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Is the story of creation in the Book of Exodus true?

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In the beginning, God created the Heavens and the Earth.

The first three chapters of the Book of Genesis, are about the most widely discussed words in the whole Bible, especially in conversations between religion and science. They deal with the creation of the world and the story of Adam and Eve.

We can see three parts to this. The first story deals with the creation of the whole of the cosmos, with human beings emerging on the sixth and final day after which, God rests. The second part gives us an alternative account of creation, with humans beings central, right from the start. And the third part of this story addresses the first wrong-doing and its punishment. I'm going to concentrate on the first part, the creation of the whole cosmos.

I'm Andrew Davison, I teach Theology and Science at the University of Cambridge. My research looks at topics

like the religious significance of life elsewhere in the universe. Before I became a theologian, I was a scientist.

My question is how best to understand these chapters of Genesis?

We might assume that Christian readers, and here I will concentrate on Christians, think of these chapters as basically a scientific textbook. But if so, we have to admit it's not a very good scientific textbook. It's unfair though, to treat Genesis that way, or to assume that centuries of readers thought no more of it than that.

So, what would a responsible reading look like? And how have Christians approached those chapters of Genesis?

First, it's true that most readers of Genesis 1-3 down history imagined that it described how the physical world came to be. They had no reason to think otherwise. But, which is what I want to

stress, they didn't think that was the most important thing about it. Genesis 1-3 wasn't only, or mainly, a scientific textbook to them.

The Christian consensus is that the Bible is about faith and morals, what to believe and how to live well.

So, in his commentary on Genesis, the Swiss reformer John Calvin, who was born in 1509 and gave us Calvinism, even said that "if you want to know about astronomy, don't read Genesis, talk to astronomers". Genesis is about something different and indeed more important.

A few centuries earlier, St. Thomas Aquinas stressed that the Biblical text isn't primarily about scientific matters. He didn't want his readers to be disappointed, to distrust theology or the Bible, just because they might sometimes find that this didn't get the science right. And why should it, if that's not what they're mainly about?

One of my favourite scientist–theologians is John Wilkins, the founder of the Royal Society, the great Scientific Society of England, and later, Bishop of Chester. He didn't think that God wanted to teach people science through the Bible, since part of the greatness of human beings, is that we can go off and observe and investigate the world ourselves.

In fact, he thought that, if the Bible had taught science, that would only distract readers. Words spoken appealingly like a true science nerd.

So, let's think a bit more about how theologians actually responded to Genesis. I'm perfectly happy to read authors who criticise religion, but it's frustrating if they haven't bothered to read theological texts carefully themselves. And if we look at what theologians have actually written, we will often find

that they have read Genesis 1-3 carefully. Their interpretations were often also quite creative and varied.

For instance, since the Early Church, theologians have recognised that the 'seven days' of Genesis are tricky and disagreed about what they might mean.

Some see a story spanning six successive periods and they say: "they're called days, so I suppose that's what they were". St. Basil, who lived about 300 years after Christ, is an example.

For others, the text itself suggests something different. "If there's no Sun or Moon, to mark days and months, until the fourth day, those periods don't look like 24 hour units at all". Origen, who died in 254 A.D, thought that.

Augustine of Hippo writing about a hundred years later, and the most influential Early Christian for Western Christians, went further. He thought that the beginning of the world unfolded actually more quickly and more slowly than the Genesis story has it. It didn't take God six days to make the world, whatever day means. It happened in a split second. Genesis 1 tell us, in a sequence, what happened all at once.

But Augustine also thought that creation unfolded more slowly than seven days might suggest, since all sorts of creatures existed only as seeds or possibilities, at the beginning, and emerged later in an unfolding story. That might seem to put him quite close to Darwin, but I imagine Augustine thought of those seeds as fixed in species, and not changing, as Darwin recognised.

Writers have often thought philosophically about God as Creator. Indeed, they've done that for a long time. Christians, Jews and Muslims in particular, stress that God created everything, not having to use anything that was already there.

This is the idea of creation out of nothing, or 'ex nihilo'.

Aquinas did a particularly good job of exploring the philosophy of creation. He thought that the core meaning of creation was a gift and dependence on God, not a beginning in time. Creation is why there is anything at all, when there didn't have to be. Even an eternal universe, he thought, would still need to be created, because it needs an explanation, it needs to come from a creator who needs no explanation, because God 'just is'. God is Being itself.

As Aquinas put it: "Even an eternal footprint is only a footprint, because a foot presses down." Aquinas made the sophisticated observation that there was no way that he could tell, scientifically or empirically, whether the world had a beginning or not. And in any case, a beginning to time is of secondary importance to him.

And he was right, it wasn't until the 1920s, and the observations of the astronomer Edwin Hubble, and their interpretation by a Belgium priest, an astronomer Georges Lemaître, that the cosmos as a whole gave away its finite age, with the idea of a Big Bang.

We've seen that Christian writing on Genesis 1-3 has been more varied and often more sophisticated than we would expect, from how it's portrayed in the media.

That's not to say that there haven't been crude, or defensive ways of reading those chapters, which have set themselves against natural science. But, it's not all like that.

Sadly, hostility from defenders of religion and defenders of science, can easily reinforce each other. Readings of Genesis 1-3 from the past century, by certain rather loud Christians, much less sophisticated or imaginative than in

earlier periods, provoke anti-religious reactions from those who want to promote science. That then threatens members of those religious communities who disengage even more, and pull up the drawbridge. None of that is good is for forging better understanding. I think that even when people get it wrong, it's worth trying to work out why they get it wrong.

I spent my life working between theology and science, but I come across people who find that relationship difficult. I don't want to condemn them, or just write them off. I want to find out why they feel that way and that can be complex.

I'm going to end with a great example, the so-called 'Scopes Monkey Trial' from 1925, when a schoolteacher, John T. Scopes, was taken to court for teaching evolution in Tennessee, in the United States.

I'll be straight forward, evolution is right, of course it should be taught in schools. But the Scopes story is more complicated than simply foolish, religious people, against wise, scientific people.

The Christians who objected to the Scopes teaching of evolution did so in part, because of what evolution was said to mean. The textbook that Scopes was using was racist. It taught the totally illegitimate and racist lie that white people are superior to others.

So the story is more complicated than we might think. Part of why some Christians wanted to prevent the teaching of evolution, was because evolution was associated with racism, which is vile; and with ruthless capitalism, with the powerful, rightly triumphing over the weak: the 'survival of the fittest'. Many Christians abhorred that, and I think rightly so.

They were wrong to oppose teaching evolution, but part of the context was the false use of evolution, for racist purposes.

To sum up, Christian readings of Genesis 1-3 have been more varied and more sophisticated than you might imagine, from reading someone like Richard Dawkins.

I've also suggested that to understand anything, it's good to think about the wider context of what's going on, and to look at the detail, whether in writing on Genesis, or intentions in Tennessee in the 1920s, or today.

So in conclusion, I'll ask you a question:
'Do you think science and religion are compatible or incompatible, and why?'
'And which parts of my job, thinking about the two, religion and science, are likely to be the hardest and the most interesting?'
and the most interesting?