CHAPTER 36
VALUES AND DISVALUES IN CREATION

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Introduction: The ambiguity of creation

The eminent naturalist Holmes Rolston III recounts the following incident:

> I was in Africa once and watched three lions stalk and kill a zebra. The three lionesses went different ways, slowly, hiding themselves in bushes. . . . After perhaps forty minutes' stalk, the farthest lioness sprang out of the bushes. The zebra ran but ran in the direction of the closest lioness. She waited until it came near, then jumped at its rear, and took it down. Quickly, she was hanging on its neck. The zebra was still kicking. She held it about ten minutes until it stopped kicking.[1]

In other work, Rolston points to the 'insurance pelican chick' as an example of a successful evolutionary strategy in the white pelican:

> Females lay two eggs on open ground, the second about two days after the first, and parents by turns incubate them by wrapping a webbed foot over each egg. Few parents can raise two young; the earlier-hatched chick, more aggressive in grabbing food from its parent's pouch, becomes progressively larger, attacking the smaller sibling, and the resulting abuse and starvation are the major cause of chick loss. So the second is reduced to a backup chick, surviving if the first is lost, or if the second is lucky. It has only one chance in ten of fledging. The second chick is often driven to the edge of the nest by its sibling, only to fall or wander out, whereupon it will not be allowed to return, seemingly unrecognized by its parents, a refusal that protects against adopting alien chicks and wasting parental care on unrelated genes.[2]

For the Christian theologian committed to the belief that, first, God has created all that exists out of absolutely nothing, and, second, God loves God's creation, even at the level of care for an individual creature like a sparrow (Mt. 10.29), these instances of creaturely suffering must disturb. Yet more disturbing is the thought that creaturely lives like that of the insurance pelican chick, which seems to contain no flourishing, serve as part of a process – evolution by natural selection – presumably originated by God as creator, a process that preserves and refines adapted characteristics of a species.

[1]Holmes Rolston III, *Science and Religion: An Introduction for Youth* (Nashville: Elm Hill, 2019), 33.
[2]Holmes Rolston III, *Science and Religion: A Critical Survey* (Philadelphia: Templeton Foundation Press, 2006), 138.

So there are 'disvalues' (in Rolston's terms)[3] in creation, and, crucially, *they arise from the same processes that give rise to values*. Remarkable values in the biological world include ingenious adaptation to environments, and many complex and beautiful strategies for being alive. I hold the following to be disvalues in creation: acute or chronic suffering in individuals with sufficient complexity of experience to suffer, and also extinction of species – the loss to the world of a whole way of being alive.[4] (For the sake of conciseness, in this chapter I focus only on 'evolutionary evil', setting aside the harms caused to human beings by natural events in creation such as earthquakes.)

If it is supposed that God desired particular outcomes in creation, such as the emergence of life from non-life, the evolution of a range of complex creatures and ecosystems, and eventually (among other outcomes) the evolution of the sorts of possibilities of intelligence, love, and spirituality that humans possess, that, in turn, intensifies the problem of theodicy associated with those processes and outcomes. It suggests a teleological dimension to creaturely suffering (and extinction). If those processes of complexification and refinement of creaturely characteristics formed part of the divine purpose, and they were driven at least in part by processes of competition and struggle, necessarily involving creaturely suffering, then it is hard to avoid a sense that that struggle, that suffering, was *a means to divine ends*.

Evolutionary theodicies

This problem of 'evolutionary evil' and the corresponding need to frame an evolutionary theodicy has received much attention in recent times.[5] Some contributions take the traditional view that disvalues in nature may be traced back to a primal human sin. This view is now deeply problematic in terms of both chronology and the extent of influence of the emerging human species.[6] Some scholars shift the emphasis away from creation to eschatology – only from the perspective of the end-times will the tension between value and disvalue be resolved.[7] This is a very plausible move, though, notably, Rolston himself rejects it. Robin Attfield likewise sees no need to invoke eschatology to conclude that 'we have no reason to believe that a world with

[3]Holmes Rolston III, 'Disvalues in Nature', *The Monist* 75, no. 2 (1992): 250–78.

[4]See Christopher Southgate, *The Groaning of Creation: God, Evolution and the Problem of Evil* (Louisville: Westminster John Knox Press, 2008), 124–32.

[5]See, for example, Stanley P. Rosenberg et al., eds, *Finding Ourselves After Darwin: Conversations on the Image of God, Original Sin, and the Problem of Evil* (Grand Rapids: Baker Academic, 2018), part 3; ten essays in *Zygon* 53, no. 3 (2018); Bethany N. Sollereder, *God, Evolution and Animal Suffering: Theodicy without a Fall* (London: Routledge, 2019); John R. Schneider, *Animal Suffering and the Darwinian Problem of Evil* (Cambridge: Cambridge University Press, 2020).

