

# Evolution & God's Humility: How Theology Can Embrace Darwin

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Charles Darwin claimed that all terrestrial life shares a common ancestry and that the wide array of living species can be accounted for by a process he called "natural selection." By sheer accident, the members of any generation of a given species will differ from one another, and nature will "select" only those able to survive and bear offspring themselves. Over immense periods of time, the selection and inheritance of minute advantageous variations in adaptability will bring about countless new and distinct forms of life, including eventually humans.

Darwin published *On the Origin of Species* almost a century-and-a-half ago, but today the majority of biologists still commend it for its general accuracy. In a synthesis known as "neo-Darwinism" they have simply added to Darwin's original ideas our more recent knowledge of genetics. Important internal disputes still divide evolutionary biologists, but in the scientific community today there is an abiding appreciation of Darwin's genius and the fundamental correctness of his ideas about life's shared ancestry and the mechanism of natural selection. Opinions differ about the roles in evolution played by chance, adaptation, selection, genes, individual organisms, populations, struggle, cooperation, competition, etc. But most scientists today do not doubt that life has evolved—at least roughly—along the lines that Darwin brilliantly laid out.

Following the outspoken evolutionist Richard Dawkins (*The Selfish Gene*), philosopher Daniel Dennett has recently proclaimed that Darwin's "dangerous idea" should prove deadly to all religions and theologies. The accidental character of genetic mutations, the mindless (algorithmic) habits of "selection," and the excessive amount of time evolution takes—these elements of Darwin's theory should destroy once and for all any illusions that life and the universe are products of divine design. Evolution, Dennett says, contradicts all traditional religious intuitions that we live in a cosmos cared for by God. And it is only because theology has ignored evolution that it continues to survive.

Perhaps, then, it is time for theology to give Darwin another look, especially now that his ideas are experiencing such a vigorous renewal in the contemporary intellectual world. Updated evolutionary interpretations of life, language, behavior, morality, and even religion have lately been gaining unprecedented attention by natural scientists, philosophers, linguists, ethicists, social scientists, and more recently, the medical community. Neo-Darwinism now provides integrating concepts for many of the natural and human sciences. What are its implications for theology?

## **Darwin and Christian theology**

Because chance, blind selection, and enormously "wasteful" periods of time are so ingredient to the unfolding of life, Darwin's picture of nature would appear to raise difficulties about the idea

of God. After weighing the now well-founded accounts of life's lumbering journey on earth, any subsequent talk about a "divine plan" for the world will certainly need to be qualified. And the claim that life can be explained adequately by divine "design" will be especially suspect.

Before Darwin, as even Dawkins agrees, the best explanation for the ordered and adaptive features of living organisms seemed to be that of divine "intelligent design," an idea made famous early in the nineteenth century in William Paley's book, *Natural Theology*, a work with which Darwin himself was familiar. Paley invited us to suppose that while walking across a patch of ground we stumble upon a watch. If we open it up and examine its interior structure we cannot but conclude that it is the product of intelligent design. Analogously we should be able to reason that the even more intricate order in natural phenomena, especially the adaptive design of living things, points toward the world's creation by an intelligent designer.

Take, for example, the fact that the fish's eye is shaped in a round rather than elliptical way, rendering it remarkably "adapted" to seeing clearly under water. Before Darwin such an example of adaptive design would have led us to praise the handiwork of the creator who carefully saw to it that fish would be so remarkably attuned to their habitat. Many other examples of adaptive design could be given, but in every case the only satisfactory explanation for it would have to be a theological one: divine intelligent design.

However, Darwin challenged Paley's argument by claiming to provide a purely naturalistic explanation of the design in living beings. In a Darwinian account, fish would have round eyes today only because in the remote past those with the oval-shaped variety could not see well enough to avoid being eaten by predators. They lost out in the struggle for existence and produced no offspring. On the other hand, those ancestors of fish which, purely by accident, came with rounder eyes could see better under water and survived long enough to have progeny endowed with the adaptive visual capacity. Fish today have the kind of eyes adapted for vision under water only because of the blind and impersonal process of natural selection, not because of any intelligent design.

