



# Cosmology and incarnation<sup>1</sup>

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## **The debate about divine action**

Theological cosmology – usually expressed in terms of the doctrine of creation – has often been divorced in our thinking from the cosmology of the scientist. It has also been divorced from our understanding of incarnation and salvation. In this paper I outline my attempt over a number of years to bring these aspects of our thinking into a fuller relationship with each other. I have done this, as the reader will see, by combining insights from two very different sources. The first of these is the Eastern Orthodox tradition, in which the theology of creation is strongly linked to an understanding of incarnation. The second is the tendency towards philosophical naturalism, which – largely due to liberal Protestant influence – has been a characteristic feature of the modern science-theology dialogue.

Until relatively recently, this science-theology dialogue had, for several decades, been dominated by questions about divine action. Participants in the dialogue not only rejected the notion that science and theology are to be seen as either in conflict or else as independent of one another. They also felt a need to move away from conventional supernaturalism and to stress the naturalistic perspectives provided by science. Most of them did this, however, in the context of an attempt to defend more than the notion of ‘general’ divine action that occurs through the normal, natural functioning of the cosmos, and which requires simply God’s benevolent design of the cosmos’s entities and laws of nature. They also attempted to defend the notion of ‘special’ divine action, assuming that Christianity is necessarily based on a notion of God ‘responding’ to situations in the world. They did this, not in terms of the notion of supernatural divine intervention – as had previously been usual – but rather by attempting to develop a scientifically-literate model of how God could make effective

responses to the world without suspending the laws of nature and acting purely supernaturally.

Behind this quest lay a reaction against the notion that God's action should be identified with events for which no scientific explanation seemed possible. This focus on 'gaps' in scientific understanding – common in an earlier period – was in part a reflection of the deism of the eighteenth century, which had urged that the 'clockwork' universe posited by Newtonian physics had no need for God except as its designer and initiator. There were two places where gaps in explanation seemed evident. One was in events deemed to be miraculous. The other was in the universe's apparent *design*, which even the deists (who denied the occurrence of miracles) acknowledged as good evidence for the existence of at least some kind of God.

In terms of this eighteenth and early nineteenth century 'God of the gaps' understanding, the kind of apologetic argument that was based on the world's apparent design seemed to many to be one of the main grounds on which theistic belief could be rationally held. One of the classic expressions of this belief was that of William Paley, who argued that if you found a watch, then even if you didn't know what it was for, its intricate design would indicate to you that it had been designed and made by an intelligent watchmaker. In the same way, he argued, the intricate interconnectedness of things in the world pointed to the existence of God as a kind of cosmic watchmaker. The influence of this argument was such that when Darwin's theory of evolution proved able to provide a naturalistic explanation for much of the biosphere's supposed design, there was something of a crisis among theistic believers. Indeed, this crisis still goes on among supporters of the 'Intelligent Design' movement. These insist – in a way that has proved unpersuasive to most scientists – that the current understanding of evolution as the 'blind watchmaker' is scientifically unsound.



## God's immanence

Early theological responses to Darwin were, however, less uniformly antagonistic than is often supposed. In particular, in 1889 there was a robust defence of the Darwinian scheme by Aubrey Moore, the

argument of which was to be of considerable importance to the later science-theology dialogue. What Moore pointed out was that the commonly-held view of God's creative action as a series of 'special' acts had a major theological flaw. The Darwinian view, he argued, should be seen as 'infinitely more Christian than the theory of "special creation."' For it implies the immanence of God in nature, and the omnipresence of his creative power.' Those, he went on, who oppose 'the doctrine of evolution in defence of "a continued intervention" of God, seem to have failed to notice that *a theory of occasional intervention implies as its correlative a theory of ordinary absence.*'<sup>2</sup>

It is a reaction against this 'ordinary absence' of the 'God of the gaps' that has characterised much of the mainstream science-theology dialogue of our time. If we look at the work of the three main figures who in the late twentieth century dominated that dialogue – Ian Barbour, Arthur Peacocke and John Polkinghorne – we find that each (albeit in a slightly different way) has defended the notion that God always works 'in, with, and under the laws of nature'.

