

Christianity as a Foundation for Science

Loren Haarsma, Assistant Professor of Physics, Calvin College

Lecture presented at the
Faculty Fellowship Forum
at the National Conference for Christian Educators Association International, July 24-27

To be published as a chapter in
*Proclaiming Freedom in the Land: The Role of the Professorate
in Promoting Christ Centered Learning*
Daniel C. Elliott, ed. (Christian Educators Association International, Pasadena, CA, 2003)

Summary

The basic theories of science, the “laws of nature,” do not explicitly refer to God. Some scientists, and some students, incorrectly conclude that science is *methodologically atheistic*. However, a biblical view of God not only motivates us to do science, but also provides us a philosophical foundation for expecting to find regular patterns of cause and effect in nature. A scientific understanding in terms of natural laws does not exclude God; rather, it teaches us about God’s governance of creation. Scientific knowledge is placed in a context of faithfully living for God.

This paper focuses on some of the difficulties of teaching science in a culture where science and religion are sometimes set at odds with each other. Apparent conflicts between scholarly claims and religious claims are not limited to science, however; they occur in almost every subject. I will make connections across other academic disciplines at several points in this paper.

The universe is beautiful and awe-inspiring. When we study it scientifically, this does not decrease, but rather increases that sense of beauty and awe. As a Christian, I respond to what I learn from science by praising and worshiping the Creator. As an educator at a Christian college, I try to model for my students this response of praise and worship. I not only teach them the facts and theories of science, but also direct their attention to the One who created the universe, sustains it, and gives us the gifts to study it. That’s not always as simple as it might sound.

Whether you teach in a public or a Christian institution, you are no doubt aware that there are many conflicting voices telling us what the relationship between science and Christianity ought to be. Some people argue that science and Christianity fundamentally conflict with each other. Others say that science and religion deal with entirely separate realities and have nothing to do with each other. At the other extreme, there are Christians who argue that science can be used to prove that Christianity is true, or at the very least prove that certain statements from Christian theology are true. Many of your students will have heard some of these claims – claims which often contain serious scientific, philosophical or theological flaws. But because they are inexperienced scholars, many of your students may have absorbed these claims uncritically. As a result, simply by teaching good science to your students, many students will perceive the science as being completely disconnected from bigger issues of their life and faith. Worse yet, some students may perceive the science you teach as an attempt to promote a particular faith, or as an attack on their own faith.

What can an educator do about all of these conflicting voices? I find it is helpful to take one step back from science itself and look at the what sorts of worldview assumptions are necessary to serve as a foundation for doing science. (This approach of explicitly examining foundational assumptions can be applied profitably to other academic disciplines besides the natural sciences.) Understanding these foundational assumptions provides a basis for critiquing all of those conflicting claims about science and religion. It also allows us to see that the relationship between science and Christianity is neither fundamentally hostile nor disconnected. Rather, Christianity provides both a powerful motive for doing science and a strong philosophical understanding for why the scientific method works.

In the interest of time, for this conference and this paper, I will set aside the problem of scientifically or theologically flawed arguments sometimes used to defend Christianity. That will have to wait for another conference and another paper, although I hope that what I say in this paper can serve as a starting point for a response. For now I will concentrate on the first two problems – the perception that science is hostile to religion, or at best completely disconnected from religion.

The idea that science and religion are fundamentally in conflict with each other has been around for well over a century. Here are a few examples:

“Science and religion cannot be reconciled, and humanity should begin to appreciate the power of [science] and to beat off all attempts at compromise. Religion has failed, and its failures should be exposed. Science, with its currently successful pursuit of universal competence ... should be acknowledged the king.” (Atkins, 1995)

“A divine revelation must necessarily be intolerant of contradiction; it must repudiate all improvement in itself.” (Draper, 1875)

“Hardly a generation since [Galileo] has not seen some ecclesiastic suppressing evidence, or turning expressions, or inventing theories to blacken the memory of Galileo.” (White, 1896)

It is necessary to acknowledge that there have been, and continue to be, some conflicts between scientific and religious claims. However, a more scholarly reading of history tells us that these conflicts are far more complex than a simplistic dichotomy between science and religion. For example, Galileo’s treatment by the church officials was tragic and sinful, but it was not simply a case of religion attacking science. Any competent book on Galileo will tell you that Galileo had scientific opponents as well as scientific supporters, and Galileo had theological defenders as well as theological attackers. We shouldn’t ignore or trivialize instances where science and scientists have been attacked by religious persons for religious reasons. We have much to learn from those incidents. But we must remember that scientific and religious ideas always have philosophical, cultural and historical contexts. Any true understanding of the relationship between science and religion will take into account those broader contexts.

