

Has science disproved God?

MY AIM in this booklet is to explain why I think it reasonable to believe in God in the face of science. But that has not always been my view. In fact, as an 18-year-old, I wrote a poem to express my contempt for Christianity. You have to understand that I was studying Natural Sciences at university, not English Literature, and so my poem has limited literary merit! But here it is:

**Some folk seem to find it odd
That people grow from tiny cells.
Pathetic: those who think of God
And still drop coins in wishing
wells.**

My view of Christians back then was that they must be naive, superstitious and ignorant. Clearly they didn't understand the very basics of science. Sure, people *used* to think God made

life – but then we came to understand about DNA and cell division and how it all happens. People *used* to think God made it rain with a big watering can in the sky, but then someone figured out evaporation and condensation and the water cycle. We used to think that people recover from illness by magic, but now we understand about viruses and antibodies. And so now it's time to grow up, and to throw off childish ideas of God and the supernatural.

That's what I used to think, but not what I think now.

Has science made Christianity impossible for thinking people?

The idea that science has made the Christian faith impossible for intellectually responsible people is trumpeted everywhere today by the so-called “new atheists”. The thesis of books such as Richard Dawkins’ *The God Delusion*, Peter Atkins’ *On Being* and Stephen Hawking’s *The Grand Design* is that science explains the universe and so there is no need to believe in God.

But such an assumption wasn’t shared by those who got science started. If you look at history, some of the greatest

scientists were theists: Johannes Kepler, who described the laws of planetary motion and said famously that he was **“thinking God’s thoughts after him”**;¹ Michael Faraday, who discovered electricity; Isaac Newton, who formulated the theory of gravitation; Charles Babbage, who built the first mechanical computer; Louis Pasteur, who discovered the microbe; Robert Boyle, who came up with those annoying gas laws we had to learn for A-Level chemistry. According to Sir Alfred North Whitehead, the eminent historian of science, it was because they believed in a divine law-giver that they sought law in nature in the first place. If they had believed, as some believe today, that the universe was purposeless and accidental, it is questionable whether they would ever have tried to understand it. No, it was on the basis of the conviction that God had ordered and designed the universe that science flourished in the western world from the 16th century onwards.

But what about the 21st century? While they are not in the majority, many scientists today identify themselves as Christians, some of them at the top of their profession. So when I joined a church in Cambridge, soon after becoming a Christian, I found myself sharing a pew with Bob White, the Professor of Geophysics. Then my best friend’s Geology tutor, Professor Simon Conway Morris, turned out to be a Christian too. People say that you can’t believe in God because of the fossils and the dinosaurs, but Professor Conway Morris knows more about fossils than most people on the planet and seems to have no difficulty. What about molecular biology? The same year that *The God Delusion* was published, Francis Collins, the director of the Human Genome Project (the project responsible for determining the complete human DNA sequence), published a book outlining his Christian beliefs. It certainly doesn’t seem to be the case that if you’re a serious scientist you cannot be a serious Christian. I want

to suggest that this is because science by itself does not offer a knockdown argument against Christianity.

How do you define science?

Let me warn you about a possible bias in your thinking at this point. If you define science atheistically, then you won't find it compatible with belief in God. But that's because you have cheated in the way you set up the experiment. To give an analogy, suppose you were to make a machine to detect visible light. You put a prism inside, and it breaks light into all of its different wavelengths, all the way from blue through to red. Because it's a *visible* light detector, however, you don't bother to put in any sensors beyond the visible spectrum. Then someone comes along and says, "Hey, I think I've discovered this thing called infrared light; I think that's how the remote control works on the telly." You say, "Ah, that's very interesting. Let me test that with my machine." And you point the remote

control at your machine and press the button and it registers nothing. So you say, “No, infrared light does not exist.” That would be an unwarranted conclusion. If you set up the detector so it was able to detect only visible light, then you can’t use that detector to exclude the presence of something it could not measure in the first place. Similarly, if you set up science so that the only kind of explanations you count as scientific are those that exclude God or the supernatural, you cannot then conclude from that (biased) system that there is no such thing as God or the supernatural.