However, none of these three gave up the notion that – in addition to the general providence provided by a world that develops through naturalistic processes – there occur events that need some notion of 'special divine action' to account for them. Rejecting the old notion of 'supernatural intervention', they and their more recent followers have tried to find plausible ways in which God can respond to events in the world without setting aside the laws of nature. In this search they have focused on the way in which the world, as the scientist now perceives it, is not the deterministic one described by Newtonian physics but the non-deterministic one described by quantum physics. This has led them to believe that some sort of 'causal joint' is possible, through which God can influence the outcome of the laws of nature without setting those laws aside. Some have seen quantum indeterminacy as important in this; others have seen this view as inadequate and have posited other candidates for the location of the causal joint.

However, none of these schemes is truly 'noninterventionist' in the way that is sometimes claimed, since any event that God brings about, through one or other of the 'causal joints' that are postulated, must be the result of a decision by God to 'interfere' with the usual range of possible natural outcomes to that situation, choosing one rather

than any of the others. What is envisaged is therefore merely a rather more subtle kind of interference with the world than that envisaged by those who once talked about ‘supernatural intervention’. Moreover, the causal joint approach is unable to give any account of what is sometimes called ‘the instrumental substructure of God’s acts’ – the chain of events that leads from God’s basic action to the event that is identified as God’s providential aim.

In addition to these issues there are a number of others – identified in an important study by Nicholas Saunders<sup>3</sup> – that lead him to conclude that ‘the prospects for supporting anything like the “traditional understanding” of God’s activity in the world are extremely bleak’, so that it is ‘no real exaggeration to say that contemporary theology is in crisis.’<sup>4</sup> My only disagreement with Saunders in this assessment is that I believe that his notion of the ‘traditional understanding’ of God’s action is too narrow, since it is focused on supposedly biblical perspectives rather than on the Christian tradition as a whole. Here I agree with Wesley Wildman’s judgment that much of the support for the ‘causal joint’ account of special divine action comes from what he calls a ‘personalistic theism’ that represents ‘a distinctively Protestant deviation from the mainstream Christian view.’<sup>5</sup> Because of this, I have argued that part of our strategy in trying to re-think divine action must be to re-assess traditional Christian understandings, and this is indeed part of the approach of my book, *The God of Nature*,<sup>6</sup> on which this essay is based. An equally important part of my argument in that book is, however, my exploration of the way in which the naturalism at the heart of the scientific enterprise can be interpreted in a theistic way, and it is with this that I shall begin here.



## **Strong theistic naturalism**

There have been some – Arthur Peacocke in particular – who have described themselves as ‘theistic naturalists’ because – although they adopt a causal joint explanation of special divine action – they put a great deal of stress on naturalistic perspectives. This approach I have dubbed ‘weak theistic naturalism’<sup>7</sup> in order to distinguish it from the ‘strong theistic naturalism’ that I have myself defended, in which it is held that there are no events that result from God’s temporal response

to situations or events. (This was, of course, precisely the position taken by the deists, but deism is by no means the only form of strong theistic naturalism. My own view, as we shall see, differs from deism in several crucial ways.)

If we ask defenders of special divine action why they are wary of strong theistic naturalism, two issues tend to predominate. One is that there is a perceived need for God to ‘guide’ the development of a world in which chance mechanisms seem to entail a basic unpredictability about outcomes. Here, they often take up the view of biological evolution associated with the name of Stephen Jay Gould, which stresses the unpredictability of the evolutionary process. In response to this argument, I have urged that we need to recognize that this view is not held throughout the biological community. Richard Dawkins, for example, has noted that certain functional attributes – such as the eye, the venomous sting, and echolocation – have actually appeared independently a number of times in the course of evolution. He suggests that if we did a systematic count of such independent origins we would find ‘certain potential evolutionary pathways which life is “eager” to go down [...] Evolution repeatedly races down the easy corridors, and just occasionally, and unexpectedly, leaps one of the hard barriers.’<sup>8</sup> In this sense, Dawkins seems to imply that evolution does have a degree of predictability. An even stronger, quasi-teleological version of this position has, moreover, been taken by Simon Conway Morris, who has speculated that ‘an exploration of how evolution “navigates” to particular functional solutions may provide the basis for a more general theory of biology’. It is his suspicion, he says, ‘that such a research programme might reveal a deeper fabric to biology in which Darwinian evolution remains central as the agency, but the nodes of occupation are effectively pre-determined from the Big Bang’.<sup>9</sup>