[6]For a refutation of this view on scientific and also biblical grounds, see Sollereder, *God, Evolution and Animal Suffering*, chap. 2.

[7]See Denis Edwards, 'Every Sparrow that Falls: The Cost of Evolution and the Christ-Event', *Ecotheology* 11, no. 1 (2006): 103–23; Robert J. Russell, 'Southgate's Compound Only-Way Evolutionary Theodicy: Deep Appreciation and Further Directions', *Zygon* 53, no. 3 (2018): 711–26; John F. Haught, 'Faith and Compassion in an Unfinished Universe', *Zygon* 53, no. 3 (2018): 782–91.

a better balance of good over evil than the actual world is possible, or that the actual world is not a world that a good God would create'.[8]

What approaches to the theology of creation can be used to explore the ways of God with a world that is such an ambiguous (and undisentanglable) fusion of value and disvalue? The problem is intensified by the radical monotheism that emerged in Judaism with the work of Deutero-Isaiah in particular, who can confess God as the author of 'weal and woe alike' (Isa. 45.7). If God is not one deity among many, then God's responsibility for disvalue is intensified. If, further, God is the creator of absolutely everything from absolutely nothing, without the constraints on creation associated with God having to work with pre-existing material, then God must ultimately be responsible for all value and disvalue alike.

What follows identifies a spectrum of formulations in the recent literature that seek to avoid placing the blame on God for the disvalues in creation.

First, there are positions most explicitly informed by a sense of the rebellion of identifiable freely-choosing (non-human) beings. Michael Lloyd concludes that the only satisfactory account is one based on the rebellion of angels before the creation of the present universe.[9] Accounts based on angelic or spiritual rebellion suffer from two major problems: first, the power that has to be accorded to the angels to frustrate the benevolent intentions of the creator of all things *ex nihilo*; second, the inescapable scientific conclusion that the same processes – specifically evolution by natural selection – give rise *both* to creaturely diversity, beauty, and ingenuity of adaptation *and* to the disvalues that concern us.

Lloyd's angelic fall sits at one end of the spectrum, as the position most explicitly informed by a sense of the rebellion of identifiable freely-choosing beings. Next, I place Nicola Hoggard Creegan, for whom the disvalues in creation are like the 'tares' in the parable of the wheat and the tares in the Gospel of Matthew (Mt. 13.24-30, KJV).[10] The appearance of the tares of disvalue is ultimately mysterious, but the parable's witness that they are sown by an 'enemy' (Mt. 13.25) suggests that Creegan, too, invokes a consciously rebellious force.

In the middle of the spectrum are two ingenious proposals that do not depend on a consciously rebellious agent. These come from Neil Messer, invoking Karl Barth's '*Das Nichtige*',[11] and Celia Deane-Drummond, drawing on Sergei Bulgakov's language of 'Shadow Sophia'.[12] Both invoke a mysterious constraint on divine activity in creation. A great deal turns on the nature of this constraint on God's capacity to create a world where there could be creaturely flourishing without creaturely struggle, competition, and violence. If the constraint is construed as a spiritual force, then Christianity becomes over-dualist. A God who, from the beginning, has been in a battle with contrary spiritual forces (forces powerful enough to radically alter the character of any creation to which God might give rise) is no longer the sovereign Lord of the cosmos, the God whose ontological priority and absolute

[8]Robin Attfield, *Creation, Evolution and Meaning* (Aldershot: Ashgate, 2006), 141.

[9]See Michael Lloyd, 'The Fallenness of Nature: Three Non-Human Suspects', in *Finding Ourselves After Darwin: Conversations on the Image of God, Original Sin, and the Problem of Evil*, ed. Stanley P. Rosenberg et al. (Grand Rapids: Baker Academic, 2018), 262–79.

[10]Nicola H. Creegan, 'Theodicy: A Response to Christopher Southgate', *Zygon* 53, no. 3 (2018): 808–20.

[11]See Neil Messer, *Science in Theology: Encounters between Science and the Christian Tradition* (London: Bloomsbury, 2020), chap. 3; Neil Messer, 'Evolution and Theodicy: How (Not) to Do Science and Theology', *Zygon* 53, no. 3 (2018): 821–35.

