

Christian Theodicy in Light of Genesis and Modern Science

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1 Our Noetic Environment

Simon Blackburn, a Cambridge philosopher, begins his book *Being Good* by contrasting our physical environment with our moral environment. He defines our moral environment as “the surrounding climate of ideas about how to live.”¹ Though we cannot help but be aware of our physical environment, we are often oblivious of our moral environment. Yet, even when largely invisible, our moral environment is always deeply influential. According to Blackburn,

It determines what we find acceptable or unacceptable, admirable or contemptible. It determines our conception of when things are going well and when they are going badly. It determines our conception of what is due to us, and what is due from us, as we relate to others. It shapes our emotional responses, determining what is a cause of pride or shame, or anger or gratitude, or what we can be forgiven and what cannot.²

I want to begin this study of Christian theodicy with a variant of Blackburn’s moral environment. Specifically, I want to consider what may be called our *noetic environment*. By this I mean the surrounding climate of ideas by which we make sense of the world. Our noetic environment subsumes our moral environment since our ideas about how to live constitute one way in which we make sense of the world. But our noetic

environment is much broader. It includes our ideas about what exists and what can be known and how we can know it. It prescribes our role in the grand scheme of things. Above all, it determines our plausibility structures—what we find reasonable or unreasonable, thinkable or unthinkable, credible or incredible.

In an interview several years back, Cornel West was asked “What is your overall philosophical project?”³ He responded: “I think that fundamentally it has to do with wrestling with the problem of evil.”⁴ Wrestling with the problem of evil is the business of theodicy. Theodicy attempts to resolve the problem of evil in a way that is credible to our noetic environment. The challenge of this paper is to develop a credible theodicy that is also consonant with Christian theism.

2 The Task of a Christian Theodicy

To understand the task of a specifically Christian theodicy, let us first consider the task of theodicy generally. Theodicy is fundamentally about the benevolence of ultimate reality—whether what ultimately lies behind the world (typically understood as God) is benevolent. A successful theodicy demonstrates the benevolence of God in the face of evil. Though I will use the terms interchangeably, I prefer “benevolence” to “goodness” because goodness is often ascribed to impersonal things or abstractions and therefore can be indifferent to human welfare. Benevolence, on the other hand, suggests an interest in and active fostering of individual and corporate human welfare. Accordingly, I take theodicy’s main task as convincing us that God is benevolent and that we are the primary object of his benevolence.⁵

What, then, convinces us of God’s benevolence? According to John Milton, it is an argument: “What in me is dark / Illumine, what is low raise and support; / That, to the height of this great argument, / I may assert Eternal Providence, / And justify the ways of God to men.”⁶ The idea that an argument can justify the ways of God and thereby convince us of God’s benevolence will strike many of us as hollow. How do we preserve our confidence in divine benevolence despite the world’s evil and cruelty? This is the challenge ever before us. Life’s circumstances do not always go our way. When they go against us, our confidence in divine benevolence derives not from an argument but from an attitude.

Epictetus summarized this attitude as follows: “For everything that happens in the world it is easy to give thanks to Providence if a person has but these two qualities in himself: a habit of viewing broadly what happens to each individual and a grateful temper. Without the first he will not perceive the usefulness of things which happen; and without the second he will not be thankful for them.”⁷ Such an attitude, however, is warranted only if what’s ultimately behind the world is benevolent. And how do we know that? It seems, then, that we need some argument for divine benevolence after all, if only to justify this attitude.

Epictetus, as a Stoic philosopher, looked to Stoic philosophy to justify this attitude. Christians, in formulating a specifically Christian theodicy, need to look to Christian theology to justify this attitude. According to Edward Oakes, the task of a Christian theodicy is to “show that an omnipotent and benevolent God can coexist with evil in His finite creation.”⁸ The key to resolving the theodicy problem for Oakes is Augustine’s insight that God brings good out of evil. Even so, God’s bringing good out of evil must be judged not on the basis of isolated happenings but on the basis of the totality of happenings as they relate to God’s ultimate purposes for the world. Accordingly, Oakes requires that the world be viewed “both as a totality and under the aegis of eschatology.”⁹

All this is sound Christian theodicy as far as it goes. But a Christian theodicy needs to go further. It needs additionally to make peace with three claims:

- (1) God by wisdom created the world.
- (2) God exercises particular providence in the world (e.g., miracles, answers to prayer, and prophecies).
- (3) All evil in the world ultimately traces back to human sin.

Mainstream theology regards the first of these as plausible, the second as problematic, and the third as, frankly, preposterous. I’m going to argue that all three claims are true and can be situated within a coherent Christian theodicy. Claim (3) is the most difficult to square with our current noetic environment. It is also the key to resolving the problem of a specifically Christian theodicy. Once it is shown to be plausible, claims (1) and (2) become plausible as well.¹⁰ I want, therefore, in the sequel to focus principally on claim (3). Claim (3) used to be mainstream Christian

theology. Let's start by reviewing how our noetic environment changed to render this claim increasingly implausible.

3 The Origin of Evil

Mainstream Christian theology used to explain the origin of evil as follows: Evil is the result of a will that has turned against God. Just why a will should turn against God is a profound mystery (2 Thessalonians 2:7 refers to "the mystery of iniquity"). Since everything is created by God, a will that turns against God is also created by God. But a good God presumably created a good will. How, then, could a good will turn against God? I'm not sure that any final answer can be given to this question. Invoking freedom of the will is little help here. To be sure, freedom of the will contains within it the logical possibility of a will turning against God. But why should a good will created by a good God exercise its freedom in that way (for instance, Christian theology teaches that there are good angels whose wills never turned against God)?

Perhaps the best we can do is offer a psychological explanation: Precisely because a created will belongs to a creature, that creature, if sufficiently reflective, can reflect on its creaturehood and realize that it is not God. Creaturehood implies constraints to which the Creator is not subject. This may seem unfair (certainly it is not egalitarian). The question then naturally arises, Has God the Creator denied to the creature some freedom that might benefit it? Adam and Eve thought the answer to this question was yes (God had denied them the freedom to know good and evil). As soon as the creature answers yes to this question, its will turns against God. Once that happens, the will becomes evil. Whereas previously evil was merely a possibility, now it has become a reality. In short, the problem of evil starts when creatures entertain the idea that God is evil.

I've just described what is commonly referred to as the Fall. Mainstream Christian theology used to regard the Fall as a bad thing—the Fall fundamentally disordered humanity's relationship with God. No longer able to trust God, humanity turned inward and sought fulfillment in its creaturehood rather than in the source of its being, the Creator.¹¹ Sin, the condition of a fallen will that no longer finds fulfillment in God, leads to numerous individual sins, or what may be called personal evil. But besides personal evil, sin propagates through nature and brings about

natural evil, so that the disordered state of nature mirrors the disordered state of our souls.

Redemption from sin, then, means turning back a fallen will to God (hence the emphasis on repentance and faith in Christian soteriology—repentance signifying a will that turns back to God and faith signifying a will that trusts God and no longer questions his wisdom and benevolence). This turning back to God cannot be coerced. Just as the will turned against God without coercion, so too must it turn back to God without coercion. But the picture of redemption is broader still. Everything that has been disordered as the result of human sin must be restored. Thus nature, which now reflects humanity's fallen state, needs itself to be restored (cf. Romans 8:19–23). Christianity finds this redemption in the cross and resurrection of Jesus Christ.

4 Whatever Happened to the Fall?

The account I've just presented of evil's origin, outworking, and ultimate overthrow through the redemption in Christ is entirely traditional. At the same time, this account no longer sits well with the current noetic environment. Mainstream theology these days doubts whether there even was an actual historical Fall of humanity. And, insofar as mainstream theology is willing to entertain the Fall at all, it tends not to regard it as a bad thing.¹² Patricia Williams, for instance, in her book *Doing Without Adam and Eve*, regards the Fall as a good thing.¹³ According to Williams, the serpent in the Garden told Eve the truth—Eve did not die when she ate the fruit, and she gained the knowledge she was after (knowledge of good and evil that made her more like God). Far from regarding the Fall as the ruin of humanity, Williams regards it as a liberation from self-imposed and biological constraints.

Theologians who don't take quite as optimistic a view of the Fall as Williams still find much to commend it. John Hick, for instance, regards the Fall as an occasion for "soul-making." Yes, the Fall has negative consequences, but it also makes us better people by forcing us to deal with and overcome evil.¹⁴ And then there are theologians like John Polkinghorne who see a certain inevitability in the Fall, regarding sin and evil as a necessary cost of God bestowing freedom on creation. Thus, in coming to terms with natural evil, Polkinghorne will recount the following anecdote:

Austin Farrer once asked himself what was God's will in the Lisbon earthquake (that terrible disaster of 1755, when 50,000 people were killed in one day). Farrer's answer was this—and it's a hard answer, but I think a true answer—that God's will was that the elements of the earth's crust should behave in accordance with their nature. God has given them freedom to be, just as he has given us freedom to be."¹⁵

The example of choice for natural evil these days is, of course, the great Asian tsunami of 2004 that killed over 200,000 people. In any case, worries raised by such natural evils are not assuaged by referring them to the freedom of creation. We can imagine a world far more violent than ours in which many more people die annually of natural disasters. Alternatively, we can imagine a world far more halcyon than ours in which no one dies of natural disasters because the whole world is a tropical paradise. Ascribing natural evil to the freedom of creation does nothing to address the amount of natural evil in creation and whether the freedom of creation could not have taken a different form so that there would be less of it (or perhaps none of it).

Referring natural evil to the freedom of creation rather than to the Fall has become a consistent pattern in contemporary theology, which seeks to ameliorate the Fall by rationalizing why the Fall isn't, as it seemed to previous generations of theologians, a horrible tragedy. The contemporary pattern of reasoning to ameliorate the Fall is quite different from the *O felix culpa* (*Oh fortunate fault*) tradition in classical Christian theology, which mitigates the Fall by pointing to the great redemption in Christ that the Fall elicits.¹⁶ Yet, in that tradition, just because a good outweighs an evil does nothing to make the evil less evil. Yes, in the end we will be better off because Jesus saved us rather than because we happened to be descendants of an Adam and an Eve who never sinned. But their sin and its consequences must, even in the *O felix culpa* tradition, be viewed as a tragedy.

