

BioLogos and Theistic Evolution: Selling the Product

By William A. Dembski

A review of Karl W. Giberson and Francis S. Collins, *The Language of Science and Faith: Straight Answers to Genuine Questions* (Downers Grove, Ill.: InterVarsity, 2011).

In intellectual enterprises, much of the work consists not just in coming up with ideas but then also in selling them. Giberson and Collins' newest book is largely an exercise in marketing the BioLogos brand of theistic evolution. Now there's nothing wrong with marketing ideas -- in fact, the intelligent design community, of which I'm a part, has done quite a bit of this and quite successfully. But, as with all marketing, consumers have a right to expect truth in advertising. And here, in my view, this book signally fails.

The product that's being sold is theistic evolution, the view that God brought about the complexity and diversity of living forms, once first life was here, via the Darwinian evolutionary mechanism of natural selection acting on random genetic mutations. More briefly, they are marketing a mix of Christianity and Darwinism and using the BioLogos website and educational foundation as their distribution outlet (Collins founded BioLogos and Giberson is its vice president). Early in the book, Giberson and Collins gesture at evolutionary theory as something more general than Darwinism (biological evolution, they contend, has come a long way since Darwin). But soon enough, they make clear that the core of evolutionary theory that they are defending is in fact Darwinism: "...Darwin's theory of evolution, now that it has been confirmed beyond a reasonable doubt by science..." (p89)

Throughout their book, Giberson and Collins overconfidently proclaim that Darwinian evolution is a slam-dunk. Thus one reads, "There has been no scientific discovery since Darwin -- not one - - which has suggested that evolution is not the best explanation for the origin of species." (pp21-22) No theory is that good. Every theory admits anomalies. Every theory faces disconfirming evidence. Repeatedly readers are informed that mountains of overwhelming evidence support Darwin's theory and that the authors are "unfamiliar with any premier scientists who reject evolution." And just so there's no doubt, in that same paragraph, they reiterate, "There are certainly a few scientists who reject evolution... But these are never premier scientists."

Oh, you reject Darwinian evolution; you can't be a premier scientist. What counterexample would convince Giberson and Collins to retract such a claim? How about Henry Schaefer's signature on a "Dissent from Darwin" list (www.dissentfromdarwin.org)? Schaefer heads the computational quantum chemistry lab at the University of Georgia, has published over a thousand peer-reviewed journal articles, and is one of the most widely cited chemists in the world. Then again, Giberson and Collins look askance at this list (according to them, it has too many emeriti professors and not enough biologists). But why engage in such posturing about scientific pecking order in the first place? The issue is not who's doubting Darwinism, but what are the arguments for and against it and whether they have merit. Giberson and Collins' constant drumming of mainstream and consensus science is beside the point -- science progresses by diverging from the mainstream and by breaking with consensus.

Giberson and Collins bemoan that many of the critics of Darwinian evolution are not biologists. But then we read in the preface that Francis Collins “fully completed his contribution in the spring of 2009” and “did no further work on this project after he assumed the directorship of the NIH.” (p9) Given that the book was just published (2011), it follows that the bulk of it was written not by biologist Francis Collins but by non-biologist Karl Giberson, who is a physicist. Moreover, if we are to believe this disclaimer, then Collins didn’t offer any feedback on the manuscript as Giberson was writing it (if he subsequently read portions of the manuscript and offered editorial suggestions on how they should be changed, then it’s not fair to say Collins’ work on this project ended in 2009). So either this book was not properly vetted (at least not by its biologist co-author) or Collins was in fact providing input right along, which this disclaimer denies. Either option is problematic.

