

# A CHRISTIAN THEOLOGY OF EVOLUTION AND PARTICIPATION

by Nicola Hoggard Creegan

*Abstract.* Recent controversies surrounding the discernment of design in the natural world are an indication of a pervasive disquiet among believers. Can God as creator/sustainer of creation be reconcilable with the belief that God's work is indiscernible behind secondary evolutionary causes? Christian piety requires that the order experienced in the natural world be evidence of God's love and existence. Theistic evolutionary models rarely examine this matter, assuming that God is indiscernible in the processes and order of the world because only secondary causes can be examined. This leaves antievolutionary perspectives to interpret and address the problem of seeing God in the world. I examine these issues in order to gain more credibility for the religious longing to discern God in nature while at the same time affirming the indubitable truth of an evolutionary history. I argue that God's trinitarian nature, hiddenness, and incarnation give us reason to believe that God's presence in the natural world will be discernible, but only within the natural processes, and thereby only in an obscured fashion. I also argue that newer understandings of evolutionary mechanisms are more consistent with theological appropriation than are strictly Darwinian ones.

*Keywords:* Simon Conway Morris; creation; Charles Darwin; Richard Dawkins; Christian de Duve; *Deus absconditus*; *sensus divinitatis*; Denis Edwards; *evo devo*; evolution; God; Stephen J. Gould; John F. Haught; incarnation; intelligent design; Stuart Kauffman; kenosis; Jürgen Moltmann; natural selection; nature; non-Darwinian evolutionary models; *telos*; trinity

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*"True genesis occurs not at the beginning but at the end."*

— Ernst Bloch, *The Principle of Hope*

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Recent controversies surrounding the discernment of design in the natural world are easily and properly dismissed as not being science. They remain, however, an indication of a pervasive disquiet among believers. There is a perceived dilemma: Can we affirm both that God is the creator and sustainer of all there is and that God's work is completely indiscernible behind the secondary evolutionary causes that have brought that world to its present state? Christians and other believers in a creator God need to affirm that the order and delight and surprise experienced in the natural world are signs, albeit obscured ones, of the existence and ongoing love and concern of God. Theistic evolutionary models, however, rarely examine the matter of discernment. God is understood to be working in the world, but there is wariness regarding any claim of being able to discern this action and presence. Secondary causes alone are thought to be examinable. Only antievolutionary perspectives address the problem of seeing the imprint of God in the world. Thus there is a need to reexamine the debate to grant more credibility and respect to the religious longing to discern God in nature while at the same time affirming the indubitable truth of an evolutionary history.

After Charles Darwin, nature became an ambivalent source of intimacy with and knowledge of God. Although science (biology, geology, and astronomy) before Darwin was sometimes challenging for Christian faith, Darwin forced a paradigm shift. All of a sudden time took on a new and vastly lengthened perspective, the origin of humanity was no longer special, and traditional notions of the Fall, and therefore of theodicy, made little sense in an evolutionary perspective. However, Darwin's overturning of William Paley's design argument was the greatest challenge to any theology that took interaction with nature seriously. For the last one hundred fifty years Darwinian evolutionary theory has forced a questioning or reformulation of the Christian understanding of God in the world. Although much recent theology, like that of Jürgen Moltmann (1993), John Haught (2003), and Denis Edwards (2004), speaks eloquently of God's immanence in nature, these theologians have little confidence that this presence can be discerned, at least in terms of observing purpose (*telos*) in nature.

Science, however, reveals new depths to the truth that the cosmos is very large—unimaginably so. If God is not discernibly present in nature, God is very far away. God cannot be imagined as just beyond the horizon, the skies, or heaven. If God is outside all matter, God may appear to be beyond human reach. For this and many other reasons the question of God's discernibility in the natural world needs to be reexamined.

I argue here that God's trinitarian nature, God's hiddenness, and God's incarnation give us reason to believe that we should be able to discern divine presence in the natural world, but only within the natural processes and thereby only in a somewhat obscured fashion. I also argue that newer understandings of evolutionary mechanisms and the promise of as-yet-

unknown mechanisms may resonate better with theological concerns than do strictly Darwinian notions of natural selection.

#### THE SCIENTIFIC INGREDIENTS

What are the scientific ingredients of the interface between theology and evolutionary biology? Two parts of the evolutionary story are often run together. The first is the evolutionary process, or natural history, including “deep time” and common descent. This has become the bedrock of the scientific approach and the occasion for a reformulation of doctrine. Theology has in many ways reimagined itself and the story of life within this landscape. The radical embedding that evolution accords is highly compatible with the connection and interconnection of all life that is implied in the Bible. The “abiding in” phraseology of the Gospel of John, for instance, fits well with an evolutionary paradigm for all of life.

The second part of the evolutionary story is the process of neo-Darwinism: natural selection. This has occasioned much more controversy because it has been understood as so easily compatible with atheism or deism, and because if taken seriously God is unknowable and indiscernible in the natural world, hidden behind the veil of randomness that is said to occur both at the quantum level in physics and the genetic level in biology. Even within the philosophy of evolution there is controversy. There are two quite different biological interpretations—that of Simon Conway Morris, Christian de Duve, and Richard Dawkins, among others, who see the evolutionary process as lawlike and essentially inevitable in its end result in life and consciousness, and that of Stephen Jay Gould, who imagines it as essentially contingent (Peterson 2000). There also is a parting of the ways between those who are strict Darwinians, like Dawkins (1986), who argues that in evolutionary biology natural selection is still the primary mechanism driving the evolutionary process, and biologists including Conway Morris, Stuart Kauffman, and Sean Carroll, who think that other or as-yet-unknown mechanisms predominate. Both Gregory Peterson (2000) and Terence Nichols (2002) have begun the conversation between theology and some of these newer biologies.

