. 462-463).

Reed (2010) noted the litary of errors in this statement. Rather than developing a better theology of miracles, Young and Stearley retreated.

The answer to secularist arguments is twofold. First, their assumptions are selfrefuting, especially with regard to uniformity (Geisler, 1997; Reed, 1998). Second, miracles fall within the domain of theology, not science, because miracles are God's direct causing of particular effects according to His will. Science, properly defined, deals only with the normative workings of providence, or what is commonly called "natural law." For that reason, scientific arguments against miracles are ultimately non sequitur.

Regarding the "god-of-the-gaps" debate, Weinberger (2008, p. 125, brackets added) summarized it and recognized that its power comes from Christian compromise:

To maintain the acceptance of both [science and Scripture], conventional wisdom dictates that Scripture be separated from science. As I have attempted to show, it is precisely this separation that created the inconsistencies of theistic religion-and-science discourse. Into the void left by the absence of biblical history was inserted the deistic god-of-the-gaps.

Brand (1996, p. 13) noted other problems:

In reality the logic in the "god of the gaps" concept was naïve and implies that if we can understand how something works, God does not have any part in it. A further implication is that if God is involved in some process, that process does not function through nature's laws.

Orthodox Christianity teaches that God's interactions with the world fall under two distinct categories, creation and providence. These two classes of works are united

Table 5. The essential elements of science do not require methodological naturalism. They are in fact only fully justified and confirmed by theology, particularly the doctrines of creation and providence. Methodological naturalism is an unnecessary accretion.

CHRISTIANITY: CREATION & PROVIDENCE	ATTRIBUTES OF SCIENCE	NATURALISM: "PROVISIONAL ATHEISM"
God is absolute free to create. Only way to know is to go look at what He made.	Empirical	From Locke's empirical philosophy and Hume's skeptical philosophy.
God's perspective defines truth. Man made in God's image is distinct from nature; observer.	Objective	Avoid squabbling of speculative theology. Ignore issue by pretending it irrelevant.
Unity of truth guaranteed by God. Piecemeal work can be true if all pieces are true.	Cooperative	Human experience shows benefits of working together.
Man given dominion over rest of Creation, God provides for man through Creation.	Practical	Leftover of pragmatism. Necessary for public support.
Man prone to error by nature. Truth deserves greatest care and effort.	Experimental	Emphasizes objectivity and precision of scientists.
God is rational and efficient. Creation should reflect that in quantifiable precision.	Mathematical	Revival of Pythagorean ideas transmitted through Renaissance.
Man given dominion; must comprehend Creation in order to exercise it.	Inquiry into Nature	Practical benefits of technology and Romantic view of nature.

in His eternal, infallible will, but are distinct. transmit force apart from His will. As Wein-One way to distinguish them is by reference to causality. Creation was distinct from any "natural" process. Like miracles, origins is the domain of theology or metaphysics. Science can never explain the miraculous works of God because they are outside the regularities of providence, the domain of science.

Accusations of "god-of-the-gaps" reasoning with regard to creation fail because there were no ontological "gaps." God directly created everything and so filled them. The only gaps are epistemological, and reflect human finitude, but that is no help to secularists. They also fail with regard to providence. As with creation, causal gaps are eliminated because cause is unified in God's will. He is no less immediate to, or responsible for, the history of the world than for its origin. By revelation we understand that He *chooses* to maintain the natural order in predictable regularities using secondary causes. But God is God; nothing precludes His direct, immediate causing of anything at any time in any place.

This is the worst nightmare of the secularist. Sparrows do not fall nor do bosons berger (2008) noted, once our presuppositions revert to orthodox Christianity, the whole "god-of-the-gaps" argument becomes moot, if not ridiculous. There are no "gaps" in God's will, which is the ultimate causal force behind everything that comes to pass, whether caused in nature mediately or immediately.

