
With creationism making headline news and climate change forcing a re-focusing on the relationship between science and theology, it is worth considering whether a text such as this still has anything to offer. Mark William Worthing’s book covers a wide range of topics around the question of the creation of the universe. As for the theological and philosophical arguments, the book is written clearly and concisely. After a brief introduction on the history of the relation between physics and theology, he proceeds with the three classical arguments for the existence of God—the design argument, the cosmological and the ontological arguments—in the light of physics. Chapter 3 is devoted to the problem of creation out of nothing. Some cosmological expositions, such as on the Hartle-Hawking model (p. 101) are beyond comprehension even for a mathematically skilled reader, while the discussion of the energy balance of the universe is confusing and possibly based on a misunderstanding, stating: ‘The theory does not explain where the energy contained within the explosion came from’ (p. 96).

Chapter 4 covers the position of continuous creation; the theologically most important contribution of this book. A hardly reflected aspect is taken up in chapter 5; namely the relation between Christian eschatology and the ‘Big Crunch’ scenario given by Tipler and others. It has to be noticed that Tipler’s cosmology was always considered highly speculative, and a closed universe became unlikely after the COBE satellite findings on the anisotropy of the background radiation. An important and relevant contribution, therefore, which would be wisely read alongside Worthing’s volume, is Bede Rundle’s, *Why There Is Something Rather Than Nothing* (Oxford: Clarendon Press, 2004).

Despite these developments, the three classical arguments for the existence of God still take their specific form in the light of modern physics. The design argument is based on the observation that the natural constants have to be ‘fine-tuned’ to allow the emergence of carbon-based life. Several versions of the anthropic principle, saying that such a statement could only be made within a universe allowing for intelligent life, can be raised against it. The design argument is, however, more popular in the debate on Darwinism. Without further explanation, Worthing makes the surprising assertion that ‘the Darwinian theory […] would not weaken the argument from design’ (p. 21). It is hard to understand how creationism could ever be compatible with a full phylogenetic tree of descendance of species, as evolutionary theory surely predicts. The cosmological argument is to show that a first causation of the universe must exist. The validity of this line of argumentation and even the weaker question of the compatibility of physics with creationism depends largely on the structure of the universe and the physical laws underlying it. The ontological argument has ‘in principle the least connection to the physical universe’ (p. 60) and is only briefly dealt with, mostly in conjunctions with the cosmological argument. The latter is the only one of the three
arguments, for which in principle not only undermining objections can be found, but also rebutting ones, claiming to show that the universe is incompatible with a creator. It is therefore a natural choice for the author to put the emphasis on the cosmological argument.

Worthing cautiously avoids the common fallacies of a Deistic or Epicurean demiurge, to which naïve positions on the compatibility of physics and faith do not keep enough distance. He has no illusions that contemporary cosmology could serve as a confirmation for the biblical Genesis creation narrative, stating: ‘any attempt to read into such a passage an anticipation of the Big Bang theory would be foolish’ (p. 89). Nevertheless, Worthing underestimates the difficulties of attributing an active role to a creator on the background of modern cosmological theories, claiming that ‘our belief in the creative act of God using the ancient formula of Genesis 1:1ff is admittedly less problematic than it has been in previous decades’ (p. 89). Modern physical theories are causally closed and give no room for divine interference, unlike the ancient ‘steady state’ cosmologies, which need a ‘first mover’ to give them a start.

Creation of the universe could not be understood as setting a boundary condition at the beginning of the universe. While this is in accordance with Worthing’s view of a continuous creation, it is the basis of the famous misunderstanding of Pope John Paul II, who, in a reaction to Hawking’s talk at a 1981 conference at the Vatican, claimed the time point t=0 for theology from the physicists. At no time t>0 are there physical degrees of freedom to define the geometry of the universe without the past states at times 0<t'<t (and the present state) being altered. Worthing is correct in noting that this already rules out any kind of creation other than out of nothing (p.108).

God’s ‘enduring presence’ cannot be reduced to physical processes (p. 156). Worthing agrees with A. Peacocke in that ‘God is not to be found as some kind of additional factor added on to the processes of the world. God . . . is ‘in, with and under’ all-that-is and all-that-goes-on’ (p. 56). It remains unclear, however, how an active role of God can be established against the non-theist naturalist view; that is, not only God himself must be distinguished from natural processes, also God’s actions must be. A more detailed discussion of divine actions in the book would have been desirable, since they are of such diverse conceptions that some leave clear traces (for example, Dan. 5:5), while others do not and are only enacted by the will (‘word’) of God (for example, Ps. 33:6).

If creation is understood either as God setting the laws of physics or God continuously enforcing them, both of which constitute a no self-revealing phenomenon, the specific nature of God’s action itself must be clarified to distinguish the theist view from a scenario where God merely takes the role of a passive spectator on the Big Bang. This explicates what Hawking had in mind: modern cosmology leaves no space for an active God. As with many contemporary theologians, Worthing misses that point.

Nevertheless, the merits of the book lie in the comprehensive, but compact treatment of the subject without excesses or embellishments. The ‘continuous creation’ view is interesting and best fits modern cosmology, but its outline is much too brief.