

# A Randomness-Based Composite Theodicy for Evolutionary Evil

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## Abstract

We develop and knit together several theodicies in order to find a more complete picture of why certain forms of animal suffering might be permitted by a perfect being. We focus on an especially potent form of the problem of evil, which arises from considering why a perfectly good, wise, and powerful God would use evolutionary mechanisms that result in so much animal suffering and loss of life. There are many existing theodicies on the market, and although they offer helpful resources, we combine and further develop several proposals to produce a composite theodicy that avoids certain shortcomings of the individual theodicies. An important element of our project is locating a role for *randomness* in biology. In particular, we show how randomness might enhance or enable certain goods, including everlasting goods, at the risk of temporary evils.

# A Randomness-Based Composite Theodicy for Evolutionary Evil

## 1. *The Problem*

Theists believe that a perfectly wise, strong, and good God guides the cosmos towards praiseworthy ends. Any evidence that the cosmos is not so directed can thus be used in an argument against the existence of such a God. One of the most potent pieces of evidence that our cosmos is not guided toward good arises from observations of (non-human) animal suffering, specifically the suffering that arises from the processes of biological evolution. When we consider the death and damage that routinely result from evolutionary mechanisms, it is quite easy to be struck by the apparent wastefulness of the process. The whole show is rife with carnage, often leading to nothing better than extinction. Isn't there a better way? The challenge on theism is to explain how the actual, evolutionary structure of the universe might well be good, and even among the best ways of creation. We call this challenge "the problem of evolutionary evil."<sup>1</sup>

Several contemporary theists have attempted to locate a value in evolution by arguing that God has endowed creation with the tremendous ability to "make itself" via indeterministic or chance processes.<sup>2</sup> On this view, there is indeterminacy at the quantum level, which is understood not as an epistemic limitation of humans, but as an objective feature of nature operating according to certain probabilistic laws. Furthermore, the supposed randomness at the quantum level is thought to reverberate 'upwards' into biological structures, allowing genetic mutations to arise

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<sup>1</sup> For representative lists of ways in which authors have suggested that the good of an evolving creation offsets the problem of evolutionary evil, see Michael J. Murray, *Nature Red in Tooth and Claw: Theism and the Problem of Animal Suffering* (New York: Oxford University, 2011), ch. 5, and Christopher Southgate, *The Groaning of Creation: God, Evolution, and the Problem of Evil* (Louisville, KY: Westminster John Knox Press, 2008), ch. 3.

<sup>2</sup> In addition to the authors that will be subsequently discussed, see the survey by Elizabeth A. Johnson, *Ask the Beasts: Darwin and the God of Love* (London: Bloomsbury Academic, 2014), ch. 6.

without any *deterministic* cause. On this model, creation is inherently unpredictable: if we could rewind the history of our universe and play it again, it is highly likely that the cosmos would take on a different shape and that very different kinds of creatures would emerge. This method of creation is thought to be valuable because the stochastic processes allow the created order to enjoy the good of *autonomy*. Thus, those who opt for this so-called “autonomy of creation defense” maintain that part of the theistic answer to the challenge of evolution generally, and the problem of animal suffering in particular, should contain appeals to indeterminism in nature.<sup>3</sup>

It is far from clear, however, that appeals to an autonomous creation alone can solve the problem of evolutionary evil. One wonders: is the general reward of making creation ‘free’ worth the price of so much anguish and death?

Although the isolated value of an autonomous creation might be insufficient to overcome the negative value of animal suffering produced by evolution, we believe that the value of an autonomous creation can play an important role in a more robust, multifaceted solution to the problem of evolutionary evil. In this paper we aim to shed new light on how an autonomous creation may reap various values. In particular, we shall contend that an autonomous creation can result in three kinds of values that help explain why God might create an evolving cosmos despite the associated evils: (i) a certain aesthetic value, (ii) a way of forging deep interconnections between species, and (iii) a means by which God can treat some of his creatures impartially. We also show how these values might be combined with additional theses, including a thesis about animal resurrection, to form a more complete theodicy. We do not claim that our composite

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<sup>3</sup> The “autonomy of creation” label comes from Robin Collins’s “Divine Action and Evolution,” in *The Oxford Handbook of Philosophical Theology*, eds. Thomas P. Flint and Michael C. Rea (New York: Oxford University, 2011), 241-261.

theodicy completely solves the various problems of animal suffering, but we suggest that it is a helpful next step along the long road toward understanding the ways of God.

## *2. The Aesthetic Value of the Autonomy of Creation Defense*

As previously noted, many who write about the relationship between science and religion maintain that the natural world unfolds by way of an interplay of law and chance. Several of these thinkers maintain, furthermore, that this picture of world is both scientifically credible and good for theology.<sup>4</sup> They say that a creation that unfolds partially via chance processes embodies a valuable degree of independence, or autonomy, and this value serves to magnify its creator.

For the purposes of this paper, let us assume that cosmic and biological evolution are indeed interwoven and driven by an interplay of law and chance. In this section we shall consider three proposals concerning the goodness of this mode of creation, and we will build upon the third of these proposals by showing how God may achieve certain aesthetic qualities by creating in this way.

We begin with the proposal offered by the well-known theologian John Haught. He contends that an autonomous creation best fits with God's love.

