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Theistic Evolution: Scientific, Philosophical and Theological Concerns

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Abstract: In this paper, I explore scientific, philosophical, and theological concerns that arise from adopting theistic evolution understood as claiming that the origin and development of life can be entirely accounted for in terms of the operation of natural causes, without any need to posit direct divine intervention. I argue that theistic evolutionists' commitment to methodological naturalism and their unjustified rejection of gap arguments suggests that their case is not nearly so strong as they suggest. I further argue that accepting theistic evolution most naturally leads to accepting a monistic physicalist account of the person that is at odds with theism's understanding of human nature.

Keywords:

theistic evolution;
methodological naturalism;
God of the gaps;
human nature;
libertarian free will;
life after death;
BioLogos;
Nancey Murphy

Introduction

I take contemporary theistic evolutionists as characteristically committed to two claims. The first is that, as theists and in contrast to physicalists, pantheists, and panentheists, they view nature as totally dependent upon God, being created *ex nihilo* by Him.¹ Although ontologically distinct from God, nature is constantly

¹ One of the referees for this paper has objected that panentheists view nature as dependent on God. Two comments are in order. First, as Culp observes, panentheism is not a philosophically stable concept (see John CULP, "Panentheism", in: Edward N. ZALTA (ed.), **The Stanford Encyclopedia of Philosophy**, Winter 2021 Edition, <https://tiny.pl/9npdq> [17.10.2021], "Criticism and Responses" Section). Second, as Stenmark notes, panentheists reject any claim of an ontological distinction



sustained by God. The entities which make up nature have, by virtue of God's creation of them, certain properties, and causal powers. The interaction of these entities, understood as secondary causes, gives rise to regularities in nature. Secondary causes can fulfill an explanatory function keeping in mind that the ultimate explanation of such causes even existing is God willing them to be.

The second is that the origin and development of life is explicable entirely in terms of the operation of secondary causes, without ever positing direct divine intervention to bring about events that would not otherwise have occurred. This is not to say that all who would describe themselves as theistic evolutionists deny the occurrence of direct divine intervention *tout court*. Theologically conservative theistic evolutionists often allow for such intervention in what may be termed "salvation history". For example, the Biologos Foundation, under the heading "What We Believe", affirms belief in biblical miracles, but also claims that "the diversity and interrelation of all life on earth are best explained by the God-ordained process of evolution with common descent" and "that God created humans in biological continuity with all life on earth".² Theistic evolutionists of a more liberal bent typically reject any positing of divine intervention insisting that "the primary usage for the idea of divine action should be in relation to the world as a whole rather than to particular occurrences within it".³

My argument in what follows is that theistic evolution in its characteristic commitment to these two claims raises serious scientific, philosophical, and theological concerns.

Theistic Evolution and Deism

Prima facie, at least, theistic evolutionists' insistence that the origin and development of life be explained solely in terms of the operation of secondary causes without any reference to divine intervention tends towards a deistic conception of

between God and the world (see Mikael STENMARK, "Pantheism and Its Neighbours", *International Journal for Philosophy of Religion* 2019, Vol. 85, p. 27 [23–41]). They are not, therefore, entitled to claim that God creates the world.

² "What We Believe", *BioLogos*, <https://tiny.pl/9npdh> [17.10.2021].

³ Maurice WILES, *God's Action in the World: The Bampton Lectures for 1986*, SCM Press, London 1986, p. 28.

how God operates in creation.⁴ Certainly, the following quotation from Denis Lamoureux, a theistic evolutionist featured on BioLogos' website, sounds very deistic. Lamoureux likens God to a superb billiards player asking his readers to

imagine that God's creative action in the origin of the world to be like the stroke of a cue stick in a game of billiards. [...] According to this Christian view of evolution, the breaking stroke is so finely tuned and incredibly precise that not only are all the balls sunk, but they drop in order. It begins with those labelled heavens, then earth, followed by living organisms, and finally the 8-ball — the most important ball in billiards — representing humans. [...] This is how I see design in evolution.⁵

Likewise, Karl Giberson, former vice president of BioLogos, asserts that

at the deepest level of reality, the world is so simple it boggles the mind. There are only four kinds of interactions that occur in nature: gravitational, electromagnetic, strong nuclear and weak nuclear. Every event, from a thought in your head, to the chirp of a bird, to the explosion of a distant star results from these four interactions.⁶

Similarly, many contemporary Thomists sound deistic. Michael Tkacz, for example, contends that

God does not intervene into nature. [...] Our current science may or may not be able to explain any given feature of living organisms, yet there *must* exist some explanatory cause in nature. The most complex of organisms have a natural explanation, even if it is one that we do not now, or perhaps never will, know.⁷

He insists that to entertain the possibility of God directly intervening in nature is to commit what he terms the "Cosmogonical Fallacy" of confusing primary and secondary causation. God need not, indeed should not be thought as directly intervening in nature, but rather always working through the instrumentality of secondary causes. Marie George sounds a similar note, writing that "getting non-in-

⁴ A referee has suggested that God might guide rather than "intervene". I fail to see how, apart from deistic front-loading, guidance could occur with divine intervention. If one guides such as to bring about an event that would not otherwise occur, then one has intervened.

