

John C. Polkinghorne. *One World: The Interaction of Science and Theology*. (London: SPCK, 1986; new ed., West Conshohocken, PA: Templeton Press. 2007) .131 pages. \$14.95

One World is a second edition of a book written under the same title in 1986, but with a new Preface by John Polkinghorne. He reports that the earlier book was his first book “on issues in science and religion” (ix). Polkinghorne served for many years as professor of mathematical physics at Cambridge and eventually transitioned into the service an Anglican priest. In 1997 he was knighted by Queen Elizabeth II for distinguished service to science, religion, learning, and medical ethics and received the Templeton Prize in 2002.

The title of this book hints at Polkinghorne’s commitment to critical realism which he points out can “be asserted of both science and theology” (x). Most importantly, according to Polkinghorne, critical realism “provides a basis for their mutual interaction as science and theology present their different perspectives onto the one world of existent reality”(x), hence the title of the book—*One World*. Understanding this is essential to understanding Polkinghorne’s writing in general and *One World* in particular. He is not bashful in stating how this figures into his understanding of theology and religion regardless which one is conducting the truth-seeking project. He is a “passionate believer in the unity of knowledge” which he notes is “guaranteed by the unity of the one true God, the Creator of all reality” (xiii).

Insight into Polkinghorne’s epistemology in particular and his general approach to scientific and theological issues is revealed in his indispensable Preface to this edition. According to Polkinghorne in his Preface to the first edition, he claims that the thesis of the book is that science and theology “are both exploring aspects of reality. They are capable of mutual interaction which, though at times it is puzzling, can also be fruitful” (xv). In style, he admits and without apology that the book sets out to be semi-popular which he defines as taking the “issues seriously but survey them in a way that is reliable without attempting the detailed argument that a professional discussion would demand” (xv-xvi).

Believing that the Enlightenment created unnecessary conflict between science and theology by setting the physical and spiritual against one another, chapter one deals with historical development from the Enlightenment to what he calls post-Enlightenment. According to Polkinghorne, beginning in the 17th century there developed within the Western mind the idea that reason alone could work upon an object and successfully determine the nature of the world. The idea being that reason alone was sufficient for the truth seeking project. However, with the advent of the post-Enlightenment age, the Enlightenment mind has now been exhausted. The idea that developed was that the world that was known in the 20th century tended to be a little more ambiguous and uncertain than assumed by those of the 18th and 19th century. This epistemological tentativeness has opened the door for the possibility that there are equally necessary insights from religion. Believing this to be the case, the rest of the book explores the possibilities of that view.

In chapter two Polkinghorne looks at the nature of science setting forth the issues from the perspective of science. He admits that many still think that the scientific method is surefire and that it can establish certainty of its truth claims. On this account of things there still remains a

distrust of any knowledge that does not flow from the scientific method. However, he thinks that there is a growing number who are taking a critical review (in the best sense of the word) of the scientific method and its claims. He thinks that science runs into some difficulty is in its exclusive pronouncements because, in fact, there are so many other epistemological issues going on in the background. That is, each person's epistemic paradigm must be taken into account when interpreting the data from any experimental enterprise. He is not criticizing the scientific method but simply recognizing that everybody interprets the data from a particular point of view and necessarily that influences the conclusion. For one who is not scientifically inclined, the remainder of the chapter may be prove to be a somewhat difficult read as he discusses quantum theory. Importantly, he discusses what he considers to be the dismal failure of idealism and affirms a realist position which holds that reality does not change as we continue to discover news things, only our understanding changes. Consequently, he thinks that while science and the scientific method are grounded in the idea that reality does not change our understanding of reality is never complete but it is capable of improvement.

In chapter three he addresses issues from the perspective of theology, hence the title, "Nature of Theology", Polkinghorne begins by asserting there is a "three-fold basis" for theological investigation: Scripture, tradition, and reason. Regarding tradition he points out that religion is concerned "with personal encounter, not just a packet of propositions" (39). Nonetheless, Polkinghorne affirms that the "inevitable mystery in the nature of God is not a license for irrational assertion about him" (43). Therefore, reason has a part in theological investigation.

