John Hedley Brooke on religion's role in the development of modern science

By Richard A. Kauffman
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John Hedley Brooke, retired historian from Oxford, gave what I thought was a brilliant lecture on "The Historical Roots of Modern Science" at the Faraday Institute conference I am attending in Cambridge, England. He focused especially on the role religion played in both assisting and impeding the development of modern science.

Typical of a historian, Brooke's presentation was very nuanced. It is simply wrong to say that religion stood in the way of the development of science or, conversely, that without Christianity—and especially Protestantism—it would never have happened. The story is much more complex than either of those narratives.

The origins of modern science are many and multicultural. We think of the Greeks as very advanced for their time in their understanding of the natural world. Yet the Greeks learned from the Arabs. (Pythagorus went to Egypt and Babylon.) Later, medieval Christians learned from the Muslims. Christians indeed did contribute to the study of science, because they were interested in what kind of creation the Creator created.

It was in fact certain elements of Christian theology that opened the way for scientific development. For instance, Aristotle insisted that the earth had to be the center of the universe. Medieval Christians thought this was wrong. Given the freedom and omnipotence of God, God could put the earth wherever God wanted it. This opened the door to accepting the fact that the earth might not be the center after all.

One of the best insights I picked up from Brooke had to do with Darwin and evolution. Darwin's discoveries were threatening because they seemed to challenge the distinctiveness of humans compared to other animals. But at the time, something else was going on that was equally threatening to many of his contemporaries.

Before Darwin the pursuit of knowledge about the natural world was done within the rubric of natural theology, with a view to what that knowledge tells us about God.

Darwin unhooked science from theology, and God from the pursuit of knowledge about nature. It was in effect the declaration of the independence of science from religion and the church. That seems a foregone conclusion now, but it was intensely threatening at the time.

There has long been something like "biblical accommodation" of knowledge about the natural world. Augustine didn't seem troubled by the idea that creation didn't happen in six days, and he said it would be too bad if Christians uttered nonsense about creation. He also said Christians should be able to learn from pagans.

By the time Galileo came along, some people were able to accommodate the Copernican revolution by acknowledging that while the Bible suggests the sun moves, this is just about the *perception* that the sun moves. It doesn't really. And the Bible isn't wrong about that—it is merely reporting on a perception.