⁵ Denis O. LAMOUREUX, "Evolutionary Creation: A Christian Approach to Evolution", *BioLogos*, <https://tiny.pl/9npdr> [17.10.2021].

⁶ Karl GIBERSON, *Saving Darwin: How to Be a Christian and Believe in Evolution*, Harper-Collins, New York 2008, p. 217.

⁷ Michael W. TKACZ, "Aquinas vs. Intelligent Design", *Catholic Answers Magazine* 2008, Vol. 19, No. 9, <https://tiny.pl/9npdc> [17.10.2021] [emphasis added].

telligent beings to participate in the production of the world is more difficult than doing everything oneself”.⁸

Typically, theistic evolutionists respond to the charge that their position is deistic by claiming that, unlike deists, they do not take nature to be self-sustaining. For example, Jim Stump, writing on behalf of BioLogos on its website, insists that

we are not deists [...] what we would claim, is that God is involved in all of it. God’s creative power and sustaining power works through all of creation. If we were to discover completely persuasive scientific explanation for how life developed and even began on Earth, we don’t think that therefore means that God had nothing to do with it.⁹

This, however, is a mischaracterization of deism. The deists did not claim that nature is self-sustaining, that it does not need God constantly causing it to exist. Rather, like theistic evolutionists, the deists rejected the idea that God would ever directly intervene to bring about an event nature would not otherwise have produced. Thomas Chubb, for example, writes that “God, at the creation, put the natural world under the direction of certain laws; [...] [and that] the divine energy, or those immediate acts of God’s power, by which the system of nature is kept together, and continually upheld and preserved [...] [is] a part of God’s general providence”.¹⁰ Likewise, Thomas Morgan asserts not only that the “government and direction of nature, by general laws, [...] obtain and secure the best order and constitution of things [...] without obliging the Deity or Author of Nature, to suspend his laws, or alter his prescribed rules and measure of action, by frequently interposing on particular incidents and emergencies”¹¹ but that the “support and con-

⁸ Marie GEORGE, “On Attempts to Salvage Paley’s Argument from Design”, *Jacques Maritain Center: Thomistic Institute*, <https://tiny.pl/9npd1> [17.10.2021]. Other contemporary Thomists taking the position that divine intervention in nature is to confuse issues of primary and secondary causation include William E. Carroll and Ignacio Silva.

⁹ BioLogos Editorial Team, “Divine Action and the Meaning of «Creation»”, *BioLogos* 2015, January 27, <https://tiny.pl/9nlf4> [17.10.2021].

¹⁰ Thomas CHUBB, “A Vindication of the Author’s Short Dissertation on Providence”, in: Thomas CHUBB, *A Collection of Tracts on Various Subjects*, Vol. II, Pt. I, London 1743, p. 50.

¹¹ Thomas MORGAN, *Physico-theology: Or, a Philosophico-moral Disquisition Concerning Human Nature, Free Agency, Moral Government, and Divine Providence*, T. Cox, London 1741, p. 76.

tinuation of existence and motion is as necessary an effect of God's presence, power and authority as creation itself".¹²

Such passages make clear that the attempt by contemporary theistic evolutionists to distinguish their position from deism fails. In the case of contemporary Thomists who embrace theistic evolution, this seems especially ironic since Aquinas was very willing to acknowledge divine interventions in the natural order. He writes that

divine power can sometimes produce an effect, without prejudice to its providence, apart from the order implanted in natural things by God. In fact, He does this at times to manifest His power. For it can be manifested in no better way, that the whole of nature is subject to the divine will, than by the fact that sometimes He does something outside the order of nature. Indeed, this makes it evident that the order of things has proceeded from Him, not by natural necessity, but by free will.¹³

Likewise, we find him asserting that

all creatures are related to God as art products are to an artist. [...] Consequently, the whole of nature is like an artifact of the divine artistic mind. But it is not contrary to the essential character of an artist if he should work in a different way on his product, even after he has given it its first form. Neither then, is it against nature if God does something to natural things in a different way from that to which the course of nature is accustomed.¹⁴

Theistic Evolution and Methodological Naturalism¹⁵

Nothing in what has been said is to suggest that the degree to which the origin and development of life can be explained in terms of the operation of natural causes should not be open to empirical investigation. Such investigation must be

¹² THOMAS MORGAN, *The Moral Philosopher*, London 1738, p. 188.

¹³ THOMAS AQUINAS, *Summa Contra Gentiles: On the Truth of the Catholic Faith*, trans. Anton C. Pegis, James F. Anderson, Vernon J. Bourke and Charles J. O'Neil, Hanover House, New York 1955–1957, Book 3, Chapter 99, Art. 9, <https://tiny.pl/9nlj1> [17.10.2021].