Darwinians claim that natural selection of adaptive random variations (modifications in the organism now associated with genetic mutations, which Darwin knew nothing about) can explain life's design all by itself-if given enough time. And today scientists estimate that life originated as long as 3.8 billion years ago, leaving more than enough opportunity for the purely naturalistic emergence of all the adaptive design in living beings. If time is ample enough, the intricate patterning of life that seems improbable in the short run becomes increasingly more probable as time goes on and as evolution's nonadaptive experiments are eliminated. It would appear, at least to Darwinians, that life's amazingly complex forms do not require any supernatural causation; and so we can discard the design argument of natural theology.

I should comment in passing that evolutionary materialists are not alone in celebrating the apparent death of design arguments for God's existence. Some mainstream religious thinkers, especially those influenced by the famous Swiss theologian Karl Barth, want nothing to do with natural theology either. They view the design arguments that have been central to natural theology as idolatrous attempts on the part of finite humans to grasp the infinite and incomprehensible God in rational terms. Rational arguments always run the risk of diminishing the mystery of God, seeking to bring it under the human mind's control. For religious reasons, they argue, we should be grateful to Darwinians for helping to destroy the pretentiousness of natural theology.

Of course, not everyone would agree. In his controversial book, *Darwin's Black Box* (The Free Press), biochemist Michael Behe, for example, offers an interesting new pitch for the theory that life is the result of "intelligent design." He argues that Darwin's notion of a gradual evolution from simplicity to complexity cannot explain life's intricate patterns, even at the level of the cell.

For most Darwinians, Behe observes, the living cell is a "black box," something whose general functions may be known, but whose inner workings remain hidden in darkness. However, biochemistry has now beamed its lights into Darwin's black box, revealing in the living cell a micro-world of "irreducible complexity" for which Darwinian biology has never been able to give an adequate account.

Darwin himself had conceded that if life's variety came about in any other way than very gradually, that is, by way of tiny changes accumulating over long periods of time, then his theory would be in trouble. Highlighting Darwin's proviso, Behe is now trying to show that the cellular constitution of living beings could not have occurred incrementally, or step-by-step, as a pure Darwinian would assume. The cell's complex inner composition cannot function at all unless all the parts are simultaneously present, working in tightly integrated confederation. Hence, gradual emergence, which allows the pieces of life to fall into place only one at a time, cannot even explain the cell, let alone the larger world of life. The Darwinian explanation of life is demonstrably mistaken. The only conceivable alternative is "intelligent design."

To many anti-Darwinians, Behe's ideas are exciting, and Behe has become a comforting presence at a number of recent gatherings of conservative Christian groups, some of them bordering on creationism. To Darwinians, however, whatever the merits of biochemical analysis of the cell's complexity may be, the implicit appeal to theology in the pages of a book on science is a craven cop-out. And the scorn with which some scientists have greeted Behe's rather guileless proposal is itself an interesting object of study. Much of the derision comes from evolutionary materialists like Dawkins who are no less ideologically indentured than creationists themselves.

### **Beyond design**

I believe that Behe's book deserves attention, for Darwinian biology has by no means done away with all the mysteries of life. Even if Darwin is right, he hasn't told us the whole story, as he himself seemed humble enough to admit. Nevertheless, what strikes me after reading arguments like Behe's is that if Darwinian theory is inadequate to the reality of life, so also is the notion of "intelligent design." The problem, to put it bluntly, is that neither the many Christian proponents of "intelligent design," nor their materialist opponents actually deal with life. Contemporary materialist interpretations of Darwin, which I cannot deal with here, squeeze all the sap out of the life process from the very start by reducing life to chemistry and evolution to a purely mechanical process. But the advocates of "intelligent design theory" focus on the lifeless idea of order to such an extent that they pass over the novelty that is also characteristic of living processes.

Design without novelty is deadness, not life. Life is impossible without being constantly in process, and this means being open to what is new. In any truly living process the entry of genuine novelty always disturbs present design. Life requires the breakdown of present order as a condition for self-organizing in new ways. Order, at least in a processive universe where biological evolution occurs, is always made ragged around the edges by life's leaning toward new being. Consequently a theology fixated on design will miss the full reality of life. What is worse, by associating the idea of divine creativity only with the fact of order, it removes God also from the flow of life.

