

Whose god? The theological response to the god-of-the-gaps

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The god-of-the-gaps argument asserts that it is invalid to introduce God as an explanation for a scientific phenomenon that we cannot currently explain by naturalistic causes. Believers in naturalism take this a step further, and offer the god-of-the-gaps argument against any involvement of God in nature. However, the god-of-the-gaps argument is only good against a particular deistic approach to God and nature, and loses its potency when Scripture and science are pursued together.

The god-of-the-gaps argument

In approaching the subject, it is helpful to start by distinguishing two similar phrases that have different meanings. First, the ‘god of the gaps’ is the use of the invalid reasoning that inserts God as the explanation for any unknown. Second, the ‘god-of-the-gaps argument’ is the critique of god-of-the-gaps reasoning.

What is a ‘god of the gaps’?

The ‘god of the gaps’ is a god whose acts are hypothesized as the cause of that which we cannot explain. The usual use of the term refers not to the ‘deity’ under consideration so much as the *invocation* of that deity to explain the currently unexplained.¹ John Polkinghorne provides a helpful definition of this common meaning of ‘god of the gaps’:

‘The invocation of God as an explanation of last resort to deal with questions of current (often scientific) ignorance. (“Only God can bring life out of inanimate matter,” etc.)’²

The classic example is a primitive society in which phenomena as diverse as a rainfall, a sunrise or a cancerous tumour are attributed to the direct acts of a god (or gods) who personally agitates clouds, lifts the sun (and sets it back down) daily, and punishes people by implanting painful growths in them. Of course, we know better. We know that rain is part of the hydrologic cycle of evaporation, condensation and precipitation which is the normal consequence of physical laws. We know that the sun appears to us to rise and set because we are on a rotating spherical planet. We know that tumours are caused by cells dividing uncontrollably due to mutations in DNA. But our tribal populace sees each of these phenomena as the direct activity of its god. Indeed, they would rather not hear any other explanation, for that would seem irreverent, ungrateful to their (generally benevolent) deity. Hearing a scientific explanation would restrict their god’s activity; if this went on too long their god might be essentially eliminated from being an active deity. In this way, god-of-the-gaps thinking inhibits scientific progress.

The ‘god-of-the-gaps argument’

The ‘god-of-the-gaps argument’ is the use of the god-of-the-gaps concept as a *reductio ad absurdum* argument against an intervention of God in nature. This use is common in

contemporary debates over religion, science and intelligent design. C, a Christian, believes that DNA is too complex to have come about naturalistically, and therefore believes that it was directly designed by God. The ‘god-of-the-gaps argument’ is using the god-of-the-gaps concept to discredit C’s belief. Those who employ the argument make the point that:

1. Conceptually allowing God to directly act in nature undercuts the scientific enterprise (you won’t look for how DNA could have formed naturalistically, for instance). This is the ‘scientific’ prong of the argument.

It is also possible to argue further that:

2. Once (1) is granted, it follows that conceptually allowing God to directly act in nature will ultimately reflect badly on God, for at some point science is likely to find a naturalistic explanation for the phenomena at issue (e.g., formation of DNA), and then the God of Christianity will appear as discredited as the tribal deity. This is the ‘theological’ prong of the argument.

God-of-the-gaps in the contemporary origins debate

The god-of-the-gaps argument has been employed extensively in the modern discourse over design and evolution, particularly in response to the Intelligent Design (ID) movement.

The ‘science’ prong

The scientific prong of the argument is presented with at least two major emphases.

First, positing some sort of supernatural power’s intervention in nature undercuts the possibility of the inductive scientific method. It confuses the ‘unexplainable’ for what is in reality just unexplained so far.³ Robert Pennock has been one of ID’s most vociferous critics, and he presented this standard criticism articulately in a 1996 article:

‘Controlled, repeatable experimentation ... would not be possible without the methodological assumption that supernatural entities do not intervene to negate lawful natural regularities.’⁴

Second, positing some sort of supernatural power’s intervention in nature removes the motive for scientific enquiry. As Pennock put it,

‘... allowing appeal to supernatural powers in science would make the scientist’s task just too easy, because one would always be able to call upon the gods for quick theoretical assistance. ... By disqualifying such short-cuts, the Naturalist principle ... has the virtue of spurring deeper investigation.’⁵

The ‘theology’ prong

The theological prong of the argument suggests that when ID allows some sort of supernatural power to intervene in nature, it actually reflects badly on religion. To ‘tie the justification of religious belief’ to some natural feature which ‘must’ have been designed ‘presents faith as little more than an *asylum ignorantiae*, a refuge of ignorance.’⁶

It is usually the theistic evolutionist who is most strident in stressing this argument. They suggest that the prudent course for a Christian to take is to adopt a view of nature that requires no outside intervention from God, which rests God’s ‘creative’ activity in the planning of the naturalistic course of evolution.⁷

God-of-the-gaps’ fatal assumption

In response to the god-of-the-gaps argument, we point out that it is inapplicable to a presuppositionally biblical approach to science—both as to origins and normative scientific methodology. The god-of-the-gaps argument only functions where Scripture is not the final authority.