[12]Celia Deane-Drummond, 'Perceiving Natural Evil through the Lens of Divine Glory?', *Zygon* 53, no. 3 (2018): 792–807.

goodness guarantee the goodness of creation. If, on the other hand, the constraint on God's creative action is not an opposing agency but some form of logical constraint, how can the logic be demonstrated? In the final analysis, Messer's and Deane-Drummond's positions have the constraint on God's perfect freedom be a mystery, not a conscious resistance. This position is metastable – when the appeal to mystery on which they rest is subject to closer questioning, these approaches collapse either into a conscious opposing spiritual force or a form of logical constraint.[13]

Perhaps the instincts of Paul Fiddes belong next on this spectrum. Fiddes, after a careful analysis of the 'non-being' tradition,[14] which he traces back to Plotinus, seeks to avoid the conclusion that natural evil is a logical necessity. He writes:

> Some overall vision of the 'responsiveness' and 'resistance' of creation to the Spirit of God is needed for a doctrine of creative evolution, for a proper theodicy, and certainly for the claim . . . that God suffers conflict with a non-being which is alien to him. It may be that process thought is pointing in a direction whose destination we do not yet have the conceptual tools to map.[15]

For Fiddes, the resistance is not logically necessary, nor is it malevolent, but it is inevitable.[16] While not a process theologian, Fiddes is sympathetic to the notion, found in process thought, that resistance to the divine lure towards harmony and complexity is an inevitable part of the self-realization of every element of creation. In process thinkers such as David Ray Griffin,[17] God continues to offer God's lure towards the outcomes, short- and long-term, for which God longs, but God does not coerce creation. Rather, God suffers with the suffering caused by conflict between entities in their becoming.

Next on the spectrum is a neglected study by Ruth Page. Page emphasizes God as the creator of possibilities, or, indeed, the possibility of possibilities that God 'lets be'.[18] Rather than the classical emphasis on God as giving order to the world, she wants rather to emphasize God's gift of freedom to the creation to actualize possibilities in a variety of ways.[19] Her God, then, lets possibilities be, and then God companions them – a relationship she calls pansyntheism.[20]

Page's key step, what makes her study distinctive, is that she wants to deny that God has purposes in creation beyond the moment-by-moment joy God might have in relationship with creatures. Any suggestion that God, in creating or, yet, steering, the evolutionary process uses creatures as a means to an end is subverted by this move. She specifically rebukes the

[13]See Christopher Southgate, 'Response with a Select Bibliography', *Zygon* 53, no. 3 (2018): 909–30.
[14]Broadly, the belief that evil has no actual existence but results from some lack within the order of being.
[15]Paul S. Fiddes, *The Creative Suffering of God* (Oxford: Clarendon Press, 1991), 228.
[16]'Not necessary but inevitable' is also a formulation to which Deane-Drummond is attracted. See Deane-Drummond, 'Perceiving Natural Evil', 798.
[17]For a recent account of Griffin's theodicy comparing it with that of Philip Clayton, see Rem B. Edwards, 'Conflicting Process Theodicies', *Process Studies* 48, no. 1 (2019): 19–39.
[18]Ruth Page, *God and the Web of Creation* (London: SCM Press, 1996), 5.
[19]This, together with her strong rejection of language of dominion and lordship, means she admits to having to consign Genesis 1 to a category of ancient text rather than living word. See Page, *God and the Web of Creation*, 126.
[20]Page, *God and the Web of Creation*, 40.

schemes of process theology as invoking a God-given aim imparted to entities, since this aim has apparently included 'the stress and death involved in food chains, the way in which some animals like cats play with their prey, and so forth'.[21] For Page, there is no theological problem with the violence and struggle involved in food chains as long as God is not using these processes for the divine purposes.[22]

This position, however, largely neglects the 'ontological aspect' of evolutionary theodicy – the bald fact that God's creative acts (however passively expressed) are the reason for creaturely suffering.[23] In removing God's 'hidden agenda', Page has also removed some of the balancing goods that might be deployed in such theodicy, in terms of God's purposes giving rise to value as well as disvalues.[24]

Page's radical denial of long-term divine purposes, which she calls 'teleology now',[25] is very difficult to sustain from a contemplation of the evolutionary history of the world. Was it no part of God's purpose that bacteria should eventually give rise to eucaryotes, and eucaryotes to multicellular organisms, and those organisms to more complex organisms possessing sophisticated sentience, and those sentient organisms ultimately to organisms with self-consciousness, complex social life, and within that the capacity to give and receive love in freedom? Was it not part of God's purpose for creation that a creature evolve that was capable of embodying the flesh that the divine Son became (Jn 1.14)?

Another question that may be posed to both Page and process thinkers is what it means for primitive life, and indeed non-living entities, to respond in freedom to God's offer of possibility. Page writes: '[W]ithin any particular situation a particular possibility is taken up by a creature within its current constraints and is thus contingently realized.'[26] Even at the quantum level, she writes of possibilities 'endeavouring to realize themselves'.[27] But what does this agential language mean in the non-living world? Process thought answers this via a panpsychic metaphysics, but it is unclear where Page derives hers from.

Nevertheless, Page's proposal that what God creates is possibility rather than determinate outcomes is very attractive, and is returned to in what follows.

