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Can You Be a Scientist and Believe in God? "Surely you can't be a scientist and believe in God these days?"

It's a viewpoint I have heard expressed by many people over the years. But I suspect that it is often the unspoken doubt that stops many from engaging seriously with serious thinkers about both science and God.

In reply, I like to ask a very scientific question: "Why not?"

"Well," the answer comes back, "science has given us such marvelous explanations of the universe and demonstrates that God is just not necessary. Belief in God is old fashioned. It belongs to the days when people didn't really understand the universe, and just took the lazy way out and said that 'God did it.' That sort of 'God of the gaps thinking' simply won't do any more. Indeed, the sooner we get rid of God and religion, the better."

I sigh inwardly, and prepare myself for a long conversation in which I try to untangle the many assumptions, misunderstandings and half-truths that have been absorbed uncritically from the cultural soup we swim in.

A COMMON VIEWPOINT

It's not surprising that this viewpoint is so common that it has become the default position for many, if not most; it's a viewpoint supported by some powerful voices. Stephen Weinberg, for example, a Physics Nobel Prize winner said.

> The world needs to wake up from the long nightmare of religion. Anything we scientists can do to weaken the hold of religion should be done and may in fact be our greatest contribution to civilisation.

I hope you didn't miss the rather sinister-sounding totalitarian element in this statement: "anything we scientists can do..." This attitude is not new. I first met it fifty years ago while studying at Cambridge University. I found myself at a formal college dinner sitting beside another Nobel Prize winner. I had never met a scientist of such distinction before and, in order to gain the most from the conversation, I tried to ask him some questions. For instance, how did his science shape his worldview—his big picture of the status and meaning of the universe? In particular, I was interested in whether his wide-ranging studies had led him to reflect on the existence of God.

It was clear that he was not comfortable with that question, and I immediately backed off. However, at the end of the meal, he invited me to come to his study. He had also invited two or three other senior academics but no other students. I was invited to sit, and, so far as I recall, they remained standing.

He said, "Lennox, do you want a career in science?"

"Yes, sir," I replied.

"Then," he said, "in front of witnesses, tonight, you must give up this childish faith in God. If you do not, then it will cripple you intellectually and you will suffer by comparison with your peers. You simply will not make it."

Talk about pressure! I had never experienced anything like it before.

I sat in the chair paralyzed and shocked by the effrontery and unexpectedness of the onslaught. I didn't really know what to say, but eventually I managed to blurt out, "Sir, what have you got to offer me that is better than what I have got?" In response, he offered me the concept of "Creative Evolution" put forward in 1907 by French philosopher Henri Bergson.

In fact, thanks to C. S. Lewis, I knew a little about Bergson and replied that I could not see how Bergson's philosophy was enough to base an entire worldview upon and provide a foundation for meaning, morality and life. With a shaking voice,

and as respectfully as I could, I told the group standing around me that I found the biblical worldview vastly more enriching and the evidence for its truth compelling, and so, with all due respect, I would take the risk and stick with it.²

It was a remarkable situation. Here was a brilliant scientist trying to bully me into giving up Christianity. I have thought

Can science explain every thing?

This is an edited extract from Can Science Explain Everything? by John C Lennox (January 2019). The book is the first of a series in a joint venture with the Oxford Centre for Christian Apologetics, Zacharias Institute, and The Good Book Company.

many times since that, if
it had been the other way
around, and I had been an
atheist in the chair surrounded by Christian academics
pressurizing me to give up my
atheism, it would have caused
reverberations around the
university, and probably have
ended with disciplinary
proceedings against the
professors involved.

But that rather scary incident put steel into my heart and mind. I resolved to do my best to be as good a scientist as I could and, if ever I had the opportunity, to encourage people to think about the big questions of God and science and make up their own minds without

being bullied or pressured. It has been my privilege in the years that have followed to engage thoughtfully with many people, both young and old, in a spirit of friendship and open enquiry on these questions. What follows in this book are some of the thoughts and ideas that I have found most helpful to share with people, and some of the most interesting and unusual conversations I have had.

THE DARK SIDE OF ACADEMIA

I learned another valuable lesson that day: about the existence of a dark side to academia. There are some scientists who set out with preconceived ideas, do not really wish
to discuss evidence, and appear to be
fixated not on the pursuit of truth but
on propagating the notions that science
and God do not mix and that those who
believe in God are simply ignorant.

This is simply not true.

What's more, you don't need to have a great deal of insight to see that it is false. Think of the Nobel Prize in Physics, for example. It was won in 2013 by Peter Higgs, a Scotsman who is an atheist, for his ground-breaking work on subatomic particles, and his prediction, later proved, of the existence of the Higgs boson. Some years before that, it was won by William Phillips, an American who is a Christian.