¹⁴ THOMAS AQUINAS, *Summa Contra Gentiles...*, Chapter 100, Art. 6. See also Michael CHABEREK, "Thomas Aquinas on Creation, and the Argument for Theistic Evolution from *Commentary on Sentences, Book II*", *EPS Article Library* 2015, <https://tiny.pl/9nlpt> [17.10.2021].

¹⁵ I take methodological naturalism to be the position that scientists, independent of whatever metaphysical beliefs they personally hold, must in their practice always posit a natural cause for any event that takes place in the world.

free to go wherever the evidence leads. It is essential, however, to stress the need to be wary of adopting commitments that *a priori* dictate what will be its conclusions.

Unfortunately, theistic evolutionists routinely embrace such commitments, raising the worry that their case is not nearly so strong as they suggest. Particularly worrisome is their uncritical adoption of methodological naturalism as a prerequisite of such inquiry and their insistence that any appeal to gaps in natural explanations as constituting evidence of divine intervention is logically fallacious.

Committed to the view that life's origin¹⁶ and development is to be explained entirely in terms of the operation of created secondary causes, with no reference to direct divine intervention in the process, theistic evolutionists routinely adopt methodological naturalism, namely the principle that "only natural causal factors are methodologically and epistemologically legitimate as explanations".¹⁷

Unfortunately, the effect of adopting methodological naturalism is to guarantee disregard of potential disconfirming evidence. If it is never legitimate to posit divine activity as playing any direct immediate role in life's origin and development then, even if such activity took place, it can never be recognized. Adoption of methodological naturalism as the *sine qua non* of investigating life's history is to guarantee that what is presented as a conclusion based on evidence, namely that an explanation of life's origin and development can be given entirely in terms of the operation of secondary created causes, operates instead as a controlling presupposition into which the empirical evidence must be fitted. If the only explanations deemed acceptable are naturalistic then inquiry cannot follow the data wherever it leads. The danger, of course, is that once non-naturalist explanations are ruled out *tout court* as illegitimate then, no matter how implausible, one is "forced to beat the data until it offers a naturalistic confession".¹⁸

¹⁶ Strictly speaking, the theory of evolution is concerned with life's development, not its origin. It is fair to say, however, that theistic evolutionists typically accept that an explanation of life's origin entirely in terms of natural causes exists, though yet unknown.

¹⁷ Barbara FORREST, "Methodological Naturalism and Philosophical Naturalism: Clarifying the Connection", *Philo* 2000, Vol. 3, No. 2, pp. 7–29, <https://tiny.pl/9nllg> [17.10.2021].

¹⁸ Jeffrey KOPERSKI, *The Physics of Theism: God, Physics, and the Philosophy of Science*, Wiley Blackwell, West Sussex 2015, p. 212.

Theistic evolutionists sometimes argue that they adopt methodological naturalism not as a prerequisite of their investigation of the origin and development of life, but rather as a well-evidenced inductive generalization that proves fruitful.¹⁹ But as regards the origin and development of life, it is far from clear that the presumption that it can be explained entirely in terms of naturalistic causes is in fact fruitful. James Tour, in a chapter entitled “We’re Still Clueless about the Origin of Life”, observes that, in contrast to advances in other fields of scientific inquiry, origin-of-life research “is even more befuddled now than it was in 1952 [the year of the Miller-Urey experiment] since more questions have evolved than answers, and the voluminous new data regarding the complexity within a cell makes the target much more daunting”.²⁰ Nor is Tour alone in this judgment. Suzan Mazur, after interviewing leading origin of life researchers, notes the

ongoing parade of [...] hypotheses, often presented in impenetrable technical language, that keep out wide public scrutiny. [...] Papers for which there are no solid benchmarks for what is plausible borderline creation myth, hallucination or charlatan seduction. [...] Sometimes there is no common ground at all between origin of life scientists. Crucial UV light for one scientist’s model can mean death for another’s for example.²¹

Mazur’s remarks about the origin of life are equally applicable to attempts to explain certain features in the development of life such as the Cambrian explosion.

In fact, the advantages that are claimed to follow from the adoption of methodological naturalism are illusory. Acceptance of naturalistic explanations of life’s origin and development should be based on how well they work, not on a mandated necessity that all explanations must be naturalistic. Whether such explanations should be accepted depends upon whether they are the result of rational disciplined investigation of publicly available evidence in accordance with fundamental explanatory virtues, such as simplicity, causal adequacy, scope, etc. For

¹⁹ See, for example, Patrick McDONALD and Nivaldo TRO, “In Defense of Methodological Naturalism”, *Christian Scholars’ Review* 2009, Vol. 38, No. 2, pp. 201–229.