The deistic assumption

As philosopher Alvin Plantinga pointed out, the god-of-the-gaps argument assumes something about the theists it is wielded against. It assumes that God is invoked as a kind of ‘large scale hypothesis to explain what cannot be explained otherwise, i.e., naturalistically.’⁸ If science cannot explain it right now, then God is postulated as the cause. If science can explain it now, God was *not* the cause. If science cannot explain it now and God is invoked, but later science discovers an explanation, the theist apparently has two choices: (a) acknowledge the scientific version and chalk another item off of God’s ‘to-do’ list, thereby making God’s activity contingent upon science’s inability to explain something naturalistically; or (b) refuse to acknowledge the new science, thereby defending divine action to the detriment of science. Both alternatives present the theist as unscientific in differing degrees. Neither is conducive to scientific progress.

The point that is important is that any approach to God-and-nature that is susceptible to a god-of-the-gaps critique is one in which the only way to determine divine activity in the world is by the scientific method’s failure. And this is not the biblical perspective. It is, rather, reminiscent of deistic⁹ natural theology of the nineteenth century and before, determining God’s activity based on reasoning divorced from Scripture. This has gone unrecognized for too long.

The Scriptural reality

In contrast to the quasi-deistic approach susceptible to the god-of-the-gaps critique stands a biblical view of the interaction

of God and nature. God acts where He said in Scripture that He has acted.¹⁰ From this, two points are derived.

God’s intervention is not ‘contingent’

First, the primary-cause activity of God does not depend on our examining a circumstance for possible naturalistic/scientific explanations, and then inferring God’s activity if no plausible naturalistic explanation turns up. This would be to subject God’s activity to a bizarre kind of contingency analysis, where His activity is contingent on man’s need of God as an explanation or not. Instead, God may have been the cause even when there is a naturalistic explanation.

Consider two of the miracles of Christ: turning water to wine,¹¹ and multiplying loaves and fish.¹² Both of these miracles resulted in the creation or transformation of a substance which was not there before. Yet taking the end products in isolation—wine, fish, loaves of bread—there are certainly naturalistic explanations. Wine does not require supernatural activity; just juice from naturally grown fruit and a natural fermentation process. The presence of fish for food does not require supernatural activity: merely the capture of fish that hatched and developed according to normal, scientifically understood processes. Bread is the result of natural chemical and physiological reactions in the combination and heating of natural ingredients under the proper conditions. Yet biblically, we know that none of these natural explanations would be correct for describing the means whereby the end products came about in the cases of these miracles of Christ.

This approach is a natural result of treating Scripture as history in all such cases as it is to be understood that way, under a proper hermeneutical and exegetical approach. We can call this the ‘exegetical’ or ‘historical’ factor. Knowing the facts about God’s action is first of all a matter of exegesis, not scientific determination.¹³ This is in stark contrast to the ‘deistic’ approach against which the god-of-the-gaps critique operates: it starts from a basically ignorant position, not knowing what act God has done in the world except where God is the only explanation.

Thus the interventions of God in nature are not predicated upon our inability to explain the end result but for a ‘miracle’.¹⁴

Miracles are not normative

Second, if we ground our theory of God and nature in Scripture, then miracles are *not* the normative means of God’s interaction with nature. Science works, and we would assume it to do so on the basis of Scripture. Scripture affirms, under traditional hermeneutical and exegetical principles, an actual *creatio ex nihilo* that is clearly supernatural.¹⁵ It also presents a considerable number of miraculous¹⁶ incidents thereafter. But when viewed across the broad spectrum of activity and the long span of time covered by the biblical narrative, miracles are in fact relatively few and far between. After the event of creation itself, God ‘rested’ and ceased from His creative activity.¹⁷ Now the normative relationship of God to His creation is upholding¹⁸ its consistence.¹⁹ Because Scripture also teaches that the character of God is logical, regular and orderly,²⁰ a

presumption of orderly natural law is warranted.²¹ (Indeed, historically, it was this understanding of God's character that made possible the advance of science and especially the scientific revolution.²²)

These two points, fully appreciated, entirely deflate the god-of-the-gaps argument. Following the order in which we presented the god-of-the-gaps argument, we can respond:

- 1.a) Because of the presumption of regularity in nature, the scientific method is sound, and we do not expect experiments to come out differently because, for instance, God directly did something to the chemicals.
- 1.b) The impetus for scientific discovery is preserved for the same reason—and indeed furthered—because there is a theological impetus for learning more about the normal means that God uses to uphold creation now.
2. Finally, the fact that God has acted is not contingent upon our inability to explain the event in question. Biblical religion is not an *'asylum ignorantiae'* but a record of historical events; the fact that an alternate explanation may appear to exist for a particular event of biblical history does not imply, much less raise a presumption, that God did *not* do it. We do not assume Scripture is wrong when it says God acted, whenever there is some other, seemingly plausible, explanation that would not involve God's action.²³

Christian complicity for god-of-the-gaps

If adopted in Christian discourse over miracles, nature and science, the approach outlined above effectively cripples any god-of-the-gaps critique. Yet this seems too simple; how could the god-of-the-gaps critique have gained such widespread use if it is solely applicable to deistic approaches to nature? The answer is that, unfortunately, a common Christian approach to nature and Scripture itself created the god-of-the-gaps problem.