Cosmic and biological evolution instruct us as never before that we live in a universe that is in great measure not yet created. ... Moreover, this is nobody's fault, including the Creator's. The only kind of universe a loving and caring God could create, after all, is an unfinished one. For God's love of creation to be actualized, the beloved world must be truly "other" than God. And an instantaneously finished universe ... would in principle have been only an emanation or appendage of deity and not something truly "other" than God. A world that is not clearly distinct from God could not be the recipient of divine love. And an instantaneously completed world could never have established an independent existence vis-à-vis its creator. The idea of a world perfectly constituted *ab*

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<sup>4</sup> See Johnson, *Ask the Beasts*, ch.6.

*initio* would, in other words, be logically incompatible with any idea of a divine creation emerging from the depth of selfless love.<sup>5</sup>

In short, Haught believes that a universe that undergoes an evolutionary process allows it to be sufficiently distinct from God, and thereby a recipient of divine love. Haught elsewhere appears to suggest that absent genuine randomness within nature, all events would be the inevitable result of the divine will, which would constitute a “manipulative controlling” of creation.<sup>6</sup>

Not everyone is impressed with Haught’s reasoning. For instance, the philosopher, Michael Murray, notes that it is far from clear that a clean line between God and creation requires an autonomous, evolutionary process. After all, a human artist can create a painting that is sufficiently distinct from herself despite the fact that the painting is not self-actualizing. Thus Murray asks, “Why must we think that if an agent directly actualizes a state of affairs then that state of affairs is not distinct from the agent?”<sup>7</sup>

John Polkinghorne has proposed another relevant value. He applies “a variation of the free-will defense ... to the whole created world,”<sup>8</sup> and he urges us to realize that, “A world allowed to make itself through the evolutionary exploration of its potentiality is a better world than one produced ready-made by divine fiat.”<sup>9</sup> The basic idea at play here is that the value of a self-actualizing universe via random processes is analogous to the value of humans endowed with the ability to form their moral characters through a history of free choices.

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<sup>5</sup> John Haught, *Deeper than Darwin: The Prospect for Religion in the Age of Evolution* (Boulder, CO: Westview, 2003), 168.

<sup>6</sup> *Ibid.*, 78.

<sup>7</sup> Murray, *Nature Red in Tooth and Claw*, 173.

<sup>8</sup> John C. Polkinghorne, *Science and Providence: God’s Interaction with the World* (West Conshohocken, PA: Templeton, 1989), 66.

<sup>9</sup> Polkinghorne, *Science and Theology: An Introduction* (Minneapolis: Fortress, 1998), 94.

One may, however, worry that Polkinghorne's emphasis is unrealistically anthropomorphic. Are we to think that atoms literally *choose* to move where they do? Or if they "choose" in some analogous sense, what is that sense exactly, and why should we value it? Robin Collins raises this same concern in his critique of Polkinghorne's proposal. He writes, "a radioactive atom that decays does not 'decide' to decay but merely follows the statistical rules of quantum mechanics."<sup>10</sup> Thus, one may wonder whether Polkinghorne's "free-process defense" identifies a genuine value of an autonomous creation.<sup>11</sup>

Perhaps a better way forward is to see what we can glean from the past. From the time of St. Augustine to the present day, many Christians have argued that there is something beautiful about a creation that unfolds in a lawful manner from an initial undeveloped state to a vast, orderly and complex state.<sup>12</sup> Although the idea that creation contains currents of randomness has not traditionally been a mainstream view, those within the tradition following St. Augustine have consistently maintained that creation is somewhat autonomous. Specifically, they have maintained that creation has the inherent resources to develop and take shape, and that it does not need intermittent outside direction from a divine hand. Many who have held this position add a further claim: the beauty of autonomous, developmental creation affords it a value that is greater than one

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<sup>10</sup> Collins, "Divine Action and Evolution," 247.

<sup>11</sup> Polkinghorne does have a response to Collins's objection. He writes, "*One might challenge the legitimacy of the use of the word 'free' in the free-process defence, seeing it as an abuse of language. Tectonic plates are not moral beings, requiring freedom from divine interference if they are to fulfil their nature. Nevertheless, humanity is so intimately connected with the physical world that gave it birth, that it might be thought that only a universe to which the free-process defence applied could give rise to beings subject to the free will defence*" (*Science and Theology*, 4). Very briefly, the problem with this response is twofold: (i) as it stands, it is pure speculation, and (ii) it fundamentally changes the nature of the free-process defense, from the good of a self-creating cosmos to the good of a cosmos that prepares the way for free creatures.

<sup>12</sup> For an overview of those who argue in this fashion, see Murray, *Nature Red in Tooth and Claw*, chs. 5-6.

fully constituted *ab initio*. The interplay between law and chance may serve to heighten the beauty, and consequently the value, of an autonomous creation.