If science and God do not mix, there would be no Christian Nobel Prize winners. In fact, between 1900 and 2000 over 60% of Nobel Laureates were self-confessed believers in God.3 I want to suggest that what divides Professors Higgs and Phillips is not their physics or their standing as scientists—they've both won the Nobel Prize. What divides them is their worldview. Higgs is an atheist and Phillips is a Christian. It follows that the claim of those academics who tried to intimidate me in Cambridge so many years ago-that if you wish to be scientifically respectable you have to be an atheist—is obviously false. There cannot be an essential conflict between being a scientist and having faith in God.

However, there is a very real conflict between the worldviews held by these two brilliant men: atheism and theism.

WHAT EXACTLY IS ATHEISM?

Strictly speaking, atheism simply means lack of belief in God. However, that does not mean that atheists do not have a worldview. You cannot deny the existence of God without asserting a whole raft of beliefs about the nature of the world. That is why Richard Dawkins' book *The*

God Delusion is not just a one-page tract stating that he doesn't believe in God. It is a lengthy volume dedicated to his atheistic worldview, naturalism, which holds that this universe/multiverse is all that exists, that what scientists call "mass-energy" is the fundamental stuff of the universe, and that there is nothing else.

Physicist Sean Carroll, in his bestselling book *The Big Picture*, explains how naturalism views humans:

We humans are blobs of organized mud, which through the impersonal workings of nature's patterns have developed the capacity to contemplate and cherish and engage with the intimidating complexity of the world around us ... The meaning we find in life is not transcendent... 4

For Christians, life has a gloriously transcendent meaning. I would like to show you that science, far from undermining this view, strongly supports it. We shall see later, however, that it is atheism to which science gives little support.

This is the worldview in which many atheists put their faith.

My worldview is Christian theism. I believe that there is an intelligent God who created, ordered and upholds the universe. He made human beings in his image, meaning that they have been endowed with the capacity not only to understand the universe around them but also to get to know and to enjoy fellowship with God himself. For Christians, life has a gloriously transcendent meaning. I would like to show you that science, far from undermining this view, strongly supports it. We shall see later, however, that it is atheism to which science gives little support. But before that, I'd like to prepare the ground by giving some historical context for how we arrived at this strange position of thinking that science and God do not mix.

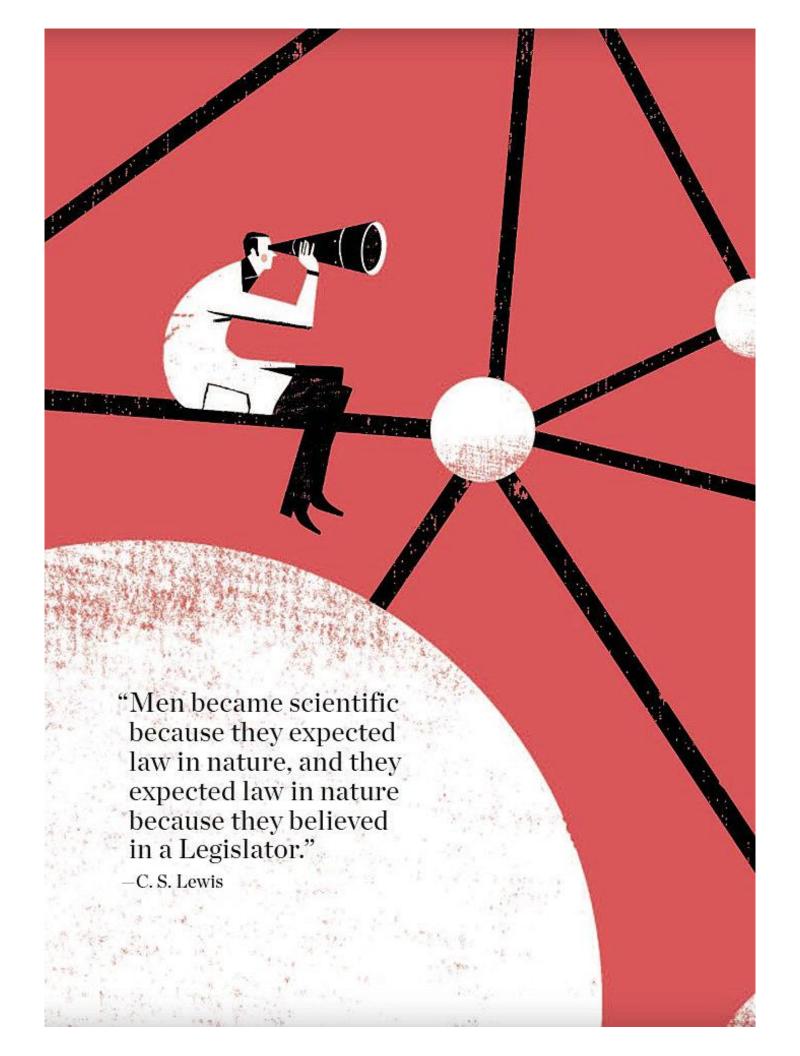
LESSONS FROM HISTORY

I have always had a facility with languages —mathematics and languages often go together. Indeed, when I was a poor, struggling junior academic in Cardiff, I took the opportunity to earn a little extra money for my growing family by translating research papers in mathematics from Russian to English.