Contemporary strategies to ameliorate the Fall create worse difficulties than they resolve. Take John Polkinghorne's example of the Lisbon earthquake. Was this disaster really nothing more than a consequence of the freedom of the Earth's crust? How does such an answer comfort the victims and survivors? As suggested earlier, why didn't God simply place us on a less dangerous planet where earthquakes don't ravage human life? Or was this not an option for the Creator and, if not, why not? What are we to make of divine providence in a world with the freedom to crush us?

Why, in most classical liturgies of the Christian churches, do we pray for favorable seasons and good crops if the freedom of creation is going to do what it will regardless? Or does God constrain the freedom of creation? But, if so, why doesn't God place tighter constraints on this freedom in relation to evil?

The Earth as a place for soul-making also leaves much to be desired. The metaphor here is that of a school that attempts to train us to become great souls. But rigors of a curriculum are one thing; Lisbon earthquakes and Asian tsunamis, not to mention Auschwitz and the Killing Fields, are another. Do we really need a curriculum that grinds so many of its students to powder? If the Earth is indeed a place for soul-making, how many great souls does it in fact produce? Is it not a tiny, tiny minority? How many flunk out Hick's school of soul-making? How many do not merely flunk out but end up in the gutter, addicted to sensuality, money, fame, or power? How many cannot be said to have enrolled in any school whatsoever, whose days are consumed in struggling to survive (think of bare-footed children scouring garbage dumps to eke out an existence)?

Finally, consider the knowledge gained by eating the fruit in the Garden—was it worth it? Contrary to Aristotle, knowledge is not always a good thing, and people do not always desire to know.¹⁷ We can think of lots of things we'd rather not know—ask any holocaust survivor. As for the serpent's promise that Adam and Eve would not die, it's true that their bodies continued to live after eating the fruit. But their relationship with God, the source of life, was broken. Whereas previously they communed with God, now they hid in fear of God, conscious of their nakedness.¹⁸ And eventually their bodies did die. If the Fall was such a great blessing, why did God employ angels and a flaming sword to keep humanity from trying to get back into the Garden—to their pre-Fall state?¹⁹

5 Does All the World's Evil Trace to Human Sin?

Contemporary strategies to ameliorate the Fall consistently run aground because they attribute at least some of the evil that humanity suffers to factors other than human guilt. In other words, God lets humanity suffer evils of which it is entirely innocent—evils which it does not deserve and for which it is not responsible. For God to permit such evils, however, presupposes a limitation on God's power and knowledge, for if God's power and knowledge were up to the task, God would be both

able and morally obligated, as a matter of justice, to prevent evils from afflicting us for which we are not responsible. Hence the increasing attractiveness of process and openness theologies, which give us a God who means well but is limited in stemming the tide of evil, at least for now. Rabbi Kushner's *When Bad Things Happen to Good People* is a popular example of this theology.²⁰

Identifying human sin as responsible for the world's evil has come to seem increasingly foreign to our noetic environment. Why is that? To answer this question, we need first to understand why throughout much of the history of Christian thought, a tight link between the world's evil and human sin seemed eminently plausible. The short answer is that until the last two or three centuries, the first chapters of Genesis seemed to make perfect sense as both theology and history. Genesis, if you will, gave a historical justification for the Fall—that is, Genesis was thought to describe how, in space and time, the human will turned against God and therefore became evil.

Briefly, according to this traditional reading of Genesis, God creates a good world in a short period of time (six 24-hour days). This original world is orderly and innocuous—it is paradise. Having introduced humans into this world, God explicitly warns them about turning against him by attempting to transcend their creaturehood. This warning is symbolized in the prohibition against eating the forbidden fruit. Nonetheless, the initial humans, Adam and Eve, disregard the warning, eat the fruit, and so must live with the consequences of their actions. Those consequences include a disruption of human relations (personal evil) as well as a disruption of nature (natural evil—notably physical death). The promise of redemption in the protevangelium (Genesis 3:15) is fulfilled in Jesus Christ, who in the eschaton restores humanity to right relationship with God and releases nature from the corruption caused by human sin (Romans 8:19–22). Until relatively recently, this understanding of Creation and the Fall seemed perfectly reasonable and was mainstream Christian theology (both Catholic and Protestant).

But this reading of Genesis no longer seems reasonable. Especially problematic in the current noetic environment is attributing natural evil (notably physical death) to the Fall. Consider the following remarks by well-known theologians and biblical scholars.

John Polkinghorne: “Of course, physical death did not originate with our hominid ancestors, nor did the emergence of humankind bring about change in the physical constitution of the cosmos.”²¹

Ian Barbour: “At some points, the theologian may need to reformulate traditional ideas. For example, theologians must ask how they can express the idea of sin and the fall without assuming death came into the world with Adam and Eve.”²²

Patrick Miller: “The effects of sin are depicted [in Isaiah 24–27] as both divine activity and an undoing from within, that is, as both retribution and an organic outworking of the deeds of the earth in which acts have consequences arising from them. This raises the difficult question of how the transgressions of human beings and the ‘shaking’ of the earth, that is, human acts and cosmic effects, can be related to each other in an intelligible fashion. It is hardly plausible to argue that the death of the solar system in the burning out of the sun or the contingent possibilities of [the] world ending are to be seen as causally related to human acts on earth.”²³

Jürgen Moltmann: “If ... death came into the world only through sin, then we have to restrict this to the death of human beings, for the death of animals, the dying of trees, and the extinction of the dinosaurs can hardly be traced back to human sin. That would be a negative self-deification of human beings by way of an immense and presumptuous arrogation of guilt. Not every death in the world can be traced back to human sin.”²⁴

But why should cosmic consequences of human sin seem implausible? If humans are the crown of creation, then it seems entirely reasonable for human sin to have repercussions throughout creation, including the natural order. Moltmann regards such a view as presumptuous and self-congratulatory. But Moltmann is in danger of proposing a false humility that may well blind us to the truth about ourselves. If we alone among physically embodied creatures are made in the image of God, then our actions may well have cosmic consequences.

The theological tradition is clear about humanity’s unique status in the grand scheme of things—God was incarnated, just once, as a human being in the person of Jesus Christ for our redemption and that of the whole world. Consistent with this exclusive view of humanity, the Search for

Extraterrestrial Intelligence (SETI) has not discovered a shred of evidence to suggest that embodied rational moral agents like us exist elsewhere in the universe.²⁵ Moreover, nonhuman animals have nothing like the conceptual and moral capacities of humans. Those who argue that there is merely a difference in degree rather than a difference in kind between chimps and us are fooling themselves.²⁶

6 The Copernican Principle

Such a high view of humanity (Peter Singer disparages it as “speciesism”) has, however, been pounded out of us in the name of modern science. Advances in science are supposed to have left us no choice but to embrace the Copernican Principle (also known as the Super-Copernican Principle or the Principle of Mediocrity). According to this principle, there is nothing special about human beings in the grand scheme of things. Yes, we are currently having our moment on the stage of history. But there’s nothing cosmically significant about it, and soon enough our little drama will be done and forgotten.

The Copernican Principle expresses a sentiment that is deeply held in the current noetic environment. Carl Sagan expressed it as follows:

Because of the reflection of sunlight . . . the Earth seems to be sitting in a beam of light, as if there were some special significance to this small world. But it’s just an accident of geometry and optics. . . . Our posturings, our imagined self-importance, the delusion that we have some privileged position in the Universe, are challenged by this point of pale light. Our planet is a lonely speck in the great enveloping cosmic dark. In our obscurity, in all this vastness, there is no hint that help will come from elsewhere to save us from ourselves.²⁷

Sagan here invokes the size and duration of the universe as so vast a backdrop that we cannot help but fade into insignificance. Nonetheless, such crassly materialist considerations are simply irrelevant to gauging humanity’s true status in the great scheme of things. This is not to say that we should think more highly of ourselves than we ought. The words “human” and “humility,” after all, derive from the same source, indicating our solidarity with the ground from which our physical constitution derives. But it also means not thinking less of ourselves than we ought.

The considerations that Sagan here throws at religious believers to make them doubt the uniqueness and preeminence of humans among

physically embodied beings do not hold up under closer scrutiny. Indeed, effective responses to the Copernican Principle are easy to find. Take, for instance, the following observation by Pascal: “By space the universe encompasses and swallows me up like an atom; [but] by thought I comprehend the world.”²⁸ Or consider Julian of Norwich, who had a vision of a small hazelnut that she held in her hand. “What is this?” she asked. God answered, “It is all that is made.”²⁹

Nor do we need to limit ourselves to theological reflections in rejecting the Copernican Principle. This principle is refutable on its own—purely scientific—terms. For instance, Guillermo Gonzalez and Jay Wesley Richards, in their book *The Privileged Planet*, argue effectively—on strictly scientific grounds—that our place in the cosmos is indeed special: it is designed not just for our habitation but also to foster scientific discovery. According to them, among all the places in the universe from which to pursue scientific inquiry, the planet we call home—Earth—is as good as it gets.³⁰

7 The Attraction of a Young Earth

The Copernican Principle is not the main reason a tight link between the world’s evil and human sin no longer appears plausible. The more important reason is that natural history seems incapable of being squared with a traditional view of the Fall. Even though I accept standard astrophysical and geological dating (12 billion years for the universe, 4.5 billion years for the Earth), young-earth creationists deserve credit here. They see the crucial significance, theologically, of preserving the link between evil (both personal and natural) and human sin. That’s why, when asked what’s riding on a young earth, proponents of this position invariably cite Romans 5:12, which speaks of death as a consequence of human sin.³¹

To be sure, one can try to make an exegetical argument that Romans 5:12 is speaking strictly about human death. But young-earth creationists have an easier time of it, both exegetically and theologically, in interpreting this passage as speaking about all death and not just human death. A world in which natural evils such as death, predation, parasitism, disease, drought, famines, earthquakes, and hurricanes precede humans and thus appear causally disconnected from the Fall seems hard to square with a creation that, from the start, is created good. Without a young earth

(i.e., an earth created in six 24- hour days and spanning a history of only a few thousand years), how can such natural evils be traced back to human sin?

