

WORLDVIEWS: CONCEPTS OR NARRATIVES? AN INTEGRATIVE DEFINITION TO ASSESS THEIR CONTROLLING EFFECT IN THE BIBLICAL AND ATHEISTIC EVOLUTIONARY MODELS

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Abstract

What are worldviews? What are their characteristics? How do they work? This article offers tentative responses to these questions through the integration of concepts and narratives. Using the biblical and the atheistic evolutionary narratives as case studies, it also seeks to show how worldviews have a significant, though not absolute, controlling effect on one's perception of reality.

Keywords: worldview, story, grand story, narrative, metanarrative, mindset, software, Bible, biblical, evolution, evolutionary, assumptions, presuppositions

Introduction

Scholars have defined worldviews in several ways across a broad spectrum.¹ Minimally, these academics have described worldviews as conceptual lenses through which people see the world.² In recent decades, however, many have noted that the reduction of worldviews to concepts is not sufficient to

¹ For a brief history of the “worldview” concept, see Albert M. Wolters, “On the Idea of Worldview and Its Relation to Philosophy,” in *Stained Glass: Worldviews and Social Science*, ed. Paul A. Marshall, Sander Griffioen, and Richard J. Mouw (Lanham, MD: University Press of America, 1989), 14–25. For an anthropological perspective, see Paul G. Hiebert, *Transforming Worldviews: An Anthropological Understanding of How People Change* (Grand Rapids: Baker Academic, 2008), 13–30. For a thorough work on the topic, see David K. Naugle, *Worldview: The History of a Concept* (Grand Rapids: Zondervan, 2002).

² See Gürol Irzik and Robert Nola, “Worldviews and Their Relation to Science,” in *Science, Worldviews and Education*, ed. Michael R. Matthews (Basel, Switzerland: Springer, 2009), 83; Mikael Stenmark, “Worldview,” in *Encyclopedia of Science and Religion*, ed. J. Wentzel Vrede van Huyssteen et al. (New York: Macmillan, 2003), 2:929; Ronald H. Nash, *Worldviews in Conflict: Choosing Christianity in a World of Ideas* (Grand Rapids: Zondervan, 1992), 16; James H. Olthuis, “On Worldviews,” in Marshall, Griffioen, and Mouw, *Stained Glass*, 26–40.

adequately portray people's view of reality.³ Instead, scholars have increasingly acknowledged the narrative character of worldviews: that is, to different degrees, many have come to define worldviews as stories that shape our understanding of life.⁴ While the integration of these two emphases—concepts and narratives—has not always been seamless,⁵ in this article, I propose an

³ “There has been a tendency in modern Western thought to reduce worldview beliefs to a propositional format. . . . In reality, however, the philosophical and religious beliefs of human beings are more commonly shared and passed down through story, not through a set of philosophical propositions. . . . For the vast majority of people past and present, worldview is narrative in structure.” Tawa J. Anderson, W. Michael Clark, and David K. Naugle, *An Introduction to Christian Worldview: Pursuing God's Perspective in a Pluralistic World* (Downers Grove, IL: IVP Academic, 2017), 14; cf. Steve Wilkens and Mark L. Sanford, *Hidden Worldviews: Eight Cultural Stories that Shape Our Lives* (Downers Grove, IL: IVP Academic, 2009), 17; Michael W. Goheen and Craig G. Bartholomew, *Living at the Crossroads: An Introduction to Christian Worldview* (Grand Rapids: Baker Academic, 2008), xiv.

⁴ E.g., “All worldviews originate in a *grand story* of one sort or another.” Craig G. Bartholomew and Michael W. Goheen, *Christian Philosophy: A Systematic and Narrative Introduction* (Grand Rapids: Baker Academic, 2013), 16. “In order to make sense of our lives we depend on some *story*. Some *story* provides the broader framework of meaning for every part of our lives.” Craig G. Bartholomew and Michael W. Goheen, *The Drama of Scripture: Finding Our Place in the Biblical Story*, 2nd ed. (Grand Rapids: Baker Academic, 2014), 18. “A worldview is like a *story*, and nowadays I think it is the best way to put it.” Gregory Koukl, *The Story of Reality* (Grand Rapids: Zondervan, 2017), 27. “We prefer the concept of worldview as *story*.” Wilkens and Sanford, *Hidden Worldviews*, 17. All emphases added. Cf. Alister E. McGrath, *Narrative Apologetics: Sharing the Relevance, Joy, and Wonder of the Christian Faith* (Grand Rapids: Baker, 2019), 9; Hugh Lacey, “The Interplay of Scientific Activity, Worldviews, and Value Outlooks,” in Matthews, *Science, Worldviews and Education*, 193.

