Boyle Lecture 2022

with Christopher Southgate, "God and a World of Natural Evil: Theology and Science in Hard Conversation" and Andrew Davison, "Theodicy and What Could Be Otherwise: A Response to Christopher Southgate."

GOD AND A WORLD OF NATURAL EVIL: THEOLOGY AND SCIENCE IN HARD CONVERSATION

by Christopher Southgate

Abstract. This is the text of the 2022 Boyle Lecture. After some acknowledgements, it introduces the theological problem of the suffering of nonhuman creatures in the natural world as described by evolutionary science. It sets aside the neo-Cartesian objection that this suffering should not be considered real. The lecture then considers, and initially rejects, theodicies based on some form of fall event. An account is offered based on the premise that Darwinian evolution was the only way God could have given rise to a biological world containing the sorts of values we observe. Although this remains the preferred basis for an evolutionary theodicy, consideration is finally given to the extent to which certain phenomena, such as parasitism, cancers, and viral infections, might be thought to exhibit a resistance to the divine will. The tentative suggestion is made that this resistance might derive from temptation by spiritual powers, thus incorporating into an overall only-way account an element of angelic fallenness.

Keywords: evolution; fallenness; only-way; parasites; predation; resistance; suffering; theodicy; viruses

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I am proud to stand in the tradition of those Christian thinkers who regard it as important to learn from the natural world about the character of God the creator. I recognize that that source of insight into God has to sit alongside insights from the ancient scriptures and the Christian tradition, and there at once we may discern potential sources of tension in the conversation. Because Christians accord massive authority to the scriptures and great weight to the teachings of the Church Fathers, and yet we need to be clear that there are things about the cosmos that the ancient writers simply did not know, and could not have known.

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My own views in this area are quite fluid, and in this lecture, I want to invite you to accompany me on an exploration that still has an uncertain destination. Just to offer an early hint, I have always taken a strongly science-led position on the problem of suffering in the nonhuman world, but I find myself drawn now back toward more traditional theological positions. We will see where we get to by the end, and I greatly look forward both to Andrew Davison's response and the panel discussion that will follow.

Before I launch in, however, I want to acknowledge two teachers who helped to shape my own love-affair with the natural sciences. I was taught A-Level Physics by Ian Hopley and Chemistry by Geoffrey Rendle, and both inspired me to see the precision and beauty of scientific explanations, whether it be of the current in a Wheatstone Bridge or the different oxidation states of vanadium. Dr Hopley loved to tell stories of the great figures in the history of science, and Robert Boyle featured in a number of these. I remember him saying that one of Boyle's great contributions to the rise of modern science was to insist on the importance of calling the same things by the same name, and different things by different names. We shall do well to follow Boyle's counsel in this exploration.

I also want to mention two excellent recent books at the popular level that explore the problem of natural evil—by which I mean harms and suffering that have a component that does not arise from human choices. Bethany Sollereder's *Why Suffering?* (Sollereder 2021) is a highly original invitation to the lay explorer to tackle the problem as though it were one of those books with multiple plots, where the reader has to make choices as to where the story will take her next. Mark Dowd's *My Tsunami Journey: the Quest for God in a Broken World* (Dowd 2022) chronicles his journey around the Indian Ocean basin, talking with those of many faiths and none about their reactions to the terrible tsunami of December 2004. Both these books are outstanding and accessible resources for engaging with the great theological question—why does God's creation, confessed as "very good" at Gen. 1.31, nevertheless prove to be such a source of suffering for creatures?

In this lecture, I am going to focus on the aspect of that question that addresses suffering in nonhuman creatures, nature "red in tooth and claw" as Tennyson termed it (Tennyson 1989, 399). I am going to begin by clarifying what the problem is not and is. Different things must be called by different names. Then, I will briefly show why traditional efforts to dispense with the problem tend not to work, and why therefore this issue is at the sharp end of conversation between Christian theology and the sciences. Then, I will tell you what I was confident the answer was on March 31, 2022, and track from there into territory of greater uncertainty, though I hope also very creative uncertainty.

What the problem is not. It is not pain, in animals. Pain responses are a necessary part of the way complex organisms with the power of movement interact with their environment. The tragic lives of some humans born without the ability to feel pain are a reminder of how important pain is—to enable us to avoid situations and behaviors that harm us. More controversially, I propose that the problem is not death, either. When a human dies "full of years" it is a sadness, but we do not regard it as an evil. We know this is part of the way biological life works, must work, and we accept it. So also, I suggest, in the case of nonhuman animals who live a fulfilled life as the creature they are.