Young-earth creationism presents a straightforward chronology that aligns the order of creation with a traditional conception of the Fall: God creates a perfect world, God places humans in that world, they sin, and the world goes haywire. In this chronology, theology and history march in sync with the first human sin predating and being causally responsible for natural as well as personal evil. Yet if the bulk of natural history predates humans by billions of years and if over the last 600 million years multicelled animals have been emerging, competing, fighting, preying, parasitizing, exterminating, and going extinct, then young-earth creationism's harmony of theology and history becomes insupportable. In that case, natural history as described by modern science appears irreconcilable with the order of creation as described by Genesis.

Creation, according to Genesis, is a series of effected words spoken by God.³² This series has an inherent logic since for one word to take effect depends on others having taken effect (e.g., the creation of fish presupposes the creation of water). This logic is what is meant by the order of creation (cf. the order of divine decrees in reformed theology). Accordingly, we can think of the order of creation as history from the vantage of divine intention and action. This top-down view of history regards creation as a drama produced, directed, and written by God and sees the logic of this history as the pattern of purposes that God intends for creation. History from such a divine perspective contrasts with our ordinary, bottom-up view of history, often referred to as natural history. Natural history confines history to space and time and sees the logic of history as determined by physical causality.

This distinction between the order of creation and natural history is a special case of a deeper distinction regarding the nature of time. In English, we have just one word for time. But the Greek of the New Testament had two: *chronos* and *kairos*. As Robert Hunt notes,

The New Testament writers understood that there is a difference between things which are eternal and things which last a long time. They knew that everything in the world, the entire *kosmos*, changed as time passed. The *kosmos* could not be separated from *chronos*, or passing time. But they also knew that reality consisted of more than *kosmos* and *chronos*. There was an unchanging reality in which time had a different character. The reality of God

was not limited by the *kosmos*. And the reality of God was not limited to *chronos*, to passing time. For God, time runs but never runs out. God's time passes, but nothing within God's time ever passes away. For God's time there is a special word, *kairos*.³³

Anthony Stone elaborates on this distinction: "*Chronos* is the time of physics and *kairos* is an ordered but unmeasured kind of time outside space-time. *Kairos* is fundamental, and *chronos* is derivative."³⁴ This subordination of *chronos* to *kairos* is basic to Christian theism since the temporality of the cosmos is contingent on the temporality (order) of the divine intention in creation. Stone thus refers to *chronos* as "physical time" and *kairos* as "metaphysical time." This distinction stands behind such scriptural assertions as "One day is with the Lord as a thousand years, and a thousand years as one day" (2 Peter 3:8).

Genesis 1 therefore confronts us with the problem of aligning the order of creation (*kairos*) with natural history (*chronos*). To this problem, young-earth creationism offers a straightforward solution: it identifies natural history with the order of creation. This solution is, to be sure, theologically neat. Yet, in our current noetic environment, informed as it is by modern astrophysics and geology, the scientific community as a whole regards young-earth creationism as scientifically untenable. Some young-earth creationists will even concede this point, admitting that the preponderance of scientific evidence is against their position. Nevertheless, they feel compelled to maintain their young-earth position because they see Scripture as requiring it. Their hope is that science in the future will vindicate their position.³⁵

The majority of young-earth creationists, however, find fault with our current scientific understanding of the age of the Earth and universe, arguing that a young-earth position actually makes for better science.³⁶ I personally have found such arguments unconvincing. Consider, for instance, the Institute for Creation Research's RATE project (RATE = Radioisotopes and the Age of the Earth). Donald DeYoung, in the last chapter of his recent book on the topic, outlines the "challenges" (his word) that remain. Here is one of several challenges that, to my mind, significantly undercuts the project:

The acceleration of nuclear decay [which is required for the RATE project to establish a young earth] *gives rise to some basic unanswered questions*. Why did it occur and what was the mechanism? Exactly when did the decay rates increase? Each of these questions has both scientific and theological components.

There is also a serious concern for the protection of plant, animal, and human life from increased nuclear radiation during the Genesis flood event. Further insight is needed on these issues.³⁷

If the science is against a young earth, the history of biblical interpretation is not. Indeed, young-earth creationism was overwhelmingly the position of the Church from the Church Fathers through the Reformers. Even Origen and Augustine, who saw the order of creation as diverging from natural history (and thus were sensitive to the *kairos–chronos* distinction) held to a recent earth.³⁸ Notwithstanding, we have examples in the history of biblical interpretation where a view once universally held was eventually abandoned. For instance, at the time a young earth was unquestioned, the Church also taught that the Earth was stationary. Psalm 93 states that the Earth is established forever and cannot be moved. A face-value interpretation of Psalm 93 seems to require geocentrism. And yet, today's young-earth creationists accept the Copernican Revolution. Moreover, if face-value interpretation is the key to biblical hermeneutics,³⁹ what are we to make of the seventh day of creation, the day of God's rest? Was it also exactly twenty-four hours in length? Many biblical scholars think that we are still in the seventh day.⁴⁰

This is well-worn ground, and young-earth creationists have answers to these questions, just as those who propose alternative interpretations of Genesis have rebuttals. As Christians we have an obligation, as the Apostle Paul put it, to “rightly divide” (i.e., interpret) the Scriptures. But what guides our interpretation of the Scriptures? Clearly, our knowledge of the world plays some role. Our knowledge of physics from the seventeenth century onwards has rendered geocentrism untenable. In trying to balance the science of the day with the interpretation of Scripture, I therefore often come back to an observation of Charles Hodge. Early in his systematic theology, he noted that even though Scripture is true, our interpretations of it can be in error; as a consequence, it can be a trial for the Church when long-held interpretations are thrown into question.

Despite the Galileo episode, relinquishing geocentrism seems not to have been a great trial for the Church. Contrary to the widespread misconception that the Copernican revolution demoted us from a privileged place in the universe, the center of the universe was, in the Ptolemaic-Aristotelian cosmology that held sway prior to Copernicus, the place of least privilege. It was a place of corruption and mortality. For

incorruption and immortality, one had to go beyond the Earth to the heavenly bodies, which moved around the Earth in unending circular orbits and were therefore regarded as the realm of eternity. At the outer reaches of heaven was the Empyrean, thought by the ancients to be a realm of pure fire or light and within medieval Christian theology to be the abode of God and the angels.⁴¹

Except for preserving the face-value interpretation of certain Old Testament passages (like Psalm 93), nothing much seems to have been riding theologically on preserving geocentrism as a proper interpretation of Scripture. The same cannot be said for a young earth. A young earth seems to be required to maintain a traditional understanding of the Fall. And yet a young earth clashes sharply with mainstream science. Christians therefore seem to be in a position of having to choose their poison. They can go with a young earth, thereby maintaining theological orthodoxy but committing scientific heresy; or they can go with an old earth, thereby committing theological heresy but maintaining scientific orthodoxy.

8 The Problem with Old-Earth Creationism

This clash of theological to scientific orthodoxy constitutes a false dilemma. Indeed, I will argue that one can be both theologically orthodox about the Fall and scientifically orthodox about the age of the Earth. Nonetheless, the actual arguments I've seen from old-earth creationists that attempt to preserve both theological and scientific orthodoxy have struck me as inadequate if by theological orthodoxy one means a traditional understanding of the Fall that traces all natural and personal evil in the world to human sin. Take Hugh Ross. Ross does not believe the Garden of Eden was free of death, decay, pain, and suffering. For him, there was never a perfect paradise. To justify this claim scripturally, Ross will cite Genesis 3:16, in which God informs Eve after she has sinned that he will greatly multiply her pain in childbirth. Since zero multiplied by anything remains zero, Ross infers that God did not here initiate Eve's pain but rather increased her existing pain in childbirth. More generally, Ross will suggest that God uses randomness, waste, and inefficiencies (his terms) to bring about the "very good" world into which he placed Adam.⁴²

Mark Whorton, in his recent book on the age of the Earth, attempts to justify the creation of a less than perfect world into which God then places humans who have yet to sin (accordingly, the lack of perfection of the

world is not to be attributed to human sin). To argue his point, Whorton contrasts what he calls a Perfect Paradise Paradigm with a Perfect Purpose Paradigm:

The two creation paradigms offer diametrically different perspectives on the problem of suffering. The Perfect Paradise Paradigm views suffering in light of the past. All suffering is traceable back to the original sin of Adam in the garden. It was never God's intent for His creation to suffer or be blemished in any way because He created it to be "very good." In stark contrast, the Perfect Purpose Paradigm sees suffering in light of the future. God has a plan, and history is unfolding in a providentially directed process that will ultimately accomplish His eternal purpose. Until the end, the plan will not be complete and the purpose will not be fully accomplished. . . . Suffering in this life can only be reconciled from the eternal perspective of the Master's plan.⁴³

Thus, according to Whorton's Perfect Purpose Paradigm, God creates a world of suffering not in response to human sin but to accomplish some future end (i.e., "the Master's plan"). But this makes human suffering a means to an end. And even if this end is lofty, it is still the case that we are being used. Used is used, and there is no way to make this palatable, much less compatible with human dignity. That's why Kant taught that we must treat fellow human beings not as means but as ends in themselves. And that's why, unless human suffering is permitted by God because, at some level, we have brought it on ourselves, Whorton's Perfect Purpose Paradigm commits an end-justifies-the-means fallacy.