Recover Doctrine of Providence

Providence negates methodological naturalism, just as creation negates metaphysical naturalism. Orthodox providence provides a better Christian basis for science than that offered by the complementarians or that by the advocates of theistic science. To understand providence, we must understand the vocabulary, which differs between theologians and philosophers. Sproul (1989) offered clarification between theological and philosophical definitions. Table 6 shows both vocabularies for the two classes of God's works.

A good definition of providence was offered by Calvin:

And considering inanimate objects we ought to hold that, although each one has by nature been endowed with its own property, yet it does not exercise its own power except in so far as it is directed by God's everpresent hand. These are... instruments to which God continually imparts as much effectiveness as he wills, and according to his own purpose bends and turns them to either one action or another.... And truly God claims... omnipotence—not the empty, idle, and almost unconscious sort that the Sophists imagine, but a watchful, effective, active sort, engaged in ceaseless activity. Not... a general principle of confused motion, as if he were to command a river to flow through its once-appointed channels, but one that is directed toward individual and particular motions. For he is deemed omnipotent, not because he can indeed act, yet sometimes ceases and sits in idleness, or continues by a general impulse that order of nature which he previously appointed; but because, governing heaven and earth by his providence, he so regulates all things that nothing takes place without his deliberations (Mc-Neil, 1960, pp. 199-200, emphasis added).

The 17th century thinkers had a very different view of the world. God was the powerful Creator *and* the equally powerful Sustainer. He could not be ignored. There was no skepticism of miracles, for through the lens of Providence, everything was a wonder (Hooykaas, 1999). This was the view held by the early scientists.

Deism countered the doctrine of providence, opening the door for atheism to then counter the doctrine of creation. Dabney (1878, pp. 260–261) saw it coming:

Again, why should the Theistic philosopher desire to push back the creative act of God to the remotest possible age, and reduce His agency to the least possible minimum, as is continually done in these speculations? What is gained by it? Instead of granting that God created a... world, some strive continually to show that He created only the rude germs of a world, ascribing as little as possible to God, and as much as possible to natural law. *Cui bono*; if you are not hankering after Atheism?

This is why the earliest assaults on orthodox Christianity were on history, not origins. Once providence had been put out

Table 6. Differences between theological and philosophical language can causes confusion. The top two definitions refer to God's direct, often miraculous acts. The bottom two point to God's efficiency in ordinary providence in directing the workings of his creation, often subtly.

DISCIPLINE	TERM	DEFINITION
Philosphy	Primary Causality	God's act of creation God's ongoing sustaining of universe
Theology	Immediate Works	God's direct action to accomplish His will
Philosophy	Secondary Causality	Ordinary manner by which God rules His creation - "laws of nature" natural causes = ordinary providence
Theology	Mediate Works	God's use of created things to accomplish His will

of men's minds, it was easier to do the same with creation.

But secularists made a fatal mistake. They forgot that science had been built on axioms justified only by Christian theology. Although they erected shields in the form of historical fables about science arising as a new classicalism (e.g., Bergman, 2003; Reed, 2008), science is rooted in the theology of creation and providence. In that sense, secularists are like Wile E. Coyote; they devise a clever trap, overlook the key idea, and are then caught themselves.

Metaphysical naturalism is self-refuting. Methodological naturalism is unnecessary. Arguments about miracles and "god-of-the-gaps" reasoning are irrelevant. All of this comes into focus when we recover a healthy understanding and regard for the traditional, orthodox doctrines of creation and providence. In summary, providence is the antidote to naturalism of all types. Naturalism is an idea that rightly belongs on the dust heap of history, not in the halls of academia, and most definitely not in the Church.

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CM

Louis Pasteur 617,

T. Gordon Scott

zyme NADH.4 According to Dr. Scott,5

...six hereditary metabolic diseases had been controlled or eliminated by the application of my research done at Illinois by established research stations in the first decade following the publication of my NADH results. Progress in the next three decades has been exponential. The work was co-developing the universal physical constant for the most important oxidative-reductive coenzyme, NADH -0.42 + -0.01 ns, the lifetime of the fluorescent excited state. With the appearance or disappearance of the fluorescent emission at ca. 360 nm metabolic reactions could be followed in experiment of a few hours vs. previous analytical methods that would take days or weeks.

