Brendan Sweetman

Religion and Science: An Introduction. New York: Continuum 2010. 240 pages US\$110.00 (cloth ISBN 978-1-8470-6014-3); US\$24.95 (paper ISBN 978-1-8470-6015-0)

The relationship between science and religion has been rather volatile over the last couple of centuries. In the US some battles have even made their way into the courts. Concerns over the rationality of revelation as well as questions about the boundaries that separate science and philosophy have fueled the fires of rhetoric. In the past it was deemed bad manners to discuss politics and religion at the dinner table but it seems today that it is necessary to add science to the list of prohibited topics. While a clear understanding of what science and religion are and what they say will not put an end to the disputes, perhaps clarity will foster conversation rather than conflict, inquiry rather than inflammatory speech.

In *Religion and Science*, Sweetman presents an introductory survey of these two important disciplines. What is most unique about this text is that it does not simply focus on the relationship between the two fields of study but gives a concise overview for each and what each discipline generally has to say about particular subjects. Some of the subjects covered include evolution, design, the Big Bang, ethics, and the nature of the human person. The focus is limited primarily to natural science as it is understood in ordinary contemporary discourse and deals almost exclusively with Christianity as the representative of religion. Like any good author of an introductory text, Sweetman seeks objectivity as he presents each subject, yet it is clear that his sympathies lie with Christianity. This does not detract from the book's value but it would clearly be most welcome at religious institutions, Catholic, Mainline, or Evangelical.

After a brief introduction, which includes defining key terms and presenting three common models for relating science and religion (Conflict, Independence, and Dialogue/Integrationist), Sweetman presents a historical sketch of each subject. The history begins with Aristotle, then moves into medieval Christianity (Augustine and Thomas) and the Protestant Reformation. He segues seamlessly into the history of modern science with the introduction of Galileo and from there presents an overview of the works of Newton, Darwin, and Freud. His overview of twentieth-century science and philosophical naturalism is an excellent includes a discussions of method, objective knowledge, realism and anti-realism, Popperian falsifiability, Duhemian instrumentalism, and of course, the usual suspects of philosophical naturalism: Dawkins, Sagan, and Crick. Sweetman is critical of philosophical naturalism but aims at giving naturalism a fair shake nonetheless. The advocate of naturalism may question his success.

The real thrust of the book takes place when the move is made from history to issues that tend to divide religious and scientific communities. Sweetman wastes no time tackling the big one: evolution. Sweetman gives an overview of the theory followed by 'questions and answers' concerning the evidence for evolution. His treatment of these questions may ruffle some feathers but they also serve as excellent discussion points. For example, when addressing the question, 'Does natural selection explain how evolution works?' Sweetman discusses the development of the eye. The eye's complexity requires that all the parts be present for the eye to work properly, but how does something like this develop naturally over time? He notes that defenders of natural selection argue that even without a fully developed eye the optic nerve could have been advantageous for survival. Sweetman writes, however, 'As one can see, there are an awful lot of gaps, ifs and speculations about this process, a lot of what some call "just so" stories to explain how natural selection works in various species' (98). Sweetman calls these kinds of explanations 'unscientific statements' and 'stories' and states that many books on 'evolution by well-known experts such as Stephen J. Gould, Richard Dawkins, and Christian de Duve are chock-full of these stories, chock-full of "unscientific" claims' (103).

In the same chapter Sweetman also explores some possible implications that evolution brings to the religious worldview. He notes that Christians have differing opinions regarding the status of the Bible in light of evolutionary theories. The biblical literalist will certainly be more troubled by the possibility of evolution than those who hold that truth can be conveyed in story and metaphor. The most interesting question is whether the status of human beings as somehow special is damaged by evolution. Sweetman addresses this question, in part, with a discussion of 'chance'. He argues that many advocates of evolution suggest that the process of evolution is driven by chance as opposed to design, but Sweetman challenges this notion on the grounds that all events happen due to a cause and not merely by chance. 'Did the chimps' food source occur by chance or was it caused? It was caused. The cause was probably something as simple as seeds blowing over the area because of high winds, a lot of rain fell in the area too, and so trees grew where the chimps ended up living, and became a source of food.' He later adds, 'Did that devastating storm which occurred in one particular year, and which had a significant cumulative effect on the biological structure of various species, happen by chance? No, there is a cause for why a storm occurs that we can explain scientifically' (110). It is difficult to determine whether Sweetman is making the argument to explain to his readers that all events have a cause, or whether he is correcting certain advocates of scientism for speaking about 'chance' or 'randomness' in the evolutionary process. However, it seems that when Dawkins and his colleagues use terms like 'chance' they are using it, not to suggest an event had no cause, but in opposition to mindful intention. The event happened without design or telos, not without cause. This is no a small argument in the book and takes up several pages. Certainly, it will be a good topic of discussion for any classroom.

In his chapter dealing with the science and the human person Sweetman unpacks various theories, scientific and theological, concerning subjects such as free will, immortality, consciousness, and extraterrestrial life. Regarding the last subject, Sweetman makes an interesting statement some theists would be hesitant to make. He states that the discovery of an alien species would strengthen the case for the existence of God. 'If one takes the anthropic argument, in particular, seriously...and appreciates the extremely small probability of our universe being suitable just by chance to support intelligent life, this is a further argument that life on earth was designed, or was intended' (143). Surely, many philosophical naturalists would claim that such a find would support their thesis and not the religious worldview.

In his chapter on God and the universe Sweetman addresses issues concerning God as 'first cause' as well as the question how God might act in the world. Sweetman notes that many theologians have worked out various ways for understanding and explaining how God works in the world but he also takes on theologians who deny that miracles take place or that God acts in any supernatural ways. He says modern theology is 'perhaps too much intimidated and influenced by modern science' (186). Sweetman seems to adopt a more classical approach to the subject of divine activity claiming that 'the classical view is trying to balance two points, sometimes with difficulty, that God is responsible for all that happens in creation, and at the same time that the universe operates according to a set of natural laws which do not require God's constant working in the world (but only his occasional working)' (188).

Sweetman opens and closes his book with an appeal to dialogue as a means of overcoming the widening gap between science and religion. He fears that worldviews are becoming more and more polarized and that the advocates of differing views see persons who disagree with them as being 'not just wrong but as immoral, or irrational, or worse' (207). One thing omitted from the book that would have been helpful to see is how Sweetman sees this dialogue taking place. It is more and more common to see followers of a religious worldview incorporate scientific elements into their thinking and beliefs, but it is rare indeed to find a philosophical naturalist who seriously considers any religious notion. The dialogue model seems to be a one-way street. Perhaps Sweetman has some thoughts on how to overcome this query.

Religion and Science: An Introduction is an enormously useful text for professors teaching classes on faith and science. The text is also excellent for any person interested in how two very different worldviews approach and understand some of life's most important questions. It is eminently readable without being overly simplistic.

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