Besides common descent and natural selection, two other aspects of the evolutionary process are of interest to theology. The first is the reality of death and competition within the natural world. Human beings emerged as the end result of the death of other animals. If neo-Darwinism is true, the process also involves competition to the death and dead ends in nature. These and other aspects of the problem of evil are troubling for all affirmations of God’s presence in nature.

More recent and more controversial has been the observation of design in nature at various levels. Philosophers including Richard Swinburne (1997) have pointed to this as relevant at the level of its ubiquity and density. Advocates of intelligent design have attempted to make more of a

case for the hand of God acting directly at the level of the cell or the biochemistry of life. This debate, however, although increasingly ideological and incoherent, has only further revealed the need to embed all discussion of design within a larger “theology of creation” framework.

#### THE THEOLOGICAL CHALLENGE

The theological challenge is therefore how to relate to these various ingredients but also how to affirm any role at all for God in a process that has been seen over many decades as consistent with atheism or agnosticism. However, Christian theologians and believers do not agree on how to imagine God and nature relating. Different stories, different narratives abound.

Some form of deism has emerged as readily compatible with all aspects of the scientific picture. Early scientists in the centuries preceding Darwin enthusiastically proffered a deistic picture. Many of them enthused over a machine-making God (Brooke 1991, 118). Within this model, however, the creation of life and of human beings was often exempt from the deistic picture. After Darwin, it was possible to incorporate the whole universe—human, biological, and nonliving—within a mechanical model. As centuries passed the enthusiasm for the deistic God was tempered by a realization among many that the sense of God’s presence in the creation had been lost, along with the notion of God’s teleological and immanent care. Prayer and providence were less real. The deistic position is consistent and explains evil—God has left the natural world to itself—but does not do justice to the grammar of providence in scripture and experience.

Others believe that if God is the author of creation God must be everywhere. Forms of Process theology assert a God who lures the creation gently toward peace and synthesis. The Process model also solves the theodicy problem, because God is not all-powerful, and may give some clues as to the existence of order, but it has always suffered from its relatively impotent God. This solution renders God more creation-bound than almost any reading of the Bible would allow. Haught (2005) and Moltmann (1981), arguing for positions close to Process but more trinitarian in their emphases, introduce the notion of *kenosis* as a partial answer to theodicy: God’s temporary and temporal absence accounts for evil.

Other theologians invoke a constructionist approach. They respond directly to the challenge of natural selection, arguing that although we do not see God’s care *in* nature, we can know it by revelation to be there *for* nature (Peters and Hewlett 2003, 167). Moltmann and Ted Peters argue for eschatological reconstruction of the evolutionary and natural terrain. The constructionists, who argue that nature has a *telos* even if unseen, are true to scripture but render out of bounds any discussion of discernment of progress or *telos* within nature. They do not satisfy the deep human need to discern God in nature and not only in scripture and personal experience.

After Darwin, all historical Fall discourse has to be renegotiated, at least in the strong metaphysical sense. With the loss of a historical Fall, at least as previously understood, all explanations for evil and tragedy become less adequate. Faced with the unsatisfactory nature of all of this, many have turned to the “hands-on” God of some intelligent-design accounts, but there is no solution for theodicy, either, for this God who directly fashions the bacterial flagellum could also easily prevent evil yet does not.

I argue in this essay for a model that draws upon and modifies these latter conceptions—a God transforming nature, modeled on the incarnation. God is hidden and revealed, present at the heart of nature but always transcendent, working through natural mechanisms even as Christ was the revelation of God in humanity. In the second part I show that newer models of evolutionary process are more compatible with this model than those that rest on natural selection alone.

#### WHAT IS AT STAKE?

Much stands on this conversation at a number of levels.

First, there is the theodicy problem. Christian theology has balanced evil with an affirmation of God’s providential care. But the care evident in the beauty and order of the world, as well as in answered prayer and religious experience, meant that in faith the evils of the world could be understood as held in God’s teleological compassion (Romans 8:28). After Darwin, even the apprehension of order and beauty were no longer evidence of God’s direct providence. Nature had been one of the loci to which faith would turn when confronted with evil. Although pre-Darwinians were aware that animals fed on other animals, it was always possible, until the mid-nineteenth century, to blame this on the Fall and hence on humanity. After Darwin nature itself was a cause for concern—in the extent of nature feeding on nature, in the long line of extinctions of life, some of them seemingly random, and in the randomness of natural selection. The catch-all Fall of humanity was no longer plausible as an explanation of all evil.

Haught is one theologian who speaks freely of this dilemma: “The main issue, now as always, is that of how to reconcile evolution with the idea of divine providence. After Darwin, what does it mean to say that God ‘provides’ or cares for the world? . . . What most perplexes theology is the Darwinian recipe for the evolution of life over the last 4 billion years” (2005, 5–6). He notes in particular the “brute impersonality and blindness” of the process (p. 6) together with the “wide trail of loss and pain” in the evolutionary record (p. 7).