In many cases, apparent conflicts between science and religion are due, quite simply, to faulty logic. For example, consider the following claim: “Christianity requires that the Earth is fixed in place. Science proved that the Earth moves. Therefore, Christianity is false.” Almost

any Christian, and for that matter almost any non-Christian, can point out the flaw in that claim. Christianity does not require that the Earth be fixed in place. The problem here is not with Christianity itself, but with a flawed theological claim made on behalf of Christianity. Or consider the following claim: “Christianity requires that humans are special. Science has shown that humans are nothing but atoms undergoing chemical reactions. Therefore, Christianity is false.” In this case, the problem is a faulty philosophical extrapolation of science. Science does show that humans are composed of atoms undergoing chemical reactions. Science does not, however, show that humans are *nothing but* atoms. That is a philosophical claim, an extrapolation from science to philosophy. In this case, the extrapolation is every bit as flawed as saying that a Shakespeare poem, because it is embodied as words printed on a page, is *nothing but* worlds printed on a page.

Not all apparent conflicts between science and religion are easily dismissed. Sometimes when there seems to be a conflict between one claim made on behalf of science and another claim made on behalf of Christianity, it takes real effort to get at the root of the problem. Different religious traditions might deal with these in a variety of ways. Christianity theology itself provides a very useful framework for approaching apparent conflicts. The *Belgic Confession* is an historic creed in the Reformed tradition of Christianity, and it has this to say in its second article:

“We know him [God] by two means: First, by the creation, preservation, and government of the universe, since that universe is before our eyes like a beautiful book in which all creatures, great and small, are as letters to make us ponder the invisible things of God; his eternal power and his divinity.... Second, he makes himself known to us more openly by his holy and divine Word, as much as we need in this life, for his glory and for the salvation of his own.” [*Belgic Confession*, Article 2]

This creed refers to “two books” metaphor of Nature and Scripture. God created nature. God inspired scripture. God is not trying to deceive us. God is not trying to give us conflicting messages. However, we human beings can make mistakes. Science and philosophy are human endeavors to understand nature. Theology, philosophy and scriptural interpretation are human endeavors to understand God’s personal revelation in history. We human beings are limited. We are also sinful. We can make mistakes in our understanding of nature, or in our understanding of scripture, or both. It is here, at the level of human interpretation, where we can have conflicts.

The “two books” metaphor is not a perfect metaphor – nature and scripture are not exactly parallel things – but it is a useful metaphor. It provides us with a strategy for dealing with an apparent conflict between theology and science, or any other field of scholarship. We do not simply throw one out and keep the other, for that would be tantamount to ignoring some of God’s revelation. Instead, we hold them in tension as best we can, and we keep pursuing our science, theology and philosophy until the underlying unity of God’s revelations becomes clear. At its heart, this is a statement about faith in God. We trust that God is the author of all truth, and the truth is worth pursuing, even if we can’t see right now how all of it unifies.

Several decades ago, perhaps it was more common for scholars to see science and religion as fundamentally in conflict. Today, the idea that science and religion fundamentally conflict is very much a minority opinion amongst scientists. There are still a few vocal advocates;

however, in my experience, the great majority of scientists – including atheist and agnostic scientists – would agree that science and religion can at least co-exist. Many of the great scientists of the past and the present have been and are Christians, who see no conflict between their science and their faith. Scientists today know that their colleagues, whom they respect as competent scientists, have a variety of religious beliefs. That religious diversity amongst scientists today, in and of itself, does much to dispel the notion that science and religion are in conflict. Perhaps most importantly, scientists today are aware that science itself is limited. Science is competent to answer questions about how matter behaves according to the laws of nature, but science is not competent to answer the question of whether or not the laws of nature have a Lawgiver. Science is competent to predict the probabilities that certain events will happen, but science is not competent to answer the question of whether or not there is Someone who oversees events which, from a human perspective, appear random. Science is competent to describe the properties and the history of matter in this universe, but science is not competent to answer the question of why matter exists in the first place. Scientists today, perhaps more than ever before, are aware of these sorts of limitations to science.

