

The God of chaos? An investigation into Prof. John Polkinghorne's development of belief in Non-Interventionist Objective Divine Action.

Abstract

I will examine Polkinghorne's beliefs about how God interacts with the natural order, focussing particularly on his role in the development of the NIODA programme. Non-Interventionist Objective Divine Action (NIODA) is a project investigating modes of interaction where God does not 'intervene' in the universe nor suspend the laws of nature. Rather, God is seen to work within the causal gaps which contemporary Physics appears to provide.

Firstly, I will examine why he felt such an approach was appealing, leading into a discussion about his use of modern Physics, notably chaos theory, within such approaches. Finally, I will move on to briefly consider his legacy.

Context

Throughout the history of Christian Theology many have explored the ways in which God interacts with the world. Two major themes arguably stemming from Thomas Aquinas may be discerned. The first being that God works within nature and secondly that God has bestowed an element of autonomy to the natural causality of the world¹. These two statements, on first blush, may seem to be contradictory. How can we affirm the autonomy of creation in the face of a God who intervenes? Why would God create an ordered world, with strict laws on how events unfold, only to intervene and alter them later?

Perhaps surprisingly, modern Physics has proved to be a most congenial conversation partner to those engaged in this discussion. Twentieth-century Physics succeeded in thoroughly complicating our understanding of the underlying fabric of reality. The discovery of the uncertainty principle at the heart of quantum mechanics unsettled the view of the world as a deterministic clockwork machine, governed by a set of predictable rules. Instead, a more supple view of reality is revealed. Chaos theory also seems to present a picture where physical processes are not predictable even on the macro level; there is an element of openness to the future where there is room for the operation of further causal principles². God could be seen to influence the outcome of events, even whilst working within the 'natural' causal principles as we currently understand them.

Research Questions

I will be guided throughout my research by the following questions:

1. Why did Polkinghorne feel that the NIODA programme was appealing? Many hold that non-interventionist models are the only way to avoid positing an inconsistent God, who breaks God's own rules. Whilst this is debatable, it is clear that Polkinghorne was very impressed by such an approach. What led Polkinghorne to adopt such a position as this?
2. How did Polkinghorne utilise both his understanding of Physics and Theology, when examining the question: How does God interact with the world? For example, Polkinghorne is renowned for his use of chaos theory to look for ways in which God can interact with nature without violating the law of conservation of energy. Rather, God would be seen as providing input into the system through a system of 'active-information'³. In this way, it would be consistent to posit that God could influence the outcome of macro events, even without leaving a detectable energetic "fingerprint".
3. What is the legacy of his work, and how have people responded? Whilst Polkinghorne's work has remained influential, the NIODA programme itself is starting to fall out of favour, with critics raising many theological and philosophical issues with the notion of non-interventionism⁴. What can we learn today from the writings of Polkinghorne?

Research method

I will be using the works of Polkinghorne as the main primary material, in particular the following: *Science and Christian Belief* (SPCK, 1994), *Faith, Science and Understanding* (SPCK/Yale University Press, 2000), *Science and Providence* (SPCK/New Science Library, 1989). In addition, I will draw heavily from the following series, published by the Vatican Observatory in 1993-2001: *Quantum Mechanics, Chaos and complexity, Quantum Cosmology and the laws of nature* [All subtitled: *Scientific perspectives on Divine action*] and *Physics, Philosophy and Theology: A common quest for understanding*.

I will be drawing out key themes and quotes from these texts, which develop a picture of Polkinghorne and his attitudes towards NIODA.

Concluding remarks

I will be presenting my findings in the form of a research paper to then be subsequently modified to be delivered in an audio-visual format for a wider audience.

I will be acting under the supervision of Professor Paul D. Murray, Professor of Systematic Theology, Durham University.

References

1. A McGrath. *A Scientific Theology: Nature* (Volume 1), T&T Clarke, 2001, page 171
2. For a working typology of non-interventionist approaches and causality see R John Russell. et al., editors. *Quantum Mechanics: Scientific perspectives on Divine Action*, Vatican Observatory and the Centre for Theology and the Natural Sciences, 2001, page. V
3. J Polkinghorne. *Faith, Science and Understanding*, New Heaven and London: Yale University Press, 2000, page 124
4. For example see S Lane Ritchie. *Dancing around the causal joint: Challenging the theological turn in divine action theories*, *Zygon*®, volume 52, issue 2, 2017, page 361 - 379