

DAVID A. BOOTH

Does a First Cause make sense any more?

We are greatly indebted to Peter Bussey¹ for his careful non-technical guidance through the latest physics that may be relevant to the argument from the idea of a First Cause to the existence of God. This comment seeks to augment his valuable review with considerations from mechanistic sciences in addition to physics.

Dr Bussey alludes to two of the problems with the argument that are widely recognised.² One of these difficulties is that a First Cause would merely be an initiator, not a sustainer. Indeed, can a God conceptualised only as the first cause have any role in subsequent causation? The other difficulty is that, if physicists were to find evidence how the Big Bang arose, that origin would be physical, not divine.

There is a much more basic problem for the argument, however, which may not have been evident to its earliest formulators and is unlikely to be appreciated nowadays by those who focus their thinking about causation on one ball hitting another. This fundamental difficulty is that no science deals with chains of causation. The biochemistry of a cell, the physiology of a body, the interactions of a species with its ecology, the processes in a mind, communications using a language and the workings of a society are all systems of parallel, re-entrant and two-way causation, irreducible to series of cause and effect. Even the physical universe is a causal system, not a sequence of cause-effect processes. The Big Bang itself was not a simple event that could be an effect of a cause as now understood within the natural, social and cognitive sciences. The Big Bang was at a single infinitesimally early point in time, as we understand it, but it was a physically highly complex system of simultaneous occurrences.

Hence the verbal manoeuvre of tracing the fourth, third and second effects in the observable universe back to a first cause no longer has any coherence with empirical knowledge. There is no convergence of causal sequences back into a starting point, either.

Is it possible to rescue the argument in a form that recognises a God that sustains human societies, bodies and minds³ and indeed the whole

1 Bussey, P.J. 'God as First Cause – a review of the Kalām argument', *Science & Christian Belief* (2013) 25, 17-35.

2 *ibid.*, pp. 19, 35.

3 Gen. 1 – 2; Isa. 40 – 44.

cosmos⁴ as one observable and comprehensible reality composed of several distinctive sorts of causation?⁵ The issue turns into questions about the generation of causal systems. Indeed, this is how Peter Bussey treats the physics: for the case of the Big Bang, he illustrates how hard it is to give any account of a cause of the initial development of a system. Parents do not cause their offspring; they procreate and educate them. Barbara Hepworth did not cause her sculptures Ancestor I and II; she created them as embodied cultural entities for their owners to sustain. Not only do systems not cause other systems but also neither do events in one sort of system cause events in another sort of system, even within one human person. The firing of certain axons, or excitation or inhibition across a field of synapses, does not cause, nor is it caused by, a particular thought or feeling. A child's achievements and experiences are not caused by interactions between particular expressions of the genes and particular exposures to a family culture or wider society. Rather, genomics and environments are coordinated within an already developed infant (or fetus) to channel further development. Presumably a formally similar story can be told about a very early anomaly during development of the physical universe.

Hence it would be logical and might be productive to think of the Creator God along the lines of a system developer, rather than as the first in a row of dominoes standing next to each other. God is more like an author or director than a watchmaker; the programmer of a computing system rather than its keyboard operator.⁶ Indeed, an account of how God sustains the human home or the whole cosmos may be the most reliable way to gain insight into God's initial creation. This has been disputed by William Lane Craig in a different book from that cited by Peter Bussey.⁷ Nevertheless, if God sustains the distinct workings of physical, biological, social and mental systems, there seems no reason to invoke a different divine activity at the start. Then for theology it is beside the point whether

4 Col. 1:17; Heb. 1: 3.

5 This systems-pluralist position within a monistic naturalism is summarised in the final section of Booth, D.A, Sharpe, O., Freeman, R.P.J & Conner, M.T. *Seeing and Perceiving* (2011) 24, 485-511, 639. cf. Booth, D. 'Human nature: unitary or fragmented?', *Science & Christian Belief* (1998) 10,145-162 and at the start of a talk at the CiS-ASA Edinburgh Conference 2007, Abstract on page 20 at http://www.asa3.org/ASA/meetings/edinburgh2007/Edinburgh_program.pdf with slides. See also Alexander, D. (2013) 'Genes, determinism and God' *Cambridge Papers* 22(4).