A much more common opinion amongst scientists today is that science and religion deal with entirely separate realities and have nothing to do with each other. Scientist Stephen Jay Gould, who is also an atheist, is a champion of this idea.

“No such conflict [between science and religion] should exist because each subject has a legitimate magisterium, or domain of teaching authority.... The net of science covers the empirical universe: what is it made of (fact) and why does it work this way (theory). The net of religion extends over questions of moral meaning and value.” (Gould, 1997)

This is an appealing idea. Science and religion each have a legitimate realm of authority where the other is not competent to make pronouncements. In cases of apparent conflict, one has strayed into the realm of the other. When the boundary between science and religion is respected, science – by necessity – is religiously agnostic.

Every Christian educator who has taught a science class has undoubtedly noticed how difficult it is to teach science from a *distinctively* Christian perspective. In other academic subjects such as politics, history, philosophy, literature, art or sociology, while there are many parts of those subjects where Christians and non-Christians do their work essentially identically, there are other parts of those subjects where it is easy to contrast Christian viewpoints with non-Christian viewpoints. In the natural sciences, however, it frequently seems as though the *entire* subject is religiously neutral. Is there such a thing as distinctively Christian physics or chemistry? And if not, why not?

The basic theories and equations of science — the “laws of nature” — do not explicitly refer to God, miracles, or the supernatural. This has led several Christian theologians and philosophers to support of the idea that science, by necessity, is religiously agnostic. They have introduced a descriptive phrase for science: “Methodological Naturalism” or, alternatively, “Methodological Atheism.”

“There is what we might call *methodological atheism*, which is by definition common to all natural science. This is simply the principle that scientific

explanations are to be in terms of natural (not supernatural) entities and processes. ... It is a fact of history (perhaps an accident of history) that this is how the institution of natural science is understood in our era. For better or for worse, we have inherited a view of science as methodologically atheistic — meaning that science qua science seeks naturalistic explanations for all natural processes. Christians and atheists alike must pursue scientific questions in our era without invoking a creator. The conflict between Christianity and evolutionary thought only arises when scientists conclude that if the only *scientific* explanation that can be given is a chance happening, then there is no other explanation at all.” (Murphy, 1993)

“Science, fundamentally, is a game. It is a game with one overriding and defining rule: ‘Let us see how far and to what extent we can explain the behavior of the physical and material universe in terms of purely physical and material causes, without invoking the supernatural.’ Operational science takes no position about the existence or non-existence of the supernatural; only that this factor is not to be invoked in scientific explanations. Calling down special-purpose miracles as explanations constitutes a form of intellectual ‘cheating.’ ... We do not say, ‘Science absolutely and categorically denies the existence and intervention of the supernatural.’ Instead, as good game players, we say, ‘So far, so good. We haven’t needed special miracles yet.’ The particular glory of science is that such an attitude has been so successful, over the past four centuries, in explaining so much of the world around us.” (Dickerson, 1992)

In this perspective, the stress is on the word “methodological.” Philosophical Naturalism is a worldview which claims that supernatural entities do not exist. Methodological Naturalism, by contrast, is a tool for conducting limited investigations and for discovering limited truths. Methodological naturalism is an acceptable tool for Christians to use, the argument goes, so long as she remembers that the discoveries made by using this tool are only partial truths.

There is some merit to this perspective. Certainly, it is worthwhile to distinguish philosophical naturalism from methodological naturalism. However, I believe the idea that science is “methodological naturalistic” is misleading in several important respects.

One reason that the term “methodological naturalism” is misleading is that it artificially restricts the scope of science. Science is more than a search for the laws of nature and the history of the universe. More broadly, science addresses at least these five categories of questions:

- 1) **The basis for science:** Is it possible to discover new truths about nature? If so, how and why?
- 2) **The process of science:** What is an effective scientific method for learning about nature?
- 3) **The discoveries of science:** What does the scientific method tell us about nature?
- 4) **The inferences of science:** Do those scientific discoveries have meta-scientific implications?