I want to suggest that if we are more open-minded and objective about science – if we understand it as an apparatus by which we observe the world, formulate hypotheses to explain what we observe, and then seek to test those hypotheses – then there is nothing about the scientific enterprise that should prejudice you against a belief in the Christian God.

Two world views

Very clearly, however, there is a conflict raging – in the media and in the universities. But I want to suggest it isn’t so much a conflict between religion and science *per se*, but rather a conflict between two different world views, two different philosophies: Christianity on the one hand and Naturalism on the other. Of course there are other possible world views besides these two, but these often seem to go head to head.

Naturalism is the philosophy that says that matter and chance are all there is. In the words of the cosmologist Carl Sagan, “**The Cosmos is all that is or ever was or ever will be.**”² Or if you follow Stephen Hawking, all there was in the beginning was the law of gravity and everything is reducible to that. The implications for human life

have been well (albeit starkly) spelt out by the Nobel laureate Francis Crick:

“You’, your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the behaviour of a vast assembly of nerve cells and their associated molecules.”³

The Christian view could not be more different. The following extract from the Bible is taken from a speech given by the apostle Paul (one of Jesus’ personally appointed representatives) in first-century Athens, when he found himself in debate with some Epicurean and Stoic philosophers. Given that the Epicureans were a bit like today’s naturalists – they believed neither in divine intervention nor in an afterlife, for example – this seems an appropriate passage to go to for a comparison:

“The God who made the earth and everything in it, being Lord of heaven and earth, does not live in temples made by man, nor is he

served by human hands, as though he needed anything, since he himself gives to all mankind life and breath and everything. And he made from one man every nation of mankind to live on all the face of the earth, having determined allotted periods and the boundaries of their dwelling place, that they should seek God, in the hope that they might feel their way towards him and find him. Yet he is actually not far from each one of us, for ‘In him we live and move and have our being’; as even some of your own poets have said, ‘For we are indeed his offspring.’ Being then God’s offspring, we ought not to think that the divine being is like gold or silver or stone, an image formed by the art and imagination of man. The times of ignorance God overlooked, but now he commands all people everywhere to repent, because he has fixed a day on which he will judge the world in righteousness by a man whom he has appointed; and of

this he has given assurance to all by raising him from the dead.”⁴

In some ways Christianity is the exact opposite of naturalism. If you ask Richard Dawkins, “Is religion a factor in our world?”, he would say, “Of course it is.” But if you ask, “Can you explain why religion is here?” he says, “Certainly. Mankind invented it.” It started off with us and we thought up God, just like the craftsmen of first century Athens fashioned gods out of gold or silver or stone. But the Bible says the exact opposite: *God invented us*. Everything started with him, and he imagined us into existence.

Naturalism and Christianity offer very different versions of reality. The scientifically responsible way forward is to test these “hypotheses” against the available data. I propose three tests. Which makes most sense of the universe we live in? Which one makes most sense of human life? Which one makes most sense of Jesus Christ?

1 Which world view makes most sense of the world?

Which of those world views makes most sense of the world in which we live? And in particular, which makes most sense of the appearance of design, for all sides agree that the world at least *looks as though* it has been designed. The astronomer Sir Fred Hoyle famously asked what the chances were that a whirlwind happening to pass through a junkyard would leave in its wake a fully-assembled Boeing 747. Similarly, the idea of life arising by accident out of a primordial soup seems astonishingly unlikely.

According to naturalists such as Richard Dawkins, though, this appearance of design is just a trick that the world has played on us, an illusion:

“Natural selection, the blind, unconscious, automatic process ...

which we now know is the explanation for the existence and apparent purposeful form of all life, has no purpose in mind. It has no mind and no mind's eye. It does not plan for the future. It has no vision, no foresight, no sight at all. If it can be said to play the role of watchmaker in nature, it is the blind watchmaker.”⁵

Even if Dawkins were right, and evolution/natural selection were all that is needed to explain the emergence of reptiles, mammals, eyes, nerve cells etc. from single-celled ancestors billions of years ago (and it's worth noting that such a conclusion extends far beyond anything that has been demonstrated in the laboratory), it is impossible to have evolution at all unless you *already* have self-replicating molecules and a life-sustaining universe for them to replicate in. Here the problems really start. Self-replicating molecules such DNA or RNA are extremely complex, and it is by no means obvious how they could have

arisen spontaneously. Even if they did, how did they come to contain by chance the correct genetic *information* needed to build various proteins required to assemble even the simplest living thing? These are not questions that “evolution” can answer, for these things need to be in place before evolution can even get started.