Chapter four devotes space to developing ten areas where he thinks the physical world reflects order, intelligibility, and potentiality which he refers to as a tightly knit structure. Later, he mentions that he thinks within the physical world there is a "beautiful harmony that evokes thoughts that verge on the religious (75). He critiques different historic views of the physical world including the view from the quantum level and concludes that in light of this the physical world appears: elusive, intelligible, problematic, surprising, with evidence of chance and necessity, big, tightly knit, futility, complete, and incomplete (53-73). One of the more interesting discussions in this section addresses the matter of chance and necessity, especially when considering theological categories of free will and determinism.

Polkinghorne titles chapter five, "Points of Interaction". Admittedly, this chapter proves most intellectually stimulating, although possibly not all theologians will agree with his attempt to resolve the conflict especially between science and theology regarding "miracles and the human destiny beyond the disintegration of the body in death" (75). His second point of interaction between science and theology "arises from the curious way in which modern science seems, almost irresistibly, to point beyond itself" (75). The third point of interaction involves the mutual influence of the habits of thought among scientist and theologians. His fourth point of interaction is "the assertion that all nonscientific levels of meaning are ultimately subverted by thoroughgoing scientific reductionism" (77). By this he means that in the end, only science can properly discern reality.

Regarding origins, he is sure the theologian can maintain a robust view of the Creator of Christian theology and what science tells us, for example in the Big Bang. For Polkinghorne, it is God and the Big Bang. He wrestles with the concept of quantum theory and how chance and

necessity might inform the theologian on the relationship between God and human events in time (83-88).

Possibly the most theologically troubling section (at least for some) is titled “Miracle”. Here Polkinghorne claims that a “Christian is not committed to believing in the literal truth of every miraculous event recorded in the Bible” (88). He thinks that some events claimed to be miraculous are pictorially valuable but not historically accurate. In fact, he finds the story of the sun standing still and that of Peter finding a coin in the fish’s mouth to be rather implausible. Yet the second point he makes about miracles is that “Christianity cannot escape the challenge of the miraculous for at its heart lies the assertion of the resurrection, that God raised Jesus from the dead. Here seems a clear point of conflict, since in our experience dead men stay dead” (88). So he does not deny miracles as he affirms the physical resurrection of Christ as well as the Incarnation. Furthermore, he thinks it possible that Christians could develop a coherent view of reality where unprecedented events do happen. Therefore, acceptance of miracles could be found if they are explained in light of a wider unity of Divine action in accordance with a purpose that goes beyond the experience of everyday. So, in the end, Polkinghorne leaves the legitimacy of miracles (or at least some of them) on the table.

In chapter six Polkinghorne takes on the idea of reductionism as an explanation for the complexity of structures where all there is, is physics. He is willing to accept structural reductionism, but thinks that there is more to understanding really than structural issues. That is, there are complementary ways of looking at the same physical reality. He demonstrates this, at least in principle, by speaking of the mechanical behavior of the electron which is all about the position, and yet another that is about momentum, that is, what something is doing. He suggests “this corresponds to experimental fact that the use of an apparatus to determine position (where it is) is incompatible with the use of apparatus to determine momentum (what is doing)” (106). One view must not rule out the other view as they are complementary views. In view of scientific methodology, Polkinghorne warns, “It is important not to let the dazzling success of that approach [methodology principally reductionist in technique] blind us to the need to give proper attention to holistic ideas” (106). It is this very notion that Polkinghorne believes that a place at the-nature-of-reality table must be granted theologians for a full and more robust view of the physical world.

Polkinghorne’s two commitments, namely critical realism and there is a unity of knowledge, informs the shape of this book as well as serving as the foundation for his view of the relationship between science and theology. He writes in a style that is easy to understand and as one who is decidedly Christian. One need not accept everything Polkinghorne offers in his attempt to be even-handed, but it seems without question he shows how one might begin to construct a bridge between legitimate science and orthodox theology. At least it seems that he has shown a possible way forward in the discussion that in the past has tended to generate more heat than light where one side or the other suffers unnecessary abuse. Academically, his work is absolutely first rate. Practically, it is extremely important for the discussion today between scientists and theologians as he charts a course whereby the two disciplines might interact meaningfully with each other without one or the other becoming a country cousin to the other.

Bruce A. Little, PhD
Senior Professor of Philosophy
Director of the Francis A. Schaeffer Collection
Southeastern Baptist Theological Seminary
Wake Forest, North Carolina