



Philosophy of Science Education

How should we think about Christianity and Science?

The interrelationship between Christianity and science has been a hotbed of controversy for a long time. Christians and non-Christians often see Christianity and science as sort of mutually exclusive options--it is often thought that if one is true, the other should not be trusted.

Science has recently been defined as 1) "the intellectual and practical activity encompassing the systematic study of the structure and behavior of the physical and natural world through observation and experiment," and 2) "knowledge about or study of the natural world based on facts learned through experiments and observation." We at Doulos affirm these definitions of science, and we maintain that there is no contradiction between Christianity and science when science strictly means the sorts of scientific study necessary for systematically understanding the physical and natural world (i.e., making and testing hypotheses, observing and documenting different phenomena in nature, doing experiments in laboratories, etc.).

So, while there is no contradiction between Christianity and science per se, there is a controversy between Christianity and a *naturalistic* view of science.

Naturalism is a worldview based on the belief that nature is all there is, and that therefore there is no God, no spirit, nothing supernatural at all. Many scientists claim that science *has to* assume naturalism, always looking for purely natural explanations.

We as Christians reject the idea of naturalistic science not because it's science, but because it's *naturalistic*. We reject naturalism because we believe that God has made Himself known to us through His word, through His interactions with us, and through evidence of His design in the creation. We also reject naturalism philosophically, because we believe that it leads us into endless conundrums of thought, in which it is hard to see why we should believe anything or even trust our own minds.

According to Oxford mathematician and philosopher of science John Lennox, naturalistic science fails to make the distinction between *mechanism* and *agency*. In one lecture, he gives the example of a Rolls-Royce aircraft engine. What science can do, he says, is study the *mechanism*: what a Rolls-Royce engine is made of, how it is assembled together, how it works, and so on. What science cannot do is tell us why Charles Rolls and Henry Royce began working together in the first place, and why

their company eventually began designing aircraft engines in addition to motor vehicles. To know those things, you have to ask the *agents*: Rolls and Royce themselves.

Similarly, naturalistic scientists often assume that, because they know how some mechanism in nature works (e.g., how a bacterium splits to form a new, identical bacterium), they no longer have need of an agent to explain why a bacterium exists in the first place. A Christian worldview allows space for both an explanation of the *agent* (because God has revealed himself to us) and the *mechanisms* (the phenomena of the natural world), and the revealed explanation of God (i.e., the agent) is going to help us understand how to think about the universe (i.e., the mechanism).

Christianity gives science a strong foundation.

Therefore, we believe that science is not lessened but strengthened by the truth of Christianity. Yes, we have to be careful that we do not put too much confidence in scientific theories that seem to corroborate our belief in God, because overconfidence in past scientific theories has sometimes led to embarrassing consequences for the Church (regarding Galileo's challenge to the Catholicism's Aristotelian view of the universe, for example). At the same time, we can proclaim that since God created both humans and the rest of creation, we have reason to believe that we can actually trust what we learn about that creation through experiments and observation.

In a Christian worldview, we also have a framework from which we view the natures of the different things we're studying. For example, Scientist 1 (a naturalist) and a Scientist 2 (a Christian) may both come to similar conclusions as they study the structure of hydrogen atoms. And yet Scientist 1 will conceive of atoms as the consequence of purposeless interworking of matter and natural laws, while Scientist 2 will conceive of atoms as part of God's creation, and thus part of His divine plan.

With these things in mind, how do we approach science as a school?

We do not want to hide our students from the beliefs influencing modern science, including naturalistic ideas like the Darwinian view of evolution that is prevalent in so many institutions of higher education and in many forms of media. We do think our students need to have a solid understanding of such views, so that they can comprehend the ways of thinking that have a powerful influence on modern thought and intelligently engage in conversation with people who hold ideas that differ from their own.

As we teach Darwinian evolution, however, we will not present it *as fact*. Darwinian evolution is naturalistic, and we believe that the naturalistic view of science has many philosophical and scientific weaknesses that ultimately make it untenable.

So when it comes to science, what we most want to charitably critique--and, ultimately, respectfully reject--is a *naturalistic* understanding of science, because we believe in the truth of Christianity, and thus we approach education from a

Christian worldview. Therefore, in areas that have been breeding grounds for seeming conflict between Christianity and science, we desire to spend most of our time and energy distinguishing a Christian understanding of science from a naturalistic one, helping our students to understand that the main conflict is between Christianity and naturalism, not between Christianity and science per se.

