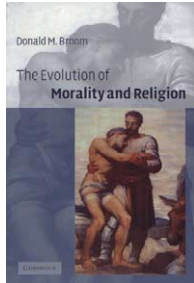


A failure to communicate

Is God A Scientist? A Dialogue between Science and Religion by Robert Crawford, Palgrave MacMillan, 2004. £45.00 hbk (192 pages) ISBN 1403916888

Marc Mangel

Department of Applied Mathematics and Statistics, University of California, Santa Cruz, CA 95064, USA



Individuals interested in the dialogue between science and religion will be disappointed by *Is God a Scientist?*. The key idea is that because humans have free will (a cornerstone of the western religious tradition), God is conducting a cosmic experiment; Crawford is attempting to build a new model of God as a cosmic scientist, but, regrettably, the title might be the best thing about this book.

The challenge of creating a dialogue between science and religion is to bridge matters of faith and logic, questions of why and how, and to recognize commonalities rather than differences [1]. The form of the dialogue can be to study religious responses to scientific ideas [2], to find new interpretations of classic texts through our understanding of how science works [3], to see how science could reinforce the sense of awe that is essential for religion [1,4], or to understand the physiological basis of religious experience [5]. However, to write 'Just like religion, science is now dealing with invisible entities', by which Crawford means things that we cannot see with the unaided eye, does not move the dialogue forward; neither does the assertion that, because singularities (black holes) occur in Nature, we cannot write off singular events in history. Crawford accepts evolution and concludes that it has taken us from a state of no values to one with values and that this reveals (presumably divine) purpose. Later, we are told that evolution 'means that design is built in' (pg 156); this then is not a dialogue between science and religion but hidden creationism.

Is God a Scientist? would have benefited from careful editorial counseling. The first chapter begins with a quotation from Conan Doyle's *The Sign of Four*, not a good start to a serious scientific book. In the same paragraph, we are told the myth about Newton and the apple as though it were the source of the law of gravity (a reading of [6] could have helped here). Words are missing from sentences, as in 'The general position appears to be that quantum is defined by the act of observation', and this use of quantum without an accompanying noun, such as theory or mechanics, is a common occurrence. The intended audience is unclear: halfway through the book, we have a laborious explanation of how Pasteur disproved spontaneous generation; shortly thereafter genes and DNA are explained, but later reference is made to dissipative structures studied by Prigogine and Eigen, but with no explanation or relevant citations.

In a book about the dialogue between science and religion, a clear and deep understanding of both science and religion and accurate representations of each are required. This is where *Is God a Scientist?* really falls down. There are many errors of fact and interpretation. For example: the treatment of macroscopic chaos is a mess. In various parts of the book we are told that nature at the macro-level is predictable, impossible to predict and that 'Even a small disturbance like a butterfly's wing can change a chaos system like the weather!' (as if it were a fact not metaphor); at several points, evolution by natural selection is described as 'survival of the fittest' and at least once attributed to Darwin; reference is made to Oppenheim wanting to bring Japanese observers to demonstrate the power of the atomic bomb in 1949, before it was dropped on Hiroshima and Nagasaki (the bomb was dropped in 1945); and there is an assertion that, in the story of Jonah, the people of Nineveh are to be converted, but the message of Jonah is repentance and the universalist approach of God [7].

What about God as a cosmic scientist? Falsification as a test that can be applied to religion is introduced, but not developed. God as the cosmic scientist is intended 'to create a testing ground, the laboratory of the world, for us to achieve the values which he wants', but this ignores all the other components of science. Where are the hypotheses? What are the controls? We are told that 'New Testament scholars have not been able to disprove the historical accuracy of the [resurrection] appearance narratives' and this would be a great place to have a discussion of statistical power, but the opportunity is missed. We are told that, although religion uses parable, allegory, irony and legends, these are not found in science, which suggests to me that Crawford has not practiced any form of science.

Crawford's idea of a cosmic experiment is deeply imbedded in the mystical traditions of Western religion. But this book is a good model of how not to construct the dialogue between science and religion. We still wait for the right one.

References

- Green, A. (1992) *Seek My Face, Speak My Name*, Jason Aronson
- Cherry, S. (2003) Three Twentieth-century Jewish responses to evolutionary theory. *Aleph* 3, 247–290
- Benjamin, T. and Mangel, M. (1999) The ten plagues and statistical science as a way of knowing. *Judaism* 48, 17–34
- Matt, D.C. (1996) *God & The Big Bang*, Jewish Lights
- Newberg, A. et al. (2001) *Why God Won't Go Away*, Ballantine Books
- Gleick, J. (2003) *Isaac Newton*, Pantheon Books
- Berlin, A. and Brettler, M.Z. (2004) *The Jewish Study Bible*, Oxford University Press