Creatio ex nihilo

I suggest that none of the proposals on the spectrum outlined above, which all seek to draw the sting of the problem of God's responsibility, is satisfactory. And, as mentioned earlier, the doctrine of creation out of nothing exacerbates the problem of harm and suffering in the natural world. The following, however, delves within the doctrine for resources that might assist in clarifying the problem.

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[21]Page, *God and the Web of Creation,* 47.
[22]Page, *God and the Web of Creation,* 101.
[23]See Southgate, *The Groaning of Creation*, 9, 69–71.
[24]For Page, the balancing good would be God's co-suffering with every suffering creature, which I would also want to affirm. See Page, *God and the Web of Creation,* 104–5; Southgate, *The Groaning of Creation*, 50–4, 56–7.
[25]Page, *God and the Web of Creation,* 63.
[26]Page, *God and the Web of Creation,* 8.
[27]Page, *God and the Web of Creation,* 10.

Creatio ex nihilo has been vigorously scrutinized in recent years on biblical,[28] feminist,[29] and ethical[30] grounds.[31] In addition, it is rejected on metaphysical grounds by many process theologians. The critique that concerns us here is the theodical – the charge that *creatio ex nihilo* puts the blame for the disvalues of natural evil so squarely on the shoulders of God as to be inconsistent with a continued claim as to the absolute benevolence of God.[32] Nevertheless, *creatio ex nihilo* remains the orthodoxy in much Christian systematic theology. Vitally, this type of theology can insist both on God's utter transcendence from the world and, at the same time, on the intimate relation of the creator to all creatures.[33]

One of the most important recent contributions to an orthodox trinitarian understanding of creation out of nothing is provided by Ian McFarland in his study *From Nothing*.[34] In a perceptive chapter on 'Evil', McFarland draws on three books from the Wisdom tradition to illustrate different approaches. He first acknowledges that suffering-producing disvalues in creation – 'floods, landslides, volcanic eruptions, bolide impacts . . . predation and disease have characterized terrestrial life from the beginning', and that 'these facts raise serious problems for a defense of creation from nothing'.[35] McFarland then looks at approaches in the book of Proverbs and finds them coherent and helpful in respect of moral evil, harm, and suffering resulting from human choices. Wisdom as to paths of positive and prudent action is offered to humans by God, and acting with the absence of wisdom is a besetting human folly. In this sense, the very influential view that evil has no real existence, but is only a lack, seems coherent. Yet it is much harder to see how this privative understanding of evil 'works' in respect of harms and suffering that lack a human cause.

McFarland uses his treatment of the book of Job to acknowledge that there seem to be some evils of which God is the author: 'As portrayed in Job, evil is a function of deliberate (though not, it seems, malevolent) divine action: if the reasons why God should bring it about that an innocent person like Job should suffer while the wicked remain prosperous remain mysterious, the presupposition remains that it is none other than God that makes it so.'[36] This shows a refreshing honesty, often absent from orthodox Christian writing. But McFarland distinguishes the suffering of Job from what might be called systemic forms of evil (e.g. predation, climatic cycles, ageing, and death) that seem to be intrinsic to creation's everyday patterns of operation.

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[28]See Gerhard May, *Creatio Ex Nihilo: The Doctrine of 'Creation Out of Nothing' in Early Christian Thought*, trans. A. S. Worrall (Edinburgh: T&T Clark, 1994).

[29]See Catherine Keller, *Face of the Deep: A Theology of Becoming* (London: Routledge, 2003).

[30]See Whitney Bauman, *Theology, Creation, and Environmental Ethics: From Creatio Ex Nihilo to Terra Nullius* (London: Routledge, 2009).

[31]For recent surveys of the status of *creatio ex nihilo*, see David B. Burrell et al., eds, *Creation and the God of Abraham* (Cambridge: Cambridge University Press, 2010); Thomas Jay Oord, ed., *Theologies of Creation:* Creatio ex Nihilo *and Its New Rivals* (London: Routledge, 2015); Gary A. Anderson and Markus Bockmuehl, eds, *Creation* ex nihilo: *Origins, Development, Contemporary Challenges* (Notre Dame: University of Notre Dame, 2018).

[32]A charge levelled by, for example, Thomas Jay Oord, 'God Always Creates out of Creation in Love: *Creatio ex Creatione a Natura Amoris*', in *Theologies of Creation:* Creatio ex Nihilo *and Its New Rivals*, ed. Thomas Jay Oord (London: Routledge, 2015), 109–22.

[33]See Kathryn Tanner on 'non-contrastive transcendence', in *God and Creation in Christian Theology: Tyranny or Empowerment?* (Minneapolis: Fortress Press, 2005), chap. 2.

[34]Ian A. McFarland, *From Nothing: A Theology of Creation* (Louisville: Westminster John Knox Press, 2015).

[35]McFarland, *From Nothing*, 112.

[36]McFarland, *From Nothing*, 125.

