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BOOK REVIEW

From the inside looking out

Michael Peterson and Dennis Venema: Biology, religion, and philosophy: an introduction. Cambridge: Cambridge University Press, 2021, 275 pp, £19.99 PB

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I will begin by admitting that this review was difficult to write, as a philosopher of science, without it sounding like a hatchet job. Peterson and Venema offer their book as an introductory text in the intersection of biological science and religious belief, to promote dialogue and debate. Both are theists, with an intent to provide a "response from religious perspectives" (1). This is by no means disqualifying: an exploration of what biological science means to religion 'from the inside' might have been a fresh and interesting one to follow along with. However, this is not such an exploration, and the authors too often play fast and loose with the relevant literature, or ignore it entirely, while attempting to do their own hatchet job on scientific naturalism. The 'dialogue' here is determinedly one-sided, and the material under debate is often patchy and misrepresented.

The first chapter, "Science, Biology, and Religion", is illustrative. In it, the authors sketch out what they mean by 'religion' and 'science', what it might mean to have dialogue between the two, and conclude with a brief, somewhat disconnected section on "biology among the sciences". They begin by surveying a handful of narrow, single-focus definitions of religion drawn from Western theologians. Scientists of religion and seminal figures like Tylor, James, and Durkheim are not consulted. The surveyed definitions are rejected as not inclusive enough of Ancient Western polytheism and some non-Western religions, and a working definition of religion is settled on: "a human phenomenon that is constituted by a set of beliefs, actions, and experiences, both personal and collective, organised around the concept of an ultimate reality that inspires or requires a certain response like devotion, worship, or focused life orientation" (9–10). It could be argued that this is too loose, in that any well-integrated, ideologically inflected worldview might also count (nationalism,

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humanism, libertarianism, etc.). But the definition and gestures towards inclusiveness quickly become irrelevant, as the authors make it clear that their focus is actually just Abrahamic theism rather than religion in general (10–11).

The complexities of 'science' are similarly truncated, and the term is applied interchangeably to historical Western science and the abstract scientific method characterised as hypothesis testing. After touching on realism versus instrumentalism and Kuhn's constructivism, the authors push the idea that foundational metaphors have a dominant role in science. Citing Lakoff and Johnson (1980) and Hall (1954), they warn that a 'mechanistic metaphor' took over in modern science from a more 'organic' one from the ancient Greeks that was more compatible with the Christian worldview. The development of this mechanistic metaphor in science, up to and including evolutionary biology, isolated it from religious thinking leaving "no apparent need for teleological explanation in science" (16).

Trapped by its constrictive mechanistic paradigm, science is thereby selectively enfeebled: unable to explain some facts (like why there is something rather than nothing), intolerant of natural teleology (and other religious explanation), blind to its own blind spots, and unable to self-correct. "It does no good to say that science investigates our human powers of inquiry, because those powers must already be trusted in order to begin that investigation" (21). Luckily, recognising this may "open the door for metaphysics and theology to say something about God as the creative ground of the existence and lawful order of the universe" (22).

This narrative is presented didactically in the absence of significant input from contemporary history and philosophy of science. As such, it reads as a dressed-up version of a standard culture wars trope: that an irrational "methodological naturalism" exists in science which unfairly biases it against religion. And it is a straw man. As any decent pop-science communicator might respond (see e.g. Carroll 2016), the core commitment is instead to methodological *empiricism*, from which naturalistic and mechanistic models have been reached as conclusions via inference to the best explanation. Where mechanistic models apply less straightforwardly (e.g. 'spooky', non-local quantum entanglement) there is no great doctrinal impediment to revising them. Similarly, philosophers of biology can and do push back against the over-use of mechanistic/engineering metaphors in living systems (Nicholson 2020). Naturalism is *unfalsified* (so far), not *unfalsifiable*, and characterising it as an insidious dogma is misrepresentation. Doing so just makes a false equivalence between naturalistic and non-naturalistic explanations, and conveniently distracts from more important explanatory virtues like empirical adequacy. I may be labouring the point here, but it was alarming to read this in something published by Cambridge University Press.

The remainder of Chapter One is not as egregious. The social nature of science and Kuhn's paradigm shifts are "highly suggestive of parallels with religion" (23). Whitehead makes an appearance. The authors also develop an interesting schema describing three possible types of relationship between scientific and religious beliefs: conflict, compartmentalisation (as with Gould's non-overlapping magisteria), and 'integration'. The authors favour integration: "After all, if reality is rationally coherent, and if truth is self-consistent, then surely science and theology must somehow be harmonious" (25–26). Tellingly, this whole idea of making

a relationship work between scientific and theological beliefs assumes that one is desired; there is literally nothing here to compel the 'happily single' naturalist.

The whole book is like this: suffused with a solemn insistence on theological realism of a contemporary Christian sort, too often at the expense of charity, nuance, or plausibility. Manoeuvring to be suitably portentous in this regard also sees the authors occasionally tripping themselves up with passages of clunky writing. For example, Chapter Two, on the origins and nature of life, leads off with: "Life has long been thought to be a special quality that distinguishes entities that possess it from entities that are dead or inert" (32). The life-non-life distinction is of course fascinating and complex, with undoubted religious ramifications. But the authors spend more space here discussing the 'contemporary philosophical debates' around creation science and intelligent design, and suggestively resuscitating scientifically abandoned ideas. Their antagonism to naturalistic thinking also becomes decidedly conspiratorial. "What is life? How did it begin? Why is there an amazing abundance of life-forms? Religion has an important stake in contributing answers to these questions, but naturalist-oriented viewpoints have an equal stake in countering religious explanations" (55). In another, strangely personal passage we are told that

> [Peter] Godfrey-Smith is one of many whose background philosophical commitments lead them to attempt to naturalize teleology in biology and eliminate any of its metaphysical or theological overtones. For those of this mindset, all biological explanation must be mechanistic and not refer to any form of vitalism, mentalism, or a future cause reaching back and influencing the present. (71)

The remaining chapters discuss design, the problem of evil, purpose, human uniqueness, altruism, ethics, debunking arguments, environmentalism, and biological accounts of religion. These are a mixed bag. Much of the discussion of current science and philosophical literature is carried out accurately and efficiently for an introductory level, especially regarding philosophy of religion. But even this is patchy and interspersed with lurches into gap-claiming, spin, and non-sequiturs. For example, kin selection and other biological approaches to altruism are outlined but rejected—because religious believers experience fulfilment in self-sacrifice. This is attested via several bible passages quoted in quick succession (168–170). Towards the end of the book, there is a competent overview of biological accounts of religion, complete with worries about their debunking potential. But it is capped by familiar *ad hominems* about how debunkers "are influenced by their naturalism", and an odd anthropic argument that biological science was more likely to happen in the case that theism was true, which supposedly makes it all a wash.

In conclusion, I cannot recommend this book as a serious piece of scientifically informed philosophy, and certainly not for classroom use as an introductory text. Perhaps it is intended solely for religious 'insiders', but if this is how things seem from the inside then the view is a dismal one.

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