The separation of nature and Scripture

Francis Bacon²⁴ believed that science was to be done solely on the inductive method, on the basis of experimentation and collection of facts, rather than on the basis of deducing conclusions from authority. This was primarily a frontal assault on the stranglehold of Greek philosophers over the teaching of science, but it also raised concerns about the place of biblical authority.²⁵ Bacon allayed fears that his black-and-white conceptual program presented a threat to Scripture. Science and revelation are like two different books, both made by the same Author.²⁶ We need not fear that the one will contradict the other. At the same time, the spectre of the ancient Greeks' stifling influence on science, an influence that the scientific revolution struggled against, must have been fresh in Bacon's mind.²⁷ No book, even a book by the Author of nature itself, should be allowed to compromise the integrity of science.²⁸

Bacon was a complex thinker, but for our purposes it matters less what Bacon himself thought²⁹ than how his legacy was appropriated by his followers in what has been termed 'Baconianism'. Baconianism was the reigning philosophical

paradigm through which several generations of scientists looked at the world, and at its most basic, was a commitment to an experimental inductive methodology. It evolved through the contributions of various philosophers and scientists, but as a whole, it is still safe to say that the 'Baconians', most of whom were professed Christians, gladly accepted the 'two books' approach. Far from seeing this approach as a limitation on the influence of theology, numerous theologians and clergymen welcomed it as offering a philosophical framework in which science and Scripture could cooperate in the advancement of truth.

The Baconians of course were convinced that science and Scripture could never conflict, and it worked out in theory. As Eva Marie Garrouette notes, in this system:

'The physical sciences were primarily responsible to the factual "revelation of God in the world" (that is, nature), whereas the "theological sciences" were responsible to the equally factual "revelation of God in the Word" (that is, the biblical text).'³⁰

Not only did the Baconian system nicely harmonize the 'world' and the 'Word', but it was seen as opening up a new approach to the presentation of theological truth: in the Baconian perspective, the exposition of the truths from nature complement, confirm and corroborate the same truths discovered in Scripture. 'Natural theology', deriving moral and theological truths from nature, was a natural fit.³¹

Baconianism was in the paradoxical position of harmonizing science and Scripture by separating them. Baconian natural theology proceeded on the dualistic assumption that science and Scripture were separate and independent sources of knowledge. Oblivious to problems of interpretation, the Baconians assumed both would always agree and find themselves in mutual support. But by their separation of the two, the Baconians left themselves ill equipped to deal with apparent³² conflicts that arose later on.

The problems of interpretation

The naiveté of the two-book approach was its assumption of epistemological neutrality.³³ If Scripture is true, and nature is God's handiwork, it is indeed the case that nature and Scripture will not contradict. But to assume that nature can be understood apart from God's revelation in His Word posits an autonomous human reason that is not in subjection to God's Word.³⁴ Scripture rejects neutrality.³⁵ The issue the Baconians missed is that nature will either be interpreted from the basis of Scripture as God's revelation,³⁶ or it will be interpreted by fallen, sinful man, man who suppresses the truth in unrighteousness in rebellion to his Creator.³⁷

The Baconians, who ostensibly viewed nature 'neutrally' but expected it to confirm Scripture, unwittingly gave over the epistemological battleground to the antitheistic assumption of neutrality, which is in fact rebellion. The Baconians did not realize this for some time, because in a cultural context still benefiting from its heritage as a 'people of the Book', there would still be an overwhelming pressure to interpret nature in conformity to Scripture. But pressures to compromise were not long in coming. When they did, the results of separating



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Memorial to Francis Bacon at St. Michael's Church, St. Albans, England. Bacon was one of the leading exponents of the scientific revolution. His opposition to reliance on 'authority' in the scientific enterprise influenced generations of scientists, a factor that should be recognized in analyzing a god-of-the-gaps argument.

science and Scripture came out into the open. As first geology, then biology, were pursued autonomously, clearly unbiblical interpretations of nature arose: geological long ages, and biological evolution, both premised on naturalism.³⁸

A key movement for de-Christianizing Europe was the Enlightenment, which brought a widespread revival of non-Christian, anti-Christian and pre-Christian speculation about origins. In the French scientific establishment, this Enlightenment approach was seen as liberating and exciting. Conservatives like Cuvier kept a high regard for the providence of God, but separated this pretty completely from a scriptural record of history. From Cuvier, it was just one more step for Lyell to revolt against providence and turn geology thoroughly naturalistic; and then one more step for Darwin to do the same in biology.³⁹

The Baconian scientists who still clung to firmer biblical orthodoxy as well as the two books approach were unable to give a biblical answer, for by their separation of nature and Scripture they were effectively reduced to a deistic approach. The theological, scientific and philosophical results included the god-of-the-gaps dilemma.

As well, the rhetorical effect was to give a new advantage to the naturalists. In the case of Darwinism, the Baconian design advocates had to tear down Darwin's work to keep their traditional views of design. But now their efforts were seen, not as 'explaining' nature by invoking God, but invoking God to avoid explaining nature.⁴⁰ Hence, the evolutionists were able to charge the design advocates with a retreat from science into religious just-so stories to avoid the implications of science's latest findings.