Second, at stake is confidence in our ability to sense God in nature—in our *sensus divinitatis*, as John Calvin put it. This can neither be argued for nor negated empirically. Calvin argued directly for a *sensus divinitatis* when

he said, “There is within the human mind, and indeed by natural instinct, an awareness of divinity” ([1559] 1960, 1.3.1). However, this is not the full story, for although *sensus divinitatis* can be considered a part of our human makeup, it may, like other human capacities, be undermined or encouraged by the appropriate social discourse and is initiated or not in large part by discernment of God’s beauty and power in nature. If God is present with us in nature, a great deal of evil can be endured. If God is not discernible in nature, all other affirmations of God’s existence are easily relativized.

Third, at stake is the important functioning of humans with coherent stories within societies and cultures. Theology, although older, is certainly the more vulnerable discourse and is always at least partially mythical in the sense of referring to entities that are beyond and behind discernible empirical observations—death, eternal life, the meaning of life, resurrection, and the otherness of God. The stakes in faith commitments are huge and life-embracing. Scientific discourse appears at least to be more robust, more related to everyday observations or extensions of these. With recent advances in astronomy some would argue that science has also entered into the mythical realm, with quarks, strings, and the Big Bang not being readily observable. These latter entities, however, are at least indirectly testable and hence open to verification and falsification. Yet both discourses speak of origins and have stories of origins and survival. Human societies live uneasily if stories of origins are fragmented and unrelated.

#### GOD TRANSFORMING NATURE

Discussing three important aspects may help to promote our understanding of God as present yet hidden in nature. The first is God reflected in the world—the trinitarian interrelating being of God. The second is God’s partly hidden and partly revealed quality. Scripture never speaks of a God who is there to be seen like any other object or person, but neither is divinity entirely obscured. We should expect to see God’s imprint in the natural world but not to see God fully or wholly. A third and related feature that follows from Christology is the way in which God’s action in the world is known incarnationally as the supernatural within the natural. Although scripture tells of a God who has acted in some way and is discernible at some level by signs, these signs are deeply embedded in the natural. There is no use looking for the interface of the divine and the natural—these edges are clothed in myth. We look not for edges but for embodiment of a certain kind, the evidence of God within the natural.

I examine these three aspects of God’s connection to nature—trinity, hiddenness, and incarnation—in light of our question regarding the discernibility of God in the natural world.

*Trinity.* In the context of science and religion, Edwards (1999) and Moltmann (1981), among many others, have affirmed that the trinitarian nature of the Christian God is relevant to the dialogue with evolution. God's inexhaustible otherness is immanent in the Spirit who carries the promise of hope, and nature itself is held together in the logos, or Christ (Colossians 1:15–17). As perichoresis (interrelatedness) epitomizes the life of the Godhead, so also does unlimited interrelatedness characterize the life of God and creation. Moltmann understands the purpose of creation as community, and intimacy with the Creator at increasing levels of complexity (1981, 19).

What is uniquely Christian in this understanding is that it allows a theological model of God's being in and standing outside of creation without collapsing one into the other. God can be "Other" and simultaneously participate in the creation in a way analogous to the distinction and coinherence of the Persons in the Trinity. Biblical support for this position is found in Colossians 1:17, where it is said of Christ that "in him all things hold together" (TNIV), and in John's prologue, which declares that "he was in the world, and though the world was made through him, the world did not recognize him" (1:10 TNIV). These passages point to an embeddedness of the divine person within the universe, in the process not exhausting the Godhead or enclosing God's being within matter.

Trinitarian theology is ultimately centered in mystery, but not a mystery that has no definition.<sup>1</sup> Thus, if the presence of God in the evolutionary process can be made analogous to the Trinity, although trinitarian theology is basically mysterious it is not incoherent, and the problems are not altogether novel. Trinitarian models do preclude, though, any attempt to understand God's action from a unitary perspective, whether it be as lure or clockwork designer or intelligent designer.

Both Moltmann (2001) and Haught (2005) see God's presence in the world as kenotic, both in creation as God gives up divinity to make space for creation and finitude, and in the incarnation and cross. In this kenosis God remains Other and is able to love the creation. Kenosis is understood as one of the explanations of evil, because although God is present it is not in a full or fully empowered manner. Yet even in kenosis there is a subversive power by which evil is overcome in the suffering presence of God on the cross. If incarnation is the model for kenosis, kenosis does not preclude God's presence; this presence, though, is a not yet fully empowered presence. The universe is moving toward a time when the glory of God will fill the earth. That time is not yet.

This relates to the trinitarian perspective in that the suffering God may be present in the cross and in creation, wholly present within the perichoresis that includes Father, Spirit, and Christ but not exhausted by that presence. Kenosis works as a theological explanation and solution only because the fullness of God is able to work through suffering to new life.



Again, this is clouded in mystery. God can be understood as present in suffering, in the cross, and in the self-limitation of creation without invalidating God or making suffering an end in itself. In other words, joy and the eschatological reality epitomized by the peaceable kingdom in which “the wolf and the lamb will feed together, and the lion will eat straw like the ox” (Isaiah 65:25 TNIV), and there is a feasting and inclusion at the “wedding supper of the lamb” (Revelation 19:9 TNIV), can still be the eschatological future to which all of creation is being drawn.