If the issue of unpredictability in evolution is by no means as strong an argument as it seems to be to some who want to insist that special divine action must occur, neither is their argument about the theological necessity of positing a particular kind of ‘personal’ God who can ‘respond’ to intercessory prayer and other events in the world. In particular, I have argued that their implicit or explicit assumption of God as a temporal being entirely ignores what has been called the classical notion of divine eternity, in which the effectiveness

of intercessory prayer can be defended without recourse to a ‘temporal response’ understanding.<sup>10</sup> I have also urged that any *panentheistic* approach – in which the world is seen, not as separated from God but as in some sense ‘in God’ – will counter their argument that only a personalistic theism can avoid the tendency of a strong theistic naturalism towards the ‘absentee landlord’ God of deism. After all, I have observed, if it is the case that God is in everything and everything is in God, then God can hardly be absent from the world. (As we shall see, the Eastern Orthodox understanding is strongly panentheistic because of its Christological interpretation of the created order.)

In addition, I have argued that even if we insist that some kind of temporal, personal God is intrinsic to Christian belief, it is important to recognize that personal actions can, philosophically, be ‘naturalistic’ in the sense that they do not need a separate decision and new action on each occasion. The example I have given<sup>11</sup> is the human providence that is involved in parents’ financial support of their children when the latter are students at university. In practice, this is likely to involve the human equivalents of both general and special divine action, so that, for example, I might say to my son: ‘The money that comes regularly from my bank account to yours by standing order – my general providence – wasn’t designed to cover car repairs but only normal, everyday expenses. Here, therefore, is some extra cash – special providence – to cover the repairs your car needs.’ In principle, however, the ‘special’ providence required as a response to something out of the ordinary, like these car repairs, is only the result of my lack of wisdom in predicting possible eventualities. My financial provision could, at least in principle, be purely of the ‘general providence’ kind, enacted through a number of ‘if-then’ statements added to my standing order to the bank. Thus the standing order might take this form: ‘Transfer such and such an amount every month to my son’s account, to cover his everyday expenses, and *if* he provides receipts for repairs to his car, *then* transfer to his account enough additional funds to cover those repairs.’ My payment of my son’s car repair bill through this mechanism would be no less ‘personal’ than if I had handed him the cash directly, but no new decision or action on my part would have been necessary. If humans can in principle (though probably not in practice) be wise enough to avoid the necessity of special action in

response to events, it is surely wrong to deny predictive wisdom of this kind to God.

In addition to this kind of philosophical argument, I have urged another in relation to another objection to strong theistic naturalism that is sometimes offered in defence of special divine action. This is related to the Christian belief in the occurrence of those events usually deemed miraculous. While naturalism of any kind is often seen as precluding the occurrence of such events, this view is, I have suggested, a flawed one, based on an unnecessary definition of miracles as events in which the laws of nature are violated.<sup>12</sup> Such events, I have urged, are unusual, not because of violation of natural laws, but because they constitute the result of the kind of ‘higher’ laws of nature that seem to have been envisaged in Augustine of Hippo’s discussion of miracles,<sup>13</sup> which require special circumstances for their effects to be tangible. In this sense, I have argued, they are comparable to changes in regime of the kind known to physicists, such as the onset of superconductivity. (We may nowadays, I have suggested, wish to express this Augustinian insight in terms of emergent phenomena comparable to such regime change phenomena, of the kind explored in this context by John Polkinghorne.<sup>14</sup> Alternatively, we might perhaps talk in terms of instantiations of new laws of nature, of the kind explored in relation to Christ’s resurrection by Robert John Russell.)<sup>15</sup> It is in this sense of allowing for the possibility of ‘miraculous’ events that I have described my version of naturalism as *enhanced naturalism*.



## Traditional perspectives

My arguments about the possibilities inherent in strong theistic naturalism also have their echoes in ancient Christian thinking about incarnation and salvation. This is especially true of the Eastern Orthodox tradition, which rejects the Augustinian separation between grace and nature that has influenced most Western theological systems. In this Eastern tradition, as Vladimir Lossky has noted, there is no concept ‘of “pure nature” to which grace is added as a supernatural gift. For it, there is no natural or “normal” state, since grace is implied by the act of creation itself.’<sup>16</sup> This is linked to the way in which the Western notion of the *supernatural* is only rarely used in Orthodoxy,

since this notion depends on a notion of the separation of grace and nature that is alien to Orthodox thinking.<sup>17</sup>