Then we ask the cosmologists about the physical requirements of a life-sustaining universe and the problems get bigger. They tell us just how delicately balanced everything has to be. In his book, *God's Undertaker: Has Science Buried God?* (which deals more fully with the subject area of this booklet), Oxford Professor of Mathematics, John Lennox has compiled a few examples:

- if the “resonance” between nuclear ground state energy levels of helium and beryllium was out by 1% then there would not be enough carbon in the universe to sustain life.
- if the ratio of the nuclear strong force to the electromagnetic force differed by 1

part in 10^{16} then no stars could have formed.

- if the ratio of the electromagnetic force-constant to the gravitational force-constant were increased or decreased by 1 part in 10^{40} then we would have a universe containing either only big stars (too hot to sustain life) or only small stars (too cold to manufacture chemical elements).
- if the ratio of the expansion and contraction forces acting just after the Big Bang had altered by as little as 1 part in 10^{55} then the universe would either have expanded too quickly, so that no galaxies formed, or too slowly so that it quickly collapsed.
- unless our universe fell within a very tiny volume of the phase space of possible universes, corresponding to accuracy of 1 part in 10 to the power 10^{123} then there could not be a second law of thermodynamics.

If you find those numbers hard to get your head around, says Lennox, this illustration may help:

“Cover America with coins in a column reaching to the moon (380,000 km away), then do the same for a billion other continents the same size. Paint one coin red and put it somewhere in one of the billion piles. Blindfold a friend and ask her to pick it out. The odds are about 1 in 10^{40} that she will.”⁶

In other words it's very, very, very, very, very unlikely to have come about by chance.

Which world view makes sense in the face of such scientific data? Christianity has no trouble accounting for the appearance of design, the complexity of DNA sequences or the precise fine-tuning of the physical constants that govern cosmology. The world looks as though it was designed simply because it was designed by an intelligent Creator. For the naturalist, the fine-tuning of the universe presents serious problems. If everything is supposedly down to chance, then the chances are too small. It's all a bit too lucky.

The concept of the multiverse

These problems have led increasing numbers of naturalists to resort to the concept of a “multiverse”. If there are infinitely many universes, so the thinking goes, then the problems of probability disappear. If you spin the roulette wheel an infinite number of times then you can be sure your number will come up. But notice that the multiverse is not an observable, repeatable or even a testable theory. As such it cannot really be called a *scientific* theory. It is rather a faith position, held firmly (even blindly?) by those who prefer it to faith in God.

To my mind, the multiverse creates more problems than it solves. If there are infinitely many universes and every possible universe exists, that means there is a different universe for every possible outcome of every random event in your life. So as well as this universe in which you lost at Monopoly last week, there’s another universe in which you won (and indeed a separate

universe for every way in which you could have won – a hotel on Mayfair; two hotels on Mayfair, etc.). As well as the universe in which you successfully finish reading this booklet, there’s another universe in which you die halfway through from a freak heart attack. There’s a universe somewhere for every eventuality, and so there’s no point in ever being surprised or in ever asking “Why?” Everything that happens has also not happened in another version of the universe. Very quickly we lose all sense of meaning. I think it’s difficult to live your life that way. I think it requires a little too much faith.

2 Which world view makes most sense of life?

Which world view makes most sense of human existence? Which one can you consistently live by? Now I am aware that something should not be judged true or false by whether it is *pleasant* to

believe. But we ought to be concerned if none of the advocates of a particular position is actually able to live it out. We are rightly annoyed when we come across hypocrisy in religious people, when they fail to practise what they preach (if you find that nauseating then you're in good company – Jesus hated it too). But in my own pre-Christian days, I never noticed the hypocrisy of my naturalism. Let me explain.