²⁰ James TOUR, “We’re Still Clueless about the Origin of Life”, in: Charles B. THAXTON, Walter L. BRADLEY, Roger L. OLSEN, James TOUR, Stephen C. MEYER, Jonathan WELLS, Guillermo GONZALEZ, Brian MILLER, and David KLINGHOFFER, **The Mystery of Life’s Origin: The Continuing Controversy**, Discovery Institute Press, Seattle 2020, p. 324 [323–357].

²¹ Susan MAZUR, **The Origin of Life Circus: A How To Make Life Extravaganza**, Caswell, New York 2016, p. 11.

example, it is Occam's Razor, not methodological naturalism, which persuades me that an explanation of ocean tides in terms of the moon's gravitational force should be accepted. There is no need to commit to methodological naturalism to find this explanation convincing.

Insistence on methodological naturalism is typically employed polemically as a discrediting device, as a "*machine de guerre*" by which a position not liked can be dismissed as "unscientific" and thus unworthy of being taken seriously.²² As Paul Nelson notes,

methodological naturalism does nothing for science that science cannot do for itself. Seen in the bright light of day, methodological naturalism turns out to be little more than an all-purpose defeater for unwelcome ideas — another "Press Button in Case of Emergency" doctrine of the sort that brings disrepute on the philosophy of science.²³

Theistic Evolution and Gap Arguments

One of the consequences of theistic evolutionists' commitment to methodological naturalism is their disdain for, and easy dismissal of, the possibility of explanatory gaps in naturalistic explanations functioning as evidence of divine intervention.²⁴ Simply labelling an argument "God of the gaps" is taken to be a sufficient reason to dismiss it; the assumption being that all gap arguments are logically fallacious. As David Snoke notes, there is virtually universal condemnation of gap arguments, even within theologically conservative circles, by those concerned to show the compatibility between science and Christian faith. "A person might present all manner of impressive reasoning about something, but if his opponent says «that is a God-of-the-gaps' argument», even the stoutest evidentialist wa-

²² See Larry LAUDAN, "The Demise of the Demarcation Problem", in: Robert S. COHEN and Larry LAUDAN (eds.), *Physics, Philosophy and Psychoanalysis: Essays in Honor of Adolf Grünbaum*, *Boston Studies in the Philosophy and History of Science*, Vol. 76, D. Reidel, Dordrecht 1983, p. 121 [111–127].

²³ Paul NELSON, "Methodological Naturalism: A Rule That No One Needs Or Obeys", in: David KLINGHOFFER (ed.), *Debating Darwin's Doubt: A Scientific Controversy that Can No Longer Be Denied*, Discovery Institute Press, Seattle 2015, p. 292 [285–294].

²⁴ A referee suggests that I need to give some examples of explanatory gaps. I have already done so in mentioning the issue of the origin of life and the Cambrian Explosion. More to the point, however, is that the referee fails to realize that I am protesting the typical *a priori* dismissal of gap arguments as somehow logically fallacious.

vers”.²⁵

This, however, is to ignore the fact that if direct divine action was involved in the occurrence of an event in the physical universe, then any attempted explanation of the event solely in terms of secondary causes, will be incomplete. Del Ratzsch is correct in his observation that,

there is nothing inherently unscientific in the idea of gaps in nature — of things that nature cannot do. [...] Scientific justification for the claim that nature does not or cannot produce some specific phenomenon [...] is a routine unproblematic aspect of scientific activity. [...] if God-of-the-gaps explanations are *scientifically* illegitimate, it will have to be solely due to their reference to the supernatural — not because their logical structure violates any other canon of science or rationality.²⁶

The real issue in assessing the worth of gap arguments is to what degree the gap in question should be viewed as epistemological, that is to say, it is best explained as a consequence of our ignorance of how natural causes operate, or as ontological, that is to say, it is best explained as a consequence of supernatural agency.²⁷ It begs the question to assume that all gaps in attempted natural explanations of how life arose and developed are epistemological. Theistic evolutionists, however, routinely make this assumption. For example, we find the following statement posted on the BioLogos website: “If gaps in scientific knowledge are used as arguments for the existence of God, what happens *when* science advances closes those explanatory gaps”.²⁸ The use of the word “when” rather than “if” reflects the unexamined assumption that a complete explanation of life’s origin and development in terms of natural causes exists, even if it is not yet known.²⁹

²⁵ David SNOKE, “In Favor of God-of-the-Gaps Reasoning”, *Perspectives on Science and Christian Faith* 2001, Vol. 53, No. 3, p. 152 [152–158].

²⁶ Del RATZSCH, **Nature, Design, and Science: The Status of Design in Natural Science**, *SUNY Series in Philosophy and Biology*, SUNY Press, New York 2001, pp. 47–48 [emphasis in the original].