The naturalist critics of religion in general completed the coup by making explicit the epistemological basis of their revolution, the 'neutrality' the Baconians had conceded long before.⁴¹ Science, they said, finds truth independently of religion.⁴² Science's truth is demonstrable, testable and practical in the real world. Science therefore took the epistemological high ground, and it has replaced theology as queen of the disciplines.⁴³ In reality, theology had planted the seeds of this revolution when she resigned her reign over science. Now science, grown bolder and rebellious in its years of independence, had come back and made clear that the inconsistent dualism of Baconianism was to be rejected in favour of the more consistent hegemony of naturalistic science. The neat Baconian harmony between the 'world' and 'Word' was exposed for the unstable arrangement that it was.

The Baconian legacy yet lives

It was precisely the refusal to appeal to Scripture as the presuppositional foundation of Christian thought that proved disastrous for the Baconians. Yet Christian interaction with science has persisted in avoiding appeals to Scripture, trying instead to maintain an ostensible neutrality.

The Intelligent Design (ID) movement is the latest, and most philosophically sophisticated, attempt to retain God's involvement in nature but without appealing to Scripture (and actually stopping considerably short of the natural theologians in its refusal to identify the Designer).

Theistic evolution has also continued the separation of Scripture and science to a large extent. Fearing the same defeats experienced by the Baconian natural theologians, modern theistic evolutionists profess a commitment to methodological naturalism as applied to science, without any place for the biblical historical-exegetical approach to actual interventions.

Review of god-of-the-gaps responses

Both the ID theorists and the theistic evolutionists have offered responses to the god-of-the-gaps problem. By briefly reviewing these, we can see points consistent with and even helpful to the biblical approach we are advocating, as well as important shortcomings insofar as ID and theistic evolution have rejected a biblical approach.

Theistic evolution

Theistic evolution has viewed itself as the preserver of theism in an age of science. Its first principle for understanding God and nature is actually a biblical one. It holds that God's involvement in His creation is by means of upholding and

sustaining in some manner the very existence of the universe. As such, He is intimately involved⁴⁴ in the universe today despite the fact that we are not observing new plants, animals or galaxies created *ex nihilo*. We agree with this analysis, and it reflects the biblical position as to God's normal manner of dealing with creation today.

The second principle of theistic evolution is the point of disagreement. It holds that God has never been involved in creation in any way other than the normal way He sustains it today. With this principle, the theistic evolutionist manages to separate the Bible's historical content from nature. For the real issue is not whether God can be involved in nature via what we call 'natural law' or 'normative dealings' with creation (as we discussed earlier, such involvement is biblical); the issue is whether God is constrained to *only* this one way of interacting with His creation. To hold this latter position is to ignore the teaching of Scripture. It is in fact the assertion of naturalism as a higher authority than Scripture.

It is significant that theistic evolutionists have been unable to be absolutely consistent in avoiding any direct action of God in nature. The miniscule minority of professed theistic evolutionists who have been more thorough in eliminating God from *all* gaps have found themselves with a deity unrecognizable by any tradition in the Judeo-Christian legacy.⁴⁵ Most professed theistic evolutionists will accommodate the naturalism only so far. Gaps are not eliminated, but merely moved down to a smaller level (such as quantum indeterminacies) or to a more remote moment (before the Planck time). For example, 'Polkinghorne argues that the principle of quantum indeterminacy allows for brief, tiny breaks in chains of causal events, gaps that give just enough room for God to act, to put his finger, so to speak, into the universal mechanism at just the right places to direct events.'⁴⁶ Likewise, Francis Collins is willing to view the big bang as some sort of direct divine action.⁴⁷ Yet because theistic evolutionists have rejected a biblical-exegetical approach to interventions of God in nature, they retain these various odd remnants of 'primary cause' activity only in a deistic, 'it can't be explained any other way' manner. In other words, these minimal acknowledgments of God's power and ability to intervene in nature in a direct manner are only kept by the very method of reasoning which led to the god-of-the-gaps problem in the first place.

Theistic evolution does a service of emphasizing the fact that God's sustenance of creation, His normal way of maintaining it today, places Him in direct involvement with the universe even now. But in its extrapolation of today's order into the past, theistic evolution is reduced to either bad theology or bad science. It is bad theology because it rejects significant exegetical considerations and leaves the intervention of God to be discovered on deistic terms. It is bad science because this actually *does* raise a god-of-the-gaps problem.

Intelligent Design

ID's responses to the god-of-the-gaps problem have taken several routes. First, ID advocates have argued that when naturalists rule out gaps, they *assume* what is at issue, namely, naturalism.⁴⁸ The point is well taken. They follow

up by reassuring us that they will not go to an extreme of finding supernaturalism everywhere. If, they say, some sort of supernatural interventions have taken place in nature, they are rare, and thus there is no danger of actually upsetting the normal assumptions of science (regularity, repeatability).⁴⁹

But the only reason we know that supernatural explanations are exceptional is because we are operating on a fairly extensive base of scientific knowledge already (we know how the sun rises, how embryos develop, etc.). But if ID had been the norm for the last millennium, how would science have proceeded? On ID's grounds alone, would we have gotten science to where it is today—would there be motivation for science? If we operated on ID alone, a thousand years ago, why would we have assumed that there could be a natural (as opposed to a mysterious, inexplicable supernatural) primary cause for, say, bubonic plague? Behind the common-sense analysis lies the question of why we are justified in assuming an underlying consistency in nature, including assuming that God would not be randomly creating new creatures or plagues or tinkering with our DNA. ID cannot answer this question because it lacks any theology of its designer. Its designer is unidentified and unknowable, so we have no reason to assume anything about him/her/it in advance. The problem is solved in the biblical framework by the consistent and regular nature of God, which justifies the presumption of regularity in nature and hence the effectiveness of science. In sum, ID's first response to god-of-the-gaps is okay as far as it goes, but it does not go very far.

