



Taken from What Hath Darwin to Do with Scripture? by Dru Johnson.

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CHAPTER ONE

THIS IS NOT THE CREATION-EVOLUTION DEBATE YOU'RE LOOKING FOR

THE CULTURE WARS OF EVOLUTION have set our minds on two paths—more like two ruts. Our creation theologies can ride or die with the Jesus fish or the Darwin fish on their bumpers. Ironically, a devout Christian driving that Jesus-fish car, a vehicle that resulted from centuries of applied science, pooh-poohs "those scientists" for promoting an anti-Christian agenda. Elsewhere in the world, a theoretical physicist naively dismisses religion as blind faith in invisible spirits. I do not want to contribute to the supposed conflict between science and faith. I want to do something much more disruptive. I want us to read Scripture for its own views on natural selection.

The Hebrew creation accounts (specifically Gen 1–2, among others) sew together the same three concerns that Darwin eventually identified as the central topics of natural selection: scarcity of resources, fittedness to habitat, and their combined impacts on sexual propagation. My goal here is to consider the parallels among Darwin's natural selection and later conceptual developments in evolutionary science, then compare them to the conceptual

¹I am fully aware that some might want to work out what is *the single correct view* of creation: what *God actually saw* or *what actually happened* in creation. Others might want to figure out what the biblical authors meant relative to the other creation accounts in the ancient Near East or by analysis of the literary forms and words being used in Genesis. Though good and worthy things to think through, neither of these approaches will get us where we need to go here.



world of the Bible.² We will see both where the two views jive and where they diverge.

Even if it is a grand coincidence, the overlapping concern with genealogical selection in Scripture and in Darwin's thinking deserves some attention. After all, both views supply stories about the beginning, middle, and future of the cosmos.

These biblical and scientific folktales mean to speak realistically about our beginnings. Both stories intend to say something true about the natural history of the universe (even if one thinks the biblical authors do so poetically or analogically). Hence, I use the terms *folktale* and *mythology* as positive terms, not pejorative ones. *Folktale* does not relate to scientific or historical value but to explanatory purpose.³ Like all folktales, these two views about creation are designed to explain what we see and how it came to be.

The biblical authors constructed polished and concise stories of human origins to reason with their audiences (which later includes us) about the invisible and organizing features of our cosmos. Because the biblical literature consistently develops these metaphysical views, we will do well to trace their metaphysical assumptions from beginning to end. The metaphysics that the biblical authors want us to understand is not a complex abstract system but a version of our material world reimagined with a different orientation.

Whether you read biblical texts as history or mystery, they are not just telling stories; they are selling an intellectual tradition rooted in creation. We will soon see the same with some folktales from the evolutionary sciences.

Some of these folktales from the evolutionary sciences differ from the biblical ones on this front: they offer no vision for the way things *ought* to be. For many, if not most, there simply is no particular way in which the

²By *Bible*, *Scripture*, or *Scriptures*, I am referring to the minimal collection of texts regarded by all Christian traditions as the Bible: both the Hebrew Bible/Old Testament and New Testament.

³Many have adequately argued that Genesis does not actually belong in the genre of myth if for no other reason than its rhetorical aims. So James K. Hoffmeier summarizes the comments of Nahum Sarna, Gordan Wenham, and Umberto Cassuto: "The Torah displays an aversion for myth, and as suggested above, combating the ancient Near Eastern mythologies is overtly and subtly at work in the book of Genesis." Hoffmeier, "Genesis 1–11 as History and Theology," in *Genesis: History, Fiction, or Neither: Three Views on the Bible's Earliest Chapters*, ed. Stanley N. Gundry (Grand Rapids, MI: Zondervan, 2015), 23-58, here 40.



material universe is supposed to be oriented. For most versions of the story in the evolutionary sciences, the cosmos *now is* as it always *has been* and ever more *shall be*. Not so for the biblical authors, from the Hebrew Scriptures (Old Testament) to the New Testament. Understanding that pivotal reorientation of the cosmos (what I am calling the metaphysical aspect) illuminates how the biblical authors singularly frame the intersection of scarcity, fit, and sex in the process of genetic selection.

Overlaying the maps of these two intellectual worlds—the Bible's and evolutionary science's—will show us the various routes they each forge to conceptualize the world we know today. The biblical authors' persistent dealings with communitarian ethics, scientific paths to knowledge, metaphysical principles, and causal physical relationships make the biblical intellectual world remarkably relevant for us. Even more, it is relevant for us in ways that other ancient intellectual worlds are not.