The problem of natural evil in the nonhuman creation is to my mind the problem not of pain but of suffering. Why is God's "very good" creation so replete with suffering, caused by predation, by parasitism, by disease? At once that question is open to challenge. Am I not projecting human experience onto nonhuman creatures? Indeed an influential group of scholars, the so-called neo-Cartesians, want to deny the reality of suffering in other creatures.[1] Well, I am the first to acknowledge that there are dimensions to human suffering to which there is no nonhuman parallel—to do with memory, and anticipation of painful experiences, and with the complexities of the human psyche interacting with culture. No other animal knows the shame of being trolled on the internet, or the dread of the redundancy notice, or the ache of the anniversary of a loved one's death. But I suggest that where creatures capable of experiencing pain and distress have that experience and can get no relief from it, whether it be a zebra cornered by lions, or a sheep infested by parasitic worms, or a blue whale battered by the repeated attacks of a pack of orcas, it is reasonable to call that suffering. Studies both of animal behavior and of neurophysiology bear out how close the responses of other animals are to human responses in similar situations. So along with most animal behaviorists, I reject the neo-Cartesian denial of suffering in other animals.

We know too from the fossil record that this suffering must have been present in animal life long before there were humans. Prehistoric prey were torn apart by sabre-toothed predators. Septic arthritis has been found in the bones of dinosaurs. What then can we conclude about the underlying causes of this long litany of creaturely suffering?

Reflection on the redness of toothness and clawness of nature from deep evolutionary time tells us two important things. First, it is no longer possible to ascribe nonhuman suffering to the rebellion against God of the first physical human beings. As I have said, this suffering long predates the emergence of humanity. Second, and this is an example of something we have learned in the last 150 years that was simply unknown to the thought-worlds of the ancient writers, it is the process of evolution by natural selection that drives the refinement of creaturely characteristics. In Holmes Rolston's elegant phrase, "the cougar's fang has carved the limbs of the

fleet-footed deer, and vice versa" (Rolston 2006, 134). In other words, the biological world as we know it, with all its amazing intricacy and beauty of adaptation, all its ingenuity and complexity of strategy, arises out of the struggle to survive, and out of competition for territory, food, and mating opportunities.

This is where the theology-science conversation gets really hard. Because not only are Christian theologians denied the get-out-of-jail-free card of blaming all natural evil on the sin of Adam and Eve, but they are left with the disturbing thought that God might have *used* suffering-filled processes to give rise to outcomes God desired. If, as appears plausible, God intended the sort of world that contains creaturely beauty and ingenuity and complexity and interdependence, including the possibility of the emergence of a species capable of freely chosen self-giving love, capable of worship of God, capable of receiving the gift of the Word made flesh, God seems to have *used* a process to which suffering and struggle were intrinsic to give rise to that world. Not just the existence, but the instrumental use of evolutionary competition, with all its attendant suffering, seem to be a charge against the goodness of God in creation (so Southgate 2008, 9–10).

So now we are at the nub of the hard conversation, and I am going to spend a bit of time mapping out how theologians tackle it. The issue was already plain to Darwin himself and formed part of the theological response to his work. An interesting aspect of this question is how quiet theology was about evolutionary suffering for most of the twentieth century, perhaps because its importance seemed dwarfed by the problem of moral evil posed so sharply by World Wars and genocides. But since the 1980s, there has been a gratifying return to this particular hard conversation, about whether God intended to create processes to which suffering was endemic in order to realize the divine purposes, whether God must even be thought to have used those processes to realize divine purposes. Theologians are not without their ingenious responses, of course. Ruth Page wanted to draw the sting from the problem by denying that God had any long-term purposes in creation. God simply loves and accompanies every creature (Page 1996). But though Darwinian biology itself denies any necessary directionality to evolution, I find it hard to accept that it did not matter to God whether the biosphere contained nothing but bacteria, or whether it gave rise to the cheetah, the peregrine falcon, the human being.