Second, ID advocates have responded to the god-of-the-gaps argument by arguing that ID is based on positive scientific evidence for design.⁵⁰ It is not based on showing that evolution cannot work, and then inferring an 'intelligent designer' as the cause.⁵¹ This is a much more useful argument, equally relevant to ID and biblical creationist approaches to the evidence. However, if not used carefully, it is easy to poke holes in this approach. Much of the ID literature is in fact devoted to showing the insufficiency of Darwinism. This negative strategy should be acknowledged and distinguished from the positive arguments for design. For instance, Dembski's 'explanatory filter'⁵² consists of both negative and positive parts: (a) event *X* is too improbable for law or chance (thus evolution is out for biological specified complexity); (b) probability is compatible with design; *ergo*, design. The same positive and negative arguments are also easily identified in Behe's presentation of irreducible complexity.⁵³ Negatively, evolution could not have formed the irreducibly complex object. Positively, irreducibly complex features are regularly, in our observation and experience, formed by design. Thus, inference to the best explanation leads naturally to identification of a designer as the best explanation for a biological system.

The distinctions are important. The standard negative arguments are generally directed at a particular naturalistic scenario, namely, orthodox neo-Darwinism. However, just because a *particular* naturalistic scenario *A* could not have formed biological structure *x*, it does not follow that a designer did it. To make such an argument would require knowledge that *A* is the *only* naturalistic way to form *X*. And this is virtually impossible to prove (there is no way to prove that we have



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On two occasions (Mat. 14:13–21, 15:32–39), Christ miraculously multiplied loaves and fishes to feed a multitude. Bread and fish are normally assumed to have naturalistic ‘secondary-cause’ explanations, but such an interpretation on these occasions would have been factually erroneous.

thought of *all* the naturalistic options). (Hence the criticisms of Behe as being ‘uncreative’ when he dismisses a traditional evolutionary explanation and does not try to think of another naturalistic explanation before announcing ‘design.’⁵¹) So a negative argument almost always raises the risk of a god-of-the-gaps situation.

There are, however, good arguments that Darwinism is in fact the only half-decent reasonable naturalistic explanation.⁵⁴ With this further argument added, then the law of excluded middle would apply, and we would actually be down to a simple ‘Darwinism or Design’ situation. By including this further argument, a new, valid, positive syllogism is formed: Darwinism is the only alternative to design; Darwinism cannot form *X*; *X* was designed. So there *is* a positive argument here. (Interestingly, evolutionists from Darwin on have used their own inverted form of this argument: Evolution is the only alternative to design; a designer would not have formed *X*; therefore, *X* evolved.⁵⁵)

Further, a designer may be the best explanation for event *X*, and this too is a positive argument. For instance, we may

know that in our experience, human designers designed all the rotary motors we have encountered, in a variety of engines. We may infer that it is similarly likely that a designer made the rotary motors that we find in nature as the bacterial flagellum and ATP synthase—an inference to the best explanation.

It may be easy to eliminate naturalistic explanations, but then inferring a designer is technically a separate inference. This does not mean that the negative argument is irrelevant. Eliminating conventional naturalism as a possible explanation is still important to open up consideration of the better explanation of design. The main point is that to move directly from the negative argument, to an inference of a designer, raises the god-of-the-gaps problem, but just a little more care in formulating the argument would avoid it.

This needs to be more clearly explicated in ID’s responses to the god-of-the-gaps critique. ID has stressed the positive inference to design as the most important point of the theory, but has not yet succeeded in explaining to the public the difference between inferring design as a legitimate explanation on the one hand, and on the other hand debunking the opposition (naturalism/Darwinism).

Biblical creationists would expect ID’s success in demonstrating the superiority of a design explanation,⁵⁶ because ID is looking in the direction that biblically we would expect to find design in.⁵⁷ In like manner, we can appreciate ID’s response to the god-of-the-gaps argument, and benefit from employing and clarifying the distinctions in our own presentation of evidence.⁵⁸

Conclusion

The god-of-the-gaps argument is a serious challenge to the consistency of Christians who claim to accept both Scripture and science. To maintain the acceptance of both, conventional wisdom dictates that Scripture be separated from science. As I have attempted to show, it is precisely this separation that *created* the inconsistencies of theistic religion-and-science discourse. Into the void left by the absence of biblical history was inserted the deistic god-of-the-gaps. The more consistent devotees of naturalism were right to point out the problems of inserting God as an explanation for what we do not know. To them, the god-of-the-gaps became the discrediting of any involvement of God in nature. But this was extrapolating the argument too far. For the biblical approach, grounded explicitly and unashamedly in the exegesis of the Bible as real history, was never dealt with.