²⁷ For a rebuttal of the charge that gap arguments commitment the fallacy of *ad ignorantiam*, see Robert LARMER, “Is There Anything Wrong with «God of the Gaps» Reasoning?”, *International Journal for Philosophy of Religion* 2002, Vol. 52, pp. 129–142. See also Greg GANSSLE, “God of the Gaps’ Arguments”, in: James STUMP and Alan PADGETT (eds.), **The Blackwell Companion to Science and Christianity**, Blackwell Publishing, Oxford 2012, pp. 130–139.

²⁸ “Are Gaps in Scientific Knowledge Evidence for God?”, *BioLogos*, <https://tiny.pl/9nlkm> [17.10.2021] [emphasis added].

²⁹ A referee claims, without any supporting documentation, that an example of an explanatory gap being closed is that Michael Behe’s claim that the blood-clotting cascade is irreducibly complex

It is important to stress that in appealing to gap arguments critics of theistic evolutionists do not commit the fallacy of *ad ignorantiam*. Inference to divine intervention is based not solely on the fact that the structure of biological entities recalcitrantly resist explanation in terms of any known natural causes,³⁰ but also on the fact that such entities display characteristics that, in our experience, are the product of intelligent agency. As Stephen Meyer notes, our experience is that when large amounts of specified complexity are found in an artifact or entity whose causal story we know, creative intelligence has invariably played a role in its origin and development:

Thus, when we encounter such information in the large biological molecules needed for life, we may infer — based on our *knowledge* of established cause-and-effect relationships — that an intelligent cause operated [...] [the argument] asserts the superior explanatory power of a proposed cause based upon its proven — its *known* — causal adequacy *and* based upon a lack of demonstrated efficacy among the competing proposed causes.³¹

Nor will it do for critics of gap arguments to suggest that proponents of such arguments must conceive of God as at odds with Himself, that intervention in the natural order is somehow unworthy of God. Theologians have long distinguished between the power of God displayed as *potentia Dei ordinata*, the power of God as exercised through the instrumentality of secondary causes, and the power of God displayed as *potentia Dei absoluta*, the power of God as exercised without the instrumentality of secondary causes. Certainly, God is to be thought to work through the instrumentality of secondary causes, but this in no way precludes Him bringing about other events directly by fiat. Belief as to whether God has chosen to originate and develop life entirely through the instrumentality of secondary natural causes or whether He has at times directly intervened by fiat in the process should be based on an examination of empirical evidence rather than de-

has been shown to be false. I am willing to wager that the referee has taken criticisms of Behe on this point to be conclusive, without ever taking into consideration Behe's responses to the criticisms. Those responses can be conveniently found in Behe's recent **A Mousetrap for Darwin: Michael J. Behe Answers His Critics**, Discovery Institute Press, Seattle 2020, chapter 15.

³⁰ As noted by Tour in my earlier quotation of him, this recalcitrance has grown greater the more we realize life's complexity.

³¹ Stephen C. MEYER, **Signature in the Cell: DNA and the Evidence for Intelligent Design**, Harper Collins, New York 2009, pp. 376–377 [emphasis in the original].

cided *a priori*. There exists no principled reason to insist that if one maintains the universe exhibits a general teleological order implicit in the operation of secondary causes one cannot maintain that God might also sometimes act directly in the universe.³²

Theistic Evolution and Human Nature

Of further concern is that theistic evolutionists' adoption of methodological naturalism tends most naturally to adopting a view of the human person as purely physical. Leading figures in the science-faith discussion who are also theistic evolutionists routinely embrace a physicalist account of the person. Nancey Murphy, for example, argues that persons are purely physical, claiming that all the capacities once attributed to the soul "turn out to be products of complex organization rather than properties of a non-material entity".³³ Similarly, the late Arthur Peacocke affirmed "the now completely and scientifically well-established evolution of living organisms in the natural world"³⁴ and insisted that "«mental events» in human beings are the internal descriptions we offer of an actual total state of the brain itself and are not events in some entity called the «mind» which exists in some other non-physical mode that is ontologically distinct from matter and «inter-acts» [...] with the brain as a physical entity".³⁵

³² Some theists argue that divine intervention in the natural order would reduce God, the absolute cause of all contingent beings, to the status of a finite agent. See, for example, Ignacio SILVA, "A Cause among Causes? God Acting in the Natural World", *European Journal for Philosophy of Religion* 2015, Vol. 7, No. 4, pp. 99–114. Thomas Tracy points out the fallacious nature of such reasoning. He writes:

God can be the unique, transcendent creator of all finite things and also act directly among the secondary causes that God has brought into being. God's status as first cause — the primary agent whose action founds and sustains all other agencies — is not jeopardized [in such instances].

Thomas TRACY, "Particular Providence and the God of the Gaps", in: Robert John RUSSELL, Nancey MURPHY, and Arthur PEACOCKE (eds.), **Chaos and Complexity: Scientific Perspectives on Divine Action**, Vatican Observatory 1995, p. 319 [289–324].

³³ Nancey MURPHY, **Bodies and Souls, or Spirited Bodies?**, *Current Issues in Theology*, No. 3, Cambridge University Press, Cambridge 2006, p. 47.