In making sense of the Fall in light of modern science, old-earth creationists often find themselves having to deny that natural evil is morally significant. The rationale here is that personal evil (the harm we intentionally cause to ourselves and others) doesn't kick in until humans first sin, and so, by denying that natural evil is morally significant, old-earth creationists, like their young-earth counterparts, are able to attribute all morally significant evil to human sin after all. On this view, personal evil is morally significant but natural evil doesn't become morally significant until humans experience it as alienation from God, which they do once they have sinned (i.e., after the Fall).

One way to justify that natural evils are not morally significant, inspired by Descartes but no longer popular, is to characterize animals as automatons (i.e., as complex machines consisting of bones, muscles, and organs that in principle could be replaced with cogs, cams, and pistons) and thus to deny them the ability to suffer as humans do. Accordingly,

only souls made in the image of God can truly suffer and thus experience natural evil as morally significant. Needless to say, in our pet-friendly culture, this way of dealing with natural evil does not sit well with our noetic environment.

Another way to justify that natural evils are not morally significant is to grit one's teeth and boldly assert that God takes full responsibility for natural evil, that he directly created it, that he even takes pleasure in it, and that, however counterintuitive it may seem, natural evil is entirely compatible with the goodness of God in creation. Accordingly, we are mistaken if we take death, predation, parasitism, disease, drought, famines, earthquakes, and hurricanes as evidence against the creation being "very good." On this view, the challenge of theodicy is not, as Mark Whorton advises, to trust that God's good purposes will be accomplished somewhere down the road but to get over our squeamishness. David Snoke, in justifying that a good God could create dangerous animals and be directly responsible for bringing about natural evil, puts it this way:

The young-earth creationist and the atheist Darwinist have in common their belief that God would never create killer things. The atheist removes God from the picture to account for the natural evils of this world, while the young-earth creationist removes the record of killer animals from the picture to preserve the goodness of God. Both of these views need to interact with a fully biblical picture of God, as he is revealed in Scripture and in nature—powerful, uncontrollable, and able to pour out extreme violence, yet also just, merciful, and able to bless beyond all our expectations.⁴⁴

But how is a God who creates killer things and pours out extreme violence to be regarded as benevolent except insofar as such acts respond to human sin and have redemptive significance? Snoke gives no indication that God brought about natural evil for the greater good of helping to redeem humanity. Instead, Snoke portrays the violence and cruelty of nature as a form of divine self-amusement: "God does claim direct responsibility for the creation of natural evil, that is, things in nature which terrorize us. . . . God neither apologizes for making these things, nor weeps over them—he glories in them."⁴⁵

Elsewhere, Snoke recalls one of his grandfather's favorite acronyms: "NITRIC"—"Nature In The Rough Is Cruel."⁴⁶ The way Snoke portrays it, NITRIC is a positive virtue of nature rather than defect of nature that needs to be eradicated. Whatever happened to the lovingkindness of God

not just for humanity but also for creation as a whole (the Hebrew *hesed*)? Whatever happened to love as the defining attribute of God (the Greek *agape*)? How is the love that 1 Corinthians 13 ascribes to God to be reconciled with the violence that Snoke ascribes to God?

Snoke has fallen into the trap of converting a problem into its own solution. It does nothing to attenuate the problem of natural evil to say that natural evil is really okay because God invents it and is proud of inventing it—full stop. If anything, such a claim exacerbates the problem of natural evil because it removes from natural evil any redemptive element. The only way for natural evil, and the suffering it entails, to be redemptive is if it helps to free the creation from a deeper, more insidious evil. Natural evil constitutes a disordering of nature. A benevolent God will bring about natural evil only as a last-resort to remedy a still worse evil, not as an end in itself over which to glory.

9 The Gravity of Sin⁴⁷

The question that now needs to be addressed is why would a benevolent God permit evil, tolerate its continuation, and even invent a form of it (i.e., natural evil). To answer this question, we need to reexamine the origin of evil. Earlier, I argued that evil is the result of a will that has turned against God. Clearly, the unity of the Godhead is such that God's will does not, and indeed cannot, turn against God. Evil, therefore, is the result of a *creaturely* will turning against God. The essence of evil is rebellion of the creature. This rebellion constitutes sin (singular) and finds expression in numerous particular sins (plural). As a consequence, sin separates us from God. This rift between God and humanity, however, cannot be left to stand. To let it stand would thwart God's purpose for humanity, which is to be united with humanity in love. Once sin has entered the picture, God's overriding task is to find a way to heal this rift. The term for that healing is *atonement*, and it is achieved through the redemption of Christ on the Cross.

Redemption is a business term. It denotes an exchange that restores to one party something previously belonging to it but now in the hands of another. God is the redeemer. Humanity used to belong to God. But through sin, humanity has become captive to evil. The redemptive work of God in Christ on the Cross restores humanity back to God. This picture of Christ's redeeming work is accurate as far as it goes, but it omits one

crucial element: humanity, in becoming captive to evil, gave its consent. In other words, humans are complicit in the evil from which God is striving to deliver them. For redemption to effectively deliver humanity from evil therefore requires humanity to be clear as to precisely what it has consented to in rebelling against God and embracing evil. To achieve this clarity, humanity must experience the full brunt of the evil that it has set in motion, and this requires that the creation itself fully manifest the consequences of humanity's rebellion against God. This does not mean the creation has to become as corrupt as it could possibly be. But it does mean that the creation must not conceal or soft-sell the gravity of sin. It also explains why God, despite having the power to intervene and stop specific evils, may refrain from doing so.

In answer, then, to the question why a benevolent God would permit evil, tolerate its continuation, and even invent a form of it (i.e., natural evil), it is to manifest the full consequences of human sin so that when Christ redeems us, we may clearly understand what we have been redeemed from. Without this clarity about the evil we have set in motion, we will always be in danger of reverting back to it because we will not see its gravity. Instead, we will treat it lightly, rationalize it, shift the blame for it—in short, we will do anything but face the tragedy of willfully separating ourselves from the source of our life, who is God. Additionally, we will fail to recognize the enormity of Christ's suffering on the Cross to redeem us. In consequence, we will not be moved to repent of our sin and return to God in trust and humility.

In a fallen world, the only currency of love is suffering. Indeed, the only way to gauge the extent to which someone loves us is by what that person is willing to suffer for us. Without the cost incurred by suffering, love among fallen creatures becomes cheap and self-indulgent. Suffering removes the suspicion that the good we do for one another is for ulterior motives, with strings attached, a *quid pro quo*. Christ, by going to the Cross and there taking on himself the sin of the whole world, fully demonstrates the love of God. Moreover, only such a full demonstration of God's love enables us to love God with all our heart. The extent to which we can love God depends on the extent to which God has demonstrated his love for us, and that depends on the extent of evil which God has had to absorb, suffer, and overcome on our behalf.

It is vital here to have a correct picture of Christ's redemption and our role in it. In allowing evil and then redeeming us from it, God is not an

arsonist who starts a fire, let's things heat up for us, and then, at the last moment, steps in so that he can be the big hero. Nor is God a casual bystander, who sees a fire start spontaneously and then lets it get out of control so that he can be the big hero to rescue us. We are the arsonists. We started the fire. God wants to rescue us not only from the fire we started but also, and more importantly, from our disposition to start fires, that is, from our life of arson. But to rescue us from a life of arson requires that we know the seriousness of what arson can do. Fires always start out small. If God always instantly put out the fires we start, we would never appreciate the damage fires can do. God therefore allows the fire that we have started in consenting to evil to rage, but not so that he can be a big hero when he rescues us from it but so that we can rightly understand the human condition and come to our senses. In rescuing us, God does end up being a hero. But that is not the point. The point is to fix a broken relationship between God and humanity.

This view of God's redemption in Christ is basic Christian theology. I regard it as not only true but also mandatory for sound Christian faith. Nonetheless, it presupposes that all evil in the world ultimately traces back to human sin. For this view of redemption to be plausible within our current noetic environment therefore requires an explanation of how natural evil could precede the first human sin and yet result from it. Contemporary science is firmly convinced that the Earth and universe are not thousands but billions of years old. It follows that humans have only been around a minuscule portion of that time and that prior to their arrival natural evils abounded. To see how natural evil could precede the first human sin and yet be a consequence of it, we will need to examine a result known as Newcomb's paradox and draw out the implications of this paradox for divine action.

10 Newcomb's Paradox

Physicist William Newcomb devised the paradox that bears his name in the 1960s. The late Harvard philosopher Robert Nozick then popularized it by applying it to decision theory.⁴⁸ The paradox works as follows. Imagine two boxes, one black and the other white. The black box always contains \$1,000. The white box contains either \$1,000,000 or nothing. The contents of neither box is visible. You can choose to take the sum of money in both boxes or the money that's in the white box alone.

Suppose an agent with perfect foreknowledge (i.e., with perfect knowledge of future contingent propositions) informs you that \$1,000,000 will today be put into the white box if tomorrow you choose only the white box but that no money will be put into the white box today if tomorrow you choose both boxes.

Tomorrow rolls around. What do you do? You can adopt either of two strategies: a one-box strategy or a two-box strategy. According to the two-box strategy, since whatever money in the white box has already been placed there, you may as well choose both boxes. To choose only the white box leaves you necessarily \$1,000 poorer. You'll get what's in the white box regardless (hopefully \$1,000,000) and you'll be sure to get the \$1,000 in the black box. On the other hand, you can adopt the one-box strategy. In adopting this strategy, you reason as follows: since you know the agent has perfect foreknowledge (let's say this has been verified on numerous occasions), if you choose both boxes, it's guaranteed that the white box will be empty. To choose both boxes therefore leaves you necessarily \$990,000 poorer. Sure, you'll get the \$1,000 in the black box, but you'll miss out on the \$1,000,000 that would have been placed in the white box if only you hadn't gotten greedy and decided to go for both boxes.