To help us appreciate how this manner of creation might contribute to a theodicy, let us imagine a couple ways it could be filled out. First, it could be that cosmic and biological evolution, as they are currently embodied in our world, are among the best ways for achieving the particular good of an autonomous creation—that is, there is no other way that does not come with equal or greater liabilities. (To be clear, we are not suggesting here that this one good is worth the price.) Second, it could be that the end game of a randomness-containing, autonomous creation is that it will eventually evolve into an eternal paradise, not unlike the traditional vision of heaven. According to this understanding, the new heavens and earth is not an otherworldly reality that people escape to when they die; rather, the new order is a restoration and improvement of *this* terrestrial world, where this method of development embeds significant aesthetic and axiological goods.<sup>13</sup>

Although these possibilities are not directly confirmed (or disconfirmed) by anything we know empirically, we consider them live options for theists.<sup>14</sup> On the proposal that God created an evolving world with praiseworthy ends in mind, it is plausible that God would aim for a good outcome, such as the one proposed above. The basic idea, then, is that God may have good reason

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<sup>13</sup> For a popular-level exposition of this eschatology, see N.T. Wright, *Surprised by Hope: Rethinking Heaven, the Resurrection, and the Mission of the Church* (New York: HarperOne: 2008).

<sup>14</sup> From a theistic perspective, one might argue that there are hints in nature of greater ends, as nature displays patterns of transformation from initial lowly states to radically enhanced future states. See Collins, “Divine Action and Evolution,” 250-251.

On the other hand, we have evidence that the cosmos is *winding down*, not up, and this evidence may be thought to count against the proposal that creation is on its way to an improved state. But this evidence doesn’t count for much unless one also assumes that God does not exist. For it is in keeping with theism that God may interact with creation without precluding a generally autonomous creation. For instance, one might hold that there is something valuable about God working with a semi-autonomous creation, which includes intermittent divine tune-ups or transformations.

to realize a beautiful, semi-autonomous creation, which naturally transforms from an initial lowly singularity to a future, enhanced state that will be inhabited by all God's sentient creatures.

Of course, the claim that some form of creation is more beautiful than another is a value judgment. And it is notoriously difficult to win resistant converts to one's favored judgment of this kind. Perhaps the best anyone can do is to paint pictures or hand over intuition-pumps to elicit the value judgment in question. To that end, we offer the following story to elicit the sense that there is something beautiful about a randomness-containing, autonomous creation.

Suppose that there is an artist who designs a complicated machine that sprays paint in a stochastic manner unto a large canvas.<sup>15</sup> The color, density, timing, and allocation of paint operates at random within predetermined boundaries, but as certain configurations begins to arise, the machine selects specific probability distributions that make particular hues, patterns and so on more likely. Let us further pretend that the machine's combination of law and chance renders it such that given enough time it is highly probable (though not guaranteed) that a juxtaposition of complex figures (such as animals, landscapes, and persons), complementary colors, and sophisticated patterns will emerge.

Now imagine that the artist starts the machine. We watch as blue paint splatters here, and white and yellow trickle there. At the beginning there is only a chaotic mess. But as weeks, months, even years pass by, the painting takes shape. At first we see the makings of a starry sky; then a rushing river. One tree sprouts up, then another, and another. Animals come onto the scene: a squirrel, an owl, and then a wolf. These details were not predicted, even while *something* beautiful

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<sup>15</sup> Our description of the painting machine that follows appears in our paper, [removed].



was anticipated. The specifics are happy surprises.<sup>16</sup> With time, the forest begins brimming with life. Finally, a grand forest landscape surfaces, complete with delicate shading and rich visual texture.

Such a painting would rightly illicit widespread interest. Think, in particular, of the affect the random processes would have on the viewers. As the painting develops, interested parties would be filled with wonder, curiosity, anticipation, surprise, and perhaps even admiration. They wonder, “Will complex and complementary aesthetic properties emerge, or will the result be only a drab mixture of colors?” If something as complex as a forest landscape begins to take shape, onlookers may become increasingly curious to see what the final product will look like. The viewers can also experience the delight of surprise: “Oh, is that a river?,” “I can’t believe the beauty of the skyline!,” and “I never would have guessed that the painting would produce animals!” And if the observers of the painting are pleased with the final product, they may even be filled with a sense of appreciation, or thankfulness, for what has developed.

Clearly, the painting we have postulated would evoke a range of emotions. But what is the aesthetic significance of the artwork under consideration?

Arguably, *one* valuable feature of an art piece is its ability to arouse certain emotions in the perceiver.<sup>17</sup> Think, for example, of a film depicting the horrors of slavery in the American South. If the film is rightly executed, it will do much more than raise one’s credence in the

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<sup>16</sup> Various studies indicate that variable (unpredictable) rewards inspire greater positive experiences and motivation than predictable ones. See, for example, Gregory S. Berns, Samuel M. McClure, Giuseppe Pagnoni, and P. Read Montague, “Predictability Modulates Human Brain Response to Reward,” *The Journal of Neuroscience* 21 (2001): 2793-2798.

<sup>17</sup> After a brief historical survey of philosophical conceptions of beauty, Crispin Sartwell claims that “in almost all treatments of beauty, even the most apparently object or objectively-oriented, there is a moment in which the subjective qualities of the experience of beauty are emphasized: rhapsodically, perhaps, or in terms of pleasure.” See, Sartwell, “Beauty,” *The Stanford Encyclopedia of Philosophy* (Spring 2014 Edition), Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/spr2014/entries/beauty/>>.

proposition, *slavery is wrong*. The film will instead awaken (or reawaken) the emotions that grab a hold of the truly satanic evil of one human treating another like an object, a mere agricultural or household tool. Empathy will be ignited, and the unity and value of all humans will be palpably experienced. Similarly, much of the power and value of music is its ability to amuse, enchant, and lift. The widespread appeal of Beethoven's Symphony No. 5 is doubtless due in no small part to this—in particular, the way in which the variation and recapitulation of the famous “Da da da dah” within the first movement draws the hearer into a developing story of tension and triumph.