For this 'systemic evil', he turns to the Book of Ecclesiastes with its bleak recognition of the 'stubborn, inexorable fact of creatures' transience'.[37] McFarland writes:

> Ecclesiastes highlights the ways in which the flourishing of any one creature comes at the expense of others. . . . [T]he interactions that lead to the destruction of an individual creature are often part of a wider context that make [*sic*] possible the existence of the species (e.g. hunting down the zebra not only sustains the lion but also enhances the overall fitness of the zebra herd by removing the old and infirm).[38]

McFarland then takes two further key steps. First: 'Given that the interactions accompanying existence in time and space prevent any creature's perfection from being fully realized in time, it follows that God's intentions for creation can be achieved only through a fundamental transformation of the conditions of created existence';[39] McFarland here quotes Romans 8 as a promise of creation's obtaining 'the freedom of the glory of the children of God' (v. 21).

Second, McFarland rejects the idea that God might weigh 'the good of created existence against the exposure to evil that it entails. Such a calculation makes sense only if creation is conceived as a means to some end. . . . But the existence of creatures is not a means to an end. . . . God's intention in creating is simply that creatures should exist'.[40] McFarland is very wary of any suggestion that creation as a whole progresses towards a state closer to the divine purpose. Moreover, he thinks the science suggests that 'the appearance of increasingly complex entities over time appears to be epiphenomenal'.[41]

So McFarland finds himself defaulting to a combination of two of the strategies noted above – eschatological redemption as the ultimate evolutionary theodicy, plus an effort to draw the sting of the teleological dimension of the problem by an approach similar to that offered by Page.[42]

There is a major dispute as to the extent to which evolution shows a bias towards certain types of outcome. Page herself celebrates the conclusion of Stephen Jay Gould that had the tape of evolution run again, outcomes might have been very different.[43] But Christians confessing an orthodox credal faith can be clear that – by whatever combination of God's authoring of the process and God's subsequent interaction with it – complexification, refinements of ingenious adaptation, and eventually higher intelligence, self-conscious freedom of choice, and expressions of worship of the divine did occur, and it is very hard to see that they did not form at least a part of God's purposes in creation. McFarland concedes that the overall fitness of a zebra herd is enhanced by predation by lions; on a larger timescale, predators and prey

[37]McFarland, *From Nothing*, 128.
[38]McFarland, *From Nothing*, 129.
[39]McFarland, *From Nothing*, 130.
[40]McFarland, *From Nothing*, 133.
[41]McFarland, *From Nothing*, 154.
[42]Just as Page uses two strategies – denial of long-distance divine purpose, and affirmation of divine co-suffering – she also invokes a process-like eschatology in which moments of special concurrence between creaturely experience and divine gift are held eternally in the mind of God. Page, *God and the Web of Creation,* 170–5.
[43]Page, *God and the Web of Creation*, 75–9.

animals have developed their refined and often beautiful characteristics due to this interaction. As Rolston has so elegantly expressed it: 'The cougar's fang has carved the limbs of the fleet-footed deer, and vice versa.'[44]

Two types of theodicy naturally emerge within a theology based on *creatio ex nihilo*. The first, very often attributed to Augustine, is that God's creation was perfectly harmonious, as befitted creation out of nothing by the perfect Goodness, but the primal human sin began the process by which creation became pervaded by conflict. Other recent readings of Augustine point out that he seems to accept the existence of thorns and poisonous snakes within God's good economy of creation.[45] That would lead one towards the other type of theodicy offered within the doctrine of *creatio ex nihilo* – one that sees a world of thorns and vipers as a more complete world than one without them, a strategy elaborated by Aquinas in his view that the best sort of creation would naturally be the one accommodating the maximum diversity of creatures.[46] That, in turn, prepares the ground for Gottfried Leibniz's formulation that this is 'the best of all possible worlds'.[47]

It may be helpful, however, to recollect that the doctrine of *creatio ex nihilo* did not emerge fully formed from the ocean of early Christian reflection. What may be taken to be its quintessential form in Aquinas represents the culmination of a long process of Christian reflection, of which the opening centuries had a strong element of the polemical. Paul Gavrilyuk traces this early phase, in which Irenaeus of Lyons could frame the doctrine in rejection of a whole series of competing cosmologies, including a demiurge creating the world from pre-existing matter.[48] Gavrilyuk recognizes that some alternative cosmologies functioned in part as theodicies – perhaps pre-existing matter was evil or imperfect, or the world the work of lesser divinities, or a divine mistake or afterthought, or the creation of the Devil. Perhaps there was some sort of fall from an initial harmony or perfection. All but the last of these is utterly rejected by *creatio ex nihilo*.