In any case, Giberson and Collins scrupulously avoid getting into the details of evolutionary theory and deny that it is even questioned among mainstream biologists. That such questioning occurs, even in the mainstream, consider Susan Mazur’s *The Altenberg 16*, subtitled *An Exposé of the Evolution Industry*. This book, by a secular journalist, shows how secular biologists are finding Darwinian theory so full of unresolved conceptual difficulties that they are conceding the field is in disarray and needs a new theoretical underpinning. Or consider Francisco Ayala, whom Giberson and Collins cite glowingly. When Ayala is speaking candidly and not trying to shore up Darwinism against critics of evolution, he admits, “Unfortunately, there is a lot, lot, lot to be discovered still. To reconstruct evolutionary history, we have to know how the mechanisms operate in detail, and we have only the vaguest idea of how they operate at the genetic level, how genetic change relates to development and to function ... [sic] I am implying that what would be discovered would be not only details, but some major principles.” (From a 2002 interview with Larry Witham) Yet as far as Giberson and Collins are concerned, the mechanism of evolution is all sewn up and was sewn up ages ago by Darwin.

Over and over again they merely assert the truth of Darwinian theory. The only detailed item of evidence they consider in favor of Darwinian evolution is the defective GULO gene in humans and other primates. This gene, when intact, allows for the synthesis of vitamin C. Its common defectiveness in humans and other primates, according to them, argues for its common ancestry apart from design (common defectiveness not being something readily explained by common design). But this same defect is also found in guinea pigs, which, on evolutionary grounds, are so far removed from humans that this common defect could not be attributed to a common ancestor but rather must be explained as some sort of evolutionary convergence. But in that case, the defective GULO gene hardly becomes compelling evidence for our common ancestry with primates -- humans might have started off with a functional GULO gene, which then subsequently became defective. (For more on this, see my book with Jonathan Wells titled *The Design of Life*.)

I’m not saying this is what happened and I’m not here even trying to argue against common descent. The point is that Giberson and Collins want to rise above the debate over evolution by simply proclaiming that no serious thinker would even engage in that debate given how well, in their view, the theory is now established. And yet, at the one place where they do consider actual evidence for common ancestry, it is less than compelling. Moreover, at no place do they show

how natural selection has the creative power they ascribe to it. This is a defect shared in their previous work (Giberson's *Saving Darwin* and Collins' *The Language of God*). Throughout *The Language of God*, for instance, evidence for common descent is equated with evidence for the power of natural selection. But in fact, there are design theorists (e.g., Michael Behe) who accept common descent but reject natural selection as the primary engine of evolution.

Because Giberson and Collins assert that natural selection is such a powerful mechanism for driving evolution -- and one that admits no reasoned dissent -- it's worth recounting here briefly why the intelligent design community is so skeptical of it. It's not, as theistic evolutionists often suggest, that we have a desperate need to shore up faith and morality and are using ID as our instrument of choice to accomplish that end. Rather, it's that natural selection is, in essence, a trial and error tinkering mechanism for which all evidence suggests that its power is quite limited. Trial and error works fine when you have something that's functional and are trying to enhance it or adapt it to a new situation.

But for natural selection, as a trial and error mechanism, to traverse vast swatches of biological function space, we need to see an extended series of small gradual structural changes (under neo-Darwinism, these are genetic mutations leaving effects at the phenotypic level) that continually improve, or at least maintain, function, with evolving functions and evolving structures covarying and reinforcing each other. But we know of no detailed testable (macro-)evolutionary pathways like this in any field, whether in the evolution of living forms or in the evolution of language or in the evolution of technologies. In fact, when we can trace such evolutionary pathways, we find that significant change happens in creative leaps, not via trial and error tinkering.

Throughout *The Language of Science and Faith*, Giberson and Collins attempt to broaden evolution's appeal to the wider Christian, and specifically evangelical, community. Theistic evolution is already well entrenched at Christian colleges and universities (in fact, it is the default position and one would be hard pressed to find a CCCU school that will hire an outspoken ID proponent, to say nothing of a creationist). But among the unwashed masses (of which I count myself a member), evolution is widely doubted and even condemned. Giberson and Collins, convinced that their theory is right are certainly in their rights to argue for it. As already noted, there's nothing wrong with selling one's ideas. But it needs to be done honestly, and that's just what I don't find in this book.

