

APPRECIATING A SCIENTIST-THEOLOGIAN: SOME REMARKS ON THE WORK OF JOHN POLKINGHORNE

by *Edward B. Davis*

Abstract. Perhaps the greatest irony about the contemporary religion-science dialogue is the fact that, despite their own strongly articulated denials, many thinkers implicitly accept the “warfare” thesis of A. D. White—that is, they agree with White that traditional theology has proved unable to engage science in fruitful conversation. More than most others, John Polkinghorne understands just how badly White misread the history of Christianity and science, and how much theology has been impoverished by its failure to challenge this core assumption of modernity.

Keywords: divine action; resurrection; theodicy; transcendence; warfare thesis.

In the closing years of the nineteenth century—the zenith of positivism and its offspring, the religion of science—Cornell University president Andrew Dickson White depicted the relationship between science and theology with the following memorable imagery:

My book is ready for the printer, and as I begin this preface my eye lights upon the crowd of Russian peasants at work on the Neva under my windows. With pick and shovel they are letting the rays of the April sun into the great ice barrier which binds together the modern quays and the old granite fortress where lie the bones of the Romanoff Czars.

This barrier is already weakened; it is widely decayed, in many places thin, and everywhere treacherous; but it is, as a whole, so broad, so crystallized about old boulders, so imbedded in shallows, so wedged into crannies on either shore, that it is a great danger. The waters from thousands of swollen streamlets above are pressing behind it; wreckage and refuse are piling up against it; every one knows that it must yield. But there is a danger that it may resist the pressure too long and break

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suddenly, wrenching even the granite quays from their foundations, bringing desolation to a vast population, and leaving, after the subsidence of the flood, a widespread residue of slime, a fertile breeding-bed for the germs of disease.

But the patient *mujiks* are doing the right thing. The barrier, exposed more and more to the warmth of spring by the scores of channels they are making, will break away gradually, and the river will flow on beneficent and beautiful.

My work in this book is like that of the Russian *mujik* on the Neva. I simply try to aid in letting the light of historical truth into that decaying mass of outworn thought which attaches the modern world to mediaeval conceptions of Christianity, and which still lingers among us—a most serious barrier to religion and morals, and a menace to the whole normal evolution of society. (White [1896] 1965, 21)

Fast-forward to December, 1987. I am in a room at a convent in northern California, attending a conference on cosmology sponsored by a mainstream Protestant denomination, involved in a highly revealing conversation about the resurrection of Jesus. Most of those present are clergy or theologians, and some of them are trying to convince the rest of us—two or three quantum physicists, an astronomer, a biochemist, and a science historian—that “science” has made it “impossible” to believe in the traditional story, with a risen body and an empty tomb. One of the pastors confesses, not without tears, that this was a very difficult thing for him to accept, but that coming to terms with science was a necessary part of his theological education. Hearing echoes of A. D. White, I quickly glance around the room, wondering if I am the only one who finds this conversation itself almost impossible to believe, and notice that the other science types are equally incredulous: science, we realize, has done nothing of the sort alleged by our theological friends. Now the shoe is on the other foot, as the scientists are talking again, trying to convince the theologians that belief in a literal resurrection is not contrary to science, that genuine science has nothing whatsoever to say about singular events such as this, and that theologians have only themselves to blame for their unbelief. They have taken away my Lord, I say to myself, and I know not where they have laid him.

Fast-forward once more, to April 1999. I am in a historic lecture hall at the Smithsonian Institution, where the American Association for the Advancement of Science is holding a conference on Cosmic Questions. Speakers include several leading cosmologists—I get lucky and spend part of a day seated next to Alan Guth, creator of cosmic inflation theory—and an impressive group of nonscientists who contribute much to the conversation. But the highlight of the meeting for many in the audience (especially the large cadre of journalists, attracted perhaps by the smell of blood) is an exchange of views on the question, “Is the universe designed?” featuring two particle physicists, Nobel laureate Steven Weinberg and John Polkinghorne, a Fellow of the Royal Society who is now an Anglican priest. The very fact that this exchange involves two top-drawer *scientists* (albeit one who is ordained), talking frankly and at length about God, in itself suggests that something is fundamentally wrong with the warfare picture so

deftly painted by White. Add the fact that Polkinghorne represents a very traditional type of theism (on which more will be said below), and I can almost hear White's corpus moving noninertially.

