# Comment and Response

with Christoffer Skogholt, "I Walk the Line: Comments on Mikael Leidenhag on Theistic Evolution and Intelligent Design;" and Mikael Leidenhag, "The Problem of Natural Divine Causation and the Benefits of Partial Causation: A Response to Skogholt"

## I WALK THE LINE: COMMENT ON MIKAEL LEIDENHAG ON THEISTIC EVOLUTION AND INTELLIGENT DESIGN

by Christoffer Skogholt

Abstract. Is theistic evolution (TE) a philosophically tenable position? Leidenhag argues in his article "The Blurred Line between Theistic Evolution and Intelligent Design" that it is not, since it, Leidenhag claims, espouses a view of divine action that he labels "natural divine causation" (NDC), which makes God explanatory redundant. That is, in so far as TE does not invoke God as an additional cause alongside natural causes, it is untenable. Theistic evolutionists should therefore "reject NDC and affirm a more robust notion of divine agency." However, this will, Leidenhag claims, have the effect that theistic evolutionists "will move their position significantly closer to Intelligent Design," and so the line between TE and intelligent design is (or ought to be?) blurred. If successful, the criticism by Leidenhag would be bad news for theists who want to take science seriously and good news for those scientistic atheists according to whom there simply is no scientifically respectable way of combining theism and modern natural science in an overarching worldview. So, is TE stuck between a rock (of redundancy) and a hard place (of pseudo-science)? No, at least not due to the criticism offered by Leidenhag—but maybe religious naturalism is?

Keywords: Thomas Aquinas; Philip Clayton; evolution; Deborah Haarsma; intelligent design; panentheism; Arthur Peacocke; religious naturalism; theism; transcendence

When Michael Behe, probably the scientifically most prominent intelligent design (ID) advocate, testified in the Dover Case he said that he had no theological problems with the idea of Darwinian evolution: his complaints were strictly scientific, in that Darwinian processes were, to his mind, insufficient for producing certain biochemical structures (Behe 2005). The idea that God could create through natural causes was thus not

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something to which Behe objected. However, Leidenhag's criticism against theistic evolution (TE) is seemingly directed precisely against that idea: TE makes God redundant, since it does not invoke God as an additional cause alongside natural causes. If nature can produce the biological species, there is, so to speak, nothing left for God to do. In this article, I will analyze how Leidenhag arrives at the conclusion that TE makes God redundant since it does not invoke God as a cause alongside natural causes for the evolution of species, and argue that although TE advocates do believe that nature has been gifted with the capacity for biological evolution, God is not redundant for the theistic evolutionist. According to theists and panentheists, God is both transcendent and immanent. It is more likely that Leidenhag's critique is successful against a position in which such a distinction is impossible to uphold, as in, perhaps, religious naturalism. It may indeed be that religious naturalists, by denying God's transcendence, makes God explanatory redundant, unless they invoke God as an additional factor alongside the natural causes. So, it may be religious naturalism, not TE, which is stuck between a rock of redundancy and a hard place of pseudo-science.

#### Overview of Leidenhag's Argument

Leidenhag offers two main lines of arguments for his claim that TE is philosophically untenable:

- (1) Since theistic evolutionists argue that God does not complement the natural causes of evolution with occasional interventions in the natural order (as theistic ID advocates do) so as to create the different species, "God-talk" becomes redundant as an explanation for the emergence of the biological species, including humans.
- (2) If TE escapes the redundancy-objection, it is so vulnerable to the problem of natural evil, so as to make it untenable.

In addition to these two arguments, Leidenhag also wants to illuminate the purported redundancy of God in TE with Jaegwon Kim's analysis of nonreductive physicalism. This is not an independent line of argument, but meant to further illuminate or illustrate why God is redundant, if TE is correct in its view on divine action in the natural order.

## The Redundancy Argument

The late physicist, historian, as well as philosopher, of science, Ernan Mc-Mullin (1924–2011) once remarked that the ID movement seems to conflate or collapse the distinction between the natural and supernatural orders (McMullin 1991). That is, they think that God's special action, in salvation history (the supernatural order) is the model for all of God's

actions, also in the natural order. I concur with McMullin's statement, but I also think that ID advocates, as well as their atheistic counterparts, scientistic atheists, tend to disregard the distinction between philosophy and science. To say that something is designed is not necessarily to say that we cannot give a scientific, natural account of its emergence, as Erkki Rope Kojonen has convincingly argued (Kojonen 2016). But then the claim for design is a philosophical and not a scientific claim. Richard Dawkins is famous for his statement that "Biology is the study of complicated things that give the appearance of having been designed for a purpose" (Dawkins 2015, 4). A theistic evolutionist could very well reply that if so, evolution seems to be a quite useful process if one wants to produce things, which are so complicated that they have "the appearance of being designed." Thus, if God exists, evolution is compatible with design.