How might the value of art piece's ability to arouse certain emotions in the perceiver apply to our painting produced by partially random processes? We believe there is a point of connection between the film and music examples we provided. Consider the value and power of music. Just as Beethoven's famous “Da da da dah” draws the hearer into a story of tension and triumph, so too, the painting invites the onlookers into a narrative that begins in chaos and ends in harmony. The random processes only heighten the drama, as the outcome is unpredictable to everyone and radically contingent. The viewer is caught in wonder, curiosity, anticipation, and surprise. Second, recall that part of the value of film is its ability to holistically communicate, whereby the mind and emotions of the viewer are brought into contact with reality. Our postulated painting likewise communicates, albeit indirectly, something of the preciousness of existence. Through the painting's random processes something beautiful emerges that very well could not have. One who appreciates the final product is thus all the more grateful for the beauty she beholds. The painting may even be said to point beyond itself: we and the cosmos are radically contingent. We exist when we need not have, and we observe a beautiful creation that could have been aesthetically arranged quite differently, or may not have existed at all.

No doubt the reader will foresee the point of application. Suppose God has created a world that develops in a manner similar to the painting—that is, the cosmos unfolds through a combination of law and chance, as terrestrial life is gradually introduced. Like the painting, we suggest that the values of this mode of divine creation are multifaceted.

Consider, first, the ways in which the discovery of a creation that arose from chaos via law and chance might stir certain emotions in us. It should, we think, awaken within us the sense that we are part of great emerging drama. Again, just as there is tension and triumph in Beethoven's "Da da da dah," so too, the interplay of randomness and law from which the vast cosmos develops is awe inspiring. As we examine the history of the cosmos, we may even be struck by delightful surprises concerning the way things turned out, as we embody a beautiful world brimming with life. Furthermore, the discovery of the role of randomness can evoke a sense of the radically contingent nature of the cosmos and life as we know it. Not only are we and the world contingent, the particular complex life and environmental beauty that emerged from the initial conditions could have been quite different. This contingency, in turn, engenders a heightened sense of appreciation and thankfulness for a beautiful creation and the marvel of life.

Previously we suggested that onlookers of the developing painting might be filled with wonder, curiosity, anticipation, surprise, and appreciation. Similarly, it may be that onlookers of God's creation of a partially random, self-making universe benefit from the experience. In particular, it may be that angels enjoy these emotional states (i.e., wonder, curiosity, anticipation, surprise, and appreciation) as creation takes shape. For some, the appeal to angels will feel theologically *ad hoc*; but others will discern that this reference to angelic hosts is consonant with classic Christian thinking. For within the Christian tradition, there is a view in which what happens within terrestrial creation involves angels and demons. Think, in particular, of the atonement

theory, *Christus Victor*, where the crucifixion of Christ frees humans from Satanic captivity. One need not subscribe to this understanding of the atonement to form the idea that God's creative activity is something "into which angels long to look" (1 Pet. 1:12, cf. Eph. 3:8-11).

Apart from angels and other creatures, it may be that the Supreme Being experiences a range of attitudes through a creation endowed with random processes. Perhaps God could be said to experience curiosity, anticipation, surprise, and appreciation over a creation in which random processes are present. Elsewhere we develop and defend this controversial proposal in greater detail, and we show how it can fit with many of the major theories of divine providence.<sup>18</sup> Here we note just that it is perhaps easiest to see how this theory of God's experiences could fit with *simple foreknowledge* and *open theist* views.<sup>19</sup> For on either of these views, God's knowledge of how the world unfolds depends in part upon the choices of creatures and the events of creation, and not entirely upon God's decisions. Thus, God may enjoy the good of enjoying curiosity, anticipation, surprise, and appreciation as God discovers how creation precisely unfolds.

Of course, there is still the pressing question: do the ends justify the means? Does the value of this manner and goal of creation outweigh the dis-value of animal suffering and extinction that is intertwined with the stochastic process? In our estimation, the answer is negative. As beautiful

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<sup>18</sup> See our, "Reasons for Randomness."

<sup>19</sup> It may prove helpful to define these two views of God's knowledge. "Open theism," as we are presently using the label, contains three elements. First, it is a form of theism in that God is understood to enjoy the greatest possible combination of intrinsically valuable features ("great-making properties"), such as omniscience, omnipotence, and omnibenevolence. Second, even though God's has the best possible mind, he does not know future indeterministic events, since such events either have no truth value, are uniformly false, or are intrinsically unknowable. Finally, God is temporal and passible. For more on the conceptual core of open theism, see Alan R. Rhoda, "Generic Open Theism and Some Varieties Thereof," *Religious Studies* 44 (2008): 225-234. The theory we call "simple foreknowledge" holds in common with the openness position that God is maximally great. The simple foreknowledge position offers a different account, though, of the scope of God's knowledge. Whereas open theists deny that God knows the truth-value of future contingents, advocates of simple foreknowledge hold that God does. We should add that those who hold to simple foreknowledge deny what *Molinists* affirm, namely, that God knows subjunctive conditionals (statements, such as "If God were to instantiate this particular scholastic system, then at such-and-such a time and circumstance, a particular indeterministic event would transpire.") prior to his creative decrees.

as we find the relevant manner of creation, we maintain that God would not use creatures merely as a means to these creative ends.<sup>20</sup> We think there must be something about this creation that is not only globally good, but good for individual animals as well. Thus, in the next section we will turn our attention to the ancestral goods associated with evolution, and then in the final section we will consider how those goods could be translated into everlasting goods for each creature.