By a curious train of events, I found myself a few years later on a rickety Russian plane landing at the city of Novosibirsk in Siberia to spend a month lecturing and researching at the university there.

However backward the technological infrastructure was in those days of communist rule, some of Russia's mathematicians were world leaders, and it was a privilege to meet with them and spend time with the faculty and students. But they were utterly perplexed by one thing: that I believed in God!

I was eventually invited by the rector of the university to explain in a lecture why I, as a mathematician, believed in God. Apparently, it was the first lecture on this kind of issue to be held there in 75 years. The auditorium was full to capacity with many professors as well as students. In my presentation, among other things, I spoke about the history of modern science and related how its great pioneers—Galileo, Kepler, Pascal, Boyle, Newton, Faraday and Clerk-Maxwell—were all firm and convinced believers in God.



When I said this, I detected anger in the audience and, not liking people being angry in my lectures, I paused to ask them why they were so annoyed. A professor in the front row said, "We are angry because this is the first time we have heard that these famous scientists on whose shoulders we stand were believers in God. Why were we not told this?"

"Is it not obvious," I replied, "that this historical fact did not fit with the 'scientific atheism' that you were taught?"

I went on to point out that the connection between the biblical worldview and the rise of modern science was well recognized. Eminent Australian ancient historian Edwin Judge writes:

> The modern world is the product of a revolution in scientific method ... Both experiment in science, and the citing of sources as evidence in history, arise from the worldview of Jerusalem, not Athens, from Jews and Christians, not the Greeks.⁵

C. S. Lewis sums it up well when he says, "Men became scientific because they expected law in nature, and they expected law in nature because they believed in a Legislator."

Recent historians of science, like Peter Harrison, are more nuanced in their formulation of the way in which Christian thought influenced the intellectual land-scape in which modern science arose, but they reach the same basic conclusion: far from hindering the rise of modern science, faith in God was one of the motors that drove it. I therefore regard it as a privilege and an honor, not an embarrassment, to be both a scientist and a Christian.

Here are some examples of the convictions of the greatest scientists. Johannes Kepler (1571-1630), who discovered the laws of planetary motion, wrote:

The chief aim of all investigations of the external world should be to

discover the rational order which has been imposed on it by God and which he revealed to us in the language of mathematics.

This was no expression of mere deism since Kepler elsewhere revealed the depth of his Christian convictions: "I believe only and alone in the service of Jesus Christ. In him is all refuge and solace."

Michael Faraday (1791-1867), arguably the greatest ever experimental scientist, was a man of profound Christian conviction. As he lay on his deathbed, he was asked by a visiting friend, "Sir Michael, what speculations have you now?" For a man who had spent his life making speculations about a vast array of scientific subjects, discarding some and establishing others, his response was robust: "Speculations, man, I have none! I have certainties. I thank God that I do not rest my dying head upon speculations for I know whom I have believed and am persuaded that he is able to keep that which I have committed to him against that day."

As he faced eternity, Faraday had the certainty that upheld the apostle Paul centuries before him.

GALILEO

"But wasn't Galileo persecuted by the church?" asked another member of my Siberian audience. "Surely that shows there is no concord between science and faith in God."

In my reply, I pointed out that Galileo was actually a firm believer in God and the Bible and remained so all of his life. He once said that "the laws of nature are written by the hand of God in the language of mathematics" and that the "human mind is a work of God and one of the most excellent."

Furthermore, the popular, simplistic version of this story has been massaged to support an atheist worldview. In reality, Galileo initially enjoyed a great deal of support from religious people. The astronomers of the powerful Jesuit educational institution, the Collegio Romano, initially endorsed his astronomical work and fêted him for it. However, he was vigorously opposed by secular philosophers who were enraged at his criticism of Aristotle.

This was bound to cause trouble; however, let me emphasize, not at first with the church. In his famous "Letter to the Grand Duchess Christina" (1615), Galileo claimed that it was the academic professors who were so opposed to him that were trying to influence the church authorities to speak out against him. The issue at stake for the academics was clear: Galileo's scientific arguments were threatening the all-pervading Aristotelianism of the academy.

In the spirit of developing modern science, Galileo wanted to decide theories of the universe on the basis of evidence, not on arguments based on an appeal to the current ruling theories in general and the authority of Aristotle in particular.