⁵ An example of the difficulty of integrating the two emphases can be seen in Sire's updated definition (since the 4th ed.). He states that “a worldview . . . can be expressed as a story *or* in a set of presuppositions” (emphasis added). James W. Sire, *The Universe Next Door: A Basic Worldview Catalogue*, 5th ed. (Downers Grove, IL: IVP Academic, 2009), 20. Another example comes from Hiebert, who does not use *story* or *narrative* in his definition but uses these terms repeatedly throughout his work to unpack what worldviews are. See *Transforming Worldviews*, 25–26, 31, 49, 152–53. The dilemma is also present in Anderson, Clark, and Naugle, *Introduction to Christian Worldview*. They work with narrative in chapter 4 and with propositions in chapter 5.

integrative definition, as others have done,⁶ to assess the controlling effect⁷ worldviews have on the interpretation of data. In order to demonstrate the phenomenon, I will work with two influential and largely competing⁸ world-

⁶ "Worldview is an articulation of the *basic beliefs embedded in a shared grand story*." Goheen and Bartholomew, *Living at the Crossroads*, 23, emphasis added. "Thus, while *propositional beliefs* are an essential aspect of worldview examination, *these spring from the messy process that we call 'our story'*." Wilkens and Sanford, *Hidden Worldviews*, 17–18, emphasis added. "All knowledge of realities external to oneself takes place within the framework of a worldview, of which *stories* form an essential part," emphasis added; "worldviews provide the *stories* through which humans beings view reality," emphasis original. N. T. Wright, *The New Testament and the People of God* (Minneapolis: Fortress, 1992), 45, 123.

⁷ N. T. Wright uses the expression *controlling stories* (*New Testament and the People of God*, 42n28), which, in turn, he links to Nicholas Wolterstorff's *control beliefs* (*Reason within the Bounds of Religion*, 2nd ed. [Grand Rapids: Eerdmans, 1988], ch. 1). See also note 99 below.

⁸ I do not advocate the *conflict view* between science and religion. Historically, it is a well-known fact that "virtually all of the most prominent figures in the historiography of the Scientific Revolution were religious, devout, and some of them extremely so." John Henry, "Religion and the Scientific Revolution," in *The Cambridge Companion to Science and Religion*, ed. Peter Harrison (Cambridge: Cambridge University Press, 2010), 39. In this regard, Stark has shown that of the most illustrious scientists of the Scientific Revolution (from 1543 to those born until 1680), "61.5%" were devout, "34.7%" were religious (but not devout), and only "3.8%" were skeptics. Rodney Stark, *For the Glory of God: How Monotheism Led to Reformations, Science, Witch-Hunts, and the End of Slavery* (Princeton: Princeton University Press, 2003), 160–62. For a robust and yet accessible treatment of the religious aspects of the Scientific Revolution, see James Hannam, *The Genesis of Science: How the Christian Middle Ages Launched the Scientific Revolution* (Washington, DC: Regnery, 2011). Later, in the nineteenth century, the very term *scientist* was coined by the Anglican priest and eminent British scientist William Whewell in 1834 (see Frank M. Turner, *Contesting Cultural Authorities: Essays in Victorian Intellectual Life* [Cambridge: Cambridge University Press, 1993], 177). Even in evolutionary thought, the great upgrade of the modern synthesis results largely from the work of Gregor J. Mendel (1822–1884), an Augustinian friar and pioneer geneticist. Charles Darwin himself "sent four sons . . . to be educated by Anglican clergymen" (James R. Moore, review of *Charles Darwin and the Problem of Creation*, by Neal C. Gillespie, *British Journal for the History of Science* 14.2 [1981]: 197). Sensitive to this historical background, I argue that these two grand stories—the biblical and the atheistic evolutionary narratives—in some instances are incompatible. Some of their differences, in turn, generate tension in the areas of science and religion.