### *3. Ancestral Connections and the Autonomy of Creation Defense*

In a recent essay, Robin Collins argues that creation by means of evolution allows for deep interconnections between entities within creation, which may partially explain God's choice to create in this manner. Evolutionary biologist Joan Roughgarden explains: "Our material continuity with the rest of living creation is not a threat to Christian beliefs. Just the opposite ... Evolution's discovery of a single tree of life extend a Christian view of the body and family beyond humans out to all of living creation."<sup>21</sup> In this section, we shall briefly exposit, defend, and build upon one of the connections that Collins cites—that is, ancestral connections—and we shall explain how the autonomy defense compliments it.

First, what are ancestral connections? According to Collins, "An ancestral connection occurs when one being shares a common ancestor with another—e.g. according to the theory of evolution, humans and apes both arose by common descent from the primate group called prosimians."<sup>22</sup> One of the ideas behind this kind of connection is that individuals are partially who and what they are in relation to their ancestry. Within the context of biological evolution, this

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<sup>20</sup> The point is well argue in Southgate, *The Groaning of Creation*, 12-15.

<sup>21</sup> Cited in Collins, "Divine Action and Evolution," 249.

<sup>22</sup> Collins, "Divine Action and Evolution," 250-251.

connectivity, in turn, creates something of a familial connection with many, if not all, forms of terrestrial life.

Why believe that individuals are partially who or what they are in connection to their ancestral history? This question is not one which Collins addresses in great detail, but it is easy enough to see why one might believe that connectivity affects who we are. Suppose, on the one hand, that some form of materialism, property dualism, or emergent dualism is true with respect to human persons. On any of these accounts, it is reasonable to believe that the individuation of any given human is (initially at least) dependent on a certain chunk of matter. If indeed our precise existence depends upon precise material conditions, then it is highly unlikely that, for any given existing human person, that particular person would exist if significant events in the past history had been different. Different histories lead to different arrangements of matter, which lead to different people. On this construal, then, personal identity and individuation depend upon the particular direction evolutionary processes take. Winston Churchill's existence, for example, deeply depends on his *specific* evolutionary ancestry.

On the other hand, let us suppose that some form of substance dualism is true, according to which human persons are individuated not by material stuff, but by immaterial substances. If this view is correct, then personal identity (so described) is not intimately connected with antecedent life: the numerically same person could exist within entirely different matter, or perhaps no matter at all. Even still, it seems right to say that one's *psychological identity* is deeply connected with one's biological ancestry. By psychological identity, we have in mind the personality, quirks, impulses, tastes, convictions, and values of an individual that make one's psychology different from others. Ostensibly, one's psychological identity is a contingent feature of the individual, as a person often goes through various personality phases. But there is typically

a large degree of continuity in an individual's psychological identity, even when the individual "reinvents" him or herself from time to time. The important point here is this: if one's psychological identity is significantly shaped by one's genetic material, and if one's genetic material depends upon biological ancestry, then a significant feature of one's life depends upon one's biological ancestry.

Let us suppose, then, that an individual's personal identity, psychological identity, or both are significantly tied to their biological ancestry. This connection between identity and ancestral history applies *mutatis mutandis* to (nonhuman) animals. For example, various species, both individually and collectively, embody unique personalities, habits, instincts, and so on. One may suppose, therefore, that creation via evolution has a way of forging ancestral connections between wide breadths of biological species, which in turn forms a nexus of the relevant types of identities.

We may add that the distinctive species are ancestrally connected to the cosmos as a whole. It is the cosmos, after all, which provided the raw material and operations necessary for biological evolution. Moreover, this very material, together with their causal operations, played a major role in shaping the personal and/or psychological identities of all conscious beings contained within this creation. We see, then, that creation via cosmic and biological evolution has a unique way of ancestrally connecting all embodied sentient beings.

But why think that ancestral connections are valuable? We offer two considerations. First, as Collins suggests, even if we cannot clearly explicate *why* they are valuable, we may have grounds to believe that they are valuable, given that a sense of their great value is revealed by common human practices. Collins cites these examples: (i) adopted children look for their biological parents, (ii) people expend great effort to determine their family tree, and (iii) in a theological context, communities value apostolic succession as that which is believed to connect

individuals to Christ in a historical yet mystical way.<sup>23</sup> In the same vein (although his concern is very different), J. David Velleman writes,

When people deny the importance of biological ties, I wonder how they can read world literature with any comprehension. How do they make any sense of Telemachus, who goes in search of a father he cannot remember? What do they think is the dramatic engine of the Oedipus story? When the adoptive grandson of Pharaoh says “I have been a stranger in a strange land,” do they take him to be speaking merely as an Egyptian in the land of Midian? How can they understand the colloquy between Darth Vader and Luke Skywalker? Surely, the revelation “I am your father” should strike them as a bit of dramatic stupidity—a remark to be answered “So what?”<sup>24</sup>

Moreover, we notice that it is not just human-to-human ancestral connections that many deem important. People also want to visit, and see preserved, their places of birth, childhood residences and communities, and so on. They also want to learn about their cultural and ethnic heritage, even when they have no current involvement with it. So, there does seem to be some evidence that ancestral connections are valuable, or at least that they are valued, regardless of whether we can spell out exactly what makes them valuable.