Trinity also helps us to affirm that God is present in the creation, in particular in the long evolutionary process, but not in a manner that cancels out our freedom. Again, analogies are pertinent. The perichoresis of the trinitarian Persons allows for radical interpenetration and coinherence without any level of diminution of freedom. Karen Kilby (2003), for instance, contends that “lying behind this almost universal feature of contemporary theodicies is the assumption that divine and created agency are and must be in a kind of competitive relationship,” but for God the opposite may well be the case: “although my mother may need to keep her distance in order to allow me as an adult to develop fully into myself, God rather needs to keep as close as possible to allow this same development.”

When God is seen as too close to nature while nevertheless remaining transcendent, the problem of theodicy and of the world’s eventual death in most versions of physics and biology arises. Although Christian theology affirms immanence and trinity, the churches have not yet fully appropriated the implications of the fullness of the Spirit’s presence in creation and in other life, even where they do affirm this within the Christian. If God is understood to be present in creation in a transforming fashion, the imperfections and tragedies of matter have to be explained. Kenosis may not be sufficient explanation. This is beyond the scope of the present essay. However, responses to this dilemma include the scriptural perspective that all of creation is being saved, that no suffering is without redemption. Suffering is perhaps evidence that God’s purposes are as yet unfinished, the goal or end of nature is as yet unclear and unfulfilled, and the end, which will be wholeness in community and relatedness, is as yet unaccomplished. Traditional explanations of evil include a reference to the Fall and the enigmatic narratives of Genesis 3. Even within an evolutionary perspective it is possible to rediscover a theology of Fall, especially of a Fall that precedes human existence, as the serpent in the garden indeed suggests. Radical orthodox references to creation’s being both thoroughly perfect and thoroughly corrupted would also be pertinent in this context (Milbank 2004, 17).

In the science-and-theology dialogue, then, trinity allows us to affirm the ontological density of divine presence while also affirming kenosis and God’s otherness and transcendence. That we do not know how these work together or how to reconcile them with what we discern of the natural



world is perplexing. Trinity and enspiritedness, though, even the presence in creation of the Christ, make possible the supposition that matter is tinged with divinity and that we should expect that the dense levels of structure and emerging layers of organization know no end.

Christian theology has long argued otherwise—that God acts only through mechanical secondary causes, that God’s transcendence and aseity mean that God is totally Other or that we are too fallen and corrupt to see God except through the gift of Word. If God encompasses all of creation, however, nature is not only more imbued with the divine; it also is less accessible to us than we might expect. In particular, we cannot chart the future from the present, and the future is full of surprise.

Interestingly, such inexplicability is consistent with new accounts of biology, like that of Stuart Kauffman, to be discussed later, and parallels a similar idea in mathematics with Kurt Gödel’s theory of the incompleteness of arithmetic. A trinitarian immanence also is consistent with our knowing of the universe, which tends to be simultaneously detailed and always on the edge of something seemingly beyond us. A trinitarian perspective may not illuminate our chemistry or biology, but it will allow a way of seeing together with the science, which allows our knowledge of the world to point to a Creator.<sup>2</sup>

Theology should lead us to think that even the vastness of what we have so far glimpsed is only a thin slice of unfinished reality rather than a broad outline or overview of all that there is. This sense of possible unlimited surprise is certainly affirmed in the continuing output of scientific research. The temptation of science, however, is to think that we are within sight of the end. Paleontologist Conway Morris speaks to this hubris when he argues that there is “no limit to the complexities of the world we inhabit.” He hopes that this understanding might “refresh our wonder at Creation” (2005, 24). Karl Barth suggests something similar when he says, “it is to be noted that the revolutionary discoveries of recent decades show that nature even as at present constituted may hide unsuspected mysteries and possibilities of further development” (1960, 84).

In this sense trinity pushes us decisively away from deism and toward being able to see God at work in the natural world, so long as we admit that this “seeing” is provisional and partial but that this presence nevertheless looks to a future full enspiritedness when the “earth will be filled with the knowledge of the glory of the LORD, as the waters cover the sea” (Habakkuk 2:14 TNIV). Another caveat on any “seeing” of God in the natural world is the idea that creation is not mechanical and God not a director of a machine. The creation has in a sense bestowed upon it a level of autonomy and ontological otherness, which nevertheless is compatible with God’s immanence in an extended perichoretic way.

*The Hidden God.* Trinity allows us to think of the natural world as God-breathed, yet with many of its dimensions hidden to us. The biblical

and theological traditions speak of a God who is partly revealed and partly hidden. In the Old Testament prophecy of Christ, for instance, while Christians can see the whole of the law and the prophets as pointing to Christ, the revelation of the messiah was so obscured that the actual coming into history of the redeemer was surprising and scandalous to almost everyone. Although Jesus gives signs and miracles of his divine/human status, these are given, we are told, to a largely uncomprehending audience. Søren Kierkegaard (1967, 68ff.) reminds us that the problem of seeing God in our midst is not greater for us now than it was for the contemporaries of Jesus, because the revelation of Christ for them, although immediate, was veiled and required interpretation even then. Not that his revelation was completely obscured. Jesus was not a man indiscernible in any way from any other man. Interesting also is that the New Testament mixes the mythical—prologue to John—with the ordinary and the historical. The coming of divinity among us, although observed and described as Jesus the human, nevertheless required this breadth of language to communicate the mystery of the incarnation.