One element of this will be teaching our students about different ways in which science is understood naturalistically--with the most prominent being the Darwinian understanding of evolution--and giving them the tools with which they can begin to see the philosophical and scientific weaknesses of such naturalistic theories.

We want our students to have a good understanding of both 1) the different views of science that people hold within a Christian worldview and 2) the different views of science that people hold within a naturalistic worldview. As our students grow in their grasp of these views, we want to help them understand why we believe that a Christian worldview offers us a more solid foundation for understanding science.

Since a naturalistic view of science is, and should be, the main target of our respectful criticism as Christians who teach science, we do not want to detract attention from this criticism by placing an inordinate focus on internal criticism of other Christians' beliefs about specific scientific issues, especially with regard to *how* God created the universe and human beings, which is a subject on which many evangelical Christians differ (see 'What about Genesis 1?' below).

We are willing to allow our science teachers, and staff members in general, to hold and communicate different views on certain scientific issues, all the while expecting them to teach the different views that can be held within a Christian worldview in a respectful and in-depth manner.

What about Genesis 1-11?

Let's take Genesis 1-11 as an example, since it's a passage that has been hotly debated. We are willing to accept differing interpretations of events in Genesis 1-11, as long as the different interpretations fall under a high view of Scripture (i.e., that the Bible is inspired by God, trustworthy and reliable), in accordance with the first article of our statement of faith:

*"The Scriptures of the Old and New Testaments, being given by divine inspiration, are the Word of God, and the authoritative source in all matters of faith and life."**

For example, there are faithful Christians who affirm the inspiration of the Scriptures and interpret Genesis 1 as a literal account of six-day creation; there are also faithful Christians who affirm the inspiration of the Scriptures and believe Genesis 1 to be a poem or song about God's act of creation, because the Hebrew text has many marks of poetry. Concerning Genesis 7-9, there are faithful Christians

holding to the inspiration of the Scriptures who believe that the flood covered the entire earth; there are also faithful Christians holding the same view of the Scriptures who believe the flood was more localized.

We do not force our board members or staff members to conform to any one of these interpretations. Whichever views they may hold regarding Genesis 1-11, all board members and staff members are asked to assent to the following statement from Article II of our Statement of Faith:

"In the Scriptures, God reveals Himself as the living and true God, creator of all things."

If Christians who hold a high view of the Bible have a debate related to the interpretation of Genesis 1-11, we regard it as an "intramural" debate, a debate between brothers and sisters in Christ. As a school, however, we will always proclaim that "God...is the living and true God, creator of all things." In areas of disagreement on this topic, we simply ask that staff members lovingly and wisely engage one another and students in helpful, edifying, well-informed conversations that lead to a greater understanding of our God and His creation. And we also ask that staff members with different interpretations of Genesis 1-11 be willing to work together to counter the naturalistic assumptions behind much of modern science, since they both agree that, however Genesis 1-11 is to be interpreted, we should proclaim God as the Creator and Sustainer of all things besides Himself.

With all that in mind, what is acceptable from a teaching standpoint?

Maybe an example will help. Let's say Mr. Science is a science teacher at Doulos. As long as Mr. Science holds to a high view of Scripture as mentioned above, he has the freedom to explain his views on certain scientific subjects about which different Christians disagree. While he does have the freedom to share his scientific views and the reasons why he holds them, we also ask that he be willing to respectfully communicate that there are Christians who disagree with him about certain scientific theories and to clearly explain those differing opinions to the students, along with the evidence that supports them.

Continuing with this example, let's say that Mr. Science is an Intelligent Design theorist, thinking that the design in nature points to a Designer, which he believes to be the Christian God. Mr. Science thinks that the Bible is God's inspired word and that God both created and sustains all other things besides Himself. He has studied Genesis 1 in depth and thinks that it is best interpreted as a poetic account of God's act of creation, and thus he is willing to accept that the universe is very old and was not created in six, literal days. He does not, however, accept the idea that God guided some sort of macroevolutionary process in order to produce different species, because as he studies the scientific data he does not see strong evidence for the theory that all modern species somehow evolved from common ancestors.

If Mr. Science has to teach on standards relating to evolution, we would want him to teach his students the Darwinian idea of evolution (as a theory, not as a fact), so that students are familiar with a view of evolution that is extremely influential in public institutions in the Western world. Mr. Science should also clearly point out the philosophical and scientific weaknesses of the Darwinian idea of evolution, during which he would be free to explain to his students his own views on Intelligent Design and how they fit into a Christian worldview. Ideally, during that time he would also share that there are Christians who disagree with him--for example, some Christians believe in a six-day creation culminating in the creation of mankind on the sixth day (e.g., Ken Ham), while others believe that God guided an evolutionary process (e.g., Francis Collins)--and give evidence related to their claims.