Putting it perhaps more succinctly, in the time it used to take scientists to do one experiment, now, knowing the NADH constant, they may do approximately 90. This was, in other words, a great time-saving discovery, enabling far more efficient use of scientific resources.

More recently, Dr. Scott wrote to me reinforcing all the more the impact of this

Two Chemists by Paul G. Humber

volutionist Isaac Asimov wrote words of praise on behalf of Louis Pasteur, the first chemist I would like to briefly profile. On page 595 of his *The New Intelligent Man's Guide to Science*, Asimov affirmed that Pasteur generalized his conclusions and enunciated the "germ theory of disease" — without question, one of the greatest single medical discoveries ever made (and it was made, not by a physician, but by a chemist).

Some years ago, by way of contrast, I reviewed an AP Edition of *Biology* by Neil A. Campbell and Jane B. Reece.² Though the authors spoke of Stanley Millers infamous 1953 experiment on page 59 and more extensively on page 513, they apparently omitted any reference to Chemist Louis Pasteur in their entire, 1231-page book. *Pasteur* is not listed in the book's 50-page index. Imagine, the discoverer of one of "the greatest single medical discoveries ever made" ignored!

Fifteen pages later, Asimov added more praise to Pasteur. Notice especially his last three words (emphasis added):

Pasteur, in his studies of hydrophobia, could find no organism in the body that could reasonably be suspected of causing the disease. Rather than decide that his germ theory of disease was wrong, Pasteur suggested that the germ in this case was

simply too small to be seen. **He** was right.

Textbook author Campbell believed that life developed on earth from nonliving materials, but Pasteur believed life came from life.³ On page 617, Asimov has a drawing of this Creation Chemist in his laboratory and below it a drawing of another Creationist, Joseph Lister (think *Listerine*), but the following affirming paragraph about Pasteur appears on page 628:

In 1885, Pasteur got his chance to try the cure on a human being. A nine-year-old boy, Joseph Meister, who had been severely bitten by a rabid dog, was brought to him. With considerable hesitation and anxiety, Pasteur treated the boy with inoculations of successively less and less attenuated virus, hoping to build up resistance before the incubation period had elapsed. He succeeded. At least the boy survived.

The second chemist I would like to acknowledge is T. Gordon Scott who was a friend of mine at the University of Pennsylvania. When he graduated in 1963, he was given "The Thouron Award" which allowed him to study for two years at Cambridge University. He went on to earn his Ph.D. from the University of Illinois (1969). Later he was an assistant professor of chemistry at Oberlin College, and then an associate professor of chemistry at Winston-Salem State University.

Among Scott's achievements was determining the fluorescent lifetime of coendiscovery.⁵ He called it "a non-chemist's guide to the lifetime of the fluorescent excited state of NADH, less than half a billionth of a second."

Imagine how long it would take to do mathematical calculations involving pi (π) if its numerical value were not known. Using the value of pi, the answers can be calculated in seconds. Likewise with co-enzyme NADH. NADH is a relatively small biological molecule that activates biological catalysts (enzymes) in the vast majority of electron-transfer reactions involved in breathing, heart function, and energy-producing reactions in the human, animal, and plant life. The analogy with pi is that before the fluorescent lifetime of NADH was discovered by our research team, one experiment took two to four weeks to complete. Knowing this universal constant, an experiment now takes only two hours.

Dr. Scott sent this personal, hand-written testimony, dated February 14, 2013:

Knowing Creator Christ has enhanced the quality of my life since by His love and grace (by faith) He saved me when I was in grade school to retirement life.... Creator Christ has been with me every day along the way. There have been many problems also, but with Creator Christ being the Maker and Sustainer of the Universe (Hebrews chapter one) He is able to help me surmount any of them. 'To God be the glory; great things He has done.'