This is the motif of the hidden nature of God's action in the world. "Truly you are a God who is hiding," says the prophet Isaiah (45:15 TNIV). "Where were you when I laid the foundations of the deep?" asks God in Job (38:4). "But God chose the foolish things of the world to shame the wise. God chose the weak things of the world to shame the strong" (1 Corinthians 1:27). Christ, believed to be the Son of God, came as a man, God hidden among us. "The world did not recognize him" (John 1:10). What we attempt to nail down in biological or theological terms is ultimately not objectifiable and can always be known only obscurely and peripherally—*Deus absconditus* (hidden God).

This is the God of Martin Luther who can be known only dialectically, beneath the indignity of the cross and shame. B. A. Gerrish (1982, 133–39) discusses the two senses of hiddenness attributed to Luther, that within the revelation and that beyond or behind revelation. God hidden within the natural world is related to but not identical to hiddenness in the first sense, which Luther took especially to relate to the paradoxical hiddenness of God under and within foolishness and behind the cross. Luther was not thinking so much in terms of God's hiddenness in nature. Nevertheless, as the theology of the cross has been extended to creation in the motif of kenosis, the sense of hiddenness applies also to nature as revelation. Gerrish says of Luther that he was aware of "an awesome, creative power quite other than the God he encountered in Jesus Christ"; this God was both transcendent and present in each kernel of grain (Gerrish 1982, 139). The way in which God could be present in a paradoxical sense allows a depth to the revelation of God. God's presence is not always straightforward. It may be seen only through the eyes of faith, not constructing what is not there but able to morally discern the true nature of things.

Hiddenness is paramount also in the revealing and unrevealing God of Barth: “We thus understand the hiddenness of God as the confession of the truth and effectiveness of the sentence of judgment which in the revelation of God in Jesus Christ is pronounced upon man and therefore also upon his viewing and conceiving, dispossessing him of his own possibility of realizing the knowledge of the God who encounters him” (1957, 191). God can be known only in God’s terms and not in a human frame of reference. God’s spirit may be with us, and within the natural world, but God is never objectifiable in the way that nature appears to be. “The heavens declare the glory of God” (Psalm 19:1 TNIV), *and* they obscure God’s real character. Like a beautiful tune played by indifferent musicians, it is sometimes possible to hear the perfections, but at other times the discordances predominate, and the music and its beauty is not heard at all.

Friedrich Schleiermacher argues that God’s activity is present, though hidden, “a power which expresses itself at particular points according to laws which, if hidden from us, are nevertheless of divine arrangement” (1976, §13). Haught attempts to explain why the universe is so subtle, why God is so hidden within it, by appealing to the unfinished nature of the present totality of things. “The unavailability or hiddenness of God,” he says, “is in some sense, I think, a function of the fact that the universe we live in is still coming into being” (2003, 159–60).

Taking seriously the partly hidden nature of God, then, would mediate between deism and an intelligent-design position. It would affirm more possibility of seeing God in nature than do Haught, Moltmann, and Peters but less than the advocates of intelligent design. Order and design are also not just revelations of an engineering mind at work or indications of a gap in knowledge. The order is a reflection at an intuitive level of patterns, symmetries, and beauty that are suggestive of mind, perhaps even of love. Certainly Jonathan Edwards, the great American divine of the eighteenth century, understood the symmetries of the natural world to be a lower form of love, one part reflecting another in harmony and agreement (1989, 564). It may be at this level that the intuitive connection to nature takes place and is most important in validating the *sensus divinitatis*. The perhaps always necessarily intuitive connection is also by its nature both hidden and revealed, able to be affirmed but also to be denied.

The hints and suggestions of God’s intelligence in nature would be within the continuum, not necessarily the result of sudden breaks in or into the natural world in a process that otherwise continues. To see God partly hidden in nature is to have disclosed by faith a part of the character of this nature that might otherwise be obscured, not to see in it breaks in a materialistic process.

*The Supernatural within the Natural.* Discussion of the hidden nature of God leads directly to an investigation of God’s action in the world as the supernatural working within the natural. The theological response

to Darwinism from the beginning has always been: Where is there room for ongoing action by which our religious intuitions affirm God? Believers want there to be a place where they can look at the created world and say, That action bears the trace of God. There is a strong religious need to be able to imagine that the world we live in is discernibly different from a randomly evolved world, if such a place could exist. Religious intuitions also affirm that God does more than rest; God's actions may not be predictable, but they are real and sustained. This response is not just a desperate need for an apology against atheism. Scripture speaks explicitly and implicitly of the trinitarian God who acts—in response to prayer, in care for the weak, in healing, in rescuing, in protection, in providence. Not that God's actions are reserved for so-called intervention. God acts in the laws and to uphold the laws and the integrity of the universe moment by moment. God's spirit groans in creation. If this is an essential character of God, how can God's creative activity be so thoroughly hidden?