5) **The human aspect of science:** What are our motives, ethics, and goals for doing science?

The first and fourth category of questions cannot be answered within science alone. Examples of such questions include: “Why does something exist rather than nothing? Is there a creator? What are the fundamental characteristics of the cosmos? What is the significance of life? What is the significance of human beings?” Science produces data and ideas which, for good or ill, can profoundly affect how individuals and societies answer these fundamental questions. However, these questions also draw heavily upon religion, philosophy and other disciplines. Christian and non-Christian answers to these questions are often fundamentally different, and they often use scientific data in very different ways when addressing these meta-scientific questions.

The fifth category of questions — about the human aspects of science — has answers which vary with each individual scientist. Scientists do discuss these questions with each other, often informally, often in general trade journals, and occasionally in formal settings. A scientist’s religious faith should profoundly influence his or her answers to these questions. As a Christian, I endeavor to bring under the lordship of Christ my personal motives for doing science, my behavior and ethical standards, and my hopes and goals for science.

The second and third categories of questions (“What is an effective scientific method?” and “What does that method actually tell us?”) are typically answered within science itself, with very little reference to other disciplines. These are typically what most people have in mind when they hear the word, “science.” Nearly everyone agrees that Christians and non-Christians use essentially the same scientific method and, when doing their work properly, reach essentially the same scientific discoveries. It is in regard to these second and third categories of questions that the term “methodological naturalism” is commonly used. Even here, however, I think the term is misleading.

A second way in which the concept of “methodological naturalism” is misleading is that it implies that God is absent from ordinary natural events.

When I teach an introductory physics class at Calvin College, whether for science majors or non-science majors, I like to confront them with the following question, often on the first day of class: The Bible speaks about God’s governance of everything. Modern science speaks about “natural laws” governing physical events, such as the motion of objects. Is there a conflict here? At this point, I let my students discuss the issue for a few minutes, and then ask them to volunteer some answers. I think you would be pleased at the thoughtful answers I usually receive. They understand that there isn’t necessarily a contradiction in these claims. God can govern through natural laws.

I point out to my students that, although they don’t see a contradiction here, a lot of people today do see a contradiction. Some people are so impressed by science’s success at describing the motion of apples, planets and stars that they conclude no further explanation is needed. If science can explain something by natural laws, they believe there is no longer a need for God to do anything. Cosmologist Stephen Hawking accurately reports this common belief when he writes, “These laws may have originally been decreed by God, but it appears that he has since left the universe to evolve according to them and does not now intervene in it.” [Hawking, Stephen, *A Brief History of Time*. New York, Bantam Books, 1988.]

This may be a commonly held picture of how God interacts (or doesn't interact) with the universe, but it is not the biblical picture. The Bible proclaims that God is equally sovereign over all events – ordinary or extraordinary, natural or miraculous. God didn't create the universe like a watch, to be wound up, started and then let go. The biblical picture is that the existence and orderly behavior of the universe depend continually upon God's sustaining action. As it says in Psalm 104:(19-24)

The moon marks off the seasons,
and the sun knows when to go down.
You bring darkness, it becomes night,
and all the beasts of the forest prowl.
The lions roar for their prey
and seek their food from God.
The sun rises, and they steal away;
they return and lie down in their dens.
Then man goes out to his work,
to his labor until evening.
How many are your works, O Lord!
In wisdom you made them all;
the earth is full of your creatures.

Note the parallel levels of description in that passage. The sun goes down (a natural event), and God brings night (divine action). The lions hunt prey (a natural event), and they seek their food from God (divine providence). The biblical perspective is clear. If something happens “naturally,” God is still in charge. This psalm was written more than 2000 years before modern science existed, so the psalmist probably wasn't thinking in terms of natural laws. However, the psalmist certainly knew the difference between the way things usually happen in nature and miracles. The psalms are filled with praise to God for the times in Israel's history when God did something unusual, something miraculous. So the psalmist undoubtedly understood that there is a difference between a miracle and an ordinary event like the sun going down or a lion hunting. Yet the psalmist insisted that God was in charge of natural events every bit as much as God was in charge of miracles. In fact, God is to be praised and worshipped for those natural events.