In the spirit of developing modern science, Galileo wanted to decide theories of the universe on the basis of evidence, not on arguments based on an appeal to the current ruling theories in general and the authority of Aristotle in particular. Galileo looked at the universe through his telescope, and what he saw left some of

Aristotle's major astronomical speculations in tatters. Galileo observed sunspots, which blemished the face of what Aristotle taught was a "perfect sun." In 1604 Galileo saw a supernova, which called into question Aristotle's view that the heavens were unchanging—"immutable."

Aristotelianism was the reigning worldview at the time and formed the paradigm in which science was done, but it was a worldview in which cracks were already beginning to appear. Furthermore, the Protestant Reformation was challenging the authority of Rome and so, from Rome's perspective, religious security was under increasing threat. The embattled Roman Catholic Church, which had, in common with almost everyone else at the time, embraced the Aristotelian view of the world, felt itself unable to allow any serious challenge to Aristotle, although there were rumblings (particularly among the Jesuits) that the Bible itself did not always support Aristotle's view of things.

But those rumblings were not yet strong enough to prevent the powerful opposition to Galileo that would arise from both the academy and the Roman Catholic Church. But, even then, the reasons for that opposition were not merely intellectual and political. Jealousy and also, it must be said, Galileo's own lack of diplomatic skill, were contributing factors. For instance, he irritated the elite of his day by publishing in Italian and not in Latin, in order to give some intellectual empowerment to ordinary people. He was commendably committed to what is now called the public understanding of science.

Galileo also developed an unhelpfully short-sighted habit of denouncing in vitriolic terms those who disagreed with him. Neither did he promote his cause by the way in which he handled an official directive to include in his Dialogue Concerning the Two Principal Systems of the World the argument of his erstwhile friend and supporter Pope Urban VIII—

Maffeo Berberini. The Pope argued that since God was omnipotent, he could produce any given natural phenomenon in many different ways, and so it would be presumption on the part of the natural philosophers to claim that they had found the unique solution. Galileo dutifully included this argument in his book, but he did so by putting it into the mouth of a dull-witted character he called Simplicio ("buffoon"). We might see this as a classic case of shooting oneself in the foot.

There is, of course, no excuse what soever for the Roman Catholic Church's use of the power of the Inquisition to muzzle Galileo, nor for subsequently taking several centuries to rehabilitate him. It should also be noted that, again contrary to popular belief, Galileo was never tortured; and his subsequent house arrest was spent, for the most part, enjoying the hospitality of luxurious private residences belonging to friends.

CHALLENGING THE WORLDVIEW

The main lesson to be drawn is that it was Galileo, a believer in the biblical worldview, who was advancing a better scientific understanding of the universe, not only, as we have seen, in opposition to some churchmen but against the resistance and obscurantism of the secular philosophers of his time who, like the churchmen, were also convinced disciples of Aristotle.

Philosophers and scientists today also have need of humility in light of facts, even if those facts are being pointed out to them by a believer in God. Lack of belief in God is no more a guarantee of scientific orthodoxy than is belief in God. What is clear, both in Galileo's time and ours, is that criticism of a reigning scientific paradigm is fraught with risk, no matter who is engaged in it—a point that was not lost on my audience of Russian academics living under a totalitarian regime.

Commenting on the Galileo affair (and that other much misrepresented iconic event, the debate between Samuel Wilberforce and T. H. Huxley in Oxford in 1860), historian of science Colin Russell concludes:

The common belief that ... the actual relations between religion and science over the last few centuries have been marked by deep and enduring hostility ... is not only historically inaccurate but actually a caricature so grotesque that what needs to be explained is how it could possibly have achieved any degree of respectability.⁷

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¹ New Scientist, Issue 2578, 18 November 2006.
² I did not know it at the time but, oddly enough, Bergson, who was Jewish, in later years moved towards orthodox views of God, and, in his will of 1937, he confessed that he would have converted to Christianity had it not been for the increasing wave of antisemitism in Europe.

According to 100 Years of Nobel Prizes (2005) by Baruch Aba Shalev, a review of Nobel prizes awarded between 1901 and 2000, 65.4% of Nobel Prize Laureates have identified Christianity in its various forms as their religious preference (423 prizes). Overall, Christians have won a total of 78.3% of all the Nobel Prizes in Peace, 72.5% in Chemistry, 65.3% in Physics, 62% in Medicine, 54% in Economics and 49.5% of all Literature awards.

Sean Carroll, The Big Picture (New York: Penguin Random House, 2016), 3-5.

⁵ Quoted at goo.gl/uPDpNC (accessed 1 August 2018).

C. S. Lewis, *Miracles* (New York: Simon and Schuster, 1996), 140.

⁷ C. A. Russell, "The Conflict Metaphor and Its Social Origins," Science and Christian Belief, 1 (1989), 3-26.