³⁴ Arthur PEACOCKE, **Evolution: The Disguised Friend of Faith?**, Templeton Press, Philadelphia 2004, s. viii.

Both these authors affirm the claim that 1) mental phenomena supervene upon bodily states and 2) that such phenomena exercise top-down causality. What is not clear is that these two claims are logically consistent with one another. Indeed, it appears that they are not.

To claim that mental phenomena supervene upon bodily states is to claim that they are entirely dependent on bodily states, which is to say that mental states cannot vary independently of the body. This means that “to cause or causally affect, a supervenient property, you must cause, or tinker with its subvenient base”.³⁶ This seems to imply that mental states either have no causal power *qua* their intentional content, or that the actions they are typically presumed to cause would have occurred even in their absence.

Suppose we want to say that a mental event, *m*, causes a physical event *p*. Regarding persons as purely physical and accepting the supervenience of mental states on physical states requires that we must also claim that there is a physical cause of *p*, which we can call *p*^{*}, that occurs simultaneously with *m* and is a sufficient cause of *p*. This, as Jaegwon Kim argues, puts us in a dilemma, such that

either we have to say that $m = p^*$ — namely, identify the mental cause with the physical cause as a single event — or else we have to say that *p* has two distinct causes, *m* and *p*^{*}, that is, it is causally overdetermined. The first horn turns what was supposed to be a case of mental-to-physical causation into an instance of physical-to-physical causation, a result only a reductionist physicalist would welcome. Grasping the second horn of the dilemma would force us to admit that every case of mental-to-physical causation is a case of causal overdetermination, one in which a physical cause, *even if the mental cause had not occurred*, would have brought about the physical effect.³⁷

Unless one is prepared to view mental to physical causation invariably involving overdetermination, then either *m* or *p*^{*} must be disqualified as a cause of *p*. Given the claim that mental events supervene on bodily states, such that they are entirely dependent on those states for their existence, it becomes difficult to make

³⁵ Arthur PEACOCKE, *Theology for a Scientific Age: Being and Becoming — Natural, Divine and Human*, Blackwell, Oxford 1990, p. 60. A referee protests, without argument, that this claim does not require Peacocke to view humans as purely physical. I fail to see how the referee’s claim can be defended.

³⁶ Jaegwon KIM, *Philosophy of Mind*, 3rd ed., Westview Press, Cambridge 2011, p. 214.

³⁷ KIM, *Philosophy of Mind...*, p. 215 [emphasis added].

a case that they have any power to affect bodily states. It thus comes as no surprise to find Kim concluding that a purely physical account of persons requires accepting that “qualia [i.e. the experienced qualities of conscious states] [...] cause no effects in the physical domain [...] they can play no role in behavior production, and behaviors cannot be evidence for the presence or absence of qualia”.³⁸

Murphy concedes “that the most significant worry about the cogency of an account of downward causation is the problem of overdetermination”.³⁹ She attempts to overcome the problem by noting the distinction that must be drawn between laws of nature and the conditions to which they apply. The crux of her argument for downward causation is that although the brain will always function according to the laws of nature, its structures, and states to which the laws apply are affected by external causes from a person’s environment. She writes that “the distinction between conditions and laws is that it provides a way of thinking about how top-down and bottom-up causation may be complementary: top-down determination of structural conditions is entirely compatible with the uninterrupted operation of lower-level laws once those structures are in place”.⁴⁰

Unfortunately for Murphy, this response fails to demonstrate the reality of top-down causality. It is certainly true that a person’s brain is responsive to environmental causes. But why think, especially if one is a theistic evolutionist who adopts methodological naturalism, that the environment is not entirely a product of bottom-up causality? Further, environmental factors will operate only at the level of physically affecting brain states. They do not, therefore, provide any solution to the problem of overdetermination or how, on a physicalist account of the person, mental states, *qua* their intentional content, can be thought to cause bodily behaviour.

Given Murphy’s anthropological monism, it comes as no surprise that she can make no room for libertarian free will. As John Searle notes in commenting on whether a physicalist view of the person allows for the possibility of libertarian free will,

mental features are caused by, and realised in neurophysiological phenomena [...]

³⁸ KIM, **Philosophy of Mind...**, p. 322.

³⁹ MURPHY, **Bodies and Souls...**, p. 78.