It seems as if both the "blurring" of the distinction between the natural and the supernatural orders, as well as between science and philosophy permeates Leidenhag's analysis of TE. On the one hand, TE, Leidenhag argues, makes references to God redundant: since God is *scientifically* redundant, God is, Leidenhag apparently thinks, made redundant *tout court*. But Leidenhag also repeatedly writes as if one is committed to think that God *always only* acts through natural causes if one thinks that God only acts through natural causes for producing the systematic phenomena of the natural world, such as the biological species. This would be corresponding to a lack of distinction between the natural and the supernatural order.

Let us examine the redundancy argument that, since according to theistic evolutionists, God does not complement the natural causal story for the emergence of biological species, God therefore becomes explanatory redundant. But God is not rendered redundant for the theistic evolutionist, because a scientific account is never a complete account. A scientific account can only describe and explain how nature got from one state to another: "for the created nature acts always on something presupposed" as Aquinas (2017) says in *Summa Theologica* (First Part, Question 104, Article 2). Therefore, it cannot provide an ultimate explanation of why the natural world exists or came into being or has its most fundamental characteristics. Science explains the changes within the Universe but not its existence. That would be a philosophical explanation. And TE is a philosophical position that includes, but goes beyond, evolutionary biology. It is not a scientific theory, as ID claims to be.

There are many ways in which a theistic view of evolution might be explicated, but this is a fairly standard summary: God has created, and continues to uphold in existence, all that exists and which is not God: the Universe in which we live, for example, including its fundamental characteristics. This action of God is, one can say, a *direct* action and it is *continuous*: would God withdraw his bestowal of existence, the Universe would cease to exist, just like a television program would cease to be shown on

the TV if we were to disconnect the electric cord. In addition to this *direct* action there are also *indirect* actions, when God acts through secondary causes. As is well known, Thomas Aquinas defended the autonomy of natural causes in discussions with occasionalists, according to whom there were no real natural causes.

That God created the world with real causal powers is not something that *detracts* from God's creative greatness: on the contrary it is a *greater act of creation* to give causal powers to the world. A Universe with causal powers is a greater Universe than one without these causal powers. According to Aquinas (2017), "Now it is a greater perfection for a thing to be good in itself and also the cause of goodness in others, than only to be good in itself. Therefore God so governs things that He makes some of them to be causes of others in government; as a master, who not only imparts knowledge to his pupils, but gives also the faculty of teaching others" (*Summa Theologica*, First Part, Question 103, Article 6).

For Aquinas (2017), neither must God *immediately* govern or direct things in the Universe, nor must God *immediately* keep them in existence in order to both lead them and keep them in existence: God can do both through secondary, mediating causes: "A thing is kept in being by that which gives it being. But God gives being by means of certain intermediate causes. Therefore He also keeps things in being by certain causes" (Summa Theologica, First Part, Question 104, Article 1).

In other words, "mediated creation" is not a foreign thought for Aquinas. From this basic distinction between primary and secondary causality, two things follow:

- (1) God is not needed as a cause *alongside* the natural causes in a scientific account of how nature changed from one state to another.
- (2) God is, however, needed for an *ultimate* explanation for why any contingent creature exists.

Thus, God is neither redundant, nor a cause alongside natural causes, and thus not competing with the biological explanations in evolutionary biology. In summary one can say that science, unlike philosophy, can take certain things as "given" (indeed, must do so) and "given that which is given," it tries to explain the processes of change in the Universe.

In light of this well-established and widely accepted distinction between direct and indirect divine causation, how can Leidenhag arrive at his conclusion that TE makes God causally redundant? Well, it turns out that it hinges upon a too strong formulation of what the completeness of the natural account, that the theistic evolutionist affirms, amounts to. That completeness is, for a theist, only a relative completeness, not an absolute: given that there is a Universe, with certain fundamental properties, which is continuously held in existence by God, then we can give (in principle) a

complete causal account of how nature changed from one state to another. That is what science tries to do.

