



Genesis after the *Origin*: Theological Responses to Evolution

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In 1859, after years of procrastination, Charles Darwin finally disseminated his theory of evolution in his accurately though clumsily titled book *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life*.¹ Darwin had many reasons for taking so long to put his ideas into print, including the concern for the possible negative public reaction to his work.² Upon its publication the *Origin* generated much controversy and mixed reviews from the scientific and religious communities.

Older, more established scientists, especially those used to inserting God into scientific explanations, were generally the most skeptical of Darwin's claims, but younger naturalists tended to be more positive, and many embraced natural selection with great enthusiasm. Dissenters from Darwin's position in the *Origin* were not necessarily unscientific, for natural selection had a number of unresolved

¹The best easily available scholarly copy of the first edition is Charles Darwin, *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life*, facsimile edition with an introduction by Ernest Mayr (Cambridge, MA: Harvard University Press, 1964).

²That "Darwin's Delay" was due to his intense anxiety about reception of the *Origin* has come under challenge in recent years. The two leading Darwin biographies represent the two differing views. The "delay" position is ably handled in Adrian Desmond and James Moore's *Darwin: The Life of a Tormented Evolutionist* (New York: Warner Books, 1991); the "delay" view is challenged in Janet Browne, *Charles Darwin*, 2 vols. (New York: Knopf, 1995 and 2002). The truth about Darwin's twenty-year period between idea and publication probably requires insights from both theories.

Darwin's theory of evolution has been met with three responses from a theological perspective: outright rejection, enthusiastic embrace, and the argument that the two are irrelevant to one another. Each has its contemporary adherents.

problems, many of which were noted by Darwin himself. As powerful and elegant as Darwin's idea was, it did not achieve the level of acceptance it enjoys today until it was merged with genetics (unknown to Darwin) into the "modern synthesis."³ Acceptance of evolution by natural selection is almost universal among current biological scientists, though there does remain some debate about exactly how much and what role natural selection plays in evolution. It is important to note, however, that modifications to the synthesis, even significant ones, are expansions and additions of natural selection, not complete rejections. Darwin's insight will remain an important part of science even if a "third synthesis" of some kind emerges. There is no turning back to a time before the *Origin*.

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Religious reactions to Darwin's theory varied from condemnation to enthusiastic embrace. Excerpts from two letters that Darwin received from prominent Anglican clergymen in response to *Origin* illustrate this range of response. The letters are particularly striking in that they express many of the same conflicting reactions to evolution voiced by religious believers today, and it is interesting to note that neither letter shows any concern about Darwin's theory conflicting with a literal reading of Genesis. The first, written by Darwin's old teacher, pastor and geologist Adam Sedgwick, shows serious opposition to Darwin's view and fear over what may happen to belief in God, morality, and the understanding of humans and their place in the world:

If I did not think you a good tempered & truth loving man I should not tell you that, (spite of the great knowledge; store of facts; capital views of the correlations of the various parts of organic nature; admirable hints about the diffusions, thro' wide regions, of nearly related organic beings; &c &c) I have read your book with more pain than pleasure. Parts of it I admired greatly; parts I laughed at till my sides were almost sore; other parts I read with absolute sorrow; because I think them utterly false & grievously mischievous—You have *deserted*—after a start in that tram-road of all solid physical truth—the true method of induction—& started up a machinery as wild I think as Bishop Wilkin's locomotive that was to sail with us to the Moon. Many of your wide conclusions are based upon assumptions which can neither be proved nor disproved. Why then express them in the language & arrangements of philosophical induction?...This view of nature you have stated admirably; tho' admitted by all naturalists & denied by no one of common sense. We all admit development as a fact of history; but how came it about? Here, in language, & still more in logic, we are point blank at issue— There is a moral or metaphysical part of nature as well as a physical A man who denies this is deep in the mire of folly Tis the crown & glory of organic science that it *does thro' final cause*, link mate-