views in the West as case studies: the biblical⁹ and the atheistic evolutionary¹⁰ models.¹¹ Thus, intermediate positions that fall under the umbrella of theistic

⁹ The term *biblical narrative* in this article refers to the interpretive framework provided by the grand story found in the “common canonical core,” or the sixty-six books shared by Catholic, Orthodox, and Protestant traditions; see John C. Peckham, *Canonical Theology: The Biblical Canon, Sola Scriptura, and Theological Method* (Grand Rapids: Eerdmans, 2016), 52n15. While the various books of the common canonical core may provide different perspectives from each other—warranting different theologies for each one of them—they still contribute to one grand story, however nuanced it may be by each of those books.

¹⁰ The discussion of *atheistic evolutionary* models will include models that work with ontological as well as methodological naturalism, though the latter does not necessarily entail atheistic positions. The reason why models that are informed by methodological naturalism (MN) may be considered atheistic in this article is that when MN is applied to the historical sciences, it excludes supernatural intelligent causes *a priori* and thus, for all practical purposes, functions like an atheistic model.

¹¹ Several authors recognize that these are both the most influential and most antagonistic points of view in the Western world. For instance, “in our contemporary culture . . . two quite different stories are told. One is the story of evolution . . . the other is the one embodied in the Bible. . . . These are two different and incompatible stories.” Lesslie Newbigin, *The Gospel in a Pluralistic Society* (Grand Rapids: Eerdmans, 1989), 15–16, quoted in Goheen and Bartholomew, *Living at the Crossroads*, 7. McGrath observes, “One of the most interesting developments of the twentieth century has been the growing trend to regard Darwinian theory as transcending the category of provisional scientific theories, and constituting a ‘worldview.’ Darwinism is here regarded as establishing a coherent worldview through its evolutionary narrative, which embraces such issues as the fundamental nature of reality, the physical universe, human origins, human nature, society, psychology, values, and destinies. While being welcome by some, others have expressed alarm at this apparent failure to distinguish between good, sober, and restrained science on the one hand, and non-empirical metaphysics, fantasy, myth, and ideology on the other. . . . In the view of some, this transition has led to Darwinism becoming a religion or atheist faith.” Alister E. McGrath, “The Ideological Uses of Evolutionary Biology in Recent Atheist Apologetics,” in *Biology and Ideology: From Descartes to Dawkins*, ed. Denis R. Alexander and Ronald Numbers (Chicago: University of Chicago Press, 2010), 331. In this sense, Michael Ruse states, “Evolution is promoted by its practitioners as more than mere science. Evolution is promulgated as an ideology, a secular religion—a full-fledged alternative to Christianity, with meaning and morality. . . . Evolution is a religion. This was true of evolution in the beginning, and it is true of evolution still today. . . . Evolution therefore came into being as a kind of secular ideology, an explicit substitute for Christianity.” See “How Evolution Became a Religion: Creationists Correct?” *National Post*, 13 May 2000, B1, B3, B7, quoted in Thomas B. Fowler and Daniel Kuebler, *The Evolution Controversy: A Survey of Competing Theories* (Grand Rapids: Baker Academic, 2007), 41; see also Mary Midgley, *Evolution as a Religion*, rev. ed. (London: Routledge, 2002). While I agree with Ruse that these two worldviews compete in many ways, I do not frame the discussion with the term *Christianity* because it embraces a vast spectrum of

evolution, though significantly representative of a range of views, are outside the scope of this article.¹²

Beyond this narrative approach, there is also a third tier of meaning in which worldviews are not only the interplay of concepts and stories but encompass one's "background."¹³ In this maximal sense, worldviews are not theoretical abstractions but are embodied in one's way of life and permanently influenced by one's total experience. Unfortunately, due to their individual character and infinite degree of variability, worldviews in their maximal sense are difficult to evaluate and thus, to a certain extent, lie outside the scope of this article.