Newcomb's paradox was much discussed in the philosophical literature of the 1970s and 80s. One-boxers and two-boxers debated the merits of their preferred decision principle and divided pretty evenly. Always at issue was what sort of agent could in fact possess knowledge of future contingent propositions. William Lane Craig's article "Divine Foreknowledge and Newcomb's Paradox" appeared in 1987 and thus came toward the end of intense debate among philosophers over this paradox.⁴⁹ There Craig detailed how efforts to show that knowledge of future contingent propositions is incoherent all ended in stalemate. Of course, this by itself doesn't prove that such knowledge exists or is instantiated in any agent. Nonetheless, it leaves a wide-open door to the classical Christian view of divine foreknowledge, which historically has held that God possesses comprehensive knowledge of future contingent propositions.⁵⁰

The overwhelming reason for truncating divine foreknowledge in current theological discussion (especially among openness and process theologians) is to assist in the task of theodicy. In such theodicies, a limited God is absolved from having to remove evils for the simple reason

that he is incapable of removing them. But why engage in such theodicies at all? No sound arguments show that divine foreknowledge is logically incoherent. To argue against God knowing future contingent propositions invariably involves questionable assumptions about how the world, though created by God, might nonetheless impede God's knowledge of the future.⁵¹ Moreover, divine foreknowledge does not preclude human freedom. If God foreknows what I shall choose, then I shall not choose otherwise. It doesn't follow, however, that I can't choose otherwise. As William Lane Craig puts it, "my freely chosen actions . . . supply the truth conditions for the future contingent propositions known by God."⁵² In contrast to theodicies that attempt to justify God's goodness/benevolence by looking to divine limitation, I'm going to argue that full divine foreknowledge of future contingent propositions is indispensable to a theodicy that preserves the traditional understanding of the Fall (i.e., one that traces all evil in the world back to human sin).

11 The Teleological-Semantic Logic of Creation

Christian theism has traditionally regarded God as omniscient in the sense of possessing perfect knowledge of future contingent propositions and as omnipotent in the sense of being able to act effectively in the world to bring about any result that is not logically impossible. Combined with Newcomb's paradox, divine omniscience and omnipotence now yields an interesting insight into divine action, namely this: God is able to act preemptively in the world, anticipating events and, in particular, human actions, thereby guiding creation along paths that God deems best. In fact, it would display a lack of love and care for the world if such an omniscient and omnipotent creator God did not act preemptively in the world.

Embedded as we are in the world's nexus of cause and effect, such preemptive acts may strike us as counterintuitive. Because we are part of the world's causal nexus and limited in our knowledge, all our actions have unanticipated consequences. Thus, our power of preemption is extremely limited, based not on precise knowledge of the future but on probabilities (which can amount to completely unsubstantiated guesses). As creatures confined to space and time (time here conceived as *chronos*), our activities and those of the rest of physical creation follow a causal-temporal logic that treats time as linear and sees events as unfolding in tightly linked chains of cause and effect. The totality of these causal

chains, the causal nexus of nature, has an integrity that does not permit willy-nilly changes. Change the causal nexus at one place, and other changes in cause-effect relations will ramify throughout space and time.

For beings like us embedded in the causal nexus of nature, the logic of cause and effect is inviolable. In contrast, God, as an omnipotent and omniscient being, transcends the physical world and therefore is not bound by this causal-temporal logic. This is not to say that in acting in the world God violates this logic. To violate it, he would need to be under its jurisdiction. But as the creator of nature's causal nexus and therefore as the originator of its causal-temporal logic, God perforce acts in ways that this logic cannot circumscribe. Indeed, if this logic did circumscribe divine action, then God would be part of nature and creation would be other than *ex nihilo*.

Because God knows the future and is able to act preemptively to anticipate future events, divine action properly follows not a causal-temporal logic but a teleological-semantic logic. This teleological-semantic logic treats time as nonlinear (cf. *kairos*) and sees God as acting in the world to accomplish his purposes in accord with the meaning and significance of the events happening in the world. The causal-temporal logic underlying the physical world and the teleological-semantic logic underlying divine action are not at odds—they do not contradict each other. At the same time, they are not reducible to each other.

The causal-temporal logic and the teleological-semantic logic constitute the two logics of creation. The causal-temporal logic is bottom-up and looks at the world from the vantage of physical causality. The teleological-semantic logic is top-down and looks at the world from the vantage of divine intention and action. The causal-temporal logic that underlies the physical world is the organizing principle for natural history (*chronos*). The teleological-semantic logic that underlies divine action is the organizing principle for the order of creation (*kairos*). As noted earlier, young-earth creationism attempts as much as possible to make natural history mirror the order of creation. Divine preemption, by contrast, suggests that natural history need not mirror the order of creation and that the two logics of creation can proceed on independent, though complementary, tracks.

An omniscient and omnipotent God who is able to act preemptively to anticipate human actions will certainly do so to anticipate so momentous a human action as the Fall. To see what's at stake here, suppose you knew

with certainty that someone would commit a crime—as in the film *The Minority Report*. You could, as in the film, restrict the prospective criminal’s freedom prior to committing the crime. The problem with such restrictions, however, is that up until the crime is committed, the person is literally innocent (i.e., has done no harm). To preempt by restricting the freedom of the would-be criminal is therefore to base legal praxis on the presumption of guilt rather than innocence. Moreover, if carried out consistently, this approach, depending on how many potential criminals are in the society, will require constantly putting people in straitjackets to prevent them from committing crimes. This hardly makes for a carefree and vibrant society.

An alternative approach that avoids these difficulties is for you to take steps prior to the crime to ensure that once it is committed, the person committing the crime is immediately dealt with effectively. With this approach, getting the proper structures in place beforehand so they are set to go once the crime is committed becomes a moral imperative lest the crime go unaddressed. Just what form those preemptive structures take will depend on your purposes. If, for instance, your aim were not punishment but rehabilitation, you might take steps so that the means for rehabilitation were in place prior to the crime being committed.

How, then, does God act preemptively to anticipate the Fall? Before answering this question, we need consider a wrinkle not addressed by Newcomb’s Paradox but implicit in the teleological-semantic logic by which God acts in the world. In Newcomb’s Paradox, an agent either places or refrains from placing \$1,000,000 in a white box depending on what a box-chooser is going to do. The agent’s very act of placing money inside the box, however, does not in any way affect the box-chooser or, for that matter, the rest of the world until the boxes are opened. The agent’s act of placing the money is therefore causally isolated and does not ramify throughout the world as long as the boxes remain unopened.

The problem with this idealized situation is that in the real world there are no causally isolated events. Everything hangs together with everything else, and the slightest change in one thing can fundamentally change the course of history thereafter.⁵³ Thus, by the luck of a draw, a young Dostoevsky is spared execution and becomes the greatest of Russian novelists. Thus, by a butterfly flapping its wings in Brazil, a hurricane is averted in Miami. Thus, by a chance encounter, two people fall in love, marry, and produce children who would otherwise not have existed.

The causal structure of the world is extremely fragile. Indeed, the slightest change makes everything different—if not immediately, soon enough. That’s why films like *It’s a Wonderful Life*, *Frequency*, and *Timecop* (in decreasing order of excellence), which chart different possible futures but keep too many features of the world constant, make for entertaining fiction but are completely unrealistic. As with such films, Newcomb’s Paradox, as originally formulated, does not factor in the fragility of the world’s causal nexus. When we do factor it in, however, and try to understand what it would mean for God to act preemptively by anticipating future events, we come face to face with what I call the *infinite dialectic*.

Think of the infinite dialectic in this way: Suppose God acts to anticipate certain events. So long as divine action is not a hollow concept, God’s actions make a difference in the world and therefore must induce novel events (all change in the physical world being mediated through events). But this requires that God act preemptively to anticipate the novel events induced by God’s prior actions (priority here being conceived not temporally or causally [*chronos*] but in terms of the teleological-semantic logic [*kairos*] by which God orders the creation). And yet, such actions by God now induce still further novel events. And so on. This up and back between divine action and creaturely causation proceeds indefinitely. It constitutes an infinite dialectic. Because of the fragility of the world’s causal nexus, the infinite dialectic is ever in danger of spinning out of control, degenerating into a positive feedback loop in which divine preemption needs to rectify difficulties raised by prior acts of divine preemption.

Consequently, only an infinitely powerful and infinitely wise God can pull off the infinite dialectic. The infinite dialectic renders divine action at once real-time and eternal. It bridges the immanent with the transcendent. In the infinite dialectic, God acts on the whole of creation at all times and in all places, acting not as a cause among other causes (God does not moonlight as a physical cause) but as a *cause of causes* (God causes physical causes to fulfill his purposes). As a cause of causes, God’s action in the infinite dialectic is not merely ontological, in the sense of giving being to the world (cf. Paul Tillich’s “ground of being”). Nor is it merely providential in some general sense, as might be subsumed under the regularities of nature (cf. God maintaining seasonal weather patterns).

In the infinite dialectic, God acts providentially to guide the world in its particulars, taking an active interest in the details of this world and making a difference at all levels of the created order. This is not to say that God is a micromanager. Good managers know the precise details of the system they are managing but intervene sparingly, giving the system as much autonomy as it needs to flourish. God is a good manager. In particular, he has not created a world that is his prosthesis or puppet. At the same time, even though God has granted the world a measure of autonomy, the world's autonomy is not absolute. Just as an orchestra cannot make do without the conductor's continual guidance, so too does the world require God's continual guidance. That guidance is neither oppressive nor coercive. It is real and powerful, and it takes the form of an infinite dialectic. Because of the infinite dialectic, Jesus can say that God knows our name, numbers the hairs on our head, and monitors the sparrow that falls to the ground.