³A classic treatment is Julian Huxley, *Evolution: The Modern Synthesis* (London: Allen and Unwin, 1942).

rial to moral; & yet *does not* allow us to mingle them in our first conception of laws, & our classification of such laws whether we consider one side of nature or the other— You have ignored this link; &, if I do not mistake your meaning, you have done your best in one or two pregnant cases to break it. Were it possible (which thank God it is not) to break it, humanity in my mind, would suffer a damage that might brutalize it—& sink the human race into a lower grade of degradation than any into which it has fallen since its written records tell us of its history.⁴

The second, from Rev. Charles Kingsley, author and naturalist, is poetic in its praise and captures well the experience of sublimity one can feel when pursuing science to understand the natural world:

All I have seen of it *awes* me; both with the heap of facts, & the prestige of your name, & also with the clear intuition, that if you be right, I must give up much that I have believed & written. In that I care little. ‘Let God be true, & every man a liar’....

From two common superstitions, at least, I shall be free, while judging of your book. 1) I have long since, from watching the crossing of domesticated animals & plants, learnt to disbelieve the dogma of the permanence of species. 2). I have gradually learnt to see that it is just as noble a conception of Deity, to believe that he created primal forms capable of self development into all forms needful pro tempore & pro loco, as to believe that He required a fresh act of intervention to supply the lacunas which he himself had made. I question whether the former be not the loftier thought.⁵

Darwin was so pleased with Kingsley’s remarks that he added them in subsequent editions of the *Origin*.

Current theological reactions to evolution are even more varied than those expressed by Sedgwick and Kingsley, and one need only read a newspaper or turn on a television to see that evolution generates controversy today. The overview that follows presents some leading contemporary theological responses to evolution for the busy pastor or interested nonspecialist. I will close with my suggestion for the best way forward in thinking about theology and evolution. In deference to the two early Anglican responders to Darwin, the positions are classified as neo-Sedgwickian, for those opposed to evolution, and neo-Kingsleyian, for those who appropriate evolution into theology. A third category, to be treated first, will include those thinkers who believe evolution is irrelevant to theology.

IRRELEVANCE APPROACHES

A relationship of irrelevance between evolution and theology is proposed in the argument that the two have nothing to do with each other. That is, they are to-

⁴Letter dated 24 November 1859, in *The Correspondence of Charles Darwin*, ed. Frederick H. Burkhardt, Sydney Smith, et al., 12 vols. (Cambridge: Cambridge University Press, 1985–2001) 7:396–397. Punctuation and spelling are Sedgwick’s.

⁵Letter dated 18 November 1859, in *Correspondence*, 7:379–380. Punctuation and spelling are Kingsley’s.

tally independent and autonomous, because they are noninteracting, noncompeting approaches to reality, each having its separate domain and methods that have no bearing on the other. One can try to isolate evolution from theology by contrasting their methods as neoorthodoxy does or by distinguishing their concerns as existentialism does, or by arguing that theology and science are radically different languages, as some theologians influenced by the philosopher Wittgenstein and linguistic analysis do.⁶ The most generally read and widely quoted example of this type of approach is Stephen Jay Gould's NOMA or "non-overlapping magisterial."⁷ Evolution, as a field of science, is about statements of fact describing how the world is; religion, on the other hand, is about moral values and spiritual meaning. Yet, it is still hard to see how the two could always remain closed off from one another. Knowledge about the natural world and human beings derived from evolution can be quite relevant to ethical considerations that fall in the realm of religion; theistic religious believers usually have some theology of nature in which they try to understand the natural world as God's creation and human beings as created in the image of God. Furthermore, evolution could be at least indirectly related to theology through its potential influence on metaphysical questions. Perhaps the irrelevance approach is an advance over the conflict understanding discussed below. It is often found being espoused in popular discussions of science and religion, but it is not sophisticated enough to do justice to the complicated nature of the relationship between evolution and theology. It is best to analyze questions of irrelevance or relevance between evolution and theology on an issue-by-issue basis rather than rely on a global principle that facilely dismisses any interaction between the two.⁸