But, according to Leidenhag, theistic evolutionists subscribe to what he names natural divine causation (NDC) and which is defined as follows: "a particular event, *E*, must be causally attributed to God's influence, *G*, and natural causation, *N*. That is *G* and *N* both (fully) explain *E*, as God only acts from within natural processes" (Leidenhag 2019, 916).

But no theist can (coherently) claim that the scientific story of how nature changed from one state to another is a *full* explanation of the natural event, since the scientific story must always be included in a broader philosophical and theological framework in which God creates and sustains the whole created order of secondary causes. A theist *can* claim though that "N" is a full *scientific* explanation, as well as holding that scientific explanations are always incomplete, since they do not involve references to the ultimate cause of the Universe. But maybe that is what theistic evolutionists do in fact claim: that science gives an (unqualified) complete explanation of the emergence of (say) humans? Maybe that is what the authors like Philip Clayton, Deborah Haarsma, and Arthur Peacocke who Leidenhag takes as representatives of "naturalist divine causation" affirm, when they seek a faith that is naturalistic in the sense of being consistent with the natural sciences?<sup>1</sup>

Well, in a word: no. That is not a charitable reading of these authors. To take one characteristic sentence from Arthur Peacocke: "As the creative source of all that is, *God must be a Being of unfathomable richness* to be able to bring into existence a cosmos with such fecund potentialities" (Peacocke 1990, 103, emphasis in the original), or in Peacocke's explanation of what he means by "theistic naturalism": "a *theistic* naturalism may be expounded according to which natural processes, characterized by the laws and regularities discovered by the natural sciences, are themselves actions of God, who continuously gives them existence" (Peacocke 2007, 17, emphasis in the original).

Peacocke then goes on to approvingly quote Howard van Till, who Leidenhag considers as presenting a contrasting view of TE to Peacocke, but with which Peacocke agrees: "God may be said to have 'gifted' the Universe, and goes on doing so, with a 'formational economy' which is the set of all of the dynamic capabilities of matter and material, physical and biotic systems that are 'sufficiently robust to make possible the actualization of all inanimate structures and all life forms that have ever appeared in the course of time'" (Peacocke 2007, 19). (Note that the passages within the single quotation marks are quotes from Howard van Till by Peacocke.)

Both Clayton and Peacocke are (as Leidenhag notes) panentheists. They think that the divine reality transcends the natural world that the natural sciences explore. The world exists (in some sense) "in God"—thus the title of Peacock's and Clayton's jointly edited book "In whom we live, and move and have our being" (Peacocke and Clayton 2004).

No panentheist can be a metaphysical naturalist, but panentheists can affirm that natural causes provide the full scientific explanation of the origin of the species without making God redundant in an ultimate explanation of why (for instance) humans exist. Neither does this make it impossible for them to affirm special divine action, although for Peacocke and Clayton at least, this is preferably thought to occur by God utilizing or influencing an intrinsic openness in nature rather than through God acting totally independent of the secondary causes of nature (the latter is often named interventionist special divine action and the former noninterventionist special divine action).

Philip Clayton, in his response to Peacocke's essay in *All That Is: A Naturalistic Faith for the Twenty-First Century* first clarifies in what sense Peacocke's theology can be said to be "naturalist": it is naturalist in the sense of holding that God, as Ground or Source of all things "does not make any direct interventions into the natural world" (Clayton 2007, 165). This is, as we have seen, very different from holding that the natural world is ontologically autonomous: God brings cosmos, with its potentialities, into existence, so the scientific explanation is not the whole explanation.

However, as Clayton goes on to clarify, a "no intervention view" is different from a "no influence view." Peacocke does not want to deny special divine action. Clayton then goes on to pinpoint the difference between his own view of divine influence as analogous to top-down causation (e.g., by the mind on the brain) and Peacocke's view in terms of whole-part influence. Clayton's point is that Peacocke ought to adopt a top-down model in order to be able to make the claims for God's special, influencing (noninterventionist) actions in the world that he makes, and which *complements* God's sustaining action in giving existence to the cosmos. The details of this discussion does not matter much in this context, apart for establishing the fact that for neither Peacocke nor Clayton is God redundant, neither for understanding the "natural" order (where God acts through secondary causes) nor for what has traditionally been called the order of grace or the super-natural order (although Clayton and Peacocke may or may not want to use the latter term, the reality they refer to is basically the same: God revealing himself to persons and answering prayers, for instance).