A theology obsessed with order and design is, I believe, ill-prepared for evolution. And as long as we think of God only in terms of a narrowly human notion of "design," the "atheism" of many evolutionists will seem appropriate enough. For, what if "God" is not just an originator of order, but also the disquieting wellspring of novelty? And, moreover, what if the cosmos is not just an "order" but a still-unfinished labor of creation? Suppose we look very carefully at the

undeniable evidence we have today that the universe is still coming into being. And suppose also that "God" is less concerned with imposing a plan or design on this process than with providing a "vision" for the universe that allows it to participate in its own creation. If we make these conceptual adjustments, as I believe both contemporary science and a consistent theology actually require that we do, the idea of God becomes not only compatible with evolution, but it also logically anticipates something like the kind of life world that Darwinian biology sets before us.

In Christian theologians' dialogues with evolutionary scientists, it is easy to get hung up defending some notion of "intelligent design" and thereby losing sight of faith's primordial experience of God as humble, self-giving love. Unfortunately, the experience of God that occurred in connection with the life and death of Jesus, an encounter with ultimacy that Hans Küng rightly calls a "revolution" in the whole human story of God-consciousness, is taken only minimally into most contemporary Christian theological engagements with Darwin. In debates about the compatibility of religious trust with the randomness, struggle, and suffering that occur in evolution, Christian theologians often resort to an apologetics that glosses over the struggle and pain in the earth's hugely prolonged life story. They defend notions of divine "power" and "intelligence" that only magnify the question of why an all-capable God would remain silent in the face of life's suffering.

Theology needs to face the Darwinian account without flinching. This means that it should stop seeking refuge in pre-Darwinian restoration of design arguments, an approach that brings religion into unnecessary tension with science. And it also means that mainstream theology should examine its habit of ignoring evolution and confining its attention almost exclusively to human concerns. We need new theologies of nature genuinely responsive to the fascinating but troubling picture of life that evolutionary science is giving us.

I would suggest that we may discover the foundations for a theology of evolution in two images given in the Christian witness to God. The first is the startling, bewildering, and often suppressed image of God as humble, self-giving, fully relational, suffering love. Instead of asking how we can possibly defend the idea of God's intelligence and omnipotence against the objections of Darwinians, we should be asking what kind of universe ours should be if it is grounded in an infinitely compassionate Mystery that pours itself out into the world in unrestrained and vulnerable love.

The second image is given in the encompassing biblical theme of God as one who makes promises, and who relates to the world not by compelling it from the past, but by opening it up to an enlivening and unpredictable future. This is the image of a God who invites, rather than forces, the world to realize new possibilities of being. This is not the God of frozen design, but One who disturbs the status quo for the sake of richer life. This is the image of God as "Power of the Future" (Wolfhart Pannenberg). It is the God whom Karl Rahner in his later writings began to call the "Absolute Future." It is what Teilhard de Chardin had in mind when he referred to the universe as resting organically on "the future as its sole support," that is, upon a God who is less Alpha than Omega. It is the God of Abraham, Moses, and Jesus, the Pauline God of new creation.

Our treatises on God and evolution can easily become so sidetracked by obsession with the notions of order, plan, and design that we may ignore altogether the biblical experience of a self-giving and promising God. An understanding of God as "self-emptying love" and "power of the future" can provide the foundations for an evolutionary theology that does not need to edit out the messiness in Darwinian portraits of life. While it must certainly reject the deadening materialist ideology within which neo-Darwinians often package their popular renditions of evolution, this twofold, biblically grounded understanding of God seems quite consonant with the astounding discoveries of evolutionary science itself.

### **The 'interested God' of religion**

The physicist Steven Weinberg, an avowed atheist, perceptively observes that attempts to reconcile religiously uninformed concepts of deity with modern science are futile. Instead, he insists, we must ask whether the sense of God as operative in actual religious awareness coheres with contemporary scientific understanding. Weinberg contends it does not. And he goes on to say that evolutionary biology, even more forcefully than physics, rules out the "interested" God of religious faith.

One does not have to accept Weinberg's conclusion in order to agree with him that we should connect our thinking about issues in science and religion to images and convictions about God as these are found in actual religious experience rather than in philosophically domesticated versions of theism. For Christian theology this means that, rather than force the idea of God to fit a narrow notion of intelligent design, we should seek to understand the natural world, and especially its evolutionary character, in themes of promise and suffering love associated with the God of Abraham, and of Jesus, the crucified and risen Christ.