A more familiar type of theological response is to say that the world we observe, the world science describes, is a fallen world that does not correspond to God's perfectly good intentions. This takes a number of forms. Michael Lloyd would have us conclude, as a kind of least-worst answer to this problem, that it was the freely chosen rebellion of certain angels that gave rise to a corrupted and nonideal world (Lloyd 2018). Nicola Hoggard Creegan likens the situation of the Darwinian world to the parable of the

wheat and the tares (Matt. 13.24-30)—God allows suffering and struggle to coexist with flourishing until such time as God harvests the world into the new creation (Hoggard Creegan 2013). I put Hoggard Creegan alongside Lloyd because in the parable the tares are sown by some enemy. Again some adversary has corrupted God's good intention. But in that she does not identify or speculate about "the enemy" I also put her work alongside that of Neil Messer and Celia Deane-Drummond in a category I call "mysterious fallenness." Messer invokes the work of Karl Barth on this (Messer 2020), and Deane-Drummond the mystical theology of Sergei Bulgakov (Deane-Drummond 2018), but their formulations seem to me to amount to something very similar. They hold that something about the possibility of creation was attended by the possibility, not logically necessary but in practice inevitable, of characteristics to creation that God opposes, such as suffering. All these theologians tend to point to the resolute resistance to suffering we see in the Gospels' witness to Jesus, and Messer also emphasizes the peaceable kingdom texts of Is 11 and 65 as evidence of what God's intention for creatures truly was and is.

Well, I have always been very critical of these types of argument, for two reasons. First, they seem to accord far too much power to whatever posited countering force opposes the will of God. That force seems to have been powerful enough, against the purposes of the sovereign God who made all things out of nothing, to give rise to this distorted world, which seems so far from God's supposed intention that the lion eat straw and the leopard lie down with the goat. We could also ask Michael Lloyd whether the good of the freedom of the angels was sufficient to justify the appalling consequences for creation of their rebellion.

But second, I have argued that a key point is that the sciences show us it is the same processes of competition and struggle in a world of evolution and natural selection that lead both to so much suffering, and also to the refining of the characteristics of creatures. To which my interlocutors tend to say that science can only describe this fallen, distorted world, they cannot describe the world of God's creative intentions. Natural processes perhaps show us God making the best of a bad job, bringing good out of evil. It is only fair to say too that Deane-Drummond and Hoggard Creegan among others want to accuse me of overemphasizing natural selection at the expense of a richer evolutionary picture, full of cooperation and interdependence. To which I reply, in effect, guilty as charged. Natural selection tells us there are always losers in evolutionary processes, and cooperation often heightens the problem of suffering, as with the twenty orcas battering the blue whale.[2]

So I have been one of the thinkers who has postulated what has come to be called the "only way" argument (e.g., Southgate 2002; 2008; 2018). This is not by any means my invention, though the name is mine. It essentially goes like this: "There is no reason to suppose that there was any

way open to God by which God could have created a world with this richness of beauty, complexity, ingenuity and intricate interdependence of creatures, with a better balance between these values and the disvalues of struggle, competition and suffering."

So yes, creaturely suffering is intrinsic to the world God has made, yes, it has been instrumental in realizing God's purposes, but there was no better, less suffering-filled way available to God. Only-way theorists do not dissect out the world into the bits God willed and those that arose from distortions. I argue that scientifically the world looks all of a piece, a "package deal" in Niels Gregersen's phrase (Gregersen 2001), and I also argue theologically that if there had been a way to create a better balance of value against disvalue, a loving creator God would have adopted it.

And I stand by that basic approach. I cannot prove that Darwinian evolution was the only way to bring about this sort of world. But it seems to me a highly plausible guess, on both theological and scientific grounds. I do not think it is enough to say about God's interaction with creatures. By itself the only way argument only operates at the level of systems, and suffering is always particular to individual creatures. So it needs to be supplemented by a sense of God's cosuffering with creatures, an identification which reaches its climax at the Cross of Christ, and by some vision of a redeemed existence for creatures in the new creation.

Much more could be said about those other elements in an overall defense of the goodness of God in a Darwinian world, but I am going to stay with the overall picture offered by the only way argument, which I have been defending in print for twenty years now, and still hold to be the essential foundation for good progress in the hard conversation we are attempting. It takes the science with the utmost seriousness, and tries to do serious theological work with it.

And if I had written this lecture on March 31, 2022, I could have stopped there, and we could all have proceeded with relief to the delightful hospitality that I am sure awaits us at the reception. Perhaps I could take a moment here to thank both the Church of St Mary-le-Bow for hosting this lecture in such splendid surroundings, and also the International Society for Science and Religion for all the complex and patient organization needed to put on such an event in time of COVID.

On April Fool's Day this year, I was foolish enough to convene a colloquium in Oxford featuring a number of those I have mentioned here—Michael Lloyd, Neil Messer, Bethany Sollereder, and also two very distinguished Oxford theologians and philosophers in Paul Fiddes and Mark Wynn. So a range of approaches was brought into detailed conversation. Each scholar had the chance to explore in detail the position they had arrived at, and compare it with others. So I want to see now if I can incorporate some of these insights, without departing from what I see as the basic common sense of the only way argument.