NEO-SEDGWICKIAN APPROACHES

No other scientific theory generates as much passion in the science and religion discussion as Darwinian evolution. This is somewhat surprising given the overwhelming degree of scientific acceptance of and evidence for the historical occurrence of the evolutionary process and the hypothesis that variations and natural selection are important forces of evolutionary change.⁹ Complete rejection of Darwinian evolution on scientific grounds is almost nonexistent among scientists

⁶For a good discussion see Ian Barbour, *Religion and Science: Historical and Contemporary Issues* (San Francisco: HarperSanFrancisco, 1997) 84–89, 243–245.

⁷Stephen Jay Gould, *Rocks of Ages: Science and Religion in the Fullness of Life* (New York: Norton, 1999). Interestingly enough, even Gould admits that actual discussions of religion and science are much more complicated than his model allows. See http://www.stephenjaygould.org/library/gould_noma.html (accessed 16 September 2008).

⁸For a full treatment of many types of irrelevance arguments, see S. Brian Stratton, *Coherence, Consonance, and Conversation: The Quest of Theology, Philosophy, and Natural Science for a Unified World-View* (Lanham, MD: University Press of America, 2000) chapter two. This chapter also includes a discussion of William H. Austin's neglected but important book *The Relevance of Natural Science to Theology* (London: Macmillan, 1976).

⁹For an accessible survey of the evidence for evolution see Michael Ruse, *Can a Darwinian be a Christian? The Relationship between Science and Religion* (Cambridge: Cambridge University Press, 2001) chapter one.

themselves. The main opposition comes from those who share Sedgwick's concern about the impact of Darwin's theory on religious belief, human dignity, and morality.

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“Scientific creationism” of both a Young Earth and Old Earth variety defends an alleged literal reading of Gen 1–3 as an accurate depiction of the origins of the species (or “kinds,” to use their preferred term).¹⁰ Representatives of Old Earth creationism include the Institute for Creation Research and Answers in Genesis; New Earth creationists include the ministry Reasons to Believe. Both groups accept biblical inerrancy in the sense that the Bible is the inspired word of God, historically and scientifically true in all details, though the Old Earth creationists are willing to be much less literal in their reading of the “days” of Genesis. They also agree that basic types of life forms were made by direct creative acts of God, though they may not necessarily agree on how this was done. Genetics was added to Darwin's theory of natural selection with great profit to produce the modern synthesis, but creation science adds biblical fundamentalism to Sedgwick's moral and philosophical concerns about natural selection with far less fruitful results. To say the overwhelming majority of scientists repudiate scientific creationism is to put it mildly, and there are good theological reasons to reject it as well.¹¹ The biblical fundamentalism espoused by these types of creationism provokes a fight with science that is completely unnecessary and is even a step backwards from the nonliteral readings of Genesis already used by the clergy-naturalists of Darwin's day.

Other opposition to Darwinian evolution, which claims not to be based on religious belief, though many of its adherents do have strong theological convictions, comes from intelligent design theory, represented by Phillip Johnson, William Dembski, and Michael Behe, who as defenders of design in nature fit very well within the concerns voiced by Sedgwick.¹² Intelligent design theorists are not nec-

¹⁰The issue separating the two is obviously the age of the earth. Young Earth creationists commonly set an age limit of about 10,000 years for the world's existence; Old Earth creationists are willing to take the days of Genesis as referring to much longer periods. The former position is represented by Henry Morris, ed., *Scientific Creationism* (El Cajon, CA: Master Books, 1985); the latter by Hugh Ross, *Creation and Time: A Biblical and Scientific Perspective on the Creation-date Controversy* (Colorado Springs: NavPress, 1994).

¹¹A good treatment of the question whether or not scientific creationism is science is found in Philip Kitcher, *Abusing Science: The Case against Creationism* (Cambridge: MIT, 1982). For theological difficulties, see *Is God a Creationist? The Religious Case against Creation-Science*, ed. Roland Frye (New York: Charles Scribner's Sons, 1983).