But the early controversies about the doctrine were very much formed in dialogue with Plato's enigmatic but enormously influential dialogue *Timaeus*, which postulates a demiurge giving rise to the tangible creation by working with imperfect materials. For centuries this remained a profoundly influential text in a Christian milieu in which *creatio ex nihilo* had become the unquestioned orthodoxy. Plato speaks of the 'receptacle' into which creation is 'cast', which is sometimes spoken of as resembling 'matter' and sometimes more as 'space'. This '*chōra*' has attracted the attention of Catherine Keller in her important meditations on the 'tehom' of Gen. 1.2. Keller invokes two very different thinkers who also want to work with

[44]Rolston, *Critical Survey*, 134.

[45]Stanley P. Rosenberg, 'Can Nature be "Red in Tooth and Claw" in the Thought of Augustine?', in *Finding Ourselves After Darwin: Conversations on the Image of God, Original Sin, and the Problem of Evil*, ed. Stanley P. Rosenberg et al. (Grand Rapids: Baker Academic, 2018), 226–43.

[46]See Thomas Aquinas, *Summa Theologica*, 2nd rev. edn, trans. Fathers of the English Dominican Province (London: Burns Oates & Washbourne, 1920–5), I, Q. 47, Art. 1; Simon Oliver, *Creation: A Guide for the Perplexed* (London: Bloomsbury Academic, 2017).

[47]Michael J. Murray, 'Leibniz and the Problem of Evil', *Stanford Encyclopedia of Philosophy*, accessed 15 July 2020, https://plato.stanford.edu/entries/leibniz-evil.

[48]Paul Gavrilyuk, 'Creation in Early Christian Polemical Literature: Irenaeus against the Gnostics and Athanasius against the Arians', *Modern Theology* 29, no. 2 (2013): 23–32.

chōra – Alfred North Whitehead and Jacques Derrida.[49] Virginia Burrus devotes the first part of her essay on ecopoetics to *chōra*.[50] Clearly, the sense of a primordial 'stuff', with potential but without God-endowed form, continues to fascinate.

Plato's picture in the *Timaeus* is more complex than is sometimes realized. Plato speaks of the necessity (*anangkē*) that is combined with reason (*nous*) in giving rise to the phenomenal universe as a *planōmenē aitia*, a wandering or errant cause (*Timaeus* 48a). The combination of these three factors – *nous*, *anangkē*, and *chōra* – could be used to fashion an account remarkably similar to how a scientifically informed theology of creation might be framed.

It must not, however, be supposed that Plato had any sense of such an account. But if Simon Conway Morris is right that the landscape of evolutionary possibility contains certain 'attractors' (such as the camera eye and, more importantly, intelligence),[51] then it is possible to formulate a theological postulate that God designed this landscape such that certain creaturely properties were almost bound to arise, given time (and freedom from catastrophic pan-extinctions). This could be seen as the operation of *nous*, and the landscape could be understood as analogous to Plato's *chōra*, the 'filled space' of biological possibility. Crucially, the 'wandering cause' of natural selection of heritable variants (combined with such recent emphases in evolutionary theory as niche construction, epigenetic inheritance, etc.) supplies the third ingredient, the mechanism by which the space of possibility is explored, and 'solutions' involving the fundamental attractors of convergent evolution are arrived at. This is 'necessity' but 'governed by intelligence' (*Timaeus* 48a) in being shaped by certain attractors so that the results of the wandering are not truly random but do manifest a tendency towards certain types of adaptiveness to environment.

Plato can be criticized for valuing the ideal and unchangeable over the physical and actual. So on the aforementioned scheme, an incarnational faith must hold that the actual creatures that arise – the cheetah, the peregrine, the human being – have to be regarded as more valuable than the attractors of speed, ingenuity, and intelligence that contributed to their evolution within the landscape of evolutionary possibility. What is incarnate is more distinctive and special than the general 'ideas' (even if they were divine ideas) that framed its evolution. For the Christian theologian, this is particularly true of the human species because this evolved to be not only a creature created in the image and likeness of God but also a creature in which can be incarnated that image at its truest – Christ (Col. 1.15; 2 Cor. 4.4).

The other dimension missing from the Platonic account is the necessary contribution of time. In Plato's scheme, the *chōra* contains hints, traces of what become the four elements, but the demiurge (presumably instantaneously) gives them mathematical order and they become the elements themselves. Crucial to the scheme I am developing, however, is that possibilities for creaturely properties, in their particularity and not just in the generality of the attractors, only arise gradually. It took a very long time for life to include eucaryote life, to move to multicellularity, and to land-based locomotion. The space of possible properties of

[49]Keller, *Face of the Deep*, 165–7.

[50]Virginia Burrus, *Ancient Christian Ecopoetics: Cosmologies, Saints, Things* (Philadelphia: University of Pennsylvania Press, 2019).