⁴⁰ MURPHY, **Bodies and Souls...**, p. 78.

top-down causation works only because the mental events are grounded in the neuro-physiology to start with. So, corresponding to the description of the causal relations that go from the top to the bottom, there is another description of the same series of events where the causal relations bounce entirely along the bottom, that is, they are entirely a matter of neurons and neuron firings at synapses, etc. As long as we accept this conception of how nature works, then it doesn't seem that there is any scope for the freedom of the will because on this conception the mind can only affect nature in so far as it is a part of nature. But if so, then like the rest of nature, its features are determined at the basic micro-levels of physics.⁴¹

What this means, is that

if libertarianism [...] were true, it appears we would have to make some really radical changes [...] for us to have radical freedom, it looks as if we would have to postulate that inside each of us was a self that was capable of interfering with the causal order of nature.⁴²

Murphy, in the time-honored strategy of making a virtue out of a necessity, argues that libertarian free will is an ill-formed concept of which, when examined, we can make no sense of what it would mean to act in such a manner. The proponent of libertarian free will, she claims, is committed to a "vertiginous climb transcending all causal factors".⁴³

This, however, amounts to a caricature. No defender of libertarian free will claims that free will is in Murphy's words "an all-or nothing affair"⁴⁴ entirely divorced from one's environment. Rather, they defend the concept of agent causality, namely the ability of persons to act as the first member of a causal chain. Arguably, it is this ability which justifies holding persons morally responsible for their actions.

Murphy's account, however, of what it is to be a person has no room for such ability. As John Bishop comments,

agent causal-relations do not belong to the ontology of the natural perspective. Naturalism does not essentially employ the concept of a causal relation whose first member is in the category of person or agent (or even, for that matter, in the broader cate-

⁴¹ John SEARLE, *Minds, Brains and Science*, Harvard University Press, Cambridge 1984, p. 93.

⁴² SEARLE, *Minds, Brains and Science...*, p. 92.

⁴³ MURPHY, *Bodies and Souls...*, p. 109.

⁴⁴ MURPHY, *Bodies and Souls...*, p. 107.

gory of continuant or “substance”). All natural causal relations have first members in the category of event or state of affairs [...] the problem is that the natural perspective *positively rejects the possibility that any natural event should be agent-caused*.⁴⁵

It appears, therefore, that to the degree that one thinks libertarian free will is a necessary condition of genuine moral agency, and that we are in fact moral agents, physicalist accounts of what it is to be a person should be rejected.

A further concern, at least for theists accepting the reality of life after death, is that a physicalist account of persons seems to preclude the possibility of surviving death. If the theistic evolutionist views persons as exclusively material beings, denying the existence of an immaterial mind or soul, then she is forced to say that when a person dies that person entirely ceases to exist. When asked how eternal life is possible, the theistic evolutionist will have to reply that God can resurrect our bodies thus bringing us back into existence.

Such resurrection bodies will be newly created and cannot, of course, be thought to be composed of our bodies’ original particles, since we all live by recycling previously used atoms and even during this life are constantly losing and replacing the components of our bodies. Further, these resurrection bodies will have new qualities, perhaps even be made of something different than ordinary physical matter as we know it, since we are told that they will be dis-analogous to our present bodies in important ways. The theistic evolutionist will want to maintain, however, that there are enough similarities between the previously existing physical body and the new resurrection body to identify both as the same person.

Murphy employs this line of reasoning in defending the claim of life after death. She claims that

while spatio-temporal continuity is a necessary part of the concept of a material object [...] it is only a contingent part of commonly accepted concepts of the person. [...] All of the personal characteristics as we know them in this life are supported by bodily characteristics and capacities and these bodily capacities happen to belong to a spatio-temporally continuous material object, but there is no reason *in principle* why a body that is numerically distinct but similar in all relevant respects could not support the same personal characteristics.⁴⁶

⁴⁵ John BISHOP, **Natural Agency: An Essay on the Causal Theory of Action**, Cambridge University Press, Cambridge 1989, p. 40 [emphasis in the original].

⁴⁶ MURPHY, **Bodies and Souls...**, p. 141 [emphasis in the original].

This attempt to account for the possibility of persons experiencing post-mortem existence appears inadequate, since personal identity cannot be defined in terms of bodily similarity. By way of seeing why, suppose God at this moment were to create a body identical in its physical structure to myself. Clearly, this second person would not be me but rather a copy of me. The problem can be intensified. Suppose that after one's death God creates ten identical resurrection bodies. Are all those individuals oneself? Examples such as these force us to admit that there is something badly mistaken in trying to define personal identity in terms of similarity.

It should be emphasised that it will not do for anthropological monists such as Murphy to reply that God would never allow such scenarios to happen. The question is not what God would permit, but rather the conceptual adequacy of conceiving personal identity in terms of bodily similarity. As John Cooper argues,

the issue is the essential uniqueness of persons. All of us know intuitively that we are single individuals and that it is impossible that there be two or more of us. This is a matter of necessity. It doesn't just happen that there is only one of me. It is absolutely impossible that there be more than one. This is part of the essence of being a person. Numerical identity and exact similarity are different properties. But the necessity of individual uniqueness is exactly what is forfeited in the monist's criterion of identity.⁴⁷

It appears, therefore, that the monistic physicalist account of the person which proves so attractive to many theistic evolutionists precludes belief in post-mortem existence. If as theists they wish to affirm the possibility of post-mortem existence, then this would seem to require them affirming a holistic dualist account of the person. Affirming such a dualism, however, calls into question whether their commitment to methodological naturalism is justified.