Weinberg speaks first, the one-word title of his address reflecting quite succinctly the content of his position on the set question: "No." He agrees with Polkinghorne that the interesting questions about God involve the monotheistic notion of a personal God who may be involved in human affairs, not Einstein's impersonal God. And it is just this sort of God, which Weinberg associates with design, miracles, and ultimate responsibility for evil—fair associations in my view—that he thinks intelligent persons can no longer accept, in large part owing to science. Dismissing evidence for fine-tuning in the universe with an appeal to the many-worlds hypothesis—the functional equivalent of a God-of-the-gaps for many nontheistic scientists—Weinberg moves on to speak movingly of his father's suffering with Alzheimer's disease and scores of cousins who were murdered in the Holocaust. Ridiculing theodicies based on free will, he rejects "a God who demands the sacrifice of children and damns us for unbelief." "I am in favor of a dialogue between science and religion," he concludes, "but not a constructive one." Rather, scientists ought to take pride in their accomplishment of having made this God so hard to believe in.

Right from the start, it is clear that Polkinghorne differs from Weinberg not only in the conclusions he draws but especially in the attitude he brings toward complex questions about ultimate meaning and purpose. Even the answer he offers to the overall question is more nuanced, reflecting the genuine modesty that is an outstanding feature of his work: "Yes: Understanding the Universe." Design, he argues, is a *metaphysical* issue, not a physical one, involving the *interpretation* of evidence. Apart from an obvious, very important disagreement on interpreting anthropic phenomena, Polkinghorne's differences with Weinberg boil down to two crucial points about evil, which Polkinghorne rightly sees as a "deeply perplexing problem" that is potentially fatal to theism. First, he affirms moral realism, offering as an illustration his conviction that torturing children is wrong not simply as a cultural convention but as a violation of an absolute moral order. (I like to call this the "atheist's problem of evil," to emphasize the fact that evil presents problems for all of us, although the problems take different forms depending on whether or not one believes in God; in the absence of belief in God, the very word *evil* is emptied of its content, so that all we can say is that bad things happen to good people.) Second, Polkinghorne says that evolution diminishes the magnitude of the problem by revealing to us more accurately the nature of God's creative activity. With Charles Kingsley, he notes that God created a world that could make itself, adding that this "gift" of process is good but comes with a cost in terms of struggle and suffering: in a nonmagical world—and God is not a magician—it could not be otherwise than that the same world that allows

mutations to create also produces cancer. Hardly as an afterthought, Polkinghorne concludes with a reference to the Easter season and his hope in the resurrection.

It is plain from various writings, including the profile here and his comments on personal identity in “What Happened to the Human Mind?” (Polkinghorne 1998b), that what Polkinghorne means by *resurrection* is very much like the event that my colleagues in California wished they could still believe in. A direct comparison with the views of Wolfhart Pannenberg, himself one of the more conservative voices on the modern theological landscape who is also known for stressing the resurrection, is an instructive addition to the comments found in Polkinghorne’s article of March 1999. In *The Faith of a Physicist* (1994), which takes the form of a commentary on the Nicene Creed (a form I find especially appropriate and effective), he applauds Pannenberg’s emphasis on the priority of the Easter appearances over the Easter faith but distances himself from Pannenberg’s conclusion that the Gospel narratives of the appearances lack an historical kernel, particularly when it involves their focus on an actual bodily resurrection (1994, 113–14). Indeed he devotes most of a chapter to exploring “whether the belief that God raised Jesus from the dead is one that is credible for us today,” along the way rejecting the view associated with Joseph Renan and Rudolf Bultmann “that what happened was [only] a faith event in the minds of the disciples” and placing the source of doubt where it actually belongs—not in science itself but in the philosophical skepticism of David Hume, whose “confidence that the laws of nature were known with a certainty that extends even into realms of unprecedented and hitherto unexplored phenomena is one that was certainly falsified by the history of science subsequent to the eighteenth century, and it could never be pressed to dispose of an event like the resurrection of Jesus, which claims to be a particular act of God in a unique circumstance” (1994, 108–9).