When we do look to Scripture, and its philosophical implications, we see that God has intervened directly. When operating from a historical perspective of Scripture, we also find that science cannot in principle show that He has not intervened in the manner that the god-of-the-gaps argument assumes. Yet, because God has acted, we also expect that science can provide evidentiary support for such an occurrence.⁵⁸ God’s normal interaction with His creation, since the creation itself, is in terms of order and stability—what we consider ‘natural law.’ By restoring a self-consciously biblical approach to the sciences, the Christian testimony of a God who can and has intervened directly in nature is no longer a theoretical

problem. It is instead the foundation of a workable—the workable—paradigm of science.⁵⁹

References

1. See, for example, O'Collins, G. and Farrugia, E.G., *A Concise Dictionary of Theology*, Paulist Press, New York, p. 97, 2000.
2. Polkinghorne, J., *The Faith of a Physicist*, Princeton University Press, Princeton, NJ, p. 197, 1994.
3. Pennock, R.T., *Tower of Babel*, MIT Press, Cambridge, MA, pp. 164–165, 1999; see review by Steel, A., The tower with many flaws, *J. Creation* **14**(2):41–46, 2000; <www.creationontheweb.com/content/view/1660>.
4. Pennock, R.T., Naturalism, evidence, and creationism: the case of Phillip Johnson, in Pennock, R.T., ed., *Intelligent Design Creationism and Its Critics*, MIT Press, Cambridge, MA, pp. 88–89, 2001. Originally published in *Biology and Philosophy* **11**(4):543–549, 1996.
5. Pennock, ref. 4, p. 89–90.
6. Skidelsky, E., The God-of-the-gaps, *New Statesman*, p. 49, 10 March 2003.
7. See generally Ruse, M., *Can a Darwinian Be a Christian?* Cambridge University Press, Cambridge, MA, 2001.
8. Plantinga, A., Methodological naturalism? *Perspectives on Science and Christian Faith* **49**(3):148–149, 1997.
9. The general definition of deism is a belief in a creator God who does not intervene after initially creating the universe and setting it in motion. See Emerson, R.L., Deism; in: Wiener, P.P. (Ed.), *The Dictionary of the History of Ideas*, Charles Scribner's Sons, New York, 1:646, 1973. However, dealing with the historical heyday of the deists (complete with their unique beliefs about god, nature and pre-Darwinian naturalism) is beyond the scope of this study (and largely irrelevant anyway).
10. I am here building on the foundation of Alvin Plantinga's approach in his article, 'Methodological naturalism?' ref. 8. Plantinga rightly noted that if Christians indeed have truth, it only makes sense to start with what we know to be true. I am presenting and elaborating this Augustinian position with an emphasis on the theological terminology and methodology.
11. John 2:3–11.
12. This was done on two occasions (as Christ Himself makes clear in Mark 8:19–20). The first is recorded in Matthew 14:16–21, Mark 6:35–44, Luke 9:12–17, John 6:5–13; the second, in Matthew 15:30–38, Mark 8:1–9.
13. It should be emphasized, though, that we expect the science to fit with the exegetical determination—indeed, that it would be the only scientific explanation that would actually work. Yet we start with the exegetical approach, because Scripture represents our ultimate commitment. And Scripture provides the *positive* thesis that we expect science to support, in contradistinction to the negative 'nature couldn't do, therefore, God did it' argument that is susceptible to a god-of-the-gaps criticism.
14. Although to be precise, it would be true that given enough information about the circumstances, we would know that a naturalistic explanation would not work for any genuine miracle. For instance, if we knew that the liquid in a jar was actually pure H₂O one minute and wine the next, we could rule out any natural fermentation process of juice. This might be viewed as a definitional property of a miracle.
So, operating from a biblical exegetical-historical position will naturally give rise to the suspicion that no naturalistic cause could account for the event in question. Yet at the same time, it is always a matter of how many facts we have to operate with. When facts are limited, we may not be able to make pronouncements about the sufficiency of naturalistic explanations. The main point is that with the exegetical-historical approach, the availability of some amount of naturalistic explanation cannot in principle disprove that the event was a direct, primary-cause act of God in nature. The god-of-the-gaps argument is impotent against such a biblical approach.
15. See Ham, K., Wieland, C. and Mortenson, T., Are (biblical) creationists 'cornered'? *Journal of Creation* **17**(3):43–50, 2003; <www.creationontheweb.com/content/view/1620>. See also Sarfati, J., *Refuting Compromise*, Master Books, Green Forest, AR, chapter 1, 2004.