6 MacKay, D.M. *Christianity in a mechanistic universe*, Leicester: IVP (1965).

7 Copan, P. & Craig, W.L. *Creation out of nothing*, Grand Rapids MI: Baker Academic and Leicester: Apollon (2004). These authors dismiss as totally implausible the idea that God creates a new universe of particles at each successive instant (pp. 148-157). It is the ancient and still pervasive presupposition of atomic materialism that is implausible. Far more consistent with the various sciences is the view, shared by Calvin, that God initiated and sustain the causal powers on which each type of system works – different for bodies and minds: see Helm, P. *The providence of God*, Downers Grove IL: IVP (1993), pp. 80-89, 219-222.

or not physicists can find evidence for a theory that accounts for the Big Bang, or for whether time even had a start.

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Reply to comment from David Booth

For reasons of brevity, my paper did not attempt to analyse or elaborate upon the complex nature of causal sequences and causal systems in our world. David Booth is correct in drawing attention to this, but it does not affect the real arguments of the paper. To be sure, a given physical event may have a number of contributing causes, so that instead of a causal ‘chain’ it may be more appropriate to talk about a braid, or a stream, of co-acting and interacting causes. Even so, a direction of time is always involved. The set of physical events that occur in a given system at a given time may well need to be taken in a collective way with regard to causing the set of events that occur at a later time, qualified by whatever random processes contribute, but it is still at a later time. And there was likewise an earlier set that causally generated the given set. Perhaps there are also non-physical processes – but this involves matters that I chose not to discuss since the Kalam argument is particularly addressed to physical materialists. If we are prepared to allow non-physical causes, the entire discussion becomes much more interesting, but there remains physical causation acting in its own right. There could be a problem with physical reductionistic thinking, in which causes are seen only at the basic physical level, when higher, systems-level thinking can often be very much more suitable. But at any level causation is an important element of how we analyse the processes: we usually use it, and it is directional in time.

I think some false antitheses have been erected. As I tried to say in my paper’s final section, there is no conflict between regarding God as First Cause and also as relating in a broader way to the universe. Many theologians may prefer the helpful concept of ‘sustaining’, but the Kalam argument is not aimed primarily at them. Neither should artistic creativity be seen in opposition to causation, because creativity is causative. The artist does cause the art work to be produced, even though the causation may not be entirely physical, for even spiritual inspiration is a kind of causal influence. Both points of view are correct! Likewise, while parents do indeed ‘procreate’ children, this clearly involves causing the children to

be conceived. So, much of Booth's argument seems to be about preferring one vocabulary or perspective over another, when both have validity.

However some of Booth's more sweeping assertions need to be challenged, or at least demand proper justification. It is not at all obvious to me that one type of system cannot causally affect or give rise to another, in whole or in part, or that an event in one type of system cannot cause an event in another. His statements about brain function surely go way beyond what we really know. As for an entire set of events converging on – or better, diverging from – an initial starting point, an obvious example of this is found in the current cosmological hypothesis that 'quantum fluctuations' in primordial fields lead to the generation of galaxies. Now, whether or not this theory is right, it does give a logically coherent picture in which the inflating quantum fields and their properties act as initial physical causes for the subsequent galaxies, and thereafter the stars, the planets and whatever occurs on the planets, through a long series of complex processes. (Both causal and random elements are present, but I argued that causation does not have to be total.)

Booth's comments on the Big Bang appear to miss the entire point of the Kalam argument and the discussion of the paper. Regarding whether the initial state of the universe could be highly complex, I do not know (because he did not say) what cosmological model he has in mind. A degree of definiteness is required: cosmology is an academic subject, and hand waving and vague references to an 'anomaly' won't do. The models vary and some are relatively simple. In particular, the modelling of the early inflationary process has been done with just one physical field, although more can be used, and the shape of the cosmic microwave background variations has been well fitted with a small number of parameters. The entropy of the initial state of the universe has long been recognised as surprisingly small. But *in any case*, we are assuming that the Big Bang, even a hypothetically complex Big Bang, still requires a cause (or Cause). This is what the Kalam argument is all about.

I found the *mêlée* of metaphors in David Booth's final paragraph a little confusing. On the whole, however, it seems to me that there is truth in nearly all of them! The dominoes, of course, are a parody. Otherwise, surely we do *not* have to choose between God as Cause, Creator, Author, Sustainer and the others. All these titles have something concrete to say. Human intellectual economy has no place when it comes to considering the greatness of God.

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