¹²Phillip Johnson, *Darwin on Trial* (Washington, D. C.: Regnery Gateway, 1991); William Dembski, *The Design Inference: Eliminating Chance through Small Probabilities* (New York: Cambridge University Press, 1998); Michael Behe, *Darwin's Black Box: The Biochemical Challenges to Evolution* (New York: The Free Press, 1996).

essarily biblical literalists, and they usually do not appeal to God in espousing their views, but they view Darwinism as incompatible with theism, undermining human dignity and ethics and insufficient to explain the emergence of information-rich or irreducibly complex biological structures. Intelligent design theorists insist that undirected processes like natural selection cannot account for certain features of the universe and of living things; an intelligent cause is required. The “apparent” design of living things is real, not illusion, as Darwinists claim.

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Intelligent design certainly has generated a lively discussion, but at present it has fared little better than scientific creationism.¹³ Trenchant criticisms undermine its viability as a scientific theory, its somewhat questionable practices in disseminating its ideas, and its theological claims. For instance, Michael Behe’s treatment of the bacterial flagellum as an example of “irreducible complexity” requiring design, since such a system cannot be formed by slight modifications, because to miss a part would make it nonfunctional, has been answered effectively by Kenneth Miller.¹⁴ Dembski’s “explanatory filter,” which claims to be able to distinguish design from law or chance since they are exclusive categories, seems hopelessly confused and unable to deliver the results it promises.¹⁵ Intelligent design theorists have also been criticized for disseminating their ideas in public rather than in scientific forums, and for other dubious practices. For example, the “wedge document” controversy involving a leaked memo from the Discovery Institute, an intelligent design think tank, which explicitly stated the goal of inserting Christianity and theism into science and other parts of culture, damaged the reputation of the movement and earned it the title of “stealth creationism.”¹⁶ In addition, the recent movie *Expelled* made a number of suspect claims about persecution of intelligent design supporters in the academic community.¹⁷ And finally, intelligent design’s theological claims are problematic. It seems more connected to the image of the di-

¹³For a collection of essays pro and con, see Robert Pennock, ed., *Intelligent Design Creationism and Its Critics* (Cambridge, MA: MIT, 2001).

¹⁴See Kenneth Miller, *Finding Darwin’s God: A Scientist’s Search for Common Ground between God and Evolution* (New York: HarperCollins, 1999), and “The Flagellum Unspun,” in *Debating Design: From Darwin to DNA*, ed. W. Dembski and M. Ruse (New York: Cambridge University Press, 2004).

¹⁵Dembski’s work would seem to fall short in comparison with Robert Fisher’s, perhaps the greatest scientist to apply statistics to evolution, one of the founders of the modern synthesis and a devout Christian. See R. A. Fisher, *The Genetical Theory of Natural Selection* (Oxford: Clarendon, 1930).

¹⁶Barbara Forrest, “The Wedge at Work: How Intelligent Design Creationism Is Wedging Its Way into the Cultural and Academic Mainstream,” chapter 1 of Pennock, *Intelligent Design Creationism and Its Critics*.

¹⁷In fairness, some of the claims made for academic persecution seemed stronger than others, those of Guillermo Gonzalez, for example. Difficulties with claims made in the movie can be found at <http://www.expelledexposed.com/> (accessed 16 September 2008).

vine watchmaker found in Paley than to the God of the Bible, and it severely limits God's creative freedom to quite narrowly circumscribed ways. Many Christians see no problem with God working through chance or allowing indeterminism in creation and would agree, though perhaps more politely, with evolutionary paleobiologist Simon Conway Morris, who referred to intelligent design as a "theology for control freaks."¹⁸