Second, we believe it is valuable to be positively connected with other valuable entities. For example, it is a great good in someone’s life to be affiliated with an excellent educational institution, a just political movement, or a vibrant cultural community—and these are good quite apart from any practical advantages these ties may afford. This much is plausible enough. So then why not think it is also good for us to be members of the club of causally-related creatures? Consider, after all, that humans are not merely dropped into the environment in which they interact; instead, their very psychological identities and physical structures are bound up with the world around them.

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<sup>23</sup> Collins, “Divine Action and Evolution,” 254

<sup>24</sup> J. David Velleman, “Family History,” *Philosophical Papers* 34 (2005), 369.



What is valuable for humans here is equally valuable for all other sentient beings. Ancestral connections can be cosmos-to-animal or animal-to-animal. Even while animals often do not have the capacity to be aware of such connections, the connections themselves may carry tremendous value.

From a theological perspective, the deep connections forged between creatures and the cosmos may illumine the biblical language regarding the initially mysterious relationship between human redemption and the redemption of all of creation (expressed most famously in Rom 8:18-25). For when we consider that particles involved in the big bang would later be stochastically directed into becoming part of each and every creature, even composing personal and/or psychological identities, we see that all of creation forms an integrated whole. Thus, for instance, I owe who I am, at least in part, to the natural world. Insofar as I value the aspects of myself that are the product of the cosmos, I may honor and value that which made me who I am. I may, thereby, also hope that the sentient sources from which I came could be redeemed and brought into their greatest glory. Although it may be perfectly coherent to suppose that God can only redeem certain sections of the nexus of creation, would it not be deeper and richer to redeem the integrated whole, if that is possible?

Thus far, much of what we have said about ancestral connection is strictly compatible with determinism. But streams of randomness within the evolutionary process can serve to increase the value of ancestral connections. In particular, randomness allows creation to enjoy more of a co-creational role in producing species, thereby strengthening the connectivity of its creatures. To see this, suppose that God determines everything in the natural world by creating its initial conditions plus certain laws that guarantee each proceeding detail of the cosmos. In this scenario, God is the ultimate sufficient reason for every natural event in the cosmos in the sense that every natural event

is either directly brought about by God, or determined by that which God directly brings about. But now my connection to the cosmos is diminished. After all, the cosmos has not exercised any causal power *of its own* that contributes to who I am. Contrast this scenario with an autonomous creation that contains genuine torrents of randomness. On this picture, the universe has the inherent ability to unravel in several different ways. Since God does not directly or indirectly select each event in the cosmos, and since the cosmos has its own contra-causal capabilities, creatures can rightly claim, “I am who I am in part because the universe has made me such.”

To further draw out the role of randomness, it may help to consider an analogy from divine providence and human freedom. Suppose that theological determinism is true and thus that God is the sufficient cause of all events and actions in the world: thus God deliberately, and without constraint, establishes the causal conditions that inevitably lead to all events and actions.<sup>25</sup> A common worry about this picture of providence is that it robs humans of their freedom, since they cannot meaningfully be said to be the *ultimate source*, the sufficient reason, for any of their actions. At most, they are the proximate cause of their actions; the ultimate explanation of each and every action is the unconditioned decree of God. But now, let us help ourselves to a classic assumption: there are values in *I-Thou* relationships that require two or more ultimate sources of their relational activity. If this assumption is correct, then theological determinism precludes God from entering certain valuable *I-Thou* relationships. In the eyes of many philosophers and theologians, the most plausible way out of this problem is to suppose that determinism is false and that creatures enjoy libertarian freedom.<sup>26</sup>

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<sup>25</sup> Our description of theological determinism is a slight modification of William Hasker’s as found in “Does God Take Risks in Governing the World?,” in Michael L. Peterson and Raymond J. Vanarragon (eds.), *Contemporary Debates in Philosophy of Religion* (Malden, MA: Blackwell Publishing, 2004), 223.

<sup>26</sup> [removed]

Let us now see how the value of libertarian freedom may underscore the value of indeterminism in the broader natural order. Suppose God determines everything that happens within the natural world. Then God is the ultimate source of each event within it. Thus, although it is still fair to say that one's biological ancestry is vital for one's personal and/or psychological identity, such ancestry is only the proximate cause. Ultimately, God planned and set into motion that which will inevitably produce that particular personal or psychological identity. Consequently, one only looks to one's biological ancestry as merely the path used to execute God's plan. Contrast this scenario, however, with an autonomous, indeterministic creation. Now the spontaneous interworking of creation make one's personal and/or psychological identity much more dependent on the processes of creation itself, such that one would not be who or what one is without the radically contingent outcomes of those processes. Created things, therefore, play a more significant role in shaping individuals if they are autonomous to some extent. This greater role enhances the significance of one's connections to the cosmos and its contents.