I will argue that the intellectual world of the biblical authors makes our world existentially, ethically, and physically coherent in a way that could be harmonized with many of the findings of science—depending on how one construes both enterprises.

INTERRUPTING SCRIPTURE WITH MY QUESTION

"What about the dinosaurs?" I loudly interrupted. The living room was littered with teens on couches around the man who had been speaking to us. "What about them?" the young married youth leader countered. I was twelve, suffering from the angst-ridden effects of my parents' divorce. John Ragsdale happened to be an unfortunate victim of my antics. I was not going to let this youth pastor say another word until he explained to me where the dinosaurs are in the Bible.

Of course, bringing our specific aches and questions to the Bible is not always foolish. For instance, asking, "Where was God when my wife died?" can lead a grieving husband to Scripture's rich store of laments. On the other hand, contentiously demanding an answer to "Where are the dinosaurs in the Bible?" might rightfully need redirection or honing.

How do we know when "Where are the dinosaurs?" is the wrong question to ask? Does Scripture have nothing to say about the dinosaurs? Yes, it must have something to say about the fossilized history beneath our feet. But we



may need to restrain or retrain our questions where the biblical authors are silent so we can instead hear what they are speaking loudly.

Lucy in the ground with baboon bones. In stories about both creation and evolution, mixtures of mythologies and causal explanations abound. Fictionalized men and women stand in for whole populations.

Even the renowned three-million-year-old "Lucy" (Australopithecus afarensis) is a fictional character amalgamated from a collection of scattered bones presumed to belong mostly to one prehistoric individual. I say mostly because her knee bone was discovered a year prior to the rest of her skeleton and over a mile away from the partial bone collection we have come to know as Lucy. In 2015, scientists realized that the Lucy skeleton also included an extinct baboon vertebra that had been wrongly included in Lucy's reconstructed spine. Lucy, then, is the fictionalized character built around the conceptualized skeleton based on the 40 percent of a skeleton that was found roughly in the same area and including various bones from other things and places scattered across a kilometer radius.

Adam, a name conjured from the title in Hebrew (ha'adam), means something akin to "the dirtling" or "the earthling" in English. "The dirtling" (ha'adam) is his punny title precisely because he was taken from "the dirt" (ha'adamah). Like Lucy, Adam often appears in artists' fictionalized renditions along with imagined gardens and his "strong ally" later named Eve. Dozens of sermons, church dramas, and children's services create new fictions every week of the first couple. They are depicted as arguing over fruit or wandering conversationally in a perfect tropical garden—perfect by the standards of whatever community depicts it.

But the creation stories in Genesis depict a "famously laconic" creation—it is too short by any standard.⁶ Our unacceptably short biblical stories about

⁵Leslie Bustard gave me the phrase "strong ally" as a good-enough translation for *ezer kenegdo* (often translated as "helper fit for him" or "helpmeet"). I think it translates the situation quite well. ⁶"Biblical narrative is famously laconic." Robert Alter, *The Art of Bible Translation* (Princeton, NJ: Princeton University Press, 2019), 41.



⁴Donald Johanson and Maitland Edey, *Lucy: The Beginnings of Humankind* (New York: Simon & Schuster, 1981), 159; Colin Barras, "Baboon Bone Found in Famous Lucy Skeleton," *New Scientist*, April 10, 2015, www.newscientist.com/article/dn27325-baboon-bone-found-in-famous-lucy-skeleton/; Marc R. Meyer et al., "Lucy's Back: Reassessment of Fossils Associated with the A.L. 288-1 Vertebral Column," *Journal of Human Evolution* 85 (2015): 174-80.

creation bear such scant details that we often find ourselves telling stories *about* creation that are not *in* the biblical creation stories.⁷

Yet, stories of Adam and Lucy demonstrate that we help others understand our ideas about natural history by telling good-enough stories that generalize beyond the data. By good enough, I mean that they accomplish the task at which they aim without having to explain all the data. And like so many things, we create stories about creation for our own good or ill.

Joshua Swamidass's recent book, *The Genealogical Adam and Eve*, offers a great example of the former. He creatively offers narratives and explanations that thread the needle of current population-genetics research, the creation stories of evolutionary science, computational modeling, and the biblical accounts.⁸ I hope more scholars follow his lead, and I will be returning to his model several more times.⁹

To see how the biblical authors also strategically employ narrative, poetry, and legal reasoning to explain reality, we must first value the intellectual world the biblical authors construct for guiding their endeavor. That is a big ask for some of us.