With a modern scientific understanding of natural laws, neuroscientist Donald MacKay described the biblical view this way: “...The continuing existence of our world is not something to be taken for granted. Rather it hangs moment by moment on the continuance of the upholding word of power of its creator.” (MacKay, 1988) Theologian John Calvin wrote, “To make God a momentary Creator, who once and for all finished his work, would be cold and barren, and we must differ from profane men especially in that we see the presence of divine power shining as much in the continuing state of the universe as in its inception.” (Calvin, 1989)

A biblical picture assures us that God governs creation in consistent and orderly ways, and God gives us the gifts we need to study his creation and partially understand it. Scientists talk about natural laws “governing” the universe. Christians who are scientists occasionally slip into using that language as well. From a biblical perspective, however, it is incorrect to say that natural laws govern. God governs. God created natural laws, and God usually governs creation through the natural laws he designed and created. God can do miracles any time he chooses, but most of the time God chooses to work in consistent ways. As we study God's creation

scientifically, we build mathematical models and descriptions of those natural laws which God created and uses. The biblical view is not that God is absent from events which we can explain scientifically; rather, natural laws describe how God typically governs His creation.

A third way in which the concept of “methodological naturalism” is misleading is that it implies that science must necessarily deny the possibility of miracles. In this paper I will have to be very brief, although I have written much more extensively on the topic of science and miracles elsewhere. (Haarsma, 2002)

As a practical matter, science cannot claim to prove that miracles never happen. All that science can do, under various circumstances, is say that if the laws of nature keep operating in the way that we understand them to operate, then certain outcomes are likely to happen and other outcomes are not. From an atheistic viewpoint, matter and the laws of nature are all there is. From a Christian viewpoint, however, the laws of nature were created and are sustained by God, and God can supersede them. For sound theological reasons, we don't expect God to willy-nilly supersede those natural laws, but the God who made those laws is certainly capable of superseding them on special occasions. Science can only tell us what will happen if the laws of nature keep operating the way we understand them. The claim that science disproves miracles, by contrast, is not a scientific claim at all, but a philosophical or religious claim.

There is a flip side to this. Science cannot disprove miracles, but as a practical matter, neither can science prove a miracle occurred. Imagine a surprising event occurs. Science could tell us whether or not that event was unexpected in terms of known natural laws. Science could not, however, tell us whether that unexpected event was caused by supernatural activity, or super-human technology, or some as-yet unknown natural law, or simply some very improbable random occurrence. Science, by itself, cannot distinguish between those possibilities. Philosophical and theological arguments weigh in at that point.

Science makes progress by studying puzzling events and attempting to explain them in terms of known natural laws (or sometimes, in terms of new natural laws which are compatible with older, well-established laws). When these scientific models are successful, their success does not exclude God. Instead, it illuminates God's governance of creation. But science also makes progress when the best possible scientific models, employing known natural mechanisms, are shown to fail – when an event is shown to be unexplained in terms of known natural laws. Science can do this, and it does do this occasionally. When this happens, it might indicate that God performed a miracle during that event – but not necessarily. It might also mean that God brought about that event by some unknown natural laws or processes which we might yet discover.

If God so choose, God could perform miracles which appear to us to be scientifically puzzling or unexplained events. It can be tempting for Christians to see scientific puzzles as potential evidence for God's existence and miraculous intervention in the history of the universe. However, a biblical understanding of God's governance should also warn us from too quickly embracing any particular scientific puzzle as potential evidence of miracles. Hunting for miracles is not necessarily the most faithful approach to studying God's creation. Hunting for new scientific explanations, in terms of natural laws which God created and sustains, can be equally God-glorifying — and in many cases may be theologically more defensible. Every time we solve a new scientific puzzle, we are not taking territory away from God's control; rather, we are learning more about how God typically governs his creation. Every time we learn a new

scientific truth about God's creation and the gifts which He gave it, it should prompt us all the more to worship the Creator.

There is a fourth way in which the claim that science is methodologically naturalistic is misleading. And now, at last, we will arrive at the reason for the title of my paper. The term "methodological naturalism" gives credit where credit is not due.