In an important book published in 1988 Paul Fiddes argued this: "Some overall vision of the 'responsiveness' and 'resistance' of creation to the Spirit of God is needed for a doctrine of creative evolution, [and] for a proper theodicy" (Fiddes 1988, 228). I have always been intrigued by this sentence. What if anything resists the Spirit of God in the unfolding creation? A strict only-way theorist would say—nothing. God has put in place a system that has the best balance between values and disvalues. Both values and disvalues serve the purposes of God, who may not determine the character of the world in every detail, but specifies its overall behavior. Nonhuman creatures just do what they do, however ugly it may sometimes seem to us. No resistance to the divine invitation need be postulated. Not until we see human sin do we see resistance to God's will in creation.

But that instinct Fiddes draws on is strong. Also, the strict only-way argument can be criticized for making an artificially sharp divide between the human and our evolutionary past. Only with humans comes freedom to choose evil over good. That might be correct, but the evolutionary theorist will want to probe such a claim. When exactly in human evolution did such freedom arise? Has it no precursor in the nonhuman world? Deane-Drummond claims that,

> tendencies towards sin are also in pre-human life. Just as agency is latent in the world prior to the emergence of full-blown human freedom, so, tendencies towards viciousness are present in animal communities even prior to the kind of deliberative cruelty that is such a distinctive characteristic of our kind. (Deane-Drummond 2018, 799)

She is referring here for instance to accounts of violence among chimpanzees. David Clough too uses examples of primate infanticide and cannibalism to suggest there could be sin in nonhuman animals (Clough 2012, 112–19). So perhaps there is a hint of resistance here, though the only-way theorist cannot go as far as to agree with Joshua Moritz that creaturely choices are the sole source of evil in biology (Moritz 2014). Nor can I agree with Clough that predation in itself necessarily manifests the sort of overplus of viciousness that might lead us to speak of resistance to the divine will. The tiger does not sin when it stalks the goat. It is simply following its evolved nature, which manifests great beauty, power, and skill.

So I have been pondering where we might see hints of resistance, within an overall picture of an evolving world that has led, despite great periods of extinction, to an extraordinary development of creaturely complexity, ingenuity, beauty, and interdependence. I wonder though whether the phenomenon of parasitism might not have about it a hint of resistance to the divine Spirit. If we suppose that God's purposes in creation include the development of greater and greater creaturely complexity and interdependence, then an evolutionary strategy that feeds on complexity to promote

a simpler entity might seem to smack of resistance. Parasitism may arise out of "cheating" (in a game-theory sense) on an arrangement of biological mutualism (a subject on which Andrew Davison has written with distinction, Davison 2020a and b); parasitism may therefore be thought of as a kind of parody of interdependence. A related argument could be framed in relation to cancers, which in a sense reverse evolution, feeding on the body's complexity to make quantities of simple tumor tissue. This seems to me to be a promising area in which to speak, however tentatively, of a certain element of resistance to the divine will.

Of course all of us have viruses much on our minds these days. And what I have just said about parasites might be said all the more of viruses. Like parasites, they may exhibit great ingenuity of evolutionary strategy—to learn more of COVID-19 is to be more and more impressed by its mechanisms of operation. But viruses do not just manufacture simpler life at the expense of the more complex. They actually make something—more capsules of virus—that is not of itself alive, at the expense of whatever living thing functioned as its host. So that seems to me a good candidate for resistance to the Spirit of God, confessed in the Nicene-Constantinopolitan Creed as "the Lord, the giver of life."

I am picturing here a God who applies a certain subtle but ultimately irresistible pressure to the evolutionary process, such that it has a certain gentle overall bias, what Arthur Peacocke called a propensity (Peacocke 1993, 220), towards complexification—not detectable in any individual instance, but only by looking at the system as a whole, and over large time-spans. God allows all sorts of behaviors to develop, including parasitism and viral infection, though in both cases these may over time turn out to serve God's overall purposes. Parasites may develop into or revert to symbionts; viral genes may be absorbed into host genomes and may have beneficial properties in promoting genetic novelty. I think Moritz goes much too far when he says simply that viruses are evil (Moritz 2020). A protein of probable viral origin is essential to the development of the human placenta (Schilling 2021). These resistances do not ultimately prevail against the overall purposes of God, even though they may add to the burden of creaturely suffering already entailed by a world of evolutionary struggle, the only type of world (so I claim) capable of realizing God's purposes.