Let's be sober about this. Instead of entering expectantly into the Bible's intellectualism, we often try to relegate the texts of Scripture into some other category that allows us to get on with our task scientifically, or even spiritually. We find a way to swap out the biblical accounts for scientific mythologies until we get to "real history" within Genesis—usually starting with Abraham. Or, we create fictionalized accounts about Genesis to fill the gaping holes of the biblical creation accounts (e.g., depicting dinosaurs and humans living side by side). Both ways move the biblical texts to the side, presuming that they offer up only theological data (for the theistic evolutionist's task)

⁹Saying that scholars explain through fictionalized stories does not diminish their task, its explanatory power, or historical focus. Rather, this highlights the power of story to explain the most complex relationships and how to best understand them—in the sciences and Scriptures. Narrative, like deductive logic and poetry, constitutes a thought form: a way of thinking, clustering data, explaining, and arguing about the invisible features of the visible world. For a fuller account of narrative used as scientific and logical explanation, see Dru Johnson, *Biblical Philosophy: A Hebraic Approach to the Old and New Testaments* (New York: Cambridge University Press, 2021), 116-32.



⁷William P. Brown includes Prov 8; Ps 104; Job 38–41; Eccles 1; and Is 40–55 in his examination of creation and science. Brown, *The Seven Pillars of Creation: The Bible, Science, and the Ecology of Wonder* (New York: Oxford University Press, 2010).

⁸S. Joshua Swamidass, *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry* (Downers Grove, IL: IVP Academic, 2019).

or raw biblical data (for the creationist's so-called literal reading). But we are doing something better here, I think.

The biblical authors are reasoning with us. I want to wrestle with this claim: the biblical literature presents a coherent and sustained intellectual world for us to enter. This reasoning is meant both to construct and to delimit our philosophical (or theological) imaginations.¹⁰

In contrast, many Christian explanations that engage the biblical accounts end up treating the texts as either antiquated cosmic mythologies (how the world came to be), etiologies (causal explanations of our present world), functionalist explanations (how everything plays a role in ancient cosmology), or literalistic accounts that mix scientific reasoning and a flat reading of Genesis 1–2 (think Ken Ham's Answers in Genesis).

Paring the biblical creation texts down to functional, mythological, or etiological approaches does not sufficiently reflect the rigorous thinking presented by the biblical authors. And the literalistic readings do not go far enough, often not taking the literary aspects of intellectual literature seriously. All of these approaches could be partially mistaken in ways akin to my adolescent question about dinosaurs in the Bible. They create the potential to err by bringing their own problems to the biblical text and interrupting it with something that is problematic to them: typically, the many-splendored findings from the evolutionary sciences.

I want us to allow the biblical authors to set the terms of the discourse the way they saw fit. I want them to be the loudest voice when we consider the conceptual world of creation that they have constructed for their audiences, ancient and modern. Let us give *their* metaphysical frameworks, *their* values, and *their* priorities a hearing to see whether they are antiquated gobbledygook or something more sophisticated. When we do, we will see that the biblical authors argue more vociferously and with more sophistication than we might have imagined or fictionalized.

We will discover that the biblical literature suggests a form of natural selection, depending on what we mean by *natural*. We will have to puzzle that out later.

¹⁰On why the biblical literature represents a philosophical tradition, see Johnson, *Biblical Philosophy*; Yoram Hazony, *The Philosophy of Hebrew Scripture* (New York: Cambridge University Press, 2012).



We will also run the risk of having to say that the biblical authors might have been scientifically inaccurate about things. Did the biblical authors appear to believe in a three-decker cosmos (i.e., heavens, earth, and the deeps) with a domed sky resting on a flattened land mass set on pillars surrounded by water above and below? Yes, most of them did seem to believe something like that.

Did they describe the cosmos in functional terms and trace causal explanations? At the least, yes, they did. Did their descriptions of creation provide a mythological account for later Hebrews (mythological in that it is an explanatory narrative about origins)? Yes, they did. Would the biblical authors believe that their accounts could hold up under modest scientific scrutiny if they were alive today? I think so, even if adjustments would have to be made to fit their understanding to current scientific understanding. Did the biblical authors write narratives in styles similar to what we have come to expect of historical or scientific explanations over the last century or so? Not so much.