If there is a guiding hand of God, it must go very deep, to the inner complexities of the cell, and this hand must be present at every level of organization (as Process theology describes), an activity difficult to understand in terms of our current knowledge of thermodynamics and quantum mechanics. It is hard to imagine where the natural processes would end and where God's would start. If God is intimately designing natural processes, how can there be any measure of freedom? How does God guide in a noncoercive manner? Is there theological wisdom that might meet the biological speculation in this area?

One response lies in Schleiermacher's analogy with Christology and his argument that there is finally no clear distinction between the natural and the supernatural, the rational and the suprarational—that God is encountered in the man Jesus Christ and in analogous other natural ways. In the end Jesus Christ, as the Son of God incarnate, “extends an influence and a redeeming activity” that is unlike that of any other human being, and this is a new work of God in him, but he does it within the confines of human nature, which means, he argues, that “there must reside in human nature the possibility of taking up the divine into itself, just as did happen in Christ” (Schleiermacher 1976, §13). There is a crossing of the boundary; there is a divine action, but at any point the consequence is observed, it is observed within the natural continuum. Similarly with creation, Schleiermacher argues:

Now with our increased knowledge of the world, we may indeed conceive the heavenly bodies and all the life developing upon them as particular things which have not all necessarily come into existence simultaneously; yet their successive origination must obviously be also conceived as the active continuance of formative forces which must be resident in finite existence. And thus however far our consciousness extends we find nothing the origin of which cannot be brought under the concept of Preservation . . . so the doctrine of Creation is completely absorbed in the doctrine of Preservation. (1976, §38)

Although *preservation* is a theological term referring to the conservation of what is already there, and *creation* another term referring to the generation of something new, Schleiermacher is here positing that they may be two sides of a single work of God within the universe. The hidden work of God may be manifest at times as new creation from our perspective and at other times as preservation. This position, emphasizing the continuity of God's ongoing work in the world, fits well with more recent attempts to understand divine action in the world (Wildman 2004, 38).

All of this gives us good reason to understand the signs of God within a theology that values continuity over discontinuity, that perceives the constant hand of God in the natural, and that views all theological dilemmas through analogy with Christology. The work of God in Christ was done in a human being who was one of us, was not observably or "scientifically" different from other humans. Christ obeyed the Father in perfection but was also humanly free. He was not merely programmed to act out the Son-of-God role but acted freely in dynamic relationship with the Father and in the Spirit. The supernatural was very much embedded in and indiscernible from the natural.

The perfection, or surpassing of human powers, was evident in Jesus' miracles and teaching. He forgave sin, healed the sick, calmed the seas, resisted and rebuked the devil, and hinted at a growing self-knowledge of his uniqueness. Others have had these powers, too, in some measure. Jesus' divinity was veiled during his lifetime but acknowledged after his death and resurrection, when those interpreting his life then had no way of understanding the full narrative without connecting his identity to messiahship, Son of God, and even divinity. Without the Easter appearances, Pentecost, and the promises of continuing presence in the Spirit and an eschatological return there would be no Christian faith. Even now the post-resurrection parts of the story are easily dismissed, as is any intuition of life in the Spirit now.

A similar case may be made for recognizing the Spirit within the creation. There is no fixed or final understanding of any aspect of creation; things are not as we expect them to be; there is always a new and hidden depth or underpinning of things to be discovered. Intuitively we discern patterns and structures that confirm the presence of a beauty that precedes us and surpasses human construction, a beauty that is rational and even mathematical in form. The world resists ultimate explanation and reduction, though knowledge increases exponentially. A sense of purpose pervades the universe, but explicit definition of purpose evades us. Although we are the product of a long process of evolution there is a sense that there will always be mystery that evades the power of human comprehension, even in the areas of mathematics, as manifest in Gödel's theory, and biology (Kauffman 2000).

Not everyone describes the universe this way (as almost infinitely ordered). There is more consensus about the overall fitness of the universe for life than there is at the level of design in biology. Moreover, this theological understanding is not easily consistent with a strict Darwinism in which loss of the weak members of a species and competition for survival are the main evolutionary propellants. In Darwinism too much of the means toward the ends is contrary to an ethic of love, and the means are inconsistent also with the peaceable-kingdom vision of Isaiah 65. Newer understandings of evolution, however, hold more promise, as discussed below.

Thus the story of Christ, while it can be understood as a whole and in its parts as revealing divinity, can also be misunderstood; the signs can be denied. In John 20 much is made of Thomas's belief because he saw the risen Christ and believed. Future generations who believe even though they do not see are lauded. Believing in Jesus as the savior and messiah, then, has a moral aspect that cannot ultimately be reduced to logic. Analogously, while the natural world in its totality and also in its parts is consistent with the presence and creating activity of God, it can appear to the unbelieving eye to be the result of blind mechanical forces, or it can be understood as the result of processes that are enormously complex and organizing but without reference to any transcendent power.

The important distinction is that the religious significance of Jesus comes out of the story of the real Jesus, not just by some form of revelation from above. Although theologians may wish that Jesus had given lectures specifically on Christology and Trinity before he ascended, ultimately the story itself reveals more strongly the divinity of Christ and thus the Trinity. Similarly, the signs of divinity are to be found in a natural world that has long been thought to obscure any divinity. If Schleiermacher is right, however, these signs are in themselves sufficient. The supernatural/natural interface does not need to be known exhaustively; rather the existence "of formative forces which must be resident in finite existence" encourages the search not for boundaries and gaps in explanation but for a new discernment to what we already know.