Conclusion

I have taken theistic evolutionists as characteristically committed to two claims; the first being that nature is entirely dependent upon God in its creation and conservation, the second being that the origin and development of life is explicable entirely in terms of the operation of secondary causes, without any need

⁴⁷ John W. COOPER, *Body, Soul, & Life Everlasting: Biblical Anthropology and the Monism-Dualism Debate*, Eerdmans, Grand Rapids, Michigan 1989, p. 191.

to posit direct divine intervention to bring about events that would not otherwise have occurred. So understood, it raises scientific, philosophical, and theological concerns.

At the level of scientific practice, its adoption of methodological naturalism and its dismissal of gap arguments as ever possessing legitimacy guarantees that divine interventions in nature can never be recognized even if they occur. At philosophical and theological levels its tendency to adopt physicalist accounts of what it is to be a person undermine the theistic understanding of persons as rational agents possessing libertarian free will and capable of post-mortem existence.

As I noted earlier, it is important to go where the evidence leads. Nothing in what I have said is to suggest that it is illegitimate to explore the degree to which the origin and development of life can be explained in terms of reference to natural causes, without positing divine intervention in that process. It is important, however, that, in investigating the operation of such causes, that theists do not embrace an understanding of creation that insulates it from any direct action on the part of its Creator.

What I am advocating is that whatever their metaphysical leanings, scientists investigating the origin and development of life be much more tentative in their conclusions, much more aware of the methodological assumptions influencing those conclusions, and much more aware of the implications that follow from those conclusions. They would do well, I suggest, to distinguish between science conceived as rigorous disciplined public inquiry, and science conceived as a commitment to naturalistic explanation of all physical events. It is one thing to investigate evidence in a rigorous manner, quite another to prescribe in advance what form explanations must take.

Distinguishing between these two senses of what it is to be “scientific”, is especially important for theists. It allows them to escape the straitjacket of methodological naturalism, which decrees in advance of the evidence what can be counted as a legitimate explanation, to consider seriously the possibility that God’s design in creation may take place not only through the operation of natural causes, but also through direct divine intervention.⁴⁸

Adopting such a stance as regards the investigation of the origin and develop-

⁴⁸ Koperski makes the point that, when considering the merits or demerits of design hypotheses,

ment of life is, of course, “messy” in the sense that it is possible to make mistakes about the level of direct divine action in the world. However, as Thomas Tracy notes, strategies of eliminating any possibility of conflict between claims concerning divine action and expanding scientific knowledge of the operation of natural causes purchase immunity from empirical risk only at “the cost of significant limitations on what we are able to say about a number of central theological topics”.⁴⁹

Such strategies are also liable to lead to the charge that theists ignore Occam’s Razor, namely that explanatory entities should not be postulated needlessly. If the universe and all that occurs in it is to be explained in terms of natural causes, the critic may well ask on what basis belief in God is justified, or on what basis it is maintained that God acts in history. Theists should thus be wary when an account of divine action is proposed, and recommended on the basis that, in the words of one of its proponents, it “is observationally indistinguishable from a naturalistic or deistic account [of what took place]”.⁵⁰

As regards investigating the origin and development of life, it has seemed safer to many drawn to theistic evolutionism to adopt the position that God has worked exclusively through secondary natural causes, than to suggest that scientific investigation may point to the inability of natural causes to explain fully the data.⁵¹ This safety is an illusion, however. The danger of wrongly invoking direct divine action to explain what, *prima facie* at least, appear to be instances of design in biology, is more than outweighed by the even greater danger of adopting a methodology and model of explanation that makes it impossible, even in princi-

there is no need to impose MN [methodological naturalism] as an *a priori* restriction. There are other shaping principles [of scientific inquiry] in place that ID [intelligent design] will have to contend with, just like any other hypothesis, model, or theory. Unlike MN, these other principles are used throughout the sciences rather than merely to criticize one particular foe. For various reasons [...] theists should follow Quine — himself an ardent naturalist: if the best explanation for some physical phenomenon is design, even supernatural design, that would still count as a scientific explanation.

KOPERSKI, *The Physics of Theism...*, p. 214.

⁴⁹ TRACY, “Particular Providence...”, p. 299.

⁵⁰ Nancey MURPHY, “Divine Action in the Natural Order”, in: RUSSELL, MURPHY, and PEACOCKE (eds.), *Chaos and Complexity...*, p. 352 [325–357].

⁵¹ Snoke is correct, I think, in his suspicion that theistic evolutionists routinely dismiss gap arguments based on being fearful that claims of direct divine action might prove false. See SNOKE, “In Favor of God-of-the-Gaps Reasoning...”, p. 157.

ple, to recognize direct divine action as playing a role in life's history. It is better to be open to the possibility of making a mistake as regards such action than to *a priori* rule out its relevance altogether.

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