To sum up, one of the reasons a perfect God could have for creating a world that evolves by way of stochastic processes is that such a world affords creature-creature ancestral connections as well as creature-cosmos ancestral connections. We do not suggest that the value of these connections justify all the evils that apparently result from evolution. So far, we merely suggest that these connections could be quite valuable.

#### *4. Autonomous Creation and Impartial Treatment*

We will now consider one further way in which a randomness-containing, autonomous creation may be useful to God. Let us grant that God values ancestral connections and that a sufficiently good way to instantiate these connections is through cosmic and biological evolution. Within biological evolution, mutations are a mixed bag. Certainly, some mutations are helpful. They can lead, for example, to the capacity for a longer and more pleasurable life. Other times, however, the mutations are not so advantageous. They lead to disease, disability, and imminent death. God of course knows this, and given that he cares for each of his creatures, he wants to avoid painful mutations. God, we may suppose, would even be willing to intervene in the natural process to stop hazardous mutations if he could do so without an offsetting cost. The cost, however, may be quite high. One cost, for example, may arise in view of God's justice, which inspires God to treat creatures similarly in relevantly similar circumstances. Suppose, for example, that God has a policy to prevent every negative mutation. This policy may end up undermining the very natural processes that form desirable ancestral connections. Michael Murray elucidates this idea as it relates to natural evil more broadly:

All naturally evil states of affairs are naturally evil because they constitute harm to some being or beings capable of being harmed. If God were to seek to minimize the relative quantity of natural evil, he would be seeking to reduce the overall quantity of harm done to creatures. However, divine justice requires, among other things, that God's dealings with creatures be evenhanded. Such evenhandedness entails that when creatures are treated a certain way in certain circumstances, other creatures in similar circumstances will be treated in like fashion. If justice requires such even handedness, then were God to prevent destruction from tornadoes, he would surely be obliged to prevent similar destruction of property caused by hailstorms, tropical-storm wind gusts, and so on. It is, of course, not at all easy to say what 'similar destruction' might amount to. There might be all sorts of cases that would have the appearance of being similar but which might figure in a set of necessary conditions for securing outweighing goods of which we are wholly unaware. Nonetheless, the evenhandedness condition requires that if God is going to preserve one sort of sentient creature from a certain sort of harm by fiat, other similar sentient creatures similarly situated will be preserved from similar harms. Given this, we have good reason to expect that minimal interventions would quickly multiply to such an extent that there is a high

likelihood that any intrinsic or instrumental goods which were to come from nomic regularity would be in jeopardy.<sup>27</sup>

It should be clear that Murray's concern is with nomic regularity, not ancestral connections per se. But without nomic regularities—and, we have suggested, an element of irregularity as well—the depth of ancestral connections is all too easily undermined. So, perhaps God will not intervene so often if he seeks to create an inherently developmental and ancestrally connected world. Were God to select one creature over another when all other things are relevantly similar, it seems that doing so would be a violation of the evenhandedness principle.

Randomness can actually help God maintain evenhandedness. Suppose for a moment that there is no randomness and that we live in a deterministic world. Then maintaining evenhandedness may require that God directly choose which creatures suffer. For example, the evolutionary conditions that connect certain beings with their ancestors may entail that certain mutations are maladaptive. In a deterministic world, God determines which beings will suffer from the relevant maladies. But if God were to determine in every case which creatures will suffer, then it is likely that evenhandedness principle would be violated—that, for example, two creatures of the same species in relevantly similar circumstances would experience unjustly different fates. Now consider instead this option: God creates a world in which mutations arise via partially random processes. In this case, no maladaptation is necessary, even if some is highly likely. Furthermore, randomness removes God from being the first intentional cause of any of the bad events, and it allows God to treat creatures even-handedly (in that God need not select a subset of relevantly similar creatures in relevantly circumstances to suffer while their counterparts flourish). To be clear, we are by no means suggesting that randomness automatically exonerates God from creating a system in which bad events occur. Our point here more modest: we suggest that

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<sup>27</sup> Murray, *Nature Red in Tooth and Claw*, 148-149.

randomness may play a special role in explaining how God might implement a system that achieves certain creative ends while maintaining evenhandedness.

Thus far, we have presented certain goods that suggest that the production of an autonomous creation is a reasonable course of divine action. However, we have not yet explained how the articulated goods might overcome, or ameliorate, the problem of evolutionary evil. In the next section we shall do that by presenting an autonomous creation theodicy.

### *5. A Randomness-Based, Composite Theodicy*

We will now suggest how the various theodical elements may be integrated into a more complete composite theodicy. We begin with the proposal that one good reason God creates a world is to achieve the good of an autonomous creation. We add that creation could be setup to evolve from its humble beginnings to an entirely redeemed new heavens and earth which will last forever. Once creation reaches its enhanced state, the risk of further evolutionary evils may be removed, and the adapted creatures may live in complete harmony. Finally, we suggest that cosmic and biological evolution, as it operates within the universe, may, for all we can tell, be among the best of ways for achieving the good of an autonomous, ancestrally-related, aesthetically interesting creation, which eventually evolves in an even-handed way into an enhanced, grand state of affairs. The story is plausible, we suggest, and it provides a foundation for a more detailed assessment of probabilities (which we leave wide open at this stage).