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Clearly Invisible

Figure 1. The diagram above is of an oxygen molecule created, by God, from protons, neutrons and electrons.

by Kenneth G. Dale, DDS

Romans 1:20 (NLT)

For ever since the world was created, people have seen the earth and sky. Through everything God made, they can clearly see his invisible qualities—his eternal power and divine nature. So they have no excuse for not knowing God.

Psalm 145:10 (NCV)

LORD, everything you have made will praise you.

e can clearly see all of God's creation through tiny bundles of energy called *photons*. The photon is the basic unit of light (as well as all other forms of non-visible electromagnetic radiation, like x-rays and microwaves). Photons are mobile energy forces that do not occupy any space and they do not have any mass (they are weightless).

Here's how they work: Photons are generated from things like the sun or

lights. They travel from their source of origination, bounce off objects, enter our eyes, and then they terminate when their energy is transferred to our eyes. So, through the energy of the photon, God has created a way for us to see every part of His visible creation. How incredible is that?

Not incredible enough? There's more! Everything we see around us (more specifically, all matter) is surprisingly made up of only three different sub-atomic particles:

protons, neutrons and electrons

That's it — a trinity!

Yes, the air we breathe, the water we drink, and the food we eat all have the same three sub-atomic ingredients just combined in different ways. Now that's the Master Chef at work! And consider for a moment the complex function of the human body or the exquisite metamorphosis of a caterpillar to a butterfly. This all hap-

components. Now that's the design of a Supreme Engineer!

God's eternal power and divine nature, though invisible, are clearly expressed in the phenomenal and majestic ways in which He combines only three basic particles of matter. He further makes clear His eternal power and divine nature by the way in which He beautifully displays His creation through only one particle of light. If anyone wants to see God, as Romans 1:20 says, just look at what He's created. All of creation reflects His wonderful, incredible, glorious,

pens from the interaction of only three and matchless name! And all of creation praises Him (Psalm 145:10).

> Oh, may the qualities of our "clearly invisible" God be seen today just by opening our eyes and receiving His light! And may the light of creation that we see every waking moment remind us of the true "light of the world" and the only "light of life" — Jesus Christ!

When Jesus spoke again to the people, he said, "I am the light of the world. Whoever follows me will never walk in darkness, but will have the light of life."

—John 8:12 (NIV)

Editor's note: Dr. Dale is a practicing dentist and maintains a private practice in New Albany, Indiana. He received both his bachelor of science degree in chemistry and his doctor of dental surgery degree from Indiana University. He can be reached at kgddds@aol.com.



Matters of Fact

Jean K. Lightner, DVM, MS

Editor's note: You may submit your question to Dr. Jean Lightner at jean@creationresearch.org. It will not be possible to provide an answer for each question, but she will choose those which have a broad appeal and lend themselves to relatively short answers.

What is truth?

This question was asked by Pontius Pilate when he was in the presence of The Truth, Jesus Christ (John 18:38: 14:6).

In our culture we think of truth as something which is factually correct. Certainly, having the facts straight is important, but the Bible teaches that truth extends beyond this. The Hebrew word for truth, emet Strong's (#571), is often translated faithfulness. This concept is expressed in the English phrase "a true friend" and "true love." Since God is true (faithful), we are to walk in truth as well.

This concept of presenting the factual truths of Scripture and science while walking in truth (living in godly faithfulness) was exemplified by the pioneers in the modern creation movement, such as Henry Morris and Duane Gish, both of whom have been taken Home. They presented a clear case for creation while conducting themselves graciously, even when faced with outright hostility. In a world that confuses "getting in the last word" with being right, they chose to speak the truth in love. In this way they set excellent examples for the rest of us.

God's Word is truth

Jesus prayed that His disciples would be

What is Truth?

sanctified by the truth (John 17:17). This the creation/evolution issue, they commonemphasizes that we as Christians will be different from the world because we have a relationship with God. In that same passage it is also clear that God's Word is truth. A burning passion for many young-earth creationists is to see people believe and trust God's Word. We know that as this happens, their lives will be transformed for the benefit of others and the glory of God.