[51]See Simon Conway Morris, *Life's Solution: Inevitable Humans in a Lonely Universe* (Cambridge: Cambridge University Press, 2003), 151–8, 243–74.

living creatures itself evolves, and the ways in which the creator's 'ideas' are instantiated might not have been altogether predictable, even by the creator, before that evolution.

A new form of 'only way' argument

What follows is the briefest of outlines of a theology of creation that sits on the extreme end of the spectrum of evolutionary theodicies that have been constructed here, in that it supposes that God knowingly, and without actual resistance, conscious or otherwise, by any created entities, created and companions the evolutionary process, and does so to realize outcomes that include creaturely beauty, diversity, ingenuity, and complexity. The blame for evolutionary suffering is simply acknowledged to belong to God.[52]

Given the goodness and benevolence presumed in God in this study, it is postulated that such a process of evolution by natural selection was *the only way* in which God could give rise to God's desired outcomes. If there had been a possible way containing a lesser proportion of disvalues to individual creatures, a perfectly benevolent God would surely have adopted it. Mats Wahlberg has objected that God, presumably knowing the precise molecular composition of the biosphere at any given moment, could create that molecular system de novo.[53] So the result that God is presumed to desire could be obtained without the millennia of suffering necessitated by evolution. Two points may be made in response. The first is that that world would still be one full of predation and parasitism, and driven by natural selection. So, the problem of suffering in the non-human world would not be solved, merely mitigated. But the second point is more subtle. It is that living things, creaturely 'selves', are not merely a snapshot in time that could be photocopied by God. (Readers may want to consider whether God could reproduce an exact copy of the persons they are at this instant of reading this section.) Creaturely selves have individual and also ancestral history. They have inherited experience that is far more than molecular composition. So, I am not persuaded by the reality of Wahlberg's thought experiment. Rather, it seems that some formulation of an 'only-way' argument[54] is the natural strategy to account for the world's ambiguity, as I began by describing it.

Elsewhere, I have softened the edge of this theodicy by appealing to various other arguments in a 'compound theodicy'.[55] But here, I simply articulate how such an only-way argument might be developed within a theology of creation. I am attracted to Page's proposal that what God creates, first of all, is a range of possibilities. Certain directions taken in modern cosmology encourage such a view.

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[52]So also Schneider, *Animal Suffering and the Darwinian Problem of Evil*, 32–3.

[53]Mats Wahlberg, 'Was Evolution the Only Possible Way for God to Make Autonomous Creatures? Examination of an Argument in Evolutionary Theodicy', *International Journal for Philosophy of Religion* 77, no. 1 (2015): 37–51.

[54]Many others have formulated such an argument. See Christopher Southgate, '"Free-Process" and "Only-Way" Arguments', in *Finding Ourselves After Darwin: Conversations on the Image of God, Original Sin, and the Problem of Evil*, ed. Stanley P. Rosenberg et al. (Grand Rapids: Baker Academic, 2018), 293–305, for references. I am grateful to Christopher Gill and Viktor Ilievski for pointing out that the form of the argument goes back to Platonic and Stoic explanations of natural evil. See Viktor Ilievski, 'The Cambridge Companion to the Problem of Evil', *Reading Religion*, accessed 30 May 2020, http://readingreligion.org/books/cambridge-companion-problem-evil.

[55]Southgate, *The Groaning of Creation*, 15–16.

It was Brandon Carter in the 1970s who was the first to articulate the fact that, were certain key parameters giving actual expression to the possibilities inherent in the laws of nature, even fractionally different life could not have arisen.[56] An example would be the strength of the force of gravity – stronger, and the universe could never have expanded, weaker, and it could never have retained its structure. The natural response of the theist is to suppose that this particular world has been 'crafted' by a creating intelligence so as to be life-bearing. The response of atheists has often been to postulate the existence of an almost infinite number of alternative universes, such that the presence of one or more universes in which the combination of laws and parameters gives rise to the possibility of life is no surprise. Indeed, various versions of Big Bang cosmology naturally give rise to the postulate of multiple universes. How these research programmes will unfold is hard to know, but science has, in various ways, prompted reflection on the likelihood that many universes are or might be possible.

It can also be learned from physics that a life-bearing universe must have an age in the billions of years[57] and (as far as can be known or imagined) it must be informed by the second law of thermodynamics, which renders the struggle for resources inevitable. To return to the point made at the beginning of this chapter, the same physical processes give rise to the possibility of profoundly ingenious evolved strategies in the struggle for flourishing, and also render that struggle inevitable.