Deborah Haarsma, the president of BioLogos is also labeled an advocate of "naturalistic divine causation" by Leidenhag. Haarsma calls her own position on evolution "evolutionary creation" (the same concept that BioLogos advocates) that affirms God as an ultimate cause of the Universe (including designing its basic characteristics) and God as creator and sustainer of the Universe, but that natural causes are enough to explain natural change within the Universe (Haarsma 2017, 136). In addition to this Haarsma, as well as BioLogos, affirms (as Leidenhag points out in

a footnote in his article) the classical miracles of the Christian tradition, where God acted to produce effects that go beyond the created order. That is, Haarsma affirms both the distinction between ultimate (primary) and mediate (secondary) causation and the occurrence of miracles, where God acts instead of or to complement a secondary cause. This requires that God is both transcendent to nature and immanently active in nature.

## The Problem of Natural Evil

Two accounts of TE are discussed, in which God is not redundant, according to Leidenhag: Thomism and Howard van Tills notion of TE as an expression of a "fully gifted creation." As noted above, Peacocke is in agreement with van Till about how to articulate TE. When discussing Howard van Till, Leidenhag objects that if this view is combined with a deterministic understanding then this intensifies the problem of natural evil. True, but determinism is not a distinguishing feature of TE. One can be an advocate of TE and a theological determinist or indeterminist and the same holds for ID advocates.

The problem of natural evil is a problem for TE, because it is a problem for all theists. If God is the source and author of natural processes, and these are both destructive and creative, then God apparently allows destructive natural processes to carry on in nature. But how is that not a problem for an ID advocate? The only theological position that even aims to put the blame for natural evil strictly on humans are Young Earth Creationists for whom there were no predators or biological death before the sin of Adam. Of course there are also those that refer to a pre-Adamic angelic fall to account for natural evil—but that is not a part of the ID thesis. Many ID advocates, like Michael Behe, accept common descent and a very old Earth. There is nothing about the core claim of ID—that some biological features could not have evolved by Darwinian mechanisms—that diminishes or addresses the problem of natural evil.

Any theological model that claims God is the ultimate source of nature, and in the last analysis in ultimate control over natural processes, is faced with the problem of natural evil. It presumably also applies to those advocating a pre-Adamic fall: God could prevent Satan from causing tornados, just as he could prevent the natural processes that (I would suspect) in fact causes tornados.

However, this is also something of which proponents of TE are aware and grapple with, and it is surprising that Leidenhag brings up the problem but does not engage with the responses. Among theistic evolutionists discussing this problem we have, for instance, Christopher Southgate (2008), who strongly emphasizes the eschatological dimension of Christian faith as a resource for grappling with natural evil, as does Bethany Sollereder in her newly published book on animal suffering *God, Evolution, and* 

Animal Suffering (Sollereder 2018). A lot of Sollereder's work is aimed toward clarifying or complementing the picture of purportedly destructive processes: they are often the shadowside of a creative process, such as the plate tectonic movements that are crucial for stabilizing the temperature of the Earth within a life-permitting range and giving the soil nutrients essential for plants. John Polkinghorne, though not lacking an eschatological perspective on nature, also refers to what he calls a "free process-defence" according to which God has given nature the capacity to evolve in accordance with its own basic nature—without God intervening constantly to adjust the process (Polkinghorne 1998, 14). But this capacity and freedom has, as the theologian Gérard Siegwalt has said, a "schizophrenic potentiality": mutations can give rise to new organisms as well as to maladaptive features, such as cancer.

One could argue that the philosophical-theological framework of ID is actually less well suited for handling the existence of natural evil, since, according to it, God is involved in some extensive micro-management of natural processes, as when God, for instance, supplements the natural processes so as to produce the bacterium flagellum. This micro-management constitutes the core idea of ID, whereas the idea that God has endowed nature with the basic characteristics it needs in order to develop biological and intelligent life, is the core idea within TE. That is, since theistic evolutionists claim that the (relatively, not absolutely) autonomous process of evolution is a *value* there is some possibility of making theological sense of why God allows nature to make itself, even when that is costly to nature.

The theistic evolutionists, although typically holding that God can act also beyond the natural order, hold that as for the evolution of the natural world, the natural processes are the preferred means of creation, although these natural processes depend on God for their existence. Since God wants to make a world able "to make itself" as the bishop of Exeter Frederick Temple (1821–1902, Archbishop of Canterbury from 1886) said in his lectures on science and religion at Oxford University in 1884 (Temple 1884), God does not intervene here and there to disrupt the natural processes. This is a theological framework, which is available to the theistic evolutionist, but not to the ID advocate, and in that sense I would say that ID is in a worse position when addressing the problem of natural evil, than TE.