Despite the criticisms offered, there are praiseworthy elements in the neo-Sedgwickian approach. Historical study shows that acceptance of evolution has undermined the faith, belief in the dignity of humans, and foundation for morality for many. However, this is due to their excessive reliance on the design argument for belief in God or their following feelings or strong intuitions rather than logical entailment. The neo-Sedgwickians, like Sedgwick himself, are right to see the concerns posed on the emotional level.¹⁹ As a philosopher I also see no reason why intelligent design proponents should not continue to look for ways to detect design in the natural world even if their current efforts are unsuccessful. Though it seems unlikely, perhaps future ideas will be fruitful. In addition, they are surely correct to raise valid objections against using science to promote atheistic agendas. Unfortunately, they share with atheists the mistake that evolution is inherently incompatible with a belief in God, though the atheists argue that since evolution is true, it is God, not evolution, who must go.²⁰ Since the case for evolution is so strong, evolution deniers seem to be on the losing end of the debate.

Evolution does not logically entail atheism. Even Darwin's own doubts about religion were rooted more in the existence of suffering in nature, his own personal tragedies, Christianity's perceived moral failures, and his reliance on the design argument as the only rational reason to believe in God rather than anything inherent in natural selection.²¹ Stochastic (that is, random or nondeterministic) processes like evolution are not necessarily void of intent. For example, futures markets are best modeled by a stochastic differential equation, though they are established by intentional actors and their dynamics are caused by the actions of intentional actors.²² Randomness, chance, or indeterminacy does not preclude intentional or intelligent action, though it might not be detectable at the level under investigation. In fact, much of the problem with discussions of evolution is that words like

¹⁸At http://www.stmarylebow.co.uk/?download=Boyle_Booklet2005.pdf (accessed June 5, 2008).

¹⁹The Darwin biographies mentioned in note 2 contain many examples. John Maynard Smith and Richard Dawkins are two important contemporary examples. Dawkins claims that Darwin moves atheism from a logically tenable claim to making it "possible to be an intellectually fulfilled atheist" in *The Blind Watchmaker* (New York: Norton, 1986) 6. If reason (unless it is defined in some rather idiosyncratic way) is the standard I suppose the bar for what it means to be an intellectually fulfilled atheist must be high enough for Wilt Chamberlain to limbo under fully erect.

²⁰See Dawkins, *Blind Watchmaker*, and Daniel Dennett, *Darwin's Dangerous Idea: Evolution and the Meanings of Life* (New York: Simon & Schuster, 1995).

²¹See the biographies of Darwin cited above for his general views about religion.

²²I acknowledge the dissimilarity in this analogy in that we know that explicitly (supposedly) rational agents are at work in human activities like the stock market, and we do not know this as directly in the case of natural selection. The point that unpredictability does not exclude intent remains valid.

“chance” are often taken in ways outside of their intention in a scientific theory and given metaphysical baggage they are unable to carry.²³ Since there is such a strong case for evolution and it presents no logical barrier to belief in God, it seems at this point that neo-Sedgwickian approaches to evolution have little to commend them, and that a neo-Kingsleyian approach is more fruitful for theology.

NEO-KINGSLEYIAN APPROACHES

The majority of religious believers find evolution compatible with religious beliefs, as do the majority of scientists and philosophers, even if they are disinterested in religion.²⁴ Kingsley went beyond compatibility to a hearty embrace of Darwin’s theory, but there is some question about how well he understood it. It is not clear that he grasped the importance of chance to the theory or that the process of natural selection, at least in Darwin’s understanding, may not have been open to as much control by God as Kingsley thought. Neo-Kingsleyian theologians are not naïve; they are well aware of the importance of chance and incorporate it into their understanding of God as Creator. So many theologians have addressed the topic of evolution in recent decades that it is impossible to do justice to them all, so this discussion will be limited to two representative and highly influential theologians, Arthur Peacocke and John Haught.²⁵