12 A Kairological Reading of Genesis 1–3

Having distinguished the teleological-semantic logic of creation from the causal-temporal logic of the physical world, we are now in a position to offer a reading of Genesis 1–3 that reconciles a traditional understanding of the Fall (which traces all evil in the world to human sin) with a mainstream understanding of geology and cosmology (which regards the Earth and universe as billions of years old, and therefore makes natural evil predate humanity). The key to this reading is to interpret the days of creation in Genesis as natural divisions in the teleological-semantic logic of creation. Genesis 1 is therefore not to be interpreted as ordinary chronological time (*chronos*) but rather as time from the vantage of God's purposes (*kairos*). Accordingly, the days of creation are neither exact 24-hour days (as in young-earth creationism) nor epochs in natural history (as in old-earth creationism) nor even a literary device (as in the literary-framework theory).⁵⁴

Rather, the days of creation in Genesis are actual (literal!) episodes in the divine creative activity. They represent key divisions in the divine order of creation, with one episode building logically on its predecessor. As a consequence, their description as chronological days needs to be viewed as an instance of the common scriptural practice of employing physical realities to illuminate deeper spiritual realities (cf. John 3:12).

John Calvin referred to this practice as God condescending to our limited understanding. The justification for this practice is that the physical world, as a divine creative act, provides a window into the life and mind of God, the one who created it. (The general principle here is that the things one makes and does invariably reveal something about oneself.)

Because the Genesis days represent key “kairological” divisions in the teleological-semantic logic of creation, a widely cited reason for treating the days of creation as strict 24-hour periods dissolves. Young-earth creationists sometimes insist that the author of Exodus, in listing the Ten Commandments, could only be justified in connecting sabbath observance to the days of creation if the days of creation were successive 24-hour chronological days (see Exodus 20:11 where sabbath observance is justified by noting that God created the world in six days and rested on the seventh). But if the days of creation are kairological, referring to basic divisions in the divine order of creation, then sabbath observance reflects a fundamental truth about the creation of the world. Specifically, since days form a basic division in the way humans experience time, sabbath observance becomes a way of getting us, who are made in the image of God, to recognize the significance of human work and rest in light of God’s work and rest in creation. Without this sabbatarian perspective, we cannot understand the proper place of work or rest in human life.

Yet, from a purely chronological perspective, there is nothing particularly fitting or distinctive about God creating the world in six 24-hour days. God could presumably have created the same world using very different chronologies (in his *Literal Commentary on Genesis*, Augustine entertains the possibility of God creating everything in one chronological instant). By contrast, a kairological interpretation of the Genesis days gives greater force to sabbath observance, requiring humans to observe the sabbath because it reflects a fundamental reality about how God created the world and not because it underscores a purely contingent fact about the chronology of creation (a chronology which God could have altered in any number of ways to effect the same purposes in creation).

A kairological interpretation of the six days of creation is unashamedly anthropocentric. Genesis clearly teaches that humans are the end of creation. For instance, Genesis describes the creation as merely “good” before humans are created but describes it as “very good” only after they are created. God’s activity in creation is therefore principally concerned with forming a universe that will serve as a home for humans. Although

this anthropocentrism sits uneasily in the current noetic environment, it is not utterly foreign to it. Indeed, the intelligibility of the physical world by means of our intellects and, in particular, by means of such intellectual feats as mathematics suggests that we live in a meaningful world whose meaning was placed there for our benefit.⁵⁵

On the first day, the most basic form of energy is created: light. With all matter and energy ultimately convertible to and from light, day one describes the beginning of physical reality.⁵⁶ With the backdrop of physical reality in place, God devotes days two and three to ordering the Earth so that it will provide a suitable home for humanity. On these days, God confines the Earth's water to appropriate locations and forms the plants on which humans and other animals will depend for their sustenance. On day four, God situates the Earth in a wider cosmic context. On day five, animals that inhabit the sea and sky are created. And finally, on day six, animals that inhabit dry land are created, most notably human beings. Finally, on day seven, God rests from his activity in creation. To be sure, Genesis 1 omits and abbreviates many details of creation. Nor does it provide insight into how the divine purposes of creation were implemented chronologically. Even so, here is the gist of creation as viewed kairologically.

The key question that now needs to be addressed is how to position the Fall within this kairological view of creation. In answering this question, we need to bear in mind that Genesis 1 describes God's *original* design plan for creation. The Fall and its consequences, in constituting a subversion of that design plan through human rebellion, elicits no novel creative activity from God. The Fall represents the entrance of evil into the world, and evil is always parasitic, never creative. Indeed, all our words for evil presuppose a good that has been subverted. Impurity presupposes purity, unrighteousness presupposes righteousness, deviation presupposes a way (i.e., a *via*) from which we've departed, sin (the Greek *hamartia*) presupposes a target that was missed, etc. This is not to deny or trivialize evil. Rather, it is to put evil in its proper place.

God's immediate response to the Fall is therefore not to create anew but to control the damage. In the Fall, humans rebelled against God and thereby invited evil into the world. The challenge God faces in controlling the damage resulting from this original sin is how to make humans realize the full extent of their sin so that, in the fullness of time, they can fully embrace the redemption in Christ and thus experience full release from

sin. For this reason, God does not merely allow personal evils (the disordering of our souls and the sins we commit as a consequence) to run their course *subsequent to* the Fall. In addition, God also brings about natural evils (e.g., death, predation, parasitism, disease, drought, famines, earthquakes, and hurricanes), letting them run their course *prior to* the Fall. Thus, God himself disorders the creation, *making it defective on purpose*. God disorders the world not merely as a matter of justice (to bring judgment against human sin as required by God's holiness) but even more significantly as a matter of redemption (to bring humanity to its senses by making us realize the gravity of sin).

A kairological reading of Genesis preserves the young-earth creationist emphasis on tracing all evil in the world to human sin: God creates a perfect world, God places humans in that world, they sin, and the world goes haywire. But this raises the question how to make sense of the Fall chronologically. Humans do not merely exist kairologically in the divine mind; they exist chronologically in space and time, and the Fall occurred in space and time. To understand how the Fall occurred chronologically and how God acts preemptively to anticipate the Fall by allowing natural evils to rage prior to it, we need to take seriously that the drama of the Fall takes place in a *segregated area*. Genesis 2:8 refers to this area as a garden planted by God (i.e., the Garden of Eden). Now, ask yourself why God would need to plant a garden in a perfect world untouched by natural evil. In a perfect world, wouldn't the whole world be a garden? And why, once humans sin, do they have to be expelled from this garden and live outside it where natural evil is present?

Proponents of the Documentary Hypothesis for the Pentateuch ("JDEP") describe the juxtaposition of Genesis 1:1–2:3 and Genesis 2:4–3:24 as a kludge of two disparate and irreconcilable creation stories (the days of creation vs. humanity's creation and fall in the Garden).⁵⁷ But in fact, the second creation account, situated in the Garden, is just what's needed for *kairos* and *chronos* to converge in the Fall. If we accept that God acts preemptively to anticipate the Fall, then in the chronology leading up to the Fall, the world has already experienced, in the form of natural evil, the consequences of human sin. This seems to raise a difficulty, however, because for humans who have yet to sin to come into a world in which natural evil rages seems to put them at a disadvantage, tempting and opposing them with evils for which they are not (yet) responsible. The Garden of Eden, as a segregated area in which the effects

of natural evil are not evident (one can think of it as a tropical paradise), provides the way out of this difficulty.

The essential point of the Fall is not the precise physical backdrop against which Adam and Eve play out their drama in the Garden but rather their phenomenological experience of willfully turning against God. Think of the hardware-software distinction in computer science. Different computer hardware (cf. different possible physical backdrops for creation) can run the same software (cf. the phenomenological experience of willfully turning against God). Perhaps one piece of hardware is state-of-the-art whereas the other is old and unreliable. Nonetheless, for a given software application, they may both run equally well, performing the required operations accurately. By analogy, one can imagine a “perfect creation” that has a segregated area in which Adam and Eve turn willfully against God and for which everything, both inside and outside that area, is perfect prior to the Fall (cf. the state-of-the-art computer). Alternatively, one can imagine an “imperfect creation” that has a segregated area in which Adam and Eve have exactly the same phenomenological experience of turning willfully against God as in the “perfect creation,” but for which only this segregated area is “perfect”—the perfection in this case being strictly in the phenomenological sense of no evil overtly tempting or opposing Adam and Eve (cf. the old unreliable computer that nonetheless can perform at least one software application well).

In the Garden of Eden, Adam and Eve simultaneously inhabit two worlds. Two worlds intersect in the Garden. In the one world, the world God originally intended, the Garden is part of a larger world that is perfect and includes no natural evils. In the other world, the world that became corrupt through natural evils that God brought about by acting preemptively to anticipate the Fall, the Garden is a safe haven that in the conscious experience of Adam and Eve (i.e., phenomenologically) matches up exactly with their conscious experience in the perfect world, the one God originally intended. In the originally intended world, there are no pathogenic microbes and, correspondingly, there is no need for Adam and Eve to have an immune system that wards off these microbes. In the imperfect world, whose imperfection results from God acting preemptively to anticipate the Fall, both pathogenic microbes and human immune systems exist. Yet, in their garden experience, Adam and Eve never become conscious of that difference. Only after they sin and are ejected from the Garden do they become conscious of the difference. Only

then do they glimpse the world they might have inhabited but lost, a world symbolized by the tree of life. Only then do they realize the tragedy they now face by being cast into a world full of natural evil and devoid of a tree that could grant them immortality.

Why doesn't God grant Adam and Eve immortality despite the Fall? For me, the ancient myth of Tithonus and Eos best captures what's at stake. Eos (Latin Aurora), the goddess of dawn, is married to Tithonus, who is human and mortal. She asks Zeus to make Tithonus immortal but forgets to ask that Zeus also grant him eternal youth. As a consequence, Tithonus grows older and older, ultimately becoming completely decrepit. The lesson here is that immortality and corruption don't mix—instead of attenuating corruption, immortality intensifies it. In enforcing mortality on humans by ejecting them from a garden that has a source of immortality (the tree of life) at its center, God limits human corruption and, in the protevangelium (Genesis 3:15), promises a way out of that corruption. Thus, given our corruption through sin, mortality is a grace and benefit.