The question remains: how could God justly compensate animals for the harms done to them during the evolutionary process? One widely endorsed suggestion is that animals may enjoy eternal life in God's restored creation.<sup>28</sup> The proposal, though certainly controversial, has been

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<sup>28</sup> For an excellent discussion of this proposal, see Southgate, *The Groaning of Creation*, ch. 5.

defend on biblical, theological, and philosophical grounds.<sup>29</sup> For present purposes, we suggest merely that animal salvation is a praiseworthy end, and it one that is metaphysically possible for a good God to achieve.

However, even if it is good for animals to enjoy eternal life, it does not follow that the ends justify the means. To draw out why, consider a pyromaniac billionaire who, merely for the fun of it, forcibly removes a family from her home and burns it to the ground, after which he compensates the family with two million dollars. The prize at the end may be thought to substantially outweigh the stress induced by the removal and home burning, but nevertheless, the end does not justify the means.<sup>30</sup> The same is so with animal salvation. Granting animals salvation may outweigh the injury done to the creature, but these rewards do not guarantee that the means were justified. What is needed is a reason to suppose that the means are good, and that animals are somehow *rightly* compensated for their injuries.

We have suggested that God may grant all sentient creatures an everlasting residence in a new heavens and earth, which is partially built on their suffering backs. It is important to see that God's granting of the reward of eternal life is not disconnected to animal suffering. Rather, animals enjoy the good of being ancestrally related to the new heavens and earth and to its inhabitants.

There are two general ways in which animals might enjoy their reward. The first, rather interesting option is defended by Trent Dougherty, who proposes that animals, similar to humans in many Christian traditions, will not only be resurrected but deified. The result is that animals

will be will become full-fledged persons (rational substances) who can look back on their lives – both pre- and post-personal – and form attitudes about what has happened to them and how they fit into God's plan. If God is just and loving, and if they are rational and of good will, then they will accept, though with no loss of the sense of the gravity of their

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<sup>29</sup> See *Ibid.*, 12-15.

<sup>30</sup> Inspiration for this illustration comes from a similar scenario offered by Trent Dougherty, *Animal Pain*, pp. 97-99.

suffering, that they were an important part of something infinitely valuable, and that in addition to being justly, lavishly rewarded for it, they will embrace their role in creation. In this embrace, evil is defeated.<sup>31</sup>

Drawing from Dougherty, then, one might say that deified animals become aware of the role they have played in building creation—indeed, an autonomous creation, linked through ancestry, which unfolded into paradise—and they will see that, although their suffering has been great, it was short and worth the outcome. (We need not hold, as Dougherty seems to, that personified animals are given freedom to reject the value of their role in creation.)

Another option is to suppose that animals may be partially deified, but not personalized. That is to say, non-human animals remain recognizably the same, but they are stripped of mortality, carnivorism, and so on. (One must assume here that carnivores *can* be transformed into herbivores without significant loss of identity. Although this assumption can be questioned, we do not find it unreasonable.) Unlike the former option, animals that are not personalized will not be aware of the role they played in forging creation. However, it is surely reasonable to suppose that the value of their role remains, even if they remain unaware of it. Moreover, *humans* may gain intimate knowledge of the special ways in which animals are ancestrally related to them. They may appreciate the price animals have paid in the evolutionary process, and these causal connections may in turn form a good relational bond between humans and animals, not unlike the bond often experienced between pets and their owners. Thus, animals may experience a good that is directly dependent upon their role in creation, even if they are unaware of their own role in the process.

One may object that it is misplaced to suggest that animals often play a positive role in creation. For well over 95% of all species have ended in extinction, many of which appear to have

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<sup>31</sup> Trent Dougherty, *The Problem of Animal Pain*, 3.



been wilting branches on the tree of life that did nothing to enact the next stage of evolution.<sup>32</sup> Their sufferings and deaths appear to be in vain, and so it's difficult to see how animals can be compensated in the ways suggested.<sup>33</sup>

Such an objection fails, however, for at least two reasons. First, the goods of ancestral connections do not depend on the sustenance of each branch on the tree of life. The relevant goods here flow from the connections to *individual* members of each species. All members are causally related by a tree of life, even if there are terminating nodes in the tree. Second, dead-ends can be seen as outcomes of an autonomous creation. Given autonomy, God does not direct evolutionary niches in a non-productive direction. Rather, God creates an evolutionary milieu that could very well result in terminating branches, whether those ends are ideal or not. Some ends are natural ends and need not be seen as unfortunate, especially if members of every species experience post-mortem salvation.

This, then, is the basic structure of our theodicy for evolutionary evil. God has reason to realize the goods of an autonomous, ancestrally related, aesthetically interesting world. To achieve these values, evolution via random processes is the necessary means—or, at least there is not an obviously superior way to achieve all these values. God sets up this process knowing that it is highly probable (at least) that these processes will result in animal pain and death. But the pains and death are not permanent, and they are translated into grand goods in at least one of the ways proposed. In short, God's method of creation may be designed to exchange temporary evils for everlasting goods for all creation.

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<sup>32</sup> See George Poinar Jr. and Roberta Poinar, *What Bugged the Dinosaurs?* (Princeton, NJ: Princeton University Press, 2008).

<sup>33</sup> In a review of Dougherty's book containing the aforementioned deified animal theodicy, John Schneider presents an objection along these lines to Dougherty's *Animal Pain*. One can find Schneider's review in NDPR

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