In singling out this aspect of Polkinghorne’s beliefs, I do not think that I am giving it undue importance, either for understanding his thinking as a whole or for understanding his place in the contemporary religion-science conversation. His views on the resurrection illustrate perfectly my central claim about the significance of his thought, a claim that is best stated paradoxically: he is a modern thinker, but premodern enough to appreciate postmodern efforts to demythologize science without embracing complete relativism. Above all, he understands better than most other contemporary writers that the warfare model that was uncritically accepted for most of the twentieth century is not only historically bankrupt but also has as one of its most serious consequences the flight from transcendence evident in much modern theological thinking, which has left theology less able to ground ultimate hope and (ironically) less able to converse productively with science as a partner of equal standing. (Indeed, I sometimes wonder whether “dialogue” is even the right name for this situation.)

If Polkinghorne's remarks about the value of traditional theology in the profile illustrate this particularly well, so do his Terry Lectures, *Belief in God in an Age of Science* (1998a). The title itself, with its direct reference to God rather than simply to "religion" or "theology," immediately suggests (though subtly, I think deliberately) an important difference from other recent works with similar titles, by calling attention to what he regards as "the fundamental content of belief in God," namely, "that there is a Mind and a Purpose behind the history of the universe and that the One whose veiled presence is intimated in this way is worthy of worship and the ground of hope" (1998a, 1). Hence his emphasis on the significance of anthropic phenomena, consistent with his affirmation (elsewhere) of creation from nothing (*creatio ex nihilo*) and the radically contingent character of creation (which he mentions briefly in his comments on Pannenberg). Indeed Polkinghorne realizes more than most that, without a robust doctrine of transcendence, both creation and contingency are largely emptied of content. Although it is clear throughout that he has learned much from modern theology, especially about the ways in which the act of creating has placed limits on God's freedom, knowledge, and power, he nevertheless rejects process theology, which in his view "places God too much at the margins of the world, with a diminished role inadequate to the One who is believed to care providentially for creation and to be its ultimate hope of fulfillment" (1998a, 56).

Polkinghorne prefers to think of divine agency in stronger terms, associating special divine activity with "gaps" in natural processes that are "intrinsic and ontological in character and not just contingent ignorances" (1998a, 59) on our part, a view he also explains in his profile. I have long felt that those of us who want to talk about God "acting" in ways that do not always simply reduce to natural phenomena need to employ gaps in some sense, at some point(s), so I am pleased to see this terminology. Nevertheless, it is crucial to understand that Polkinghorne is *not* calling for the traditional God-of-the-gaps, invoked as a highly visible last resort when scientific explanations fail. Rather he endorses something like (it is clear that his ideas here are still in flux) the idea of William Pollard that God determines the outcomes of certain events at the quantum level, supplementing this with the possibility of further openness in chaotic systems—and with the possibility that God really does work traditional miracles in ways we may never even begin to grasp. He is wise, in my view, not to try to spell this out too fully, assuming this were even possible (and he recognizes that it may remain somewhat nebulous), for the temptation to look over God's shoulder might be too great to resist. Of course this aspect of his thinking has generated much comment, and I would expect that to continue, for there are other ways of conceiving divine action that many find more helpful, reflecting different understandings of God's character and the kenotic character of creation.

But the most serious challenge to his thinking, as Polkinghorne already fully realizes, comes from religious pluralism. Thus far he has filled the role of the scientist-theologian, writing at least as much for a popular audience as for an academic one, and has been highly successful in this—it has been many years since a scientist as good as Polkinghorne has written as much, and as eloquently, for the general public on a comparable range of topics. He has endeavored to create a wider and deeper understanding of both science and theology, often within the pages of a single work (the Terry Lectures are a case in point). Thus, his dominant mode of discourse is that of *relating* science and theology rather than the broader mode of *constructing* theology while keeping one eye on science; his commentary on Pannenberg, who reverses the priority of these two activities, is instructive here. This surely reflects Polkinghorne's life story of having two careers but probably also reflects his traditional faith commitments. Questions about the diversity of religions are at the forefront of constructive theological discourse today and are likely only to increase in importance. Science will be of no help to Polkinghorne here, as his profile points out, and his evangelical commitments, if he remains true to them, should prevent him from denying either the uniqueness of Christ or the objective reality of a Creator who stands in some sense outside the universe (an affirmation central to monotheism but peripheral at best to many other religious traditions). Some may say that this will keep Polkinghorne from engaging in genuinely pluralistic, open conversation about truth, but in my view that begs the question of realism in religion and confuses conviction with arrogance or intolerance, neither of which I find in the man or his work. I would rather say that the beliefs by which he recognizes God should remain fundamental to further exploration, for they are also the beliefs by which God recognizes him.

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