As one who has that passion, I admit there are times when I have not been as sanctified in my thinking as I should. While always quick to acknowledge the truth of God's Word and the importance of obeying Him, I have found myself tempted to conform to the world's way of thinking. Rather than exhibiting the character of God (1 Corinthians 13:4–8), I can become more consumed with "facts" than in maintaining truth in relationships. I can be way too consumed with what I think I am doing for God, and neglect my relationship with Him. Fortunately God loves me enough to correct me when I miss the mark.

Truth in relationships

By dealing with sins that break relationships (bitterness, pride, envy, etc.), God has rid me of considerable self-centeredness so my life is more set aside for Him (sanctified, as Christ asked for). An understanding of God's patience with me has given me more patience with others. I find that comments, which I might have earlier taken as insulting, do not affect me that way anymore. This is a good thing; praise God!

I find that when I talk with people on

ly repeat phrases they have heard elsewhere. Generally they have not thought them through very well. If I take them in an insulting way, or become frustrated at the poor logic, I miss the opportunity to engage in a thought-provoking conversation. As Jesus took the time to fully deal with the interruptions he encountered while on earth (e.g., Matthew 9:20-22; 15:22-28; Mark 10:46-52), I try to recognize that God has a purpose in all things, and I can be patient with the comments and questions of others.

Protecting the Truth

There are two mistakes I have seen made by Christians who accept that God's Word is true, but are confronted with apparent contradictions. The first is committed by Christians who promote alternative ways to read the first chapters of Genesis. They do so because they believe God's Word is true and a straightforward reading of it appears to contradict reality. Changing how they read the first few chapters appears to resolve a problem. Unfortunately, as creationists have often pointed out, it results in a multitude of problems (Klotz, 1964; Swincer, 1980; Sarfati, 2006; Upchurch, 2011). This is because our culture misrepresents reality; the straightforward reading is actually the truth (reality) confronting a lie in our culture.

A second problem occurs among those who are passionate about defending the Word of God, regardless of what camp they fall in. Since our ideal is to stand for truth, we imagine that we must rebut all objections on the spot. We can be so convinced teachings of Scripture: that we have the answer that we do not listen to understand what the other person is saying. Instead, our whole goal is to win the argument. As in the previous case, we actually sacrifice the truth when we behave this way. We rely on our own wit and knowledge rather than submitting to the truths found in God's Word. We have failed to treat the other person with the same patience and respect that we have received from God.



Figure 1: The Hebrew word for truth, emet, not only refers to correct factual details, but also faithfulness in relationships. We are not walking in truth unless we are doing both.

Walking in the Truth

We should thus be edified by these clear

Be completely humble and gentle; be patient, bearing with one another in love. Ephesians 4:2 NIV

Therefore each of you must put off falsehood and speak truthfully to his neighbor, for we are all members of one body. "In your anger do not sin": Do not let the sun go down while you are still angry, and do not give the devil a foothold. Do not let any unwholesome talk come out of your mouths, but only what is helpful for building others up according to their needs, that it may benefit those who listen. And do not grieve the Holy Spirit of God, with whom you were sealed for the day of redemption. Get rid of all bitterness, rage and anger, brawling and slander, along with every form of malice. Be kind and compassionate to one another, forgiving each other, just as in Christ God forgave you. Ephesians 4:25-27, 29-32 NIV

Therefore, as we continue to encourage others to trust fully in God's Word, let us be certain that we ourselves are walking in the truth by maintaining: 1) a healthy relationship with God, our source of wisdom and strength; and 2) as far as it depends on us, a healthy relationship with others, including those with whom we disagree.

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...without excuse! by Timothy R. Stout

THE TESTIMONY OF THE POTENTIAL **EFFECTS OF SEDIMENTS ON ABIOGENESIS**

urrent scientific opinion is that natural processes are incapable of producing the building block products (amino acids and nucleic acids) needed for abiogenesis without undergoing a concentrating process. Adhesion of these products to clay surfaces is a popular proposed means of concentration.