A final question now remains: How did the first humans gain entry to the Garden? There are two basic options: progressive creation and evolving creation.⁵⁸ In the first, God creates the first humans in the Garden. In the second, the first humans evolve from primate ancestors outside the Garden and then are brought into the Garden. Both views require direct divine action. In the former, God specially creates the first humans from scratch. In the latter, God introduces existing human-like beings from outside the Garden but then transforms their consciousness so that they become rational moral agents made in God's image. With an evolving creation, this transformation of consciousness by God on entry into the Garden is essential to the kairological reading of Genesis. For if the first humans bore the full image and likeness of God outside the Garden prior to the Fall, they would have been exposed to the evils present there—evils for which they were *not yet* responsible. This would be problematic since humanity's responsibility and culpability in the Fall depends on the Fall occurring without undue temptations or pressures. These temptations and pressures are absent in the Garden but not outside.

13 Epilogue: The Problem of Good

Throughout this paper I have focused on the problem of evil. To resolve the problem of evil, I proposed a kairological reading of Genesis

that looks to the teleological-semantic logic by which God acts in creation. According to this logic, God is able to act preemptively in the world, anticipating events and, in particular, human actions. In acting preemptively, God does not hinder the exercise of human freedom but rather anticipates the consequences of its exercise. The kairological reading of Genesis described in this paper preserves the classic understanding of Christian theodicy, according to which all evil in the world ultimately traces back to human sin at the Fall. Moreover, having preserved this classic understanding of the Fall, this reading of Genesis also preserves the classic Christian understanding of God's wisdom and particular providence in creation.

In focusing on divine preemption as the means by which God anticipates the Fall and controls its damage, I have tended to stress the active role God played in bringing about natural evil prior to the Fall. Natural evil mirrors the personal evil in our souls brought on through the distorting power of sin. Accordingly, a world that exhibits natural evil becomes an instrument for revealing to us the gravity of sin. In particular, the emergence of living systems through a violent and competitive historical process (be it through a sequence of special creations or through a more continuous evolutionary development) does itself exhibit natural evil attributable to the Fall.

Although divine preemption can account for why such natural evils occur prior to the Fall, divine preemption is not confined to bringing about natural evils. The world is a cosmos, an ordered arrangement meant to reflect the glory of God. The natural evil that God (preemptively) introduced into the world on account of the Fall may cloud the world's ability to reflect God's glory but it can never entirely occlude it (indeed, God's original intention for creation always has a way of bleeding through regardless of the pervasiveness of personal and natural evil). Moreover, in responding preemptively to the Fall, God does not merely bring about natural evil but also, as a matter of common grace, stems its influence. Yes, pathogenic microbes constitute a natural evil brought on by God in response to the Fall. But God doesn't just leave us at the mercy of these microbes. Our immune system is an amazing work of common grace by which God, acting preemptively, mitigates the harm these microbes would otherwise cause us.⁵⁹

With God, evil never has the final word. The tree of life, which Adam and Eve could not reach because they were expelled from the Garden,

appeared again 2,000 years ago as a cross on a hill called Golgotha.⁶⁰ Through the Cross of Christ, the immortality that eluded humanity in the Garden is restored. Evil is but a temporary feature of the world. Created as it is by God, the world is destined to fulfill God's good purposes. More than any other problem, people have used the problem of evil to distance God from themselves and even to rationalize that God doesn't exist. In response, Boethius posed the following riddle: "If God exists whence evil; but whence good if God does not exist?"⁶¹ Let us always bear in mind that the problem of evil is part of a much larger problem, namely, the problem of a benevolent God restoring a prodigal humanity to himself. This is the problem of good, and it subsumes the problem of evil.

Notes

¹Simon Blackburn, *Being Good: A Short Introduction to Ethics* (Oxford: Oxford University Press, 2001), 1.

²Ibid.

³Cornel West, "On My Intellectual Vocation," in *The Cornel West Reader*, 19-33 (New York: Basic Civitas Books, 1999), 33. Originally published in George Yancy, ed., *African American Philosophers: 17 Conversations* (London: Routledge, 1998), 32-48.

⁴Ibid.

⁵Note that many contemporary thinkers have given up on the task of theodicy entirely. Take, for instance, the following remark by Richard Dawkins: "In a universe of blind physical forces and genetic replication, some people are going to get hurt, other people are going to get lucky, and you won't find any rhyme or reason in it, nor any justice. The universe we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil and no good, nothing but blind pitiless indifference." *River out of Eden* (New York: HarperCollins, 1996), 133. Clearly, for Dawkins and his fellow scientific materialists, rock-bottom reality is not benevolent.

⁶*Paradise Lost*, I.22-26.

⁷Epictetus, *Discourses*, I.6, in Epictetus, *Discourses and Enchiridion*, T. W. Higginson, transl. (New York: Walter J. Black, 1946), 17. Compare William Law's remark: "Would you know who is the greatest saint in the world? ... It is he who is always thankful to God, who wills everything that God willeth, who receives everything as an instance of God's goodness and has a heart always ready to praise God for it." From *A Serious Call to a Devout and Holy Life*, ch. 15, available online at <http://www.worldinvisible.com/library/law/seriouscall/scch15.htm> (last accessed 29 March 2003).

⁸Edward T. Oakes, "Edward T. Oakes and His Critics: An Exchange," *First Things* 112 (April 2001): 12.

⁹Ibid.

¹⁰With regard to particular providence and specific divine action, Edward Oakes raises the following objection in relation to intelligent design: "If God was supposed to have intervened so directly 3.5 billion years ago to construct a well-designed cell, and if He is needed to design new *Baupläne* at irregular intervals, why does He not intervene when a fire breaks out in the cockpit of an airplane flying over the Atlantic? Or when stray radiation from the sun affects the sequence of a DNA molecule, later causing birth defects?" To identify the Designer with the God of Christianity "force[s] us to claim that . . . the Second Person of the Trinity *explicitly* toggled a complex molecule to bring about the first act of self-replication, and that the Deity *immediately* altered the architecture of one species, say a tiger, to lead to another conspicuously different species. For each and every one of these hypotheses . . . , the theological implications [are] grotesque."¹⁰ Oakes concludes that intelligent design makes "the task of theodicy impossible." Ibid., 12, 8, and 11 respectively. The point to appreciate is that if all evil in the world ultimately traces back to human sin (i.e., point (3)), Oakes's criticism of point (2) in regard to

particular providence and specific divine action breaks down because God is, in that case, under no obligation to prevent us from experiencing evils we have brought on ourselves. More on this in later sections.

¹¹Maximus the Confessor writes: “If all things have been made by God and for his sake, then God is better than what has been made by him. The one who forsakes the better and is engrossed in inferior things shows that he prefers the things made by God to God himself... If the soul is better than the body and God incomparably better than the world which he created, the one who prefers the body to the soul and the world to the God who created it is no different from idolaters.” From Maximus the Confessor, *The Four Hundred Chapters on Love*, I:5 and I:7, in *Maximus Confessor: Selected Writings* (New York: Paulist Press, 1985), 36.

¹²Traditional Christian theology regards the redemption of Christ as not just overturning the negative consequences of the Fall but also bringing about good that would not have been possible apart from the Fall. But the good here is due to God’s active role in redemption and not to the Fall as such. The Fall as such, apart from redemption, is in traditional theology the ruin of humanity.

¹³Patricia Williams, *Doing Without Adam and Eve: Sociobiology and Original Sin* (Minneapolis, Minn.: Fortress Press, 2001).

¹⁴John Hick, *Evil and the God of Love*, rev. ed. (New York: Harper & Row, 1977), 253-261. Hick, in formulating this theodicy, looks to the church father Irenaeus for inspiration. While I find much to commend this theodicy, it seems that the metaphor of the world as a school for soul-making easily leads to more difficulties than it resolves.

¹⁵John Polkinghorne, “God’s Action in the World,” 1990 J. K. Russell Fellowship Lecture, available online at <http://www.starcourse.org/jcp/action.html> (last accessed 28 March 2003). Polkinghorne repeated this anecdote fall 2002 at the Truett Seminary Parchman Lectures (30 September and 1 October 2002).

¹⁶Thomas Aquinas writes, “O fortunate fault, which merited so great a redeemer” (*Summa Theologiae* III.1.3(3)). In his *Enchiridion* (27), Augustine writes, “God judged it better to bring good out of evil than to allow no evil to exist.” And in Romans 5:20, Paul writes, “Where sin increased, grace increased all the more.”

¹⁷See the opening of Aristotle’s *Metaphysics*.

¹⁸Genesis 3:10.

¹⁹Genesis 3:24.

²⁰Harold Kushner, *When Bad Things Happen to Good People* (New York: Schocken Books, 1981).

²¹John Polkinghorne, “Eschatology: Some questions and Some Insights from Science,” in J. Polkinghorne and M. Welker, eds., *The End of the World and the Ends of God: Science and Theology on Eschatology*, 29-41 (Harrisburg, Penn.: Trinity Press International, 2000), 41.

²²Quoted by Patricia Williams, “Can Christianity Get Along Without Adam and Eve?” *Research News & Opportunities in Science and Theology* 3(3) (November 2002): 20.

²³Patrick Miller, “Judgment and Joy,” in J. Polkinghorne and M. Welker, eds., *The End of the World and the Ends of God: Science and Theology on Eschatology*, 155-170 (Harrisburg, Penn.: Trinity Press International, 2000), 161.

²⁴Jürgen Moltmann, “Is There Life after Death?” in J. Polkinghorne and M. Welker, eds., *The End of the World and the Ends of God: Science and Theology on Eschatology*, 238-255 (Harrisburg, Penn.: Trinity Press International, 2000), 241.

²⁵See Michael Crichton’s Caltech Michelin lecture titled “Aliens Cause Global Warming,” delivered January 17, 2003 and available online at http://www.crichton-official.com/speeches/speeches_quote04.html (last accessed April 19, 2006).