Christians have discerned in the "Christ-event" the unreserved self-emptying, or "kenotic," love of God. And, at the same time, they have experienced in this event a God whose effectiveness takes the form of a power of renewal that opens the world to a fresh and unexpected future. This means quite simply that in Christian theology's quest to understand the scientific story of life, it must ask whether and how evolution might make sense when situated in a universe that faith claims to be shaped by God's kenotic compassion and promise of new creation. In my new book, *God after Darwin*, I have developed both aspects of this theology of evolution much more extensively. Here I must limit myself to a few words about evolution and divine love.

As noted earlier, what has been especially troubling in Darwin's science is its picture of a world in which randomness mingles with the "impersonal" process of natural selection in such a way that evolution appears to have no direction or inherent meaning. But intrinsic to the notion of divine love is its authorizing creation to strive experimentally for a genuine independence vis-à-vis its creator. And this logically requires that God would leave room in nature for randomness or accident. Love by its very nature cannot compel, and an infinite love should not be expected to overwhelm the world with either a coercively directive "power" or an annihilating "presence." A world tied to divine puppet strings, even in its prehuman evolution, must really be not a world at all, but only an appendage of its maker.

Indeed, we should not be surprised that an infinite love would in some sense restrain itself, precisely in order to give the world the "space" and "time" in which to become something distinct from the creative love that constitutes it as "other." While God would be the creative source of new evolutionary possibilities, we should not be surprised that any universe rooted in an unbounded love would have at least some features that appear to us as random or undirected. Saint Thomas Aquinas himself thought that a world so rigidly controlled by God as to be devoid of accidents is theologically inconceivable.

Even in the originating creation of the cosmos the divine infinity may be thought of-in our imperfect human concepts-as "contracting" itself, forgoing any urge to direct the creation forcefully or to absorb it into the divine. An overwhelming and suffocating display of divine "presence" or "omnipotence" would leave no room for anything other than God. Such divine magicianship would extinguish any genuine evolutionary self-transcendence on the part of the cosmos. As theologian Jürgen Moltmann, partly influenced by the Kaballah, has repeatedly speculated, it is a humble self-withdrawal on God's part that allows the cosmos to stand forth on its own and then to evolve as a relatively autonomous reality distinct from its creative ground. In this sense, creation and its evolutionary unfolding would be less the consequence of a rigid divine "plan" than of God's humble and loving "letting be."

Consequently, if ultimate reality is essentially self-giving love, and if love in turn entails "letting the other be," then, theologically speaking, both the world's original coming into being, and its indeterminate Darwinian transformation through vast periods of temporal duration, would be completely consistent with the Christian experience of God.

### **Divine intimacy & the world's independence**

The world can have its own being and realize its own evolutionary potential only if God's creative power and love consist of a kind of self-concealment. God's hiddenness, a thoroughly biblical theme, is not a divine "abdication" in any deistic sense, but instead a condition of deep intimacy with the world. In its encounter with the crucified man Jesus-and not in philosophical reasoning alone-Christian faith is given the key to God's relation to the world. The cross reveals to faith the paradoxical closeness of the self-absenting God from whose limitless generosity the world is called, but never forced, into being and becoming. This kenotic image of God, even though inaccessible to philosophical and scientific rationality as such, nevertheless gives a surprising intelligibility to the cosmic whole in which Darwinian evolution turns out to have played so important a part.

Not surprisingly, both scientific skeptics and theists whose ideas of God center primarily on the notion of "intelligent design" have found Darwinian ideas religiously incoherent. Skeptics have rejected a divine "planner" as incompatible with the undirected course of biotic evolution, while many theists have contemptuously dismissed evolution as incompatible with their notion of a governing deity. A universe entertaining the degree of indeterminacy that Darwin's vision entails seems incompatible with a transcendent power and intelligence. God, the alleged "divine designer," is apparently not "in control" after all. Evolution appears to be a mindless lottery rather than the "mighty act" of an omnipotent God. And the enormous amount of time evolution takes seems to rule out the existence of providence, since a truly intelligent designer would surely not have "fooled around" for so long (billions of years) before bringing about life and human beings.