The panentheistic dimension of this understanding is manifested particularly in the work of a patristic author who is extremely influential in modern Orthodox thinking: Maximos (or Maximus) the Confessor (d. 662). In a way that reflects the range of meanings of the Greek term *logos*, Maximos speaks, not only about the divine *Logos* incarnate in Christ (John 1:1–14), but also about the *logos* of each created thing, which he sees as being in some sense a manifestation of the divine *Logos*. (It is in this way that the notions of creation and incarnation are intimately linked in Orthodox thinking. The created world is interpreted not just theistically but *Christologically*, in a way that goes far beyond most Western notions of the ‘cosmic Christ’.) One modern Western scholar, Lars Thunberg, has gone as far as to say that for Maximos there is ‘almost a gradual incarnation’,<sup>18</sup> and although this expression is imprecise, it is valid insofar as it points to the link in Orthodox thinking between the act of creation and the incarnation in Christ. Nor is this link simply a peculiarity of the Orthodox tradition, since modern Western exegesis of the fourth gospel’s use of the *Logos* concept also has a strong sense that the incarnation in Christ is not so much a supernatural intrusion into the cosmos as the completion of a process begun in the act of creation.<sup>19</sup>

An important point to note here is that Maximos’s notion of the *logos* of each created thing seems to anticipate the kinds of teleological possibilities which, as we have noted, are implicit in Simon Conway Morris’s analysis of evolutionary theory (and are also implicit in some understandings of the ‘fine-tuning’ of the universe perceptible to astrophysicists, and usually explored at a philosophical level in terms of what is called the *anthropic cosmological principle*).<sup>20</sup> As one scholar has put it, for Maximos’s understanding ‘Christ the creator Logos has implanted in every created thing a characteristic logos, a “thought” or “word,” which is God’s intention for that thing, its inner essence, that which makes it distinctively itself *and at the same time draws it toward the divine realm*.’<sup>21</sup> Or, as another has put it, the world, ‘created in order that it might be deified, is dynamic, tending always towards its final end’.<sup>22</sup>

There is also in this Eastern Christian tradition something that seems to echo the Augustinian notion of miracles being the result of the operation of ‘higher laws of nature’. This is related to the belief that the ‘natural’ world has suffered a transformation in ‘the Fall’ (not necessarily interpreted as a historical event)<sup>23</sup> and will undergo another transformation when its eschatological fulfilment is accomplished. In this sense, as Panayiotis Nellas has pointed out, the world as we experience it is seen in Orthodox theology as being far from what God originally intended and ultimately wills, so that in a sense it should be seen as ‘unnatural’<sup>24</sup> or – perhaps better – subnatural. The traditional Eastern interpretation of the ‘garments of skin’ given by God to Adam and Eve after their disobedience (Genesis 3:21) is that they represent our present, sub-natural, psychosomatic make-up, and that this make-up is reflected in the entire sub-natural world in which we find ourselves. (An aspect of this sub-natural character of the world is that there exists within it what Western Christian analysis would call ‘natural evil’.) Miracles, for this Eastern tradition, are often seen as a restoration of the world’s ‘natural’ state – i.e. as an anticipation of its eschatological transformation.<sup>25</sup>

The central argument in my book, *The God of Nature*, is that my philosophical arguments about strong theistic naturalism and these essentially theological insights may be brought together in a new synthesis, in which the distinction between special and general divine action is made redundant. This argument is, as the reader might expect, not a simple one of the kind that can be presented here in detail, and those interested must, therefore, be referred to that book. Two things that have happened since its publication may, however, be helpful to those who read it now.

The first of these is that there has been – from within the Roman Catholic tradition – a revision by Michael Dodds of much of scholasticism’s metaphysics in relation to divine action.<sup>26</sup> This revision manifests clear links to aspects of my own approach. The second is that Sarah Lane Ritchie has pointed out that not only are there links between Dodds’s work and my own, but also significant links between these and an essentially new strand of thinking within Protestantism.