John Gray, formerly Professor of European Thought at the London School of Economics, chastises naturalists for failing to follow their beliefs through to their logical conclusion:

“Man must ... accept that his/her existence is entirely accidental.”

The world he lives in is **“deaf to his music and as indifferent to his hopes as it is to his suffering and his crimes.”**⁷

What should a consistent naturalist say to a mother who's just lost her son in a cycling accident when a speeding motorist didn't see him and killed him

instantly in his late 20s? It happened to my mum's friend. What should my mum say if she was a consistent naturalist? Only, “Unlucky; it's just the way the atoms of the universe bumped into one another several billion years after the Big Bang.” Or of course you could try to say we have sociology and we care about each other – these are values that have evolved as good for society. But ultimately it still boils down to something that doesn't care: sociology reduces to psychology, psychology reduces to biology, biology reduces to chemistry, chemistry reduces to physics, physics reduces to just the law of gravity at the start, and the law of gravity doesn't care. Now I'm not suggesting for a second that any of my naturalist friends would say that to a grieving mother; many of them are very compassionate, and would say something about it being a “tragedy” and a “terrible loss” and so on. But are they being truly consistent with their naturalism at that point?

The place of morality

And what of John Gray's point that an accidental universe is indifferent to our crimes? I remember a conversation I had with one of the lecturers over coffee while studying for my PhD. I said to Kate, "Tell me, if your philosophy is right, why would killing you be any more wrong than cutting a grapefruit in half for my breakfast? All I'd be doing in both cases is just rearranging the atoms of the universe in a slightly different way. Kate atoms, grapefruit atoms – much the same thing." (I should point out that I get on very well with Kate – this was purely for illustration purposes!). She thought about it for a moment and replied, "Well if you killed me, my mother would be upset." We were both studying neuroscience, and so I said to her, "But Kate, what's 'upset'? 'Upset' is just the increase in the concentration of a particular chemical in the randomly assembled collection of atoms that is your mum's brain." Now again, I'm not

suggesting that Kate or any other naturalists I know are amoral. They have as much of a sense of right and wrong as the next person, and seek to show kindness to others. But does this have any basis within their philosophy?

How would Christianity compare? According to the Bible, human beings are much more than atoms and randomness. We have been created by God who "gives to all mankind life and breath and everything". Suffering matters to God, and so does murder. He wants us to love one another, and will hold us accountable for violence perpetrated against others whom he has made. But in his speech at Athens, the apostle Paul goes further. He speaks God's specific purpose for humanity. God has ordered human lives, he said, "that they should seek God, in the hope that they might feel their way towards him and find him." In other words, *the all-powerful God who created the universe seeks a personal relationship with us!* I wonder whether you are even

open to the possibility that that such a mind-blowing thought could be true.

Science cannot tell us everything important

For all its brilliance and usefulness, science cannot tell us everything important about the world. And one of the areas where it quickly reaches its limits is in the realm of personal relationships. When deciding whom to marry, for example, I very much doubt that any reader of this booklet will decide to put their trust only in the results of scientific experiments. What could you find out that way? You could do scanning electron microscopy on the fibres on your beloved's skirt or trousers and find out what kind of bus they travelled on and whether they sat in anything horrible, and how many dust mites they have per square inch and all that kind of thing. You could do gas chromatography under their armpit to work out what deodorant they use and whether or not it's effective in the

stressful circumstances of your first date. You could do DNA fingerprinting and compare it with the police database and see if they were related to any known criminals, or maybe determine their propensity to die from some genetic disease before they're 25. But that is pretty much all you could tell. You couldn't tell their name. You wouldn't know what they care about, what makes them laugh or what makes them cry. In fact you couldn't tell anything that's important in terms of relationship. It's not that there's anything wrong with science; it is just that science doesn't tell you everything important about the world. And science is even more limited when it comes to getting to know God. How would you begin to measure him? How could you exclude from the apparatus in order to take a null reading for a control, if he's everywhere? Knowledge of God is beyond the scientific enterprise. And yet Paul says that he made us to know him, and that knowledge is possible through Jesus Christ.