Hence, I will start with an integrative definition of the term *worldview* in its narrative context (a grand story). After that, I will go over the major ontological components of worldviews as well as their general characteristics. Next, I will assess what grand stories do and suggest a contemporary metaphor to illustrate their function. Then I will focus on two specific grand stories—the biblical and the atheistic evolutionary narratives—as case studies through which I intend to illustrate the controlling effect of worldviews on the interpretation of perceived reality.

Working Definition

As a number of scholars have recently noticed, concepts and narratives are not *either-or*, but *both-and* categories as they relate to worldviews, the former being embedded in the latter. Thus, in this article, I speak of worldviews as taking into account both emphases simultaneously and in a complementary fashion. For this purpose, I offer the following minimal working definition: a worldview is a grand story within which several interconnected concepts are present and, in their narrative context, serve as parameters for people to interpret reality.¹⁴ With this brief definition, I acknowledge that various

positions with varying interpretations of the Bible throughout history. Instead, I frame it with what I call *the biblical narrative*, which provides a more stable source for the discussion. Moreover, the biblical narrative offers a grand story that often differs from traditional Christian interpretations.

¹² For those wishing to pursue theistic evolutionary views, I suggest Robert C. Bishop et al., *Understanding Scientific Theories of Origins: Cosmology, Geology, and Biology in Christian Perspective* (Downers Grove, IL: IVP Academic, 2018) and J. P. Moreland et al., eds., *Theistic Evolution: A Scientific, Philosophical, and Theological Critique* (Wheaton, IL: Crossway, 2017). While the former presents favorable views, the latter offers critical perspectives of theistic evolution.

¹³ See Charles Taylor, *A Secular Age* (Cambridge: Harvard University Press, 2007), 173.

¹⁴ This definition goes beyond reductionistic approaches (worldviews as concepts) to a midrange one (worldviews as concepts within a narrative template). It does not

concepts indeed inform one's view of reality, but they are not loose in one's mind; rather, they are organized (even if subconsciously) in a historical or narrative template.¹⁵ In other words, narratives provide the context within which the concepts and propositions operate.¹⁶ Concepts and propositions, in turn, cooperate with our understanding of the narratives.¹⁷

Major Components & Environments

Worldviews are made up of too many elements to discuss them all. There are, however, some major components—also known as macro-hermeneutical principles¹⁸—that stand out when assessing them. These are God, the cosmos, and humanity.¹⁹ I will also briefly mention some of the interrelationships between them as well as the environments in which they operate.

encompass, however, maximalist approaches (worldviews as they are individually and variously embodied in practice).

¹⁵ It should be noted that scholars who explain worldviews as conceptual frameworks are also aware that such concepts are not loosely held by people; they often explicitly define the term *worldview* as “a network of interconnected ideas” (Kenneth Richard Samples, “Worldview,” in *Dictionary of Christianity and Science*, ed. Paul Copan et al. [Grand Rapids: Zondervan, 2017], 688) or “a system in which the individual pieces [beliefs] fit together into an interlocking, interconnected, coherent, and consistent whole” (Richard DeWitt, *Worldviews: An Introduction to the History and Philosophy of Science*, 2nd ed. [Malden, MA: Wiley-Blackwell, 2010], 9); all emphases added. However, *narrative* (or story) seems preferable to merely *system* because the former is more comprehensive and natural to how we perceive and communicate reality than the latter.

¹⁶ Vanhoozer explains that outside its narrative context, “a proposition has no communicative function,” for “it has been *dedramatized*.” According to him, narratives ask readers to look at reality from a certain angle. “Narratives do more than chronicle; they *configure*.” Kevin J. Vanhoozer, *The Drama of Doctrine: A Canonical-Linguistic Approach to Christian Theology* (Louisville, KY: Westminster John Knox, 2005), 91, 282; emphases original.

¹⁷ “There is a mutual dependence between the two [between concepts and narratives].” Kenneth Bergland, email to author, 9 October 2018.

¹⁸ For an explanation of *macro-, meso-, and micro-hermeneutical principles*, see Fernando Canale, “Deconstructing Evangelical Theology?” *AUSS* 44.1 (2006): 95–130.