Arthur Peacocke takes a positive view of Darwinian evolution and sees it playing a fruitful and constructive role within Christian theology.²⁶ Peacocke is a pantheist and he uses the strong sense of immanence that that position entails to develop his theology of evolution. Peacocke’s work stresses five themes that reveal evolution to be the “disguised friend of faith.” First, God creates immanently in the world through its natural processes, which include continuity and emergence. Peacocke quotes with approval Kingsley’s line that God “makes things make themselves”²⁷ and argues that evolution can be understood as part of the continuous kenotic action of God in the world.²⁸ Second, the mechanism of evolution is God’s working through chance thoroughly to explore the potential forms of organization in nature. Chance is not irrational but works with law to be creative over time,

²³A very accessible treatment is Jim Manzi, “The Origin of Species, and Everything Else: Coping with Evolution and Religion,” in *National Review* 10/8 (2007). A fine scholarly treatment is David Bartholomew, *God of Chance* (London: SCM, 1984).

²⁴See Ruse, *Can a Darwinian be a Christian?* for discussion of this point.

²⁵Barbour’s *Religion and Science*, cited earlier, includes a detailed treatment and splendid bibliography for those who might wish to pursue the relationship of science and religion further. A technical work with many fine articles on theology and evolution is *Evolutionary and Molecular Biology: Scientific Perspectives on Divine Action*, ed. Robert Russell, William Stroeger, and Francisco Ayala (Berkeley: Center for Theology and the Natural Sciences, 1998). A defense of theistic evolution from a Lutheran theologian and a scientist is Ted Peters and Martinez Hewlett, *Evolution from Creation to New Creation: Conflict, Conversation and Convergence* (Nashville: Abingdon, 2003).

²⁶Arthur Peacocke, *Theology for a Scientific Age: Being and Becoming: Natural, Divine and Human* (Minneapolis: Fortress Press, 1993); and “Biological Evolution: A Positive Theological Appraisal,” in *Evolutionary and Molecular Biology*; also *Evolution: The Disguised Friend of Faith?* (Radnor, PA: Templeton Foundation, 2004).

²⁷Peacocke, “Biological Evolution,” 359. All five points are made in this essay.

²⁸Arthur Peacocke, *Paths from Science towards God* (Oxford: One World, 2001) 87.

though a genuine risk is taken on God's part.²⁹ Third, the random process of evolution is purposive with propensities to produce complexity, information-processing and -storage ability, and language. These propensities characterize the gradual evolution of complex organisms and contribute to the eventual existence of persons capable of relating to God. Thus the propensities for these properties can be regarded as the intention of God, who continuously creates through the evolutionary processes, though without any special action by God at, say, the level of quantum mechanics or genetic mutations. Fourth, the ubiquity of pain, suffering, and death is necessary for the creation of biological order. Peacocke stresses that God suffers in and with the suffering of creatures, citing support from current theologians who reject divine impassibility. God's purpose is to bring about persons who will be in communion with God and with each other. Moreover, God's suffering with Christ on the cross extends to the whole of nature. Death as the "wages of sin" is not biological death; this requires us to reformulate the classical theology of redemption. The reality of sin must consist in our alienation from God or a falling short of what God intends us to be. It arises because, through evolution, we gain self-consciousness and freedom that can lead to egotism and the possibility of their misuse. And finally, the significance of Jesus within an evolutionary perspective is that human life with God cannot be ended by death. Instead, we are in a constant, ongoing process of transformation that will eventually lead to redemption or our being taken into the divine life.

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John Haught's approach to evolutionary theology has many elements in common with Peacocke's but is even more Kingsleyian in his positive assessment of the role of evolution for theology. Haught views Darwin's theory not just as a "disguised friend" but as offering theology a gift: the context for a doctrine of God as compassionate, suffering, and active in and fully related to the world.³⁰ Building upon the work of Alfred North Whitehead and Teilhard de Chardin, Haught develops a theology of God that is rooted in the kenotic image of God's self-emptying, Christ-like, love. God has an explanatory role in light of evolution, but it does not interfere with that of science. Haught grounds this in three assumptions of the scientific explanation of life: the contingency of events (such as genetic mutations), the laws of nature, and the irreversible, temporal character of the world. He interprets these theologically as, respectively, the signal of the inbreaking of the

²⁹Ibid., 72.