Suppose then that God gives rise, first of all, to a whole range of possibilities, to a 'possibility space' (analogous to a multidimensional fitness landscape in evolutionary theory). Think of these as the *chōra*, the 'receptacle' for all actual existents.[58] Only some, perhaps a very small proportion of these possibilities, can give rise to a life-bearing universe. That is a logical constraint, a necessity limiting what even the divine reason can make happen. These possibilities give rise by processes involving a significant degree of randomness[59] to actual mass–energy–space–time universes. Many possible universes may decay instantly. But suppose that God *protects* a range of universes that have the potential to be life-bearing.[60] God accompanies (another motif of Page's) these universes as they develop under the influence of the laws God has created and the randomness intrinsic to quantum processes.

Additional possibilities then arise that God could foresee in general but not in particular. It still cannot be said how likely life was to arise even on a 'habitable' planet. But suppose, further, that God protects a range of possibilities that can give rise not just to systems that

[56]For an account of the so-called 'anthropic coincidences', see Rodney D. Holder, *God, the Multiverse and Everything: Modern Cosmology and the Argument from Design* (Aldershot: Ashgate, 2004).

[57]To allow the formation of planets around second-generation stars, in which systems the heavier elements required for life can accumulate, having been formed by the supernoval destruction of first-generation stars.

[58]The ancient metaphysicians would have understood 'matter' not as modern science would conceive it but as 'the substrate that makes form, or intelligibility, possible in a thing'. Adam D. Hincks, 'What does Physical Cosmology say about Creation from Nothing?', in *Creation* ex nihilo*: Origins, Development, Contemporary Challenges*, ed. Gary A. Anderson and Markus Bockmuehl (Notre Dame: University of Notre Dame, 2018), 327.

[59]That there is any structure to the universe at all is sometimes attributed to (utterly random) quantum fluctuations in a suddenly-inflating universe. See Brian Greene, *Until the End of Time: Mind, Matter, and Our Search for Meaning in an Evolving Universe* (London: Allen Lane, 2020), 56.

[60]This model then exhibits two classic properties of *ex nihilo* theologies of creation: it calls God the reason why there is anything and not nothing, and also the reason why what contains form, meaning, and value does not decay to nothing.

might meet the definition of being alive but that also have the potential to develop further complexity. Again, the precise nature of that complexity might not be known precisely by God, who continues to accompany possibilities and protect those that can give rise to certain types of value – such as beauty, complexity, diversity, and intelligence.

Vital to this theory, then, is not only the rationality of God-given laws but also a 'receptacle' of possibility that is God's first creation and a 'wandering cause', which involves both quantum indeterminacy and, once life has arisen, the processes of natural selection, genetic drift, and niche construction that shape organisms and environments in an interdependent way. To these Platonic ingredients, however, can be added an authentic sense of creation *ex nihilo*, and also a sense of God's personal providential care for creation as it unfolds, a care that accompanies rather than determines, but which prevents the total destruction of generative possibilities.[61] The model recognizes that only a narrow range of possibilities can be life-bearing, and a still narrower range can lead to complex life; also that these life-fruitful systems develop through physical and biological processes that necessarily lead to a blend of value and disvalue.

In terms of the thinkers discussed in this chapter, I affirm Plato's instinct that an element of 'necessity' is intrinsic to creation, and that some 'receptacle' must be the 'space' within which God's creating purpose works. But I resist the notion that this implies the *chōra* must have been eternally pre-existent.[62] I affirm Page's ideas of God creating and companioning possibilities, but resist her sense that God lacks long-term goals in creation. I share the instincts of Messer and Deane-Drummond that possibilities in creation are constrained from their outset, but reject their sense that these constraints arise from some form of metaphysical negativity resisting God. I see Fiddes as correct that some divinely offered possibilities are resisted by created entities because creatures develop their own freedom, but I consider that his account would be strengthened by more emphasis that the biological processes by which values develop necessarily involve forms of struggle.

What I have attempted here is a speculative account (as Plato indeed regarded the *Timaeus*) that tries to put flesh on the idea that only via an evolutionary process could certain sorts of creaturely properties emerge. It does not demonstrate the truth of the only-way argument, which ultimately has to be argued for theologically by appeal to the goodness of God. But it fills in a little of the detail of how necessity might be thought to constrain the divine creative intent. In doing so, it links with the work of perhaps the greatest of all western philosophical thinkers while retaining the Christian confession that an infinitely transcendent and infinitely compassionate God is the reason for the existence of anything rather than nothing.

[61]We cannot know what these were, necessarily, but two of them could have been the extinction of the evolutionary line that led to mammals when dinosaurs became extinct, and the extinction of early hominins when climatic change led to early population bottlenecks.

[62]In this respect I follow Augustine's instinct that '*the possibility to be something, the potential to be something, itself comes from God*'. John C. Cavadini, '*Creatio ex nihilo* in the Thought of Saint Augustine', in *Creation* ex nihilo*: Origins, Development, Contemporary Challenges*, ed. Gary A. Anderson and Markus Bockmuehl (Notre Dame: University of Notre Dame, 2018), 153. Italics in original.

Further reading

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