Deamer et al. (2006) tested the hypothesis that abiogenesis could have started in a boiling, clay-lined pond by their dumping of purified, building-block chemicals into three representative ponds in natural settings. They acknowledged that their mixture was "probably much higher than the concentration of organic compounds in the early ocean" (Deamer, et al., 2006). This work was discussed in a recent ... without excuse! article (Stout, 2012).

The biochemicals added by Deamer et al. to the volcanic ponds disappeared within

into the upper layers of the clay in the pond. After analyzing their observations, the researchers concluded, "...Adsorption of organic solutes and phosphate to clay-mineral surfaces also has the potential to isolate reactant molecules and thereby inhibit polymerization."

Deamer et al. also observed that turbulent water stirred up the mud deposits at the bottom of two of the pools, speeding up removal of the added chemicals. This observation is significant. It leads to a new potential problem for the hypothesis that clay provided a reaction site for abiogenesis, a difficulty which, to my knowledge, has not been discussed heretofore in the literature. Specifically, the conundrum is presented by the continuing influx of clay particles into a body of water as a result of erosion from upstream sources.

It has been observed that there is a hours. They had apparently been adsorbed natural influx of suspended clay particles

into a lake. As these particles drift throughout the lake, various pollutants in the lake adhere to the particles' surfaces. Then, as the particles settle and are buried by sediment, the pollutants are buried along with the particles. The influx of clay particles effectively "sweeps" the lake free of pollutants and buries them, at which point they no longer interact with the environment.

A clear example of this has been reported for Lake Michigan. Portions of the lake are surrounded by large urban populations which introduce into it significant quantities of man-made pollutants. Yet, Eadie (1997) reported that 95% of the pollutants have been observed to be removed by this sedimentation process, over the course of a few years. He goes on to say, "Rapid and efficient processes of sorption and settling through the average depth of 86 m promotes internal removal of particle-reactive contaminants through sedimentation with the result that the large contaminant inventories

presently reside in sediments." This process is good for pollution remediation.

However, this same process would not be good for abiogenesis. Clay surfaces are hypothesized as a site for the concentration of prebiotic amino acids and nucleic acids because of their ready adherence to the clay surfaces. However, this works both ways. Prebiotic molecules would also be expected to adhere to the surfaces of clay particles entering a lake through natural influx. In time, these particles should settle and be buried, carrying with them sorbed biochemicals.

The sweeping effect that removes and buries pollutants in a lake should likewise remove and bury any prebiotic chemicals appearing in a lake. Once buried, they become effectively useless for abiogenesis. The problem of isolation observed by Deamer et al. was perhaps a reduced-scale version of the same process that sweeps pollutants from Lake Michigan and buries them. The observed disappearance of biochemicals in both cases may be characteristic of natural settings, not an exception.

One might postulate that the edge of a lake or pool could make a satisfactory site for abiogenesis, even if the deeper portions were unsuitable. However, if the lake is being periodically swept free of biochemicals by suspended clay, then there will not be a supply of the biochemicals available

for abiogenesis, even at lake edges.

There is yet one more potential problem posed by clay as a site for abiogenesis, which is an indirect result of the long times required for abiogenesis, in combination with varying environmental conditions over this time. When one looks at the accumulated rainfall of a given locale for a century or more, it will tend to be characterized by occasional extended periods of heavy rain. and other occasional extended periods of drought. Lake levels tend to rise and fall in accordance with the prevailing rainfall. The edges of a lake for any given lake depth are defined by the topography of the land bordering the lake at that particular depth. That is, as a lake varies in depth according to weather patterns, the location of the edges of a lake will vary.

As a result, a potentially suitable "edge" site for abiogenesis when a lake is at a low level will be buried when the water is high. In effect, this will undo any progress at the previous site. Conversely, following periods of high water, the next drought cycle will lower the water level, leaving high and dry the biochemicals at the high-water mark.

Since there is no life at this time, there is no vegetation to minimize erosion. Thus, when the next heavy rains occur, there will be a reasonable expectation that the previous high-water sites will be eroded, carrying the site's biochemicals attached to them.