Theology in dialogue with evolutionary biology, then, should be neither more nor less difficult than Christology. Too "high" a Christology gives us a docetic Christ in which Jesus' human birth and embodiment are overlooked. Too "low" a Christology denies that there is a supernatural within the natural phenomenon at all and attempts to reduce all signs to more credible explanations. As we were meant to take seriously the "signs" that pointed to the divinity of Christ, and also the story that marked him as the Son of God, so by analogy the "signs" of ubiquitous design can be read as marks of the supernatural within the natural, of the "parables and hints, anticipations and preparations for the coming of the messianic new creation," as Moltmann puts it (1994, 106).

## IMPLICIT THEOLOGY OF NATURE

The picture of God and of nature that is implicit in the biblical and theological tradition is neither that of a God who can be read off of nature nor of a God who is completely obscured behind it. God is revealed—"the heavens declare the glory of God"—but also obscured; the signs are never unveiled. Furthermore, nature itself is the locus of God's action. Christ became human, a part of the stuff of the universe, and performed signs and miracles within and out of his human nature. Scripture pays little attention to the miracle of the supernatural becoming natural and much to the incarnational revelation of God in Christ. Thus we might expect that God is working through the natural world in a way that involves a constancy of action even while it does not require identity. We might see analogies in the way in which the parts of the whole contribute to the whole without causation and the way in which gravity is "caused" by the geometric parameters of the universe. Nichols has referred to something

I have argued that we discern the presence of God *in* nature by faith, but not fully, comprehensively, or unambiguously. But what of biology? Does this make sense at all in light of the biological and paleontological disciplines? Although long preceding Darwin in their incipient forms, deistic understandings of God, design options, and Process theology all have flourished partly in response to the repercussions of natural selection. In deism God is understood to have set the process in motion. Natural selection is the ultimate deistic tool. Natural selection does not have to be consistent with any divine character because God is not directly involved and has presided over a more or less mechanical lawlike process. Intelligent-design theory opposes the implicit randomness and blindness in natural selection and has grown partly in response to the metaphysical conclusions of Dawkins and others and partly in response to unintegrated experience. Process theology is gently consistent with the idea that God may be a weak indiscernible lure along with pure chance at the quantum or genetic level. Thus theology has attempted to accommodate or refute natural selection, but in doing so scriptural integrity or faithfulness may be compromised.

What, though, if natural selection were less important to the evolutionary paradigm than has hitherto been the case? Some suggest that evolutionary theory is changing—and this within a field that already contains quite disparate philosophical approaches (the determinism of Dawkins versus the contingency of Gould, for example). Should we be attempting to reconcile faith with these mechanisms when some biologists are questioning the mechanisms of the process? Perhaps evolution understood in a less Darwinian way may help to reconnect us to nature and hence to a sense of wonder—to rekindle our *sensus divinitatis*. New theories of evolution and analogical forms of design arguments may hold the clues to recovery or at least to tentative proposals that allow more theological



consistency. If natural selection remains problematic, then, it may be important for theology to interact not just with a strict Darwinism but also with some of the challenges to this position in recent years.

These have been both philosophical and scientific. Philosophically, Swinburne has pointed to the ubiquity of order and design. This ubiquity, rather than any particular form of complexity, points to intelligence and purpose (1997, 48f.). Some of the interest in design comes from the edges of Christian faith. Philosopher Anthony Flew, for example, and Steve Fuller, a sociologist looking at social epistemology, have expressed guarded interest in design (Fuller 2006, 11). Michael Polanyi (1958, 383) is among the first of many to state that life is a force that cannot be reduced to physics and chemistry and requires an explanation that is outside the medium in which it is carried. These questions surrounding a strict Darwinism suggest that it is only our thinking that detracts from the movement from nature to awe of God as we encounter these dense levels of order and complexity in the universe.

Biological science itself has reached a point where evolutionary theory is undergoing paradigmatic change. Although the process of succession and common descent is not challenged, no longer is anything settled with regard to process, and new genomic discoveries often have been surprising. Indeed, there are forms of non-Darwinian explanation that may in time eclipse the Darwinian processes. To biologists these may be seen as merely modifications and tweakings of the theory, especially in a context where challenges to evolution are exaggerated in an ongoing ideological battle. What is a minor paradigmatic change to biology may, however, have profound theological consequences.

A few biologists also have begun to challenge the nonteleological framework of biology. Conway Morris, for one, believes that

The heart of the problem . . . is to explain how it might be that we, a product of evolution, possess an overwhelming sense of purpose and moral identity yet arose by processes that were seemingly without meaning. If, however, we can begin to demonstrate that organic evolution contains deeper structures and potentialities, if not inevitabilities, then perhaps we can begin to move away from the dreary materialism of much current thinking with its agenda of a world now open to limitless manipulation. (2003, 2)

He goes on to say that while evolution is “manifestly true,” and this affirmation is important, he does not rule out the acceptance of as-yet-unknown mechanisms that may be more suggestive of teleology than natural selection is (2003, 5, chap. 11). If natural selection does end up being less important than previously thought, it may be seen within biology as a change of emphasis only; for theology, however, the consequences are huge.