## The ‘theological turn’ in the divine action debate

Ritchie – one of the most able of the younger generation of science-religion researchers, and now a lecturer in the University of Edinburgh – has spoken about what she calls a ‘theological turn’ in the debate about divine action. In this development, she observes, the metaphysical basis of the causal joint model is radically challenged. In her influential paper on this topic<sup>27</sup> (to be expanded in a forthcoming book)<sup>28</sup> Ritchie has explored the way in which the proponents of the theological turn challenge the causal joint model’s assumption of an essentially autonomous universe that God must influence from ‘outside’. The challengers instead posit, in their various ways, a universe that is to be understood only in terms of God’s presence within it. They argue, she observes,

that standard causal joint proposals [...] are dependent upon question-begging metaphysical commitments, which in turn inadequately frame the entire divine action conversation. These presuppositions involve basic ontological questions about the God-nature relationship, and especially the question of what, exactly, it means to be properly “natural.”<sup>29</sup>

Ritchie points not only to my own work and that of Dodds, but also towards the work of two scholars in the charismatic/Pentecostal tradition: Amos Yong<sup>30</sup> and James K. A. Smith.<sup>31</sup> She observes that – like my own panentheistic framework and like Dodds’ Thomistic approach – the ‘pneumatological naturalism’ of these two scholars reverses the standard methodology of standard divine action theories. Smith, she notes, labels his own version of this perspective as *enchanted naturalism*, and this is similar, she observes, to the understandings to be found in Dodds’ approach and in my own work. (It is a coincidence – but surely a significant one – that Smith’s term *enchanted naturalism* is echoed by my own use of the term *enhanced naturalism*.)

This kind of pneumatological framework for divine action is able, in Ritchie’s judgment, to perform the same metaphysical function as panentheism does in my own approach. In all of these approaches,

she observes, to be natural is to be fundamentally involved with God at the most basic level. One aspect of this parallelism relates to the basic understanding of nature. Just as for Orthodoxy there is no ‘pure’ nature to which grace is added as a supernatural gift, so also the pneumatologists ‘deny the implicit deism that would legitimize the notion of an autonomous natural world apart from the Spirit of God.’<sup>32</sup> Another similarity lies in the understanding of miracles. As we have seen, miraculous events are, for my own approach, an aspect of the ‘natural’ functioning of the world. In a comparable way, the pneumatological approach is, as Ritchie observes, one in which, if ‘some events seem more supernatural than others, this is due to varying levels of creaturely response and openness to the Spirit’.<sup>33</sup> Such events are, she goes on (quoting Smith), ‘sped-up modes of the Spirit’s more regular presences’.<sup>34</sup> This clearly parallels my own view of the way that such events may be seen as the outcome of the presence of the *Logos* in both ordinary and ‘higher’ laws of nature. (In Yong’s approach to this issue there is also, it should be noted, an eschatological focus comparable to my own, though Ritchie does not comment on this.)

An important aspect of this Pentecostal/charismatic emphasis on the third person of the Trinity is that it may be seen as complementing the Orthodox focus on the second person – especially when we remember that pneumatological insights are already implicitly present in the Orthodox approach, since Orthodoxy has a strong sense of the importance of the Cappadocian Fathers’ belief that all divine action is essentially Trinitarian action, with the Son and the Spirit constituting what Irenaeus called the ‘two hands’ of the Father. The way in which the Spirit’s role is made explicit in the pneumatological naturalism of Yong and Smith arguably clarifies my own *Logos*-focused naturalism in a way that can enable an understanding of divine action to be developed that is truly Trinitarian (and not just based on the rather vague philosophical theism of the causal joint approach.)



## **A theology of the world’s faiths**

There is an aspect of this new understanding of naturalism and divine action that has not been commented on by any of the authors

involved in the ‘theological turn’ other than myself. This relates to its possible implications for developing a theology of the world’s faith traditions. My approach here is based at least partly on the way in which theologians like Karl Rahner and Hans Urs von Balthasar have explored the psychological, visionary aspect of revelatory experience. What I have added to this kind of analysis is an interpretation based on the general model of divine action that I have developed, so that a particular focus on naturalistic processes is central to the proposals I have made.

These proposals were originally expressed in terms of a specifically Christian perspective,<sup>35</sup> and it was only later that I clarified those aspects of my approach that could be used from the perspective of any faith tradition. This was done in terms of five theses, which I first set out in 2010 in an analysis of the concept of *homo religiosus*,<sup>36</sup> and subsequently reiterated in a 2013 article, in which they were linked to the insights of Pierre Teilhard de Chardin.<sup>37</sup> The five theses are as follows:

1. *The human psyche may be understood in principle entirely in terms of the development of the cosmos through natural processes from the Big Bang to the evolutionary emergence of specifically human qualities. All experiences that give the impression of being revelatory of a divine reality are the spontaneous, natural products of the human psyche, and do not require any notion of ‘special’ divine action to explain them.*
2. *These experiences are culturally-conditioned, in that their specific forms will relate to both the individual psychological make-up and culturally-determined expectations of those who receive them. These factors are sufficient to explain why, in different individuals and cultural contexts, there is considerable diversity in the types of such experience and of the religious languages that arise from them.*
3. *The belief of most religious people, that their faith’s foundational religious experiences have given rise to a religious language that is genuinely referential to a divine reality, is a valid one. This divine reality – as something to which reference can validly be made – is therefore ontologically defensible.*

4. *The diversity of the religious languages that arise from different revelatory experiences does not imply that they cannot all validly refer to the divine reality. A pluralistic understanding of their referential success is possible.*
5. *The cosmos, in which the revelation-oriented human psyche has arisen naturalistically, is attributable to the ‘will’ or character of the divine reality to which authentic revelatory experience bears witness. (As those of the Abrahamic traditions might put it, the probability that some creatures would come to know their creator was built into the cosmos, by that creator, from the very beginning.)*

Behind these five theses lies the notion of what – by analogy with ecological niches – I have called the *psycho-cultural niches* within which revelatory experiences arise. As I put it in the first book in which I explored this concept, the core of this idea is that

just as life is potentially multiform, and will arise and develop new forms ‘spontaneously’ through natural (chemical and biological) processes in accordance with the possibilities inherent in a given ecological environment, so revelation – psychological in mechanism, but also in part genuinely referential – is also potentially multiform. It too will arise and develop new forms ‘spontaneously’ through natural (psychological) processes, in accordance with the possibilities inherent in a given cultural and psychological environment. Whether we are considering life or revelation, however, neither spontaneity nor naturalness precludes a theological explanation in terms of divine action through the sacramental potential of the cosmos.<sup>38</sup>



## **Pansacramentalism**

The term *sacramental potential* used here is, in fact, at the heart of my whole approach, since this potential relates not simply to the sacraments of the Church – though it takes its initial bearings from those sacraments – but to a more general understanding of the nature of all created things. An embryonic version of this *pansacramentalism*

(as I have called it) is arguably to be found in Quakerism (which does not have specific ecclesiastical sacraments), and is certainly to be found in strands of Anglicanism (which does). It is this underdeveloped Anglican form that seems to have informed the approach to the science-theology dialogue of Arthur Peacocke, for whom

it looks as though Christians, starting, as it were, from one end of their experience of God in Christ through the Holy Spirit acting in the stuff of the world, have developed an insight into matter which is consonant with that which is now evoked by the scientific perspective working from matter towards persons, and beyond.<sup>39</sup>

For Orthodox, however, a more fully-developed kind of pansacramentalism is often quasi-instinctive. Moreover, as Philip Sherrard has argued, the form it takes in their tradition cuts the Gordian knot of wrangles about how many sacraments there are and about the validity or otherwise of divisive terms like *transubstantiation*. The basis of such wrangles may be seen, he argues, as missing the essential point about what a sacrament is.<sup>40</sup> For him, ‘what is indicated or revealed in the sacrament is something universal, the intrinsic sanctity or spirituality of all things, what one might call their real nature’.<sup>41</sup>

For another Orthodox author, Alexander Schmemmann, sacraments are, in a similar way, quite simply, ‘a revelation of the genuine *nature* of creation’.<sup>42</sup> And it is essentially this vision of the genuine nature of creation that has given rise to all that I have written in this essay and elsewhere about the direction in which theological cosmology should go. Whether it is an authentic vision or otherwise is for the reader to judge.