These sediments will then drift around in the lake, eventually settling and being redeposited at the lake's bottom, along with the attached biochemicals.

Thus, the ultimate effect of the repetitive rise and fall of the water levels of a lake will be the transport of any accumulated abiogenetic precursors and short-term products of abiogenesis away from the edges, deeper into the lake for burial.

For all practical purposes, then, clay is not necessarily a "friend" of abiogenesis, as is hypothesized by abiogenists. Once again, a closer examination of the posited details concerning abiogenesis reveals more obstacles. Truly, a person has no excuse who refuses to acknowledge God as the Creator.

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Speaking of Science

Editor's note: Unless otherwise noted, S.O.S. (Speaking of Science) items in this issue are kindly provided by David Coppedge. Opinions expressed herein are his own. Additional commentaries and reviews of news items by David, complete with hyperlinks to cited references, can be seen at: http://crev.info/. Unless otherwise noted, emphasis is added in all quotes



Complex Brain Wiring Unveiled in New Images

S urely one of the great mysteries of human life is how a single fertilized egg cell grows to an adult, with a brain sporting hundreds of billions of functional connections supporting abstract thought.

NewScientist1 discussed how researchers at Wayne State are using functional MRI to study fetal brains as they develop in the womb. It's difficult, because the unborn baby is "doing backflips as we scan it," they said. They implied that accurate wiring is essential, because mis-wiring can result in autism or schizophrenia, if the baby even survives till birth.

BBC News² reporter Pallab Ghosh submitted his brain to science - while it was still safely operating in his skull. Inside one of the most powerful MRIs in the world at Massachusetts General Hospital, Ghosh sat still 45 minutes while the images

were taken. Processed and colorized images and a video within the article show the intricate wiring between lobes, as the magnets focused in on water droplets in the nerve fibers. Then professor Van Weeden gave Ghosh a guided tour of his brain:

He showed me the connection that helped me to see and another one that helped me understand speech. There were twin arcs that processed my emotions and a bundle that connected the left and right sides of my brain.

Prof Wedeen used visualisation software that enabled him to fly around and through these pathways — even to zoom in to see intricate details.

He and his team hope to learn how the human mind works and what happens when it goes wrong.

By pointing out the things that can go wrong, Weeden implied that the wiring in a normal brain has a precise, functional order.

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This "Evolution" Is Not Darwinian

Some things in nature get attributed to Darwinian evolution, but might be better seen as manifestations of design or other alternative, non-Darwinian mechanisms.

Deterministic Evolution: In "Predictable Bacterial Diversity," Nature¹ highlighted some experiments that showed bacteria converging on the same mutations when exposed to identical environmental stresses. "They found many similar and a few identical mutations that underlay the evolution of diversity in the three experiments," the article said. "The findings suggest that this evolution is a predictable process that is driven by natural selection." The story is based on a paper in PLoS Biology² that was summarized on ScienceDaily,³ which said, "Any evolutionary process is some combination of predictable and unpredictable processes with random mutations, but seeing the same genetic changes in different populations showed that selection can be deterministic."

This claim, however, runs contrary to the unpredictable, contingent nature of Darwin's theoretical mechanism. If the mutations fall within the "Edge of Evolution," as Michael Behe described in a book⁴ of that name, then the changes could be due to chance and selection pressure in an artificially designed environment. But as Randy Guliuzza⁵ has explained, the ability to adapt would better be described as having been *designed into* the bacteria rather than residing in the environment. The end products of the experiments, finally, are still bacterial "strains" within the same species, raising questions why natural selection, if so inexorable a process, has left bacteria content to remain so for hundreds of billions of years.

Salvaging Evolution: Sometimes an observation begs the question of evolution. Why, for instance, do some birds continue their mating displays after laying their eggs? LiveScience⁶ explored the conundrum:

That begged the question: Why would monogamous animals have evolved to continue these displays once they'd paired up?

"It's **very obvious** why you'd want a display to attract a mate, but **once you've already secured a mate, why should you bother to keep displaying?**" said study author Maria Servedio, an evolutionary biologist at the University of North Carolina, Chapel Hill.