³⁰John Haught, *God after Darwin: A Theology of Evolution* (Boulder:Westview, 2000).

new creation, an expression of God's faithfulness, and the arrival of the divine *novum* that endows the world with its temporality. Some aspects of the world are explained by Whitehead's philosophy that emphasizes novelty and temporality as irreducible features of the world. Furthermore, God's relationship to the world as complete self-giving can be elaborated partially through process theology's notion of the divine persuasive power that invites, though never forces, creation to engage in the process of becoming. Such emergent self-coherence in the evolving world is entirely consonant with the world's radical dependence on and intimacy with God, and union with God actually differentiates the world from God rather than dissolves it into God. A theology of divine kenosis should lead us to expect nature's undirected evolutionary experimentation with multiple ways of adapting, the spontaneous creativity in natural process, and the enormous spans of time involved in evolution. God's incarnate love is expressed in persuasive relational power; thus a world rendered complete and perfect in every detail by God's direct act would be metaphysically and theologically impossible. Such a world would not be truly distinct from God. It would be neither a truly graced universe, as is ours, nor meaningfully open to God's self-communication. Furthermore, the sufferings and achievements of evolution take place within God's own experience and are graced by God's compassion. This is consistent with and ultimately explanatory of the world seen in terms of evolutionary science, and it is grounded in a "metaphysics of the future" in which the fullness of being is found not in the past or present, but in what is yet to come. The ongoing creation of the universe and the evolutionary process are made possible by God's entering into the world from the future.

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Peacocke and Haught's theological constructions are admirable and at times even as awe-inspiring as Kingsley found Darwin's theory to be. The emphasis on the suffering love of God in the incarnation and crucifixion as a model for God's activity in creation provides an impressive and beautiful way of thinking about the world. The language employed, especially in Haught's case, borders on poetry and it would be easy to be led by its persuasive lure. However, critical reflection on the neo-Kingsleyian approaches gives one pause. Panentheistic and process approaches have many conceptual problems for Christian theology, including the blurring of the important distinction between God and the world.³¹ For philosophers, not the least of these is the ambiguity of the language used and the resulting incoherence and even the difficulty of pinning down what is being as-

³¹See John Cooper, *Panentheism: The Other God of the Philosophers from Plato to the Present* (Grand Rapids: Baker Academic, 2006), and David Burrell's brief but classic essay, "Does Process Theology Rest on a Mistake?" *Theological Studies* 43 (March 1982) 125-135, for discussions.

serted.³² For example, what exactly is the meaning of and the evidence for the “propensities” God creates in nature according to Peacocke (other than that the world has turned out the way it has), or how does God “persuasively lure” according to Haught? These important claims are so vague as to leave one wondering what it means or how it is that God empowers the natural order to make itself, for these ambiguous concepts combined with the strong immanence advocated by both leads one to suspect that, despite the best intentions, scientific explanations are insufficient and a modified “God of the gaps” is needed after all.

Finally, and perhaps most importantly, the positions of Haught and Peacocke, while offering valuable insight into the theodicy question, do not adequately address the most important question, the pastoral question, that arises from the feeling that Darwin’s theory can legitimately lead some to view life as a great cosmic accident. To say that God’s creation is a risk that may fail can leave one with the sense that God’s power is unreliable in much the same way that process theodicy leaves little hope that God ultimately will conquer evil. While no logical entailment of absolute purposelessness or deeper levels of design is required by evolutionary theory, it is easy to see why Darwin and others would wonder why the Creator has left no trace of divine order in the natural world. Are there not some hints from the scientific study of the natural world—not just philosophy or theology—that, though there is chance in the world, it is grounded in something more law-like and profound than the apparently accidental processes of natural selection?

A WAY FORWARD?