#### Thomism: Too Dualistic?

When discussing Thomism, Leidenhag argues that this understanding of divine action is too dualistic for his notion of naturalistic divine causation. Sure, that seems reasonable, since NDC states that natural events are *complete* explanations for, for instance, the emergence of humans. But NDC is not a suitable model for a theistic evolutionist. The Thomist distinction

between primary and secondary causality is not too dualistic if one seeks a theological framework for understanding evolution that is compatible with evolutionary biology, and that is what the theistic evolutionist aims for.

## Supervenience and Causal Redundancy

Leidenhag claims that for TE divine action is *supervenient* on natural causes, in the same (or sufficiently analogous) way as mental phenomena are supervenient on physical phenomena in nonreductive physicalism, and that therefore divine action is redundant as a causal factor, just as mental phenomena are causally redundant (according to Kim) in nonreductive physicalism. However, no theist could possibly claim that God's actions are ontologically secondary to natural processes, as mental phenomena are to physical phenomena in nonreductive physicalism. If anything, natural processes would be supervenient on divine action. And Kim, in his analysis of supervenience, illustrates it with the view of the God-world relationship espoused by the theologian and philosopher Jonathan Edwards (1703-1758). Edwards was, Kim informs us, an occasionalist, who held that God was constantly re-creating the world in each instance (Kim 2005, 37). The result of this view is that there are no natural causal processes: what explains the change over time is not that a natural object at time t1 affects or generates another natural object at time t2. What explains the difference between t1 and t2 is that God created a slightly different world at t2 as compared to the one created at t1.

Kim then uses Edwards's analysis to illustrate what the basic problem is for nonreductive physicalism, which pictures the relationship between the physical and mental in terms of supervenience. Kim's point is that supervenience does not allow for *real* higher level causality, since what explains the change between two higher level phenomena, such as mental phenomena, M1 and M2, is the change in their subvenient base, and not any causal relation between M1 and M2. Physical property P1 determines M1 and when P1 changes into P2, P2 determines mental property M2. Thus, there is no real causal relation between M1 and M2.

Now, is this a critique that is applicable to the position of theistic evolutionists—that God's action is a higher level phenomenon that supervenes on physical processes and thus becomes causally redundant? No, because it is God's action that is the ultimate source of physical processes in TE, not the other way around. Leidenhag has effectively reversed the ontological relationship between God and the world in TE in order to make it analogous to how the mental is related to the physical in Kim's (critical) analysis of nonreductive physicalism.

Although the ontological dependency for a theist is the other way around as compared to Leidenhag's example, this need not imply that

there is a relationship of strict supervenience between God and the world; it might be that God has created the world with more elbow-room: being able to explore its own potentialities as Polkinghorne sometimes says (Polkinghorne 2003, 40).

#### CONCLUDING REMARKS

In this article, I have responded to Leidenhag's claim that TE makes God redundant, and argued that this interpretation depends on an oversight of the distinction between a scientific and an ultimate explanation, as well as an inadvertence of God as both transcendent and immanent. Second, I have clarified that the problem of natural evil is a problem regardless of whether one is a theistic evolutionist or an ID advocate. Theistic evolutionists try to handle this issue and are in some ways in a better position to accommodate the existence of natural evil, than ID advocates. Third, I have pointed out that Leidenhag's use of Kim's critique of nonreductive physicalism for its validity in this context depends on the idea that God is ontologically secondary to physical processes, which no theist could affirm. Perhaps, this is a view that some religious naturalists hold to, and if so, Leidenhag has identified a crucial difference between TE and religious naturalism, and that difference it would, I think, be interesting to see more fully articulated. It may indeed be that religious naturalists, by denying God's transcendence, makes God explanatory redundant, unless they invoke God as an additional factor alongside the natural causes.