I want us to pursue questions that I think are more interesting than these rather flatfooted questions for comparing creation and science. More than any of the above approaches on their own, the biblical authors constructed this literature to reason with their audiences about the nature of reality beyond the historical and concrete events they experienced, even beyond some present understandings we may have today.

As the simplest of examples about Iron Age Israelite concepts, the biblical authors make a steady distinction between reproductive anxieties and sexual generation. Sexual reproduction focuses on fertility and resident anxieties about producing children within one's life and to one's own benefit. Generation, on the other hand, looks over the horizon at the successive

¹¹Inaccurate ideas do not entail that they were irrational ideas given the cosmological traditions and understanding of their age. For instance, Iron Age Hebrews appear to have held strong convictions about material cause-and-effect relationships but also included invisible forces in those mechanical calculations. They seem to have broken with Mesopotamian and Egyptian thought, being more rationally oriented (by our standards today) and demonstrating the earliest instances in literature of "critical intellectualism" and a "skeptical mood." Henri Frankfort et al., *The Intellectual Adventure of Ancient Man: An Essay on Speculative Thought in the Ancient Near East* (Chicago: University of Chicago Press, 1946), 234. See also Jan Dietrich, "Empiricism or Rationalism in the Hebrew Bible? Some Thoughts About Ancient Foxes and Hedgehogs," in *Sounding Sensory Profiles in the Ancient Near East*, ed. Annette Schellenberg and Thomas Kruger (Atlanta: SBL Press, 2019).



chain of reproduction. Generational anxieties focus on progeny in the land of the living, or what some might call genetic success. Most basically, reproduction relates to one's children, whereas generation relates to one's progeny.

And early on, Genesis disrupts the cultural flow of generational thinking by passing the covenants through the second-born instead of the first. This indicates that generational thinking is not merely about producing many lineages, but unexpected lineages. And sometimes these generated from the "weaker" sons, some who turned out to be scoundrels (e.g., Jacob over Esau). From Genesis's usurping of first-born son expectation to Paul's rhetoric about God choosing the weak and foolish things, biblical authors delight to disrupt our thinking about convention and strength.

This distinction between reproduction/children and generation/ descendants provides enough conceptual heft for later discussions about sexual behaviors driven by scarcity and fit. The biblical reproduction-generation distinction will be especially helpful in thinking about hominins who are capable of worrying about progeny beyond their immediate generation. ¹² Much more on this later.

Stories that argue with us. The Hebrews, like us, used stories to reason about their view of reality. Most of us grew up thinking that stories, on the page or the screen, were meant to entertain us. But stories can also make arguments. They can reason with us about the invisible features of the world. I might go further to say that narratives can uniquely inspect the unseen ways our world works, things not available to the naked eye and only grasped through insight. This unique ability of stories explains why filmmakers, scientists, philosophers, and sacred texts all use story to reason with us.

Pithy stories do some philosophical heavy lifting. They reason with us and initiate explanations. These argumentative stories, like scientific and biblical narratives, are rarely about what we can see with our eyes. Rather, they explore the invisible forces at work that make sense of what we can see. This is precisely what happens in most stories explaining the creation of humanity in the biblical literature and the sciences.

Concepts such as gravity and velocity must be understood apart from what is observed. Most (all?) concepts in the evolutionary sciences, including the

¹²Nota Bene: Hominin generally refers to humans, their extinct ancestors, and great apes.



concepts of Darwin's natural selection, cannot be observed with the senses. They must be understood in order to explain what can be observed.

The invisible concept of friendliness is one such example in evolutionary psychology. Brian Hare and Vanessa Woods's splendid book, *Survival of the Friendliest*, argues that natural selection ultimately favors friendliness. They define friendliness as the ability to share ideas and goals with others and accomplish them together. When creatures begin demonstrating collaborative and beneficent traits toward others, there are physiological changes—to their teeth, face, torsos, and more—that can be predicted and traced. They call this self-domestication.

Hare and Woods then consider friendliness traits that allowed modern humans (*Homo sapiens sapiens*) to outlast other hominins such as Neanderthals (*Homo sapiens neanderthalensis*) through self-domestication. Modern humans did not necessarily outwit Neanderthals through their raw mental prowess. Rather, Hare and Woods believe that modern humans managed to outlast Neanderthals because of a new kind of social intelligence they conceptualize as friendliness.