Conway Morris uses parallel evolution, or convergence, to argue that as-yet-unknown mechanisms guide evolution toward specific goals, such as sentience. He and others argue for a much greater interplay between the

environment and genetic change. He continues, "Evolution may simply be a fact . . . yet it is in need of continuous interpretation. The study of evolution surely retains its fascination, not because it offers a universal explanation, even though this may appeal to fundamentalists (of all persuasions), but because evolution is both riven with ambiguities and, paradoxically, is also rich in implications" (2003, 2).

Interestingly, Conway Morris could be speaking of Genesis. Both Genesis and evolutionary theory reveal their depth in their capacity for almost limitless deeper knowledge and new interpretations.

Other voices include Israeli scientists who have postulated that

Although far from being generally accepted, a picture of problem-solving bacteria capable of adapting their genome to problems posed by the environment is emerging. This is a picture radically different from the contemporary picture of lifeless, passive DNA used as a memory storage for protein production. . . . My basic assumption is that the observed creativity in nature is not an illusion but part of an objective reality, and as such should be included in our scientific description of reality. (Eshel 1998, 58, 63)

There is increasing evidence for some form of evolution that is more dynamically related to the environment and might be more transparent to the possibility of a Creator.

Other scientists are beginning to write in this now-fertile area. Christian de Duve adds his voice to those who see the universe as primed for life, and for this reason he expects that the development of life is inevitable on countless other planets. The basic dust of life, he thinks, may have been seeded from other cosmic sources (de Duve 1995). Although de Duve is not arguing that this is consistent with a theological stance, any position that understands that life is not a hugely contingent series of events is more consistent with a theistic approach and with one that allows a measure of discernment of the presence of the Creator within the creation.

Biochemist Michael Denton argues similarly toward a theological/teleological position. The universe is primed for life and consciousness. Although he claims that this position is in effect a natural theology, he too is emphasizing the continuity of God's action when he says, "Put simply, the more convincing is the evidence for believing that the world is prefabricated to the end of life, that the design is built into the laws of nature, the less credible becomes the special creationist worldview" (1998, xviii).

Also on the rise are "evo devo" evolutionary perspectives. Biologists have long debated how much loss and how much gain of information has occurred in the evolutionary process. Evo-devo theories examine closely the wisdom that developmental biology can glean for evolutionary theory, leading to the surprising result that most animals have common genetic material that is simply expressed differently in the wide variety of types and species in the world (Carroll 2005).

What do these conversations surrounding order and evolution mean? We are left with the suggestion of a changed understanding of evolution, but an evolution that is not much like the “blind force” of which Darwin spoke; it is more similar to the force “almost analogous to the hand of man” in animal and plant husbandry, “a power which expresses itself at particular points according to laws which, if hidden from us, are nevertheless of divine arrangement” (Schleiermacher 1976, §13). These new hints and suggestions together build a picture of a nature for which it may again be possible to find hints of teleology, rather than a particular destiny or purpose, much as one may recognize a melody in music without knowing the key or the ending. Nature can be said to give us enough evidence of being a work of intelligence that faith is justified, or at least rational. In most of these proposals no alternative narrative is proposed; rather, the evolutionary process is allowed to include guiding mechanisms previously hidden, together with the possibility that the “end was present in the beginning” (Bloch 1986, 1375) in some manner—that the universe was seeded with the information it required to bring conscious life to fruition.

This is not to imply that the creator God might somehow be discovered within nature’s processes, but mechanisms now being suspected that do not rule out teleology would be more consistent with the biblical God. Whatever the process, the means of evolution, together with any philosophical or theological accounts of evil, must account not just for the signs of design but also for the mistakes of evolution, for the numerous apparent dead ends and failures. If one sees the natural world as reflecting the nature of God, it is in many ways as ambivalent as the moral universe. Only at the tacit level do we seem to see the wholes, the symmetry, the intense vitality that speaks of divinity, and also of an eschatological perfection behind or beyond the present.

#### CONCLUSION

If we interact with and adopt some aspects of the new biology we find that older teleological aspects of creation are more evident, and we can regain some confidence that the work of God in forming creation is not utterly obscured. This overcomes some of the distance natural selection has placed between us and nature as God’s creation. The *sensus divinitatis* can to an extent be regained. Moreover, what we see in biological and design arguments is mirrored in long-held theological reflections: God’s work is evident, but God will be seen never directly but always peripherally. God is a revealing and concealing God, although there is a perfection hidden in the universe that seems to point to its eschatological resolution. In the end, faith is being “certain of what we do not see” (Hebrews 1:11 TNIV). The supernatural will be observed for us in the natural—and in the story told of the supernatural in the natural. Whatever the problems of discerning

God in nature—against a backdrop of disorder and apparent pointlessness—they are no more or less difficult than the church’s task in discerning the salvation of God in the incarnation.

## NOTES

1. A similar paradox may be found in the mathematics of infinity. Higher orders of infinity exist and can be distinguished, even though for us higher orders of infinity are not easily distinguishable intuitively.
2. Atheists, of course, can and do experience surprise and wonder in the universe. Notable wonderers included the Darwin of later years and the agnostic Gould. It is ironic that for many scientists the direct access to nature is a source of continuous wonder, and this wonder motivates the ongoing search, while for many nonscientists, affected by scientism and the ubiquitous need to control, the universe has shrunk and wonder has disappeared.

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