I have presented the idea of God as the ultimate cause, creating through mediating causes, which is a traditional theological position. Aquinas (2017) says that God both gives being and keeps things in being by means of certain mediating causes (Summa Theologica, First Part, Question 104, Article 2). Augustine, in his commentary on Genesis, argued in the fifth century AD that God has endowed the world with "rational principles" or "seedlike principles" that would in time develop into the different species (McMullin 2011). Nothing in Leidenhag's article has shown these traditional ideas of a mediated creation to be incoherent; for a theist they remain at least as appealing as they were 800 or 1600 years ago. The difference is, of course, that we today have so much more scientific knowledge about these mediating causes of the evolution of the things in the Universe. To abandon mediated creation now thus seems to be a very bad move if one is interested in a fruitful engagement between science and theology. If neither faith nor science needs to be sacrificed at each other's altars, since God is the creator of the world that science aims to describe, then it seems both theologically and scientifically more rational (wiser, in a word), for a theist, to try to integrate science within a larger theological framework of mediated creation.

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1. I will limit my discussion to these authors since I am most familiar with them. Besides, Mark Johnston is *unclear* on whether God really transcends nature (although God transcends scientific descriptions), as Lynne Rudder Baker (2009) has pointed out and if not, then Johnston may very well be an advocate of what Leidenhag labels "naturalist divine causation." But that only shows the fallacious move of placing Clayton, Peacocke, and Haarsma in the same category as Johnston with regard to their views on divine action. Leidenhag's formulation of naturalist divine causation requires a view of the God-world relationship where God is only immanent and not also transcendent. That may or may not be a suitable description of Johnston's views, but certainly not of Clayton, Peacocke, and Haarsma.

#### References

- Aquinas, Thomas. 2017. Summa Theologica. Online Edition. http://newadvent.org/summa/Baker, Lynne Rudder. 2009. "Saving God from Idolatry." Notre Dame Philosophical Review. An Electronic Journal. https://ndpr.nd.edu/news/saving-god-religion-after-idolatry/
- Behe, Michael. 2005. First Testimony in the Dover Case. https://ncse.ngo/files/pub/legal/kitzmiller/trial\_transcripts/2005\_1017\_day10\_am.pdf
- Clayton, Philip. 2007. "On Divine and Human Agency: Reflections of a Co-Laborer." In All That Is: A Naturalistic Faith for the Twenty-First Century by Arthur Peacocke, edited by Philip Clayton, 163–75. Minneapolis, MN: Fortress Press.
- Dawkins, Richard. 2015. The Blind Watchmaker. New York, NY: W.W Norton & Company.
- Haarsma, Deborah. 2017. "Evolutionary Creation." In Four Views on Creation, Evolution, and Intelligent Design, edited by Ken Ham, Hugh Ross, Deborah B. Haarsma, and Stephen C. Meyer, 124–53. Grand Rapids, MI: Zondervan.
- Kim, Jaegwon. 2005. *Physicalism, or Something Near Enough*. Princeton, NJ: Princeton University Press.
- Kojonen, Erkki Rope. 2016. "Salvaging the Biological Design Argument in Light of Darwinism?" *Theology and Science* 14 (3): 361–81.
- Leidenhag, Mikael. 2019. "The Blurred Line between Theistic Evolution and Intelligent Design." Zygon: Journal of Religion and Science 54: 909–31.
- McMullin, Ernan. 1991. "Plantinga's Defence of Special Creation." *Christian Scholars Review* 21 (1): 55–70.
- . 2011. "Darwin and the Other Christian Tradition." Zygon: Journal of Religion and Science 46: 291–316.
- Peacocke, Arthur. 1990. Theology for a Scientific Age. Oxford: Blackwell.
- 2007. "A Naturalistic Christian Faith for the Twenty-First Century: An Essay in Interpretation." In All That Is: A Naturalistic Faith for the Twenty-First Century, edited by Philip Clayton, 3–56. Minneapolis, MN: Fortress Press.
- Peacocke, Arthur, and Philip Clayton, eds. 2004. In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World. Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Polkinghorne, John. 1998. Belief in God in an Age of Science. New Haven, CT: Yale University
  Press
- ———. 2003. "Physics and Metaphysics in Trinitarian Perspective." Theology and Science 1 (1): 33–49.
- Sollereder, Bethany. 2018. God, Evolution, and Animal Suffering. London: Routledge.
- Southgate, Christopher. 2008. *The Groaning of Creation: God, Evolution and the Problem of Evil.*Louisville, KY: Westminster John Knox.
- Temple, Frederick. 1884. "Lecture IV. Apparent Conflict between Religion and the Doctrine of Evolution." In *The Relations between Religion and Science: Eight Lectures Preached Before the University of Oxford in the Year 1884*. http://anglicanhistory.org/england/ftemple/bampton/