But here is the point: Hare and Woods begin their book with a fictional story tracing friendliness through early hominins up to modern human beings. They then go on to examine twenty-first-century partisan politics in US Congress in light of their friendliness thesis. Ultimately, they conclude that fearmongering and dehumanizing of others in American partisan politics is antithetical to a natural selection that favors friendliness. They believe this all then yields a general moral truth: "Political rivals in a liberal democracy cannot afford to be enemies." ¹⁴

This is all fascinating stuff, but I want us to notice how Hare and Woods themselves conceived of what they were doing in their book. They tell a story of how various versions of *Homo erectus* become various versions of *Homo sapiens* and how hunting, art, and communication allowed certain versions of hominins to flourish because of the invisible trait of friendliness.¹⁵

¹⁵Their fictionalized creation narrative imagines the cognitive challenges of hominins who first sailed the seas. They envisage those prehuman hominins venturing over the glassy horizon and how they had to prepare *today* for imagined situations in distant lands *tomorrow*. The authors



¹³Brian Hare and Vanessa Woods, Survival of the Friendliest: Understanding Our Origins and Rediscovering Our Common Humanity (New York: Random House, 2021).

¹⁴Hare and Woods, Survival of the Friendliest, xxx.

Hare and Woods label their own science-based narrative "a creation story" and insist that theirs is "not just another creation story." Their story should be the basis for shaping our morals and behaviors today: "It is a powerful tool that can help us short-circuit our tendency to dehumanize others. It is a warning and a reminder that to survive and thrive, we need to expand our definition of who belongs." From their creation narrative they apply the principles seamlessly to political strife in twenty-first-century America. ¹⁷

This is what I would like us to notice: they did not tell just any story of creation. Rather, they strategically aimed their good-enough story at invisible features of our world to foster our intellectual imaginations about how the world once *was*, now *is*, and *is to come*.

Like Hare and Woods's scientifically ensconced creation story, the biblical authors did not restrict themselves to what could be seen. They too attempted to give a good-enough story to elucidate the unseen features that then explain what we can observe today.

BRINGING IT ALL HOME

Did you catch what I tried to do above? In a very simple way, I attempted to find an intellectual common ground behind the storytelling in the creation stories of the Bible and scientific explanations (here *Survival of the Friendliest*). I did this because I want to compare them apples to apples. Both of them reason with us by presenting coherent intellectual worlds with robust explanations in the form of stories. They both rely on the conviction that a good-enough story can help us to see the unseen features that shape the world. And as a colleague reminded me, they do so "at least in part to convince us how to *live!* These are ethically freighted tales."¹⁸

¹⁸Thanks to Michael Rhodes for pointing this out.



even hint at the possible origins of abstract thinking and the intellectual development of imagination based on such fictions of possible hominin sea voyages.

¹⁶Hare and Woods, Survival of the Friendliest, xxx.

¹⁷The reality of friendliness as an organizing feature cannot be diminished by the fact that it cannot be seen. It must be understood through a collection of features shared between creatures that we can assess and label as "friendliness." So too with scientific metaphors such as electromagnetic attraction, motivation theory in social psychology, or the so-called laws of physics more generally. None of these metaphors—yes, they are all metaphors—can be directly observed by humans or instruments.

In the coming pages, I will trace the remarkable similarities between Darwin's version of natural selection and the biblical discourse on the same topics. Because Darwin's project only marked a beginning, I include early critiques of natural selection from within the sciences and some of the current ideas in the evolutionary sciences. (Of course, these surveys can only give glimpses into the most generally agreed-on ideas and critiques of natural selection. And the moving target that is "current evolutionary science" typically and only represents a slice of its theorists.) Alongside each of Darwin's aspects of natural selection—scarcity, fit, and sex—I trace how the biblical authors deal with the same group of selection pressures in their own way.¹⁹

I will suggest that the actual conflict between science and Scripture is not evolution versus creation. Rather, the conflict turns on how one answers this question about the present physical state of the universe: Is it now as it was in the beginning and ever more shall be?

But first, we dig deeper into Darwin's remarkable ideas.

¹⁹This book will deal with sensitive issues relating to violence and sexuality as seen in the evolutionary and biblical records. Readers should know these topics have been handled with care and respect, but also bluntly and descriptively when necessary. My hope is that we can learn from our dark human pasts so that we can confront present realities.



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