However, the God given to a faith shaped by the "Christ-event" is not first of all an infinite embodiment of what we humans narrowly understand as rationality, intelligence, or design, but an outrageously "irrational" and mysteriously humble love that comes to meet the world from out of the realm of an open and incalculable future. A theology attuned to this image of ultimacy suggests a way of rendering religiously meaningful the very same scientific data that have led a more "rationally" based theistic preoccupation with design to repudiate Darwinian theory, and scientific skeptics to their pessimistic interpretations of nature.

This in no way means that God is powerless, as some critics of kenotic theology have complained. God's power (by which I mean the capacity to influence the world) is paradoxically made manifest in the vulnerable defenselessness of a crucified man. As theologian Edward Schillebeeckx has rightly observed, such defenselessness is not weakness. Vulnerability, he says, can effectively disarm evil, and it can do so much more powerfully than force. The revelation of divine "power" in the form of divine humility, moreover, is not only accordant with, but ultimately explanatory of, the curious world that evolutionary science now presents to us. The randomness, struggle, and seemingly aimless meandering which the evolutionary story of life discloses as the underside of its marvelous creativity are consistent with the idea that the universe is the consequence of an infinite love.

If God were "powerful" only in the very crude sense of possessing the capacity to manipulate or design things coercively, then the facts of evolution might be theologically problematic. But an infinite love, as the Roman Catholic theologians Karl Rahner and Elizabeth Johnson, among others, have made clear, will not manipulate or dissolve the beloved cosmos. In the act of seeking

intimacy with the universe, God forever seeks to preserve the difference and otherness of creation. God's creative love constitutes the world as something ontologically distinct from God, and not as a simple extension of the divine being.

In order for the world to be independent of God, and therefore to undergo a genuine self-transcendence in its evolution, a God of love concedes to the world its own autonomous principles of operation—such as the "impersonal" laws of gravity, natural selection, and self-organization. God offers to the life-process opportunities for instantiating new forms of order, but these are not forcefully imprinted on living beings. The "self-distancing" of God, once again, is in no sense apathy, but paradoxically a most intimate form of involvement. As the neo-Darwinian zoologist Charles Birch puts it, God loves the world enough to respect the freedom and spontaneity of the creation. It is because of this divine respect for creation that evolution occurs.

### **Theological foundations**

One of the implications of the Council of Chalcedon is that God apparently wants to relate to a world that is "other" than God. But for that kind of relationship to be possible the world, including Christ's human nature, must be allowed to be itself. The presence of God to the world is not one in which the world is dissolved into God. To long for such a union is an expression of monophysitism, the ancient-and-persistent-heresy according to which the distinctively human nature of Christ melts away into the divine. Although much of what is called "religion" longs for a monophysitic kind of union with God, I believe the essentially Christian instinct is to foster the sense of an eternally differentiated union of the world and God.

"True union differentiates," as Teilhard de Chardin often emphasized and as Trinitarian theology has also always implied. Accordingly, it is out of a longing to relate to the world in a differentiating rather than dissolving kind of union, that God forgoes any annihilating, monophysitic "presence" to it. I suspect that at times our longing to have a world carefully "designed," and our pious rebellion against the idea of a kenotic God, betray a hidden longing for the kind of divine presence that gradually liquefies rather than solidifies the world's difference from its divine ground. Beneath much of our religious anxiety about Darwin perhaps there is a persistent longing for the kind of divine presence or power that holds on so tightly that it refuses to release the world into the realm of liberty.

The prospect of freedom, as the existentialist philosophers sharply registered, always provokes anxiety; and so, to avoid the anxiety of evolution we favor the idea of a world directly "designed" by God rather than one that is called to actualize its independence, hazardously and at times tragically, from within itself. Anxiety, however, can be conquered by love. And it is because we never do justice to the notion of divine love that we are tempted to seek safety in an abstract cosmic order that rules out the invasion of liberating novelty and the invitation to emergent freedom that give meaning to evolution. The God of evolution, however, refuses to reside in a "presence" that blots out the otherness and distinctiveness of creation. God's will is that the world become more and more independent, and that during its evolution its own internal coherence intensify, not diminish.

The God of self-giving compassion is in fact the only God that normative Christian faith can legitimately claim ever to have encountered. And yet, this founding intuition about the nature of ultimate reality all too seldom enters into our thoughts about whether and how the evolution of life can be reconciled with religious faith and hope.