¹⁹ These three components—God, the cosmos, and humanity—deal with ontology (what *is* or *exists*), and thus are also known as *principles of reality*, i.e., categories in which reality can be described. See Fernando Canale, *Basic Elements of Christian Theology: Scripture Replacing Tradition* (Berrien Springs, MI: Andrews University Press, 2005), 21. As Giannetto explains it, “Every theory, as well as every different formulation of a theory implies a different worldview: a particular image of Nature implies a particular image of God . . . as well as of mankind and their relationship.” Enrico R. A. Giannetto, “The Electromagnetic Conception of Nature at the Root of the Special and General Relativity Theories and Its Revolutionary Meaning,” in Matthews, *Science, Worldviews and Education*, 117. Cf. Wright, *New Testament and the People of God*, 122–123.

God

Worldviews have described God/the Divine, or the lack thereof,²⁰ in widely different ways. In some scenarios, God is a personal Being, while in others, the Divine is an impersonal realm or organizing principle. In some, God is described as a single person, and in others as a complex/plural person. There is also the idea of a multitude of gods, both as higher and as lower gods. In terms of attitude, especially concerning to humans, God has been depicted as distant, uninterested, and even evil. On the other hand, where God is portrayed as a person, he has also been portrayed as accessible, close, attentive, caring, merciful, and good.

When seeking to understand the reality of this category, many questions are often raised. Is there a God? If so, is God in control of everything? In all details? If not, what is God in control of? Is God all-powerful and all-knowing? If so, why doesn't God end suffering, injustice, and death? If not, is God still God, after all? What is God like in essence? Is God spirit, matter, both, or something else? Is God everywhere? Or just somewhere? Is God identical to the cosmos? Or just part of it? Is God wholly other than the cosmos? Does God interact with our world? Can God interact? Does God interact in our plane, or just in another level or dimension? Does God also communicate with us in a cognitive way? If so, how? If not, why not? Can *we* communicate with God? If so, how? If God is all-knowing, why should we communicate with him at all?

The Cosmos

In this category, we are talking about the universe in general and also about our world in particular. We could refer to this category as "nature" in a broad sense.²¹ Here, we can also ask a multitude of questions. For instance, what is the nature of the universe? What is it made of? When did it come about? Has it always existed? Will it ever end? Is it expanding, collapsing, or both? How would that make sense? Who/what caused it to exist? How does it work? Does it follow laws, or is it just random? Why? Are there other universes? Is the universe complete, finished? Or is it developing? Does development take place in phases, or is it ongoing? Are such processes guided or unguided? Are there other intelligences out there? Or is it just us? If there are, where are they?

²⁰ Though framed from a theistic perspective, this component (God) is helpful as a category even when discussing atheistic worldviews because, in such paradigms, a divine cause or creator is usually explicitly denied. So, as a category, it is often present in such worldviews, even if utilizing negation. As Giannetto clarifies, "Atheism too has a particular image of God" ("Electromagnetic Conception of Nature," 117). Cf. Wright, *New Testament and the People of God*, 123.

²¹ See Erica W. Carlson, "Nature," in Copan et al., *Dictionary of Christianity and Science*, 474.

Do they relate to us? Will they ever relate to us? Why don't they relate to us? Are there limits to the universe? Or is it infinite? Is it real or just an illusion? On our planet, have things always been the way they are? Can we be sure of that? If not, how could things have been different in the past? Why?

Humanity

Who are humans? Are human beings the apex of evolutionary processes on earth? Are humans still evolving? How does that happen? Are human beings divine? Are we divine-like? Could we have been created? Have we evolved or decayed since then? In what sense? Biological, technological? What about morally? Is there such a thing? What are humans made of? Are we purely material? Do we have an immaterial part? If so, is the immaterial self the real essence of humans? Is it eternal? Can the immaterial part consciously function without the material part? Could our traditional assumptions about human nature be mistaken? If so, how? What are the alternatives we are not exploring? Can we have different explanations for consciousness? Are we good or evil by nature? Could we be a little bit of both? Do we exhaust reality with our senses? Could our senses be limited in their apprehension of reality? In other words, do we perceive *everything* there is? How could we be sure of that? If not, what