Take their treatment of young-earth creationism (YEC). The overwhelming impression Giberson and Collins leave is that YEC is essentially a 20th century phenomenon and that thoughtful Christians since the early church have left open the possibility that Genesis could legitimately be interpreted as allowing more than a few thousand years for the age of the earth and universe. Thus they cite Origen, Augustine, and Thomas Aquinas as making room for a much older earth than suggested by a literalist reading of Genesis. But all three were young-earth creationists, accepting that the earth was only a few thousand years old.

Origen, for instance, puzzled over how light could be created on day one of creation week but the sun not be created till day four. Yet in his polemic against Celsus, who held that the world was eternal, Origen argued that the earth was not eternal but had been created a few thousand

years earlier. Augustine and Aquinas likewise held to an earth a few thousand years old. Aquinas even held that the earth was created in six literal 24-hour days and that the human body was created directly by God *without* any mediating instrumentality (thus ruling out evolution). For the details, see chapter five of my book *The End of Christianity*, where I show that the young-earth position was universally accepted by Christians through the Reformation (yes, Luther and Calvin were also young-earth creationists). Note that my views on cosmology and geology are substantially the same as that of Giberson and Collins (in fact, we are on the same page when it comes to cosmological fine-tuning as a pointer to the divine), so I find the young-earth position just as problematic scientifically as they do. But their revisionist history paints a false picture.

As another instance of misdirection by Giberson and Collins in the interest of selling BioLogos, take their citations of Michael Ruse. I've known Michael for 20 years, we've co-edited an anthology on design and Darwin for Cambridge University Press, and we've had multiple formal debates at universities. We regard each other as friends. Trying to enlist Ruse in support of their position, Giberson and Collins repeatedly refer to him as an "agnostic" and recommend his book *Can a Darwinian Be a Christian?* in their annotated bibliography: "Fair and balanced, this volume defends the compatibility of evolution and faith." (p223) Yet in that volume, Ruse writes "Darwinism is a theory committed to the ubiquity of law." (Ruse, p94) This seems right. Darwin, for instance, in a letter to Charles Lyle wrote: "I would give nothing for the theory of natural selection, if it requires miraculous additions at any one stage of descent."

So what does this mean for faith? Ruse continues, "Even the supreme miracle of the resurrection requires no law-breaking return from the dead. One can think of Jesus in a trance, or more likely that he really was physically dead but that on and from the third day a group of people, hitherto downcast, were filled with great joy and hope..." (Ruse, p96) This is not, I submit, what ought to be meant by "the compatibility of Christianity and faith." The only Christianity that Ruse sees as compatible with Darwinism is an anemic liberalism gutted of all genuine miracles. Also, I've never heard Ruse call himself an "agnostic." He does, openly, call himself an "atheist."

In bringing Ruse to this discussion, I don't mean to give the impression that Darwinian evolution strictly precludes belief in miracles (as Ruse contends). Kenneth Miller, for instance, calls himself an orthodox Catholic and an orthodox Darwinian and in correspondence has admitted to me that he accepts the Virgin Birth as well as the other affirmations of the Nicene Creed. Giberson and Collins object that advocates of intelligent design claim "that accepting evolution (at least in some forms) is embracing atheism." (p23) But I don't know of any ID advocate who claims that Darwinian evolution entails atheism.

The reverse implication, however, does seem to hold -- if you're an atheist, you're going to need a mechanistic/materialistic creation story of how we got here, and Darwinism, by providing such an account, fits the bill. No wonder that atheists love Darwin (Richard Dawkins: "Darwin made it possible to be an intellectually fulfilled atheist"; Will Provine: "Evolution is the greatest engine of atheism ever invented"; etc.). Giberson and Collins are right to be concerned about the connection between atheism and evolution, but in arguing as they do that evolution need not be conducive to atheism, the burden of proof is on them.