²⁶See Noam Chomsky, *Language and Mind*, enlarged edition (New York: Harcourt Brace Jovanovich, 1972); Mortimer Adler, *The Difference of Man and the Difference It Makes*, with introduction by D. W. Hudson (1967; reprinted New York: Fordham University Press, 1993); William A. Dembski, “Reflections on Human Origins,” available online at http://www.designinference.com/documents/2004.06.Human_Origins.pdf (last accessed January 9, 2006).

²⁷Carl Sagan, *Pale Blue Dot: A Vision of the Human Future in Space* (New York: Ballantine Books, 1994), 7.

²⁸Blaise Pascal, *Pensées*, no. 348, transl. by W. F. Trotter, in R. M. Hutchins, ed., *Great Books of the Western World* (Chicago: Encyclopedia Britannica, 1952), 234.

²⁹Julian of Norwich, *Showings*, edited and translated by E. College and J. Walsh, in *The Classics of Western Spirituality* (New York: Paulist Press, 1988), 131-132.

³⁰Guillermo Gonzalez and Jay W. Richards, *The Privileged Planet: How Our Place in the Cosmos Is Designed for Discovery* (Washington, D.C.: Regnery, 2004). In the same spirit, see the essays in Henry Margenau and Roy Varghese, eds., *Cosmos, Bios, and Theos* (LaSalle, Ill.: Open Court, 1992).

³¹See, for instance, Henry Morris, *Scientific Creationism* (San Diego, Calif.: Creation-Life Publishers, 1974), 208, 211, 226, 229, 243, 245. Other scriptural passages that young-earth creationists cite to argue for death being a consequence of human sin include Rom. 6:23 and 1 Cor. 15:20–23.

³²See William A. Dembski, *Intelligent Design: The Bridge Between Science and Theology* (Downers Grove, Ill.: InterVarsity, 1999), ch. 8, titled “The Act of Creation.”

³³Robert Hunt, “Behold, I Make All Things New,” sermon preached 1999 available online at http://www.emk.at/Predigten/RHunt/Predigt_R_Hunt.html (last accessed April 17, 2006).

³⁴Anthony P. Stone, “Time as Chronos and Kairos: Physical and Metaphysical Time,” typescript available online at <http://homepage.ntlworld.com/stone-catend/PIRT-IX-APStone-FullText.pdf> (last accessed April 17, 2006).

³⁵See the essay titled “Young Earth Creationism” by Paul Nelson and John Mark Reynolds in J. P. Moreland and John Mark Reynolds, *Three Views on Creation and Evolution* (Grand Rapids, Mich.: Zondervan, 1999).

³⁶Don DeYoung, *Thousands . . . Not Billions: Challenging an Icon of Evolution, Questioning the Age of the Earth* (Green Forest, Ariz.: Master Books, 2005).

³⁷*Ibid.*, 180. Italics in the original.

³⁸Origen: “After these statements, Celsus, from a secret desire to cast discredit upon the Mosaic account of the creation, which teaches that the world is not yet ten thousand years old, but very much under that, while concealing his wish, intimates his agreement with those who hold that the world is uncreated.” *Contra Celsum (Against Celsus)* 1.19, *Ante-Nicene Fathers* 4, 404. Augustine: “They are deceived, too, by those highly mendacious documents which profess to give the history of many thousand years, though, reckoning by the sacred writings, we find that not 6000 years have yet passed.” Augustine, “Of the Falseness of the History Which Allots Many Thousand Years to the World’s Past,” *De Civitate Dei (The City of God)*, xii, 10.

Nonetheless, Origen questioned the order of days by asking how the sun and moon could be created on day four when light was created on day one and yet depends on such heavenly bodies for its existence. Likewise, Augustine, in his *Literal Commentary on Genesis*, speaks of a simultaneous creation. Neither theologian therefore held to young-earth creationism as this position is understood today, which requires a strict face-value interpretation of Genesis (six exact 24-hour days).

³⁹Clearly, face-value interpretation cannot be the key to biblical hermeneutics. Consider Matthew 18:8–9: “If thy hand or thy foot offend thee, cut them off, and cast them from thee: it is better for thee to enter into life halt or maimed, rather than having two hands or two feet to be cast into everlasting fire. And if thine eye offend thee, pluck it out, and cast it from thee: it is better for thee to enter into life with one eye, rather than having two eyes to be cast into hell fire.” Anyone who interprets this passage at face-value is likely to be put in a straitjacket for one’s own protection.

⁴⁰For instance, Charles Aalders writes, “It would be difficult to conceive of this ‘seventh day’ as an ordinary 24-hour day, as many claim, or as a day from sunup to sundown. This immediately raises the problem of whether God’s rest continued for only one 24-hour day. Certainly, we must consider the possibility that this rest of God still continues. For us humans a day of rest is always followed by another series of work days. But this is not the case with God’s creation days. With Him we have six days of creation and then one day of rest. But His day of rest is then not followed by more days of creation work. Our attention should also be called to the omission of any reference to ‘evening’ and ‘morning’ with respect to this day of rest. In the light of what has been said above, this is understandable. This seventh day began with a morning but it had no evening because it still continues.” G. Ch. Aalders, *Genesis*, vol. 1, trans. W. Heynen (Grand Rapids, Mich.: Zondervan, 1981), 75–76.

⁴¹All of this is beautifully recounted in Gonzalez and Richards, *The Privileged Planet* in chapter 11 titled “The Revisionist History of the Copernican Revolution.”

⁴²Hugh Ross, *Creation and Time: A Biblical and Scientific Perspective on the Creation-Date Controversy* (Colorado Springs: Navpress, 1994), 55, 65–69, 88.

⁴³Mark S. Whorton, *Peril in Paradise: Theology, Science, and the Age of the Earth* (Waynesboro, Georgia: Authentic Media, 2005), 151.

⁴⁴David Snoke, “Why Were Dangerous Animals Created?” *Perspectives on Science and Christian Faith* 56(2) (2004): 125, available online at <http://www.asa3.org/ASA/PSCF/2004/PSCF6-04Snoke.pdf> (last accessed January 10, 2006).

⁴⁵*Ibid.*, 119–120.

⁴⁶*Ibid.*, 117.

⁴⁷This section was largely inspired by John Stott’s *The Cross of Christ* (Downers Grove, Ill.: InterVarsity, 1986) and, in particular, his assimilation there of Saint Anselm’s *Cur Deus Homo?*

⁴⁸Robert Nozick, “Newcomb’s Problem and Two Principles of Choice,” in N. Rescher, ed., *Essays in Honor of Carl G. Hempel*, Synthese Library (Dordrecht, Holland: D. Reidel, 1969), 115. For a nice popular treatment of Newcomb’s paradox, see William Poundstone, *Labyrinths of Reason: Paradox, Puzzles, and the Frailty of Knowledge* (New York: Doubleday, 1988), ch. 12.

⁴⁹William Lane Craig, “Divine Foreknowledge and Newcomb’s Paradox,” *Philosophia* 17 (1987): 331–350, available online at <http://www.leaderu.com/offices/billcraig/docs/newcomb.html> (last accessed January 12, 2006).

⁵⁰For instance, in *The City of God* (v, 9) Augustine writes, “One who does not know all future things surely is not God.”

⁵¹For instance, appeals to quantum indeterminacy to undercut divine foreknowledge are highly dubious—as though a deity that creates a world operating by quantum mechanical principles should be limited by those principles.

⁵²*Ibid.*

⁵³This is the lesson of nonlinear dynamics as well as of quantum mechanics. See respectively James Gleick, *Chaos: Making a New Science* (New York: Viking, 1987) and David Bohm, *Wholeness and the Implicate Order* (London: Routledge & Kegan Paul, 1980).

⁵⁴See, for instance, David G. Hagopian, *The Genesis Debate: Three Views on the Days of Creation* (Mission Viejo, Calif.: Crux Press, 2001).

⁵⁵See Benjamin Wiker and Jonathan Witt, *A Meaningful Universe: How the Arts and Sciences Reveal the Genius of Nature* (Downers Grove, Ill.: Intervarsity, 2006), especially ch. 4. See also Mark Steiner, *The Applicability of Mathematics as a Philosophical Problem* (Cambridge, Mass.: Harvard University Press, 1999).

⁵⁶Some scholars see God as bringing physical reality into being in Genesis 1:1 and then interpret the days of creation as God organizing this brute unformed physical reality (described in Genesis 1:2 as “formless and void”). Nothing in my kairological reading of Genesis 1 is fundamentally changed on this view. There are, however, exegetical reasons for preferring the approach I am taking, which identifies the origin of physical reality with the creation of light on day 1. See, for instance, Marguerite Shuster’s sermon on

Genesis in Paul K. Jewett, ed., *God, Creation, and Revelation: A Neo-Evangelical Theology* (Grand Rapids: Eerdmans, 1991), 506–512.

⁵⁷See Eugene Maly, “Introduction to the Pentateuch,” in Raymond Brown, Joseph Fitzmyer, and Roland Murphy, eds., *Jerome Biblical Commentary* (Englewood Cliffs, N.J.: Prentice-Hall, 1968), 1:3–4.

⁵⁸For these options, see respectively Fazale Rana and Hugh Ross, *Who Was Adam? A Creation Model Approach to the Origin of Man* (Colorado Springs, Colo.: Navpress, 2005) and Keith Miller, ed., *Perspectives on an Evolving Creation* (Grand Rapids, Mich.: Eerdmans, 2003).

⁵⁹For a fascinating and accessible introduction to immunology, see Lauren Sompayrac, *How the Immune System Works*, 2nd ed. (Malden, Mass.: Blackwell, 2003).

⁶⁰It is perhaps not coincidental that the tree of life was positioned at the center of the Garden and that the tree on which Christ was crucified was positioned at Jerusalem, effectively the center in the Promised Land. In *Genesis Unbound* (Sisters, Oregon: Multnomah, 1996), John Sailhamer offers an interesting argument identifying the Garden with the Promised Land.

⁶¹Boethius, *The Consolation of Philosophy*, in *Loeb Classical Library* (Cambridge, Mass.: Harvard University Press, 1973), 153.