In order to do science, you do not need to adopt the entire Naturalistic worldview. There are, however, a small number of philosophical assumptions common to science. These worldview assumptions cannot be deduced from science itself, but arise from culture, philosophy and religion. Worldviews which are very different from each other can share a subset of assumptions which are foundational for doing science.

Historians and philosophers of science have written entire books regarding the philosophical beliefs underlying science. Here I briefly list six points which I believe summarize their answers, acknowledging that this list of six points is, necessarily, a simplification.

Philosophical beliefs which encourage scientific investigation:

- 1) *Events in the natural world typically have (immediate) causes in the natural world.* For example: if a tree falls and a sound is heard, then the falling tree in some way caused the sound. The sound was not caused by some "sound spirit" or other metaphysical entity.
- 2) *A linear view of time.* The universe is not an endless repeating circle, where every event occurs simply because we happen to be passing that particular point on the circle.
- 3) *These causes and effects in the natural world have some regularity across space and time.*
- 4) *These causes and effects can be -- at least in part -- rationally understood by us.*
- 5) *We cannot logically deduce, from first principles, nature's fundamental constituents and behaviors.* We must use observations and experiments to augment our logic and intuition.
- 6) *Studying nature in this way is a worthwhile use of time and talent.*

Nearly all scientists today hold these beliefs. These beliefs are not scientific. Scientists assume these beliefs are true for philosophical and religious reasons. The success of science supports their validity. They are, nevertheless, philosophical statements which lie outside of science.

With the hindsight of science's success, these beliefs may seem obvious to us. Throughout most of human history, however, these beliefs were not widely held. Historically, how did they arise? Many ancient cultures held some of these beliefs, but not others. Most of the brilliant philosophers of ancient Greece, for example, disdained observations and experiments. They held beliefs about the natural world which relied heavily on logical deduction from what they thought were self-evident first principles.

These particular philosophical beliefs about nature came together at the time of the scientific revolution. Why did the early leaders of the scientific revolution hold these beliefs? Several historians of science such as Hooykaas have argued they held these beliefs, at least in part, because they held biblical views of the natural world. (Hooykaas, 1972)

Some biblical beliefs about God and nature:

- 1) *Creation is not pantheistic.* It is not filled with “gods” or “nature spirits.”
- 2) *Time is linear, not circular.*
- 3) *God is consistent, not capricious, in His governance of nature.* Therefore, there could be regular patterns that we can discover.
- 4) *We are made in God’s image and we are made suitable for this world.* Therefore, we have hope that we can understand at least some of God’s creation through the gifts He has given us.
- 5) *God was free to create as he wished. We are limited and fallen people.* Therefore, our preconceptions about how the world should work may not be the same as God’s. We must use observations and experiments to learn what God actually did.
- 6) *Nature is God’s creation, so it has value and is worth studying.*

A biblical view of God and the natural world motivates the philosophical beliefs listed earlier. A biblical view of God and nature offers us reasons to expect the scientific method to be successful. God can still do miracles, of course. Miracles are exceptional circumstances, when God has extraordinary reasons for doing something unexpected. Most of the time, God – the God described, praised, and worshipped in the Bible – works in consistent ways.

If you asked me to adjudicate which worldview should get to claim “ownership” of science, methodological or otherwise, then I might be tempted to say that a biblical worldview has the strongest claim to ownership. Historically, amongst all the worldviews, the philosophical views necessary for modern science to flourish found a unified expression from biblical theology. Philosophically, it seems to me that a biblical worldview provides a strong warrant for expecting these six philosophical statements to be true – at least as strong a warrant as any atheist could claim from his worldview. (With the success of modern science, it is tempting to think that atheism naturally and necessarily leads to the philosophical beliefs listed above. Not so. Those beliefs follow naturally from an atheism which it is wedded to a mechanistic picture of nature. A mechanistic picture of nature, however, was not a common picture of nature before the rise of modern science. A mechanistic picture of nature is motivated by the success of science. Although some atheists had a mechanistic view of nature before the scientific revolution, it is hardly the case that an atheistic worldview, by itself, necessarily leads to such a picture.)