As Stephen Jay Gould remarked in many lectures and in his book *Wonderful Life*, if one could rewind the tape of events to play evolution out once more, the odds are against anything like *Homo sapiens* developing. We’re here because we’re here—not because we had to be here.³³ Even if that is so, as the neo-Kingsleyians and others have pointed out, chance and unpredictability can be seen as part of the divine plan in order to give the world genuine freedom, so no intrinsic threat is posed to belief in a Creator by the presence of these elements in the world. However, it seems to me that Gould’s claim, like that of the neo-Kingsleyian theologians, excessively emphasizes life’s fragility and does not take evolution’s creative power and vitality seriously enough. As Kenneth Miller puts it:

Given evolution’s ability to adapt, to innovate, to test, and to experiment, sooner or later it would have given the Creator exactly what He was looking for—a creature who, like us, could know Him and love Him, could perceive the heavens and dream of the stars, a creature who would eventually discover the extraordinary process of evolution that filled His earth with so much life.³⁴

³²In fairness, despite occasional lapses, Peacocke generally has the most subtle and carefully articulated form of pantheism that I have seen.

³³Stephen Jay Gould, *Wonderful Life: The Burgess Shale and the Nature of History* (New York: W.W. Norton, 1989) 320.

³⁴Miller, *Finding Darwin’s God*, 238–239.

As Miller notes, the chance processes of evolution can lend themselves to confidence in the emergence of life and a theistic reading. However, there is a recent development in evolutionary thought that may be even more congenial for the theist. Convergence, an idea defended by Simon Conway Morris, is the independent origination of similar traits among distantly related organisms. Life, argues Conway Morris, is replete with examples of convergence on every level. Molecules, cellular structures, macroscopic features, behaviors, and even particular types of intelligence all display convergences. It is the ubiquity of convergence that leads Conway Morris to argue for the inevitability of life as we know it, since it is the result of expected patterns deeply embedded in the structure of natural selection. The general features of our minds and bodies and the emergence of intelligent beings are in a real sense written into the laws of nature.³⁵ Conway Morris's work is controversial, but it has been well received by many. As an argument based on empirical claims, not philosophy or theology, it had to be taken seriously by scientists. Convergence would not prove the existence of God, but if Conway Morris is correct, his theory of the inevitability of sentient life would fit even more closely with a theistic reading of the world than Gould's and go a long way toward addressing the anxieties many feel at the perceived meaningless of evolution by chance. Other scientists, including some meeting at the recent Altenberg conference,³⁶ have argued that deeper levels of understanding the evolution of sentient life reveal it is much more law-like than previous scientists thought.³⁷ One need not have discredited notions of design inserted into scientific explanations, such as those to which Darwin reacted, to find deeper levels of order to life.

Though I would not be surprised if Conway Morris's or some similar theory carries the day, the main point for the Christian is that evolution can be reasonably read as the work of a Creator. Obviously there are many unresolved issues in both the science and theology of evolution, and much work and hard thinking needs to be done. Whatever direction the ongoing solutions to these great questions take, I am convinced that theologians will remain capable of developing a coherent worldview in which theology and evolution achieve consonance for Christians, allowing them to have complete confidence in the intellectual integrity of their faith. ⊕

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³⁵Simon Conway Morris, *The Crucible of Creation: The Burgess Shale and the Rise of Animals* (Oxford: Oxford University Press, 1998), and even more forcefully in *Life's Solution: Inevitable Humans in a Lonely Universe* (Cambridge: Cambridge University Press, 2003).

³⁶The conference, "Toward an Extended Evolutionary Synthesis," was held in July 2008 at the Konrad Lorenz Institute for Evolution and Cognition Research in Altenberg, Austria, to discuss the future of Darwin's theory, the modern synthesis, and the need for possible modifications. The papers are scheduled to be published by MIT in 2009. See <http://www.kli.ac.at/workshops-c.html?stuff/workshops/08a/summary> (accessed 11 November 2008).

³⁷Christian de Duve, *Vital Dust: Life as a Cosmic Imperative* (New York: Basic Books, 1995), is one example.