3 Which world view makes most sense of Jesus Christ?

Which world view makes most sense of Jesus Christ, his life, his miracles, his teachings? I'd never grasped as an 18-year-old naturalist that Christianity is a matter of historical fact. I'd never realised it came down to objective questions: who was this Palestinian, son of a carpenter, who persuades a billion people in the world today that he is God? Was he a con man? Was he a charlatan? Was it true? Again, let me ask you: are you even open to the possibility that it might be true? I would say that a truly scientific mindset should be open to the evidence wherever it leads.

One of the most depressing things about *The God Delusion* is that as Dawkins looks at the evidence for Jesus Christ, he becomes contemptuously dismissive of the eyewitness evidence.

Sadly, his prejudices sometimes combine with ignorance, so that he can say for example that **“Nobody knows who the four evangelists were, but they almost certainly never met Jesus personally.”**⁸ In fact Matthew and John were two of Jesus' 12 apostles, who spent the best part of three years witnessing everything he did and taught; their authorship of the Gospels that bear their names is confirmed by such 2nd-century sources as Papias and Irenaeus. My aim here is not to mount a full defence of the historical reliability of the New Testament: that would take another booklet. Rather, I want to warn against prejudging the historical evidence because of a prior faith commitment to naturalism.

For Dawkins, this prior faith commitment surfaces again when he mentions the resurrection of Jesus. It cannot have happened, he insinuates, because **“miracles, by definition, violate the principles of science”**.⁹ But by whose definition? If you have defined

science naturalistically perhaps, but then we would refer back to the mistake with the visible light detector. What is there to stop the God who upholds the universe, and whose orderly way of doing so means that we can describe the universe using the term “laws” in the first place, from one day changing the way the universe behaves in order to make the central point in history: Jesus is Lord, risen from the dead? It’s not the laws of nature that allow Dawkins to dismiss this claim *a priori*. Rather it is his faith in naturalism. Because if Jesus did rise from the dead, then naturalism has to go. As Paul said in his Athens speech,

“the times of ignorance God overlooked, but now he commands all people everywhere to repent, because he has fixed a day on which he will judge the world in righteousness by a man whom he has appointed; and of this he has given assurance to all by raising him from the dead.”

Your response

If you would like to investigate further the key evidence for Christianity visit www.bethinking.org/booklets and choose from a variety of talks and articles.

If however you are ready to make a direct response to Jesus Christ, in which you make him your Lord and Saviour, you might want to say a prayer like this.

Prayer



Lord God, I acknowledge that you made the world and everything in it. You have given me life and breath and everything. I have lived my life ignoring you, and rejecting your rightful place as Lord of my life. I’m sorry, and I turn back to you now.

Thank you for sending your Son Jesus Christ to die for my sins so that I might be forgiven. Thank you for his resurrection, which assures me that you

are real and that one day you will judge the world with righteousness. Please help me to keep trusting in Jesus as Lord and Saviour until the day I stand before his judgement throne.

Amen.



If you have prayed this prayer, speak to a Christian friend or go to our website www.bethinking.org/booklets and email us using "Contact us".

Footnotes

- 1 Attributed quotation, A N Jeffares, M Gray (eds), *Collins Dictionary of Quotations* (Glasgow: Harper Collins, 1995, page 381).
- 2 Carl Sagan, *Cosmos* (New York: Random House, 1980, page 4).
- 3 Francis Crick, *The Astonishing Hypothesis: The Scientific Search for the Soul* (New York: Scribner 1994, page 3).
- 4 Acts 17:24-31, Esv.
- 5 Richard Dawkins, *The Blind Watchmaker* (London: Penguin, 2006, page 5).
- 6 John C. Lennox, *God's Undertaker: Has Science Buried God?* (Oxford: Lion, 2009 page 71).
- 7 John Gray, *Straw Dogs: Thoughts on Humans and Other Animals* (London: Granta, 2002, page 30).
- 8 Richard Dawkins, *The God Delusion* (London: Transworld Publishers, 2007, page 122).
- 9 Richard Dawkins, *The God Delusion* (London: Transworld Publishers, 2007, page 83).