Hence, when Giberson and Collins put their cards on the table, this is what they write: “The broadest and most general question we are addressing in this book is how to understand evolution as the way that God created life. This question, in fact, is the basis for this entire book.” (p114). They continue, “We want to argue most insistently that God’s creative work can be done *through* the laws of nature, and not merely by *breaking* or *suspending* those laws.” (p115, emphasis in original) This is also why they are so opposed to intelligent design, because, in their view ID “promotes the idea that nature has gaps in it that God must intervene to fill. According to ID, nature is powerful and capable of accomplishing much, but some things -- like the origin of the bacterial flagellum -- require that God must ‘step in’ in an unusual way. This seems piecemeal and incoherent to us.” (p190)

But in fact, ID is not an interventionist theory. ID is, in the first instance, concerned with the detectability of design. But detecting the activity of a designing intelligence says nothing, without further investigation and evidence, about how the designing intelligence acted, whether by discrete interventions or by continuous infusions of information or by front-loading of all the necessary information. Giberson and Collins miss this point. Hence they write, ID “suggests that design may be detected in some places and not others. In contrast, BioLogos affirms that God is present everywhere in nature and not just in the gaps in our knowledge.” (p194) In detecting design, we can say where design is. But in failing to detect design, we can’t say where design isn’t. Design detection eliminates false positives (false ascriptions of design to things that are not, or may not, be designed) but it can never eliminate false negatives (false denials of design to things that are in fact designed).

Most ID proponents are Christians and believe, like BioLogos, that God is present and active everywhere in nature. Yet we hold that in some cases God makes his activity more obvious than in others. Design detection calls forward these more obvious instances of design. Moreover, methods of design detection operate over a limited domain. I, for instance, have never said that specified complexity, as a method of design detection, covers every possible case where design might be detected. Far from it. This method is quite limited and requires situations in which independently given patterns may be identified and events associated with these patterns can objectively be assigned probabilities.

Giberson and Collins’ insistence that God work through rather than outside natural laws is problematic but raises some interesting possibilities. It presupposes that nature operates without discontinuities. But how do we know that? Such discontinuities or gaps need not be gaps of ignorance but gaps in the very fabric of nature. This is a logical possibility and one that needs to be considered. As they read the evidence of evolution, no such gaps exist. As I read it, they do (e.g., the Cambrian explosion -- but note, there are design theorists who find no gap here, such as Michael Behe). Nature’s operations, without the activity of God, might be fundamentally incomplete. Yet such activity need not be construed as “interventions.”

According to Giberson and Collins, “The actual patterns of natural history may, in fact, be a combination of pathways specified by laws laid down ‘in the beginning’ and the steady infusion of divine creativity.” (p206) This sentence, to which I can say Amen, is entirely consistent with intelligent design. Such infusion of information at the beginning and then continuously thereafter could, in principle, guide an evolutionary process and be consistent with natural laws. But it

would not be reducible to natural laws as the scientific mainstream now conceives them (certainly not reducible to a trial-and-error tinkering mechanism such as Darwinian selection).

Years back John Polkinghorne speculated about a notion he called “active information,” which acted orthogonally to ordinary physical causation so that God could direct nature without violating it. I’ve since developed that notion mathematically in my work with Robert Marks’ Evolutionary Informatics Lab (www.evoinfo.org), through which we have published work in this area in standard information-theoretic and computational intelligence journals (for a review paper summarizing our technical work in this area, see “[Life’s Conservation Law](#)”). Giberson and Collins are right when they say that we don’t have a good understanding of how God’s creativity gets inputted into nature. But it seems that “active information” can provide some common ground, making room for real teleology that also preserves the integrity of nature. Thus, for all my gripes about this book, I think it does suggest a way forward for a meaningful dialogue among the various parties addressed.

I therefore close with the following statement from their book, which I wholeheartedly endorse and hope presages some fruitful interactions in the future: “We submit that all Christian positions on origins share a commitment to a mysterious and transcendent divine action, and we might as well acknowledge that we are all in that boat together. The conversation needs to be about what is revealed in the details of the creation, not who can explain exactly how God works (for nobody can). We should all start with the affirmation that the world is the product of a transcendent intelligence and then inspect that world to see what we can find out.” (p192) Amen.