16. I am using the term here to denote an event that is not the effect of a natural cause, but of a supernatural cause. This is better described as an event *unaccounted for* by natural law, rather than a *violation* of natural law.
17. Genesis 2:1–3. See also Hebrews 4:3–4, and Morris, H.M., *The Genesis Record*, Baker Books, Grand Rapids, MI, pp. 80–81, 1976.
18. Hebrews 1:3 ('upholding all things by the word of his power').
19. Colossians 1:17 ('by [Christ] all things consist').
20. See Sarfati, J., Loving God with all your mind: logic and creation, *Journal of Creation* **12**(2):142–151, 1998; <www.creationontheweb.com/content/view/logic>. 1 Corinthians 14:33, 40.
21. Natural law is used in so many ways and in so many different arguments that it has become heavily weighed down with baggage, so care must be taken in using the term.
For example, when naturalists suggest that intelligent design violates natural law, they create a false dichotomy between agents and natural law. As Stephen Meyer has noted, 'Agents can change initial and boundary conditions yet in so doing they do not violate laws.' Meyer, S.C., 'Laws, Causes, and Facts,' in Buell, J. and Hearn, V. (Eds.), *Darwinism: Science or Philosophy?* Foundation for Thought and Ethics, Richardson, TX, pp. 31–32, 1994. Yet from a theological perspective, natural laws are grounded in God's own activity—so now we have the 'agent' creating the laws. Now he certainly cannot violate his own laws, can he? This line of reasoning (following Spinoza) improperly absolutizes natural laws and creates a false dichotomy between God's normal way of acting ('natural law') and God's extraordinary way of acting (miraculous primary causation). On Spinoza, see further Dembski, W.A., *Intelligent Design: The Bridge Between Science and Theology*, Intervarsity Press, Downers Grove, IL, 49–69, 1999.
So to be more precise, it is preferable to speak of God's workings as 'normative' or 'regular'.
22. See Stark, R., *For the Glory of God*, Princeton University Press, Princeton, NJ, ch. 2, 2003; Stark, R., *The Victory of Reason*, Random House, New York, pp. 12–23, 2005.
23. Yet this does not imply a disdain for science, and should be kept in balance with the discussion in ref. 13.
24. Bacon's use of religion in his writings has been a matter of considerable scholarly debate, with some of the most recent scholarship revealing Bacon as a man of sincere personal faith, a faith which runs throughout his most important writings. See McKnight, S.A., *The Religious Foundations of Francis Bacon's Thought*, University of Missouri Press, Columbia, MO, 2006. Bacon's personal faith is, however, peripheral to our concerns here.
25. See Hunter, C.G., *Science's Blind Spot*, Brazos Press, Grand Rapids, MI, pp. 15–17, 2007; Mortenson, T., *The Great Turning Point*, Master Books, Green Forest, AR, pp. 21–22, 2004.
26. The most famous statement is Bacon, F., *The Advancement of Learning*, Wright, W.A. (Ed.), Clarendon Press, Oxford, 1.6.16 (p. 51), 1885.
27. See the specific connection of Greek and Scriptural authority in Bacon, F., *Novum Organum* (1620), reprint, George Routledge and Sons, London, p. 30 (book 1, part lxxv), 1893; see also Mortenson, ref. 25, p. 22.
28. In like manner, Bacon argued that the attention of science should be turned from the study of purpose in nature (teleology) to the physical questions of how nature works. Both in his approach to Scripture and in his approach to teleology Bacon was anxious to discard metaphysical baggage which he saw as distracting from empirical scientific inquiry. See Bacon's distinction between 'physic' and 'metaphysic,' in *Advancement of Learning*, ref. 26, 2.7.3 (pp. 113–114); and his dismissal of final causes in *Novum Organum*, ref. 27, pp. 88–89 (book 2, part ii). Yet, just as he did not discard Scripture, neither did Bacon discard metaphysics: see his acknowledgment that teleology is a proper pursuit as long as kept separate from physical scientific inquiry, in *Advancement of Learning*, ref. 26, 2.7.7 (pp. 118–120); See also Weinberger, J., Introduction to Bacon, F., *The Advancement of Learning*, Kitchin, G.W. (Ed.), Paul Dry Books, Philadelphia, PA, pp. xi–xiii, 2001.
29. See Hunter, ref. 25, p. 17.