I would not claim that biblical beliefs about God and nature caused the development of science. Historians and philosophers of science are still debating which ideological, social, political, historical, and other factors were most important in bringing about the scientific revolution. Nor would I claim that biblical beliefs inevitably lead the scientific method. It’s not that simple. Scholars are still debating which theological beliefs helped and which hindered the development of modern science. And for ourselves, today, it’s not simply the case that a biblical view of God and creation inevitably leads us to believing that science ought to work. The importance of our experience can’t be overlooked. Our everyday experience, as individuals and as a community, our education, and our biblical view of God and creation, all working together in a complex way, give us good reason to expect that the scientific method is the right method for investigating nature.

So I will not claim that Christians own the scientific method. No single philosophical or religious worldview can claim primary ownership of the scientific method. The limited set of

philosophical beliefs necessary for science, such as those listed above, are compatible with many (though not all) religious worldviews. People of different worldviews may disagree about why those philosophical beliefs are true. Atheists and Christians, for example, will give very different answers as to why those philosophical beliefs are true. However, by agreeing that they are, in fact, true, scientists of a wide variety of religious worldviews can work side-by-side and reach consensus on scientific questions. That, I believe, is why atheists, Christians, and scientists from many religious worldviews generally reach consensus about scientific methods and scientific results. They agree on a limited set of philosophical beliefs about nature. They disagree about why these beliefs are true, but they agree that they are, in fact, true.

Scientists of many religious worldviews can work side-by-side and reach consensus about the natural mechanisms at work in the history and the present functioning of the world. The fact that Christians and non-Christians can work side-by-side in science should give Christians, not a sense of fear, but a sense of joy and gratitude. As John Calvin said, “If the Lord has willed that we be helped in physics, dialectic, mathematics, and other like disciplines, by the work and ministry of the ungodly, let us use this assistance. For if we neglect God’s gift freely offered in these arts, we ought to suffer just punishment for our sloth.” (Calvin, 1989)

If I need a name for the methods by which scientists seek to understand how creation functions, I prefer the term, “scientific method.” I find the term “methodological naturalism” to be misleading theologically, philosophically, and historically. When a Christian employs the scientific method to investigate nature, a biblical understanding of God and nature motivates her to do science, and provides a strong foundation for her belief that she is using the right method. When she uses the scientific method, she is not acting “as if God doesn’t exist.” She is acting like there is a God – not a capricious God, but the God of the Bible, who made an orderly world and who still governs it in an orderly fashion.

This “foundational” approach to studying science applies to other academic subjects. Each subject has its own set of philosophical assumptions and standard methods which are shared by most of its practitioners. Christian educators can present these to their students as part of their education in the subject. Educators can also present how Christianity and other worldviews provide justification for those foundational beliefs and methods of the discipline. This may help students learn the subject material with less danger that they will perceive it as disconnected from – or as an attack upon – their religious faith.

REFERENCES

- Atkins, P.W. 1995. “The Limitless Power of Science,” in *Nature’s Imagination: The Frontiers of Scientific Vision*, ed. J. Cornwell. (Oxford University Press).
- Belgic Confession*. http://www.crcna.org/crbe/crbe_conf_bc.htm. (Christian Reformed Church in North America).
- The Bible, New International Version*. (Grand Rapids: Zondervan, 1985).
- Calvin, John. 1989 translation. Article 1.16.1, *Institutes of the Christian Religion*. (Grand Rapids: Eerdmans).
- Dickerson, Richard E. 1992. “The Game of Science.” *Perspectives on Science and Christian Faith* 44(1):137.
- Draper, John William. 1875. *History of the Conflict between Religion and Science*; (D. Appleton and Company).

- Gould, Stephen Jay. 1997. *Natural History* v.106.
- Haarsma, Loren. www.calvin.edu/~lhaarsma/ChristianityMethNat2002.html
- Hooykaas, Reijer. 1972. *Religion and the Rise of Modern Science*. (Grand Rapids:Eerdmans).
- MacKay, Donald. 1988. *The Open Mind and Other Essays* (Leicester: InterVarsity Press) p.23.
- Murphy, Nancey. 1993. "Phillip Johnson on Trial." *Perspectives on Science and Christian Faith* 45(1):33-34.
- White, Andrew. 1896. *A History of the Warfare of Science with Theology in Christendom*, (Republished by Indypublish.Com, 2002).