How then are we to understand the origin of these resistances, which culminate in the wilful opposition to God's ways with the world that we see in human sin? A number of possibilities occur to me. Those influenced by process theology may simply see the resistance as an aspect of the freedom of created entities. This freedom is intrinsic in strict process metaphysics. Or the freedom may be thought of as a gift of God to creation, resulting in a kind of free-process argument for why God allows it. Creatures on this model are continually responding to God but have

always the possibility of resisting. This freedom, at every level of complexity in creation, is taken to be a good in itself. I take this to be the position that Fiddes' sentence implies.

There was an important podcast produced by the U.S. organization Biologos in the summer of 2020,[3] in which Francis Collins, head of the U.S. National Institutes of Health and himself a Christian author, debated with N.T. Wright, the famous Anglican New Testament scholar, about COVID. Wright held on biblical grounds that there is a certain dark power, which we shall never understand, that has always opposed God's will in creation. Whereas Collins produced a kind of package deal argument that there is nothing all good or all bad in biology, and probably you need the possibility of the bad along with the good, just as the Earth needs earthquakes (and the resultant tsunamis) if it is to be a planet fruitful for life.

In this journey of exploration I am on, I am beginning to wonder if there might not be a sense in which both Wright and Collins might be correct. My initial sympathies were all with Collins. The same processes generate wonderful creaturely characteristics and also great suffering. Even viruses as we have seen can have beneficial effects. But a Christian thinker meditating on the biblical witness, from the serpent in Genesis 3 to the more evident dualisms of the New Testament, cannot help wondering whether this element of creaturely resistance we have been exploring, this countering of God's will to complexity and beauty and interdependence, might not have an ultimate origin in a spiritual disaffection pre-dating the creation itself. This is not a necessary component of my position, and I know many people will shy away from it, not least because the existence of an angelic realm is troubling to an only-way theorist, but I still think there is ground worth exploring here.

Of course as soon as one starts to speak in these terms, Milton's *Paradise Lost* looms in the imagination, with its magnificent personifications of rebellious spirits. That is not in my view a helpful direction to take. As Wright says in the podcast, we can never understand, should never try to understand, this spiritual rebellion. It is of its very nature irrational. It is a dereliction from the good rather than a separate power of its own. I have always taken very seriously the existence of this evil tempting the human spirit. Jesus evidently took it seriously in the culminating petitions of the Lord's Prayer. This is why the Church retains its ministry of deliverance. I have always taken the view that this spiritual evil derives its power and influence from the multiplication of human choices to resist God, and that it has no power over the wider creation. And I would not want to go far in asserting such a power. It cannot be a power comparable with that of the creator. It cannot in my view be the power responsible for the existence of struggle in creation, or biological death.

But I wonder whether a temptation to resistance, rather than response, to the gentle creative pressure of the Spirit of God, across the whole sweep of creation, might not originate from spiritual resistance to God in realms of reality beyond our imagination. So perhaps the consequences of some freely chosen angelic rebellion, in terms of a temptation of physical creatures toward resisting the direction of God's creative will, can be seen on the margins of the evolving world. Those consequences intensified when freely choosing creatures evolved capable of conscious worship, and hence also of the worship of idols. The impact of the angelic rebellion gathers to a climax in the battle for the human spirit, a battle Christians confess to have been won on the Cross of Christ. Indeed such thinking in relation to the wider creation might be helpful in emphasizing the necessity and cosmic reach of the atoning work of Christ.

As I made clear, this is new thinking. I have to finish a book in this area by September[4] and may have changed my mind again by then. But I thought it would be the most creative use of this lecture to try this thinking out on you and see what response it might elicit, so we can think together about these great questions. I want to reiterate that I remain committed to the only-way argument. If you put me up against a wall and ask me for the one overarching reason why the history of creation is so full of struggle and suffering, that is the sort of answer I would continue to give. The vast preponderance of the struggle and suffering in evolutionary history remains attributable to that same process of evolution by natural selection that has generated such extraordinary creaturely properties, including of course human intelligence. But here and there we may gain hints of the resistance of which Fiddes writes, and the option to think of this as at least catalyzed by spiritual influences is open to us, and has some support in scripture and tradition. The hard conversation continues, and I thank you for sharing it with me.

Notes

1. For an analysis, see Schneider 2020, 57–65.
2. For further insight into the state of the debate as it stood in 2018, see the ten essays on this subject in *Zygon* 53(3).
3. Available through biologos.org.
4. Southgate, Christopher. Forthcoming. *Monotheism and the Suffering of Animals in Nature*. Cambridge: Cambridge University Press.

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