30. Garrouette, E.M., The positivist attack; in: Smith, C. (Ed.), *The Secular Revolution*, University of California Press, Berkeley, CA, p. 199, 2003.
31. In natural theology, as Michael Ruse has noted, ‘One could do one’s science and at the same time claim that, through one’s findings about the marvelous nature and workings of the empirical world, one was burnishing the most powerful argument there is for God’s existence and perfect, all-powerful nature.’ Ruse, M., *Darwin and Design: Does Evolution Have a Purpose?* Harvard University Press, Cambridge, MA, p. 41, 2003.
32. We speak of ‘apparent’ conflicts, because real conflicts between science and Scripture are in fact proscribed by the nature of Scripture as truth. The issue is always one of interpretation, and the issue of authority arises when the observer must choose whether to reinterpret science or reinterpret Scripture. See my introductory essay: Weinberger, L., An antidote to compromise, *Creation Matters* 9(4):5–7, 2004.
33. That is, neutrality at the basis of our theory of knowledge.
34. See 2 Corinthians 10:5.
35. See Bahnsen, G.L., *Always Ready*, Covenant Media Foundation, Nacogdoches, TX, pp. 3–9, 1996.
36. Though there may be differences of interpretation on any number of issues, that there *is* a real standard deducible from Scripture is not in doubt by anyone (except a radical literary deconstructionist). Contrary to the propaganda of activist secularizers (see Garrouette, ref. 30, pp. 203–210), very good arguments can be made that Scriptural interpretation is in fact more sure (less subjective) than scientific interpretation: see Bahnsen, G.L., Science, subjectivity, and Scripture, <www.cmfnow.com/articles/pa044.htm>, accessed 20 December 2007.
37. See Romans 1:18–25.
38. Uniformitarianism being merely the geological equivalent of biological naturalism. See Reed, J.K., Klevberg, P., Bennett, C., Akridge, J., Froede Jr, C.R. and Lott, T., Beyond scientific creationism, *CRSQ* 41(3):216, 217–228, 2004.
39. See generally Larson, E.J., *Evolution*, Modern Library, New York, pp. 13–93, 2004.
40. Darwin positioned himself on the rhetorical high ground here by explicitly presenting his work as Baconian. See the interesting discussion by Gould, S.J., Deconstructing the ‘science wars’ by reconstructing an old mold, *Science* 287:253–261, 14 January 2000.
41. See Garrouette, ref. 30, pp. 200–212.
42. As a nineteenth century writer put it, ‘All the followers of science are fully persuaded that the processes of investigation ... will give one certain solution to every question to which they can be applied.’ Quoted in Garrouette, ref. 30, p. 212.
43. English physicist John Tyndall, a self-proclaimed exponent of the ‘gospel of naturalism’, put it bluntly in 1874, ‘... all religious theories, schemes, and systems which ... reach into [science’s] domain must ... submit to the control of science and relinquish all thought of controlling it.’ Quoted in Garrouette, ref. 30, p. 212.
44. In defining ‘god-of-the-gaps’, O’Collins and Farrugia note that the phrase is ‘used against those who look for God in phenomena that science has not yet been able to explain and forget that *God is actively present within all processes of the created world.*’ O’Collins and Farrugia, ref. 1 (emphasis added).
45. See, for example, Forrest, P., *God Without the Supernatural*, Cornell University Press, Ithaca, NY, 1996; and see review: Wakoff, M.B., *Philosophical Review* 107(4):621–623, 1998.
46. Weldon, S.P., Book Review: *Belief in God in an Age of Science* by John Polkinghorne, *Isis* 92(3):599, 600 (2001).
47. Collins, F.S., *The Language of God*, Free Press, New York, pp. 66–67, 2006.
48. See Dembski, ref. 21, 238–245.
49. Dembski, ref. 21, pp. 241–242.
50. See Dembski, W.A., *The Design Revolution*, InterVarsity Press, Downers Grove, IL, pp. 116–126, 2004. See also, for a simplified example of a similar argument, Meyer, S.C., ‘Word games’; in: Dembski, W.A. and Kushiner, J.M. (Eds.), *Signs of Intelligence*, Brazos Press, Grand Rapids, MI, pp. 116–117, 2001.
51. See, for example, the synopsis of arguments in Woodward, T., *Darwin Strikes Back*, Baker Books, Grand Rapids, MI, pp. 74–77, 2006.
52. See generally Dembski, W.A., *The Design Inference*, Cambridge University Press, Cambridge, 1998.
53. See generally Behe, M., *Darwin’s Black Box*, Free Press, New York, 1996.
54. There are, however, good arguments that Darwinism is in fact the only half-decent reasonable naturalistic explanation. See, for instance, Dawkins, R., *A Devil’s Chaplain*, Houghton Mifflin, New York, pp. 78–90, 2003. With this further argument added, then the law of excluded middle would apply, and we would actually be down to a simple ‘Darwinism or Design’ situation. By including this further argument, a new, valid, positive syllogism is formed: Darwinism is the only alternative to design; Darwinism cannot form *X*; *X* was designed. And many Darwinists—including Darwin himself and Dawkins—have used the same syllogism themselves: God wouldn’t have done it that way, so the Darwinian process must have done it.
55. See Hunter, C., *Darwin’s God*, Brazos Press, Grand Rapids, MI, 2001.
56. It is important to note that we would hold that ID’s scientific arguments are generally compatible with and supportive of the biblical approach, but is insufficient taken alone and is theologically problematic at the presuppositional and exegetical levels.
57. Although insofar as it is not basing its methodology on biblical history, we also do not expect ID to *always* be looking in the right direction. E.g. it has no notion of the Fall to explain deterioration, defence-attack structures and extinction; and no global Flood to explain most of the fossil record.
58. Presentation of evidence in apologetics is entirely consistent with a presuppositional apologetic methodology. The key is that evidence is never presented in a presuppositional vacuum. An epistemologically self-conscious Christian can thus present evidence in apologetics, which is *not* problematic, while never adopting the false attitude of neutrality, which *is* problematic. For a careful discussion of these issues, see Bahnsen, G.L., *Van Til’s Apologetic*, Presbyterian and Reformed, Phillipsburg, NJ, pp. 81 n. 104, 634–655, 1998. It is such purported neutrality that actually raises serious problems for ID (a topic that is beyond the scope of this paper).
59. It is, in fact, the only foundation capable of warranting science. On the self-defeating nature of non-biblical thought to science, see Bahnsen, ref. 58, pp. 311–404. See also Plantinga, A., *Warrant and Proper Function*, Oxford University Press, New York, ch. 12, 1993, on the epistemological problem of evolutionary naturalism in particular.

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