What's *not* acceptable from a teaching standpoint?

1) As a school, we are willing to teach our students about naturalistic views on science, including Darwinian evolution, but we are not willing to teach *as fact* any explanation of the existence and history of the universe that excludes the Christian God as the Creator and Sustainer of the universe. That's why the main thing we want to charitably critique and respectfully reject is naturalistic science, and that is why we ultimately do not accept the *Darwinian* view of evolution as true, because it claims that all organisms (including humans) evolved solely according to natural causes.

2) We are willing to teach our students about *scientism* (i.e., the view that science is the only--or the highest--form of knowledge), but we are not willing to teach *as fact* any view of science that thinks that science is the only way (or the best way) to get knowledge. We ultimately reject *scientism* because A) such a view is self-defeating, because you cannot scientifically prove that science is the best (or the only) way of getting knowledge, and B) Christianity embraces other forms of knowledge besides science (especially God's revelation).

3) We are not willing to teach *as fact* the view that science and religion do not overlap *in any way whatsoever*, which is sometimes expressed by saying that science and Christianity are 'non-overlapping magisteria' (NOMA).

It is difficult to take such a claim seriously, no matter who is making it.

For example, if a naturalist says that science and Christianity are NOMA, he believes that science can give us truth because it's the study of nature, but he cannot really assume that religion has anything valuable to give us, because in his mind any supernatural thing that religion purports to discuss is not real. Therefore, a naturalist will ultimately believe that science can fully explain religious belief, because even religious belief will be a purely natural thing.

Also, if a Christian claims that science and Christianity are NOMA, he should not be taken seriously either, because if he really believed that God created the world, then

he would believe that anything that science could possibly study is *a creation of God*, and therefore he would believe that his religious belief has a profound effect on how science should be seen *as a whole*, and he wouldn't be able to fully accept a naturalistic view of science that is 100% partitioned from any sort of religious belief.

Conclusion

While we do not hold that the Bible is an encyclopedia, and therefore we do not expect the Bible to answer all of our scientific questions, we do believe that Christian Scriptures do--and should--influence both 1) the way we perceive the nature and purpose of the things we study scientifically, and 2) the moral and ethical views we hold relating to scientific study and exploration.

Apart from that, we are willing to allow for disagreement between staff members regarding particular scientific theories, as long as those staff members hold the belief that *"The Scriptures of the Old and New Testaments, being given by divine inspiration, are the Word of God, and the authoritative source in all matters of faith and life."**

We simply ask that our staff remembers remember the words Jesus himself gave us related to first loving the Lord our God with all of our heart, soul, mind and strength, and loving our neighbors as ourselves. Above all else, even in areas of disagreement over scientific theories and the interpretation of biblical passages related to them, may we love God first and love one another second, treating those who disagree as we want to be treated even in the face of disagreement. And may we extend that same love for our neighbors to those who reject God and embrace naturalistic explanations for science, being willing to treat them with respect and serve them in powerful ways even as encounter them in well-informed conversations about theological, philosophical and scientific truth.

***Note of Clarification:**

"The Scriptures of the Old and New Testaments, being given by divine inspiration, are the Word of God, and the authoritative source in all matters of faith and life."

The phrase in Article I of our Statement of Faith that the Scriptures are "the authoritative source in all matters of faith and life" should not be taken to mean that the Bible is an encyclopedia that gives us all the knowledge we need to know about everything, from science to history to mathematics to ethics.

There are many questions in many areas of study on which the Bible is either silent (e.g., that living organisms have cells) or only addresses the subject indirectly (e.g., whether it is wrong to throw trash on the ground).

But what the Bible does give us is an understanding of the nature of God and of His creation, so that when we are studying anything within His creation, we have to think about whatever we're studying in a way that accords with a Christian worldview that is built upon the understanding of reality that the Bible gives us.

Therefore, although the Bible is silent on the topic of animal cells, for example, when we teach about animal cells, we will teach about them as part of God's creation, as part of His plan, not as purely natural phenomena that came about solely by natural processes. And although the Bible does not directly tell us what to do with the garbage we produce, when we discuss the ethical and moral dilemmas that surround trash, we will discuss them from a Biblical perspective of God-given stewardship of the creation.