To salvage evolutionary theory from the conundrum, they came up with a less obvious answer: it helps the birds pair-bond better for the raising of young. So it *may* have evolutionary benefits, despite the "very obvious" why-question.

Incidental Evolution: Observation — males in many species are superior to females in navigational ability. A Darwinian just-so story arises to explain this in adaptationist terms: males wander farther for hunting, so only the good navigators would survive to get home and breed. As Justin Rhodes explains in a cartoony video on *PhysOrg*, ⁷ though, the story doesn't wash. Males would have passed on the genes for good navigation to their daughters, not just their sons.

So to explain the observation, Rhodes ended up calling the adaptation a "spandrel" of selection; i.e., a byproduct of the main selection pressure that just happened to produce navigational skill as a side effect. "Maybe we shouldn't be too eager to accept the stories, the adaptionist stories," he said. Even things in

human behavior could be due to "alternative explanations that people haven't considered."

It's nice when evolutionists themselves find faults in their own theory. Sometimes, though, they still need help from their critics.

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Creation Conference

The Heavens Declare: What Astronomy Can Tell Us about Biblical Creation

July 8-10, 2013

featuring keynote speakers Dr. Danny Faulkner and Dr. Don DeYoung

Concordia University Wisconsin will host a creation conference with the theme, "The Heavens Declare: What Astronomy Can Tell us about Biblical Creation." The conference begins on Monday, July 8, at 1:00 p.m. and ends at noon on Wednesday, July 10. Keynote speakers are **Dr. Danny Faulkner** and **Dr. Don DeYoung**, both members of the Creation Research Society (CRS). DeYoung's addresses will include "Our Nearest Neighbor, the Moon" and "The Discovery of Design." Faulkner, now on staff with Answers in Genesis, will speak on "Biblical Astronomy" and "Astronomy's Young Age Indicators." The full conference schedule and registration information can be found at:

www.societyofcreation.org/conferences.php

The conference is being convened and cosponsored with Concordia University Wisconsin by the co-founders of the Society of Creation, a 52-member creation organization within the Concordia University System, which is a system of ten universities operated by The Lutheran Church—Missouri Synod. The conference is open to members of all denominations. Both co-founders, Dr. Gary Locklair, computer science faculty at Concordia University Wisconsin, and Dr. Joel Heck, theology faculty at Concordia University Texas, are also members of CRS.

www.societyofcreation.org/

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Vol. 18 No. 2

Nonprofit Org. **US Postage PAID Creation Research Society**

All by Design

Divine Provisions by Jonathan C. O'Quinn, D.P.M., M.S.

he theory of evolution proposes that organisms with the "best" physical attributes will have the highest probability of successfully passing their traits to future generations, thus allowing single-celled, marine organisms to gradually evolve into all of the life on earth today. Because evolutionary theory emphasizes the reproductive self-interest of organisms, it follows that evolution should select against, i.e., obliterate, any trace of altruism, the selfless devotion to the welfare of other organisms.

However, examples taken from nature suggest otherwise. While I was in graduate school in

Raleigh, NC, a female Greylag goose at a nearby lake died, leaving her mate griefstricken but not abandoned. Nearly one month later, a female Pekin duck at the same lake, who had just lost her mate, hatched seven ducklings, four of which survived.



In what can only be described as a special provision of our loving Creator, the male Greylag goose literally adopted this family of ducks, assuming every responsibility of a biological parent. This unlikely pair successfully cared for and raised the ducklings to maturity.

This offers a powerful testimony not only to the Lord God's boundless and sometimes unexpected love, but to His ability to turn desperate circumstances around for His glory. Like Papa Goose, the Lord has done everything necessary to take us "under His wings" through the death and glorious resurrection of His Son, Christ Jesus, through Whom salvation and eternal life are freely offered to everyone who will accept Him as Lord and Savior.

Photo credit: A Greylag Goose (Anser anser) in St James's Park, London, England. Photo by DAVID ILIFF and made available by Creative Commons license.