## Notes

1. Based on a talk given to the Scottish Church Theology Society in 2018.

2. Aubrey L. Moore, *Science and the Faith: Essays on Apologetic Subjects* (London: Kegan Paul, Trench & Co., 1889), 184.
3. Nicholas Saunders, *Divine Action and Modern Science* (Cambridge: Cambridge University Press, 2002).
4. *Ibid.*, 215.
5. Wesley Wildman, “Robert John Russell’s Theology of God’s Action”, in *God’s Action in Nature’s World: Essays in Honour of Robert John Russell*, ed. Ted Peters and Nathan Hallanger (Aldershot: Ashgate, 2006), 166.
6. Christopher C. Knight, *The God of Nature: Incarnation and Contemporary Science* (Minneapolis: Fortress Press, 2007).
7. *Ibid.*, 27.
8. Richard Dawkins, *The Ancestor’s Tale: A Pilgrimage to the Dawn of Life* (London: Weidenfeld & Nicolson, 2004), 604.
9. Simon Conway Morris, *Life’s Solution: Inevitable Humans in a Lonely Universe* (Cambridge: Cambridge University Press, 2003), 309f.
10. This classical notion of divine eternity simply means that the effects of intercessory prayer are not to be understood in terms of a temporal God ‘responding’ within time. See the chapter, “Praying to the God Beyond Time” in Knight, *God of Nature*, 124–33.
11. Knight, *God of Nature*, 28f.
12. *Ibid.*, 34–39.
13. Augustine, *Of the Advantages of Believing*, 34, c.f. *City of God* 21:6-8; see the comments in Wolfhart Pannenberg, “The Concept of Miracle”, *Zygon: Journal of Religion and Science* 37 (2002): 759–62.
14. John Polkinghorne, *One World: The Interaction of Science and Theology* (London: SPCK, 1986), 74f.
15. Robert John Russell, “Bodily Resurrection, Eschatology and Scientific Cosmology: The Mutual Interaction of Christian Theology and Science”, in *Resurrection: Theological and Scientific Assessments*, ed. Ted Peters, Robert John Russell and Michael Welker (Grand Rapids, Mich.: Eerdmans, 2002), 3–30.
16. Vladimir Lossky, *The Mystical Theology of the Eastern Church* (Cambridge: James Clarke, 1957), 101.

17. This is not to claim that the term ‘supernatural’ is not to be found in some Orthodox authors – among modern ones it is certainly used, for example, in the work of Dimitru Staniloae. Nevertheless, its technical meaning when used by such authors is not the same as that used in the West. Moreover, rather than using the distinction between the natural and the supernatural, Orthodox authors more often use the distinction between the uncreated (God) and the created – this latter category including entities (like angels) that traditional Western systems regard as supernatural. For Orthodoxy, atoms and angels belong to the same category, not to different ones, in part because of what Elizabeth Theokritoff has called the Orthodox stress on ‘solidarity in createdness’. See Elizabeth Theokritoff, “Creator and Creation”, in *The Cambridge Companion to Orthodox Christian Theology*, ed. Mary B. Cunningham and Elizabeth Theokritoff (Cambridge: Cambridge University Press, 2008), 65.
18. Lars Thunberg, *Man and the Cosmos: The Vision of St. Maximus the Confessor* (Crestwood, NY: St. Vladimir’s Seminary Press, 1985), 75.
19. See e.g., Stephen W. Need, “Re-reading the Prologue: Incarnation and Creation in John 1.1–18”, *Theology* 106 (2003): 397–404.
20. John D. Barrow and Frank J. Tipler, *The Anthropic Cosmological Principle* (Oxford: Clarendon, 1986) is now slightly outdated but still provides perhaps the best comprehensive review of the issues.
21. Kallistos Ware, “God Immanent Yet Transcendent: The Divine Energies According to Saint Gregory Palamas”, in *In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God’s Presence in a Scientific World*, ed. Philip Clayton and Arthur Peacocke (Grand Rapids, Mich.; Cambridge: Eerdmans, 2004), 160 [my italics].
22. Lossky, *Mystical Theology*, 101.
23. In the Origenist tradition – which has had a significant effect on Eastern Christian thinking despite aspects of it being considered heretical – there is a strong sense that the Fall represents a descent *into* our present space-time world, not an event within it. In this sense it is seen not as a historical event but as something meta-historical.

24. Panayiotis Nellas, *Deification in Christ: Orthodox Perspectives on the Nature of the Human Person* (Crestwood, NY: St. Vladimir's Seminary Press, 1987).
25. Knight, *God of Nature*, 86–95; c.f. Christopher C. Knight, “The Fallen Cosmos: An Aspect of Eastern Christian Thought and its Relevance to the Dialogue Between Science and Theology”, *Theology and Science* 6 (2008): 305–17.
26. Michael J. Dodds, *Unlocking Divine Action: Contemporary Science and Thomas Aquinas* (Washington D.C.: Catholic University of America Press, 2012).
27. Sarah Lane Ritchie, “Dancing Around the Causal Joint: Challenging the Theological Turn in Divine Action Theories”, *Zygon: Journal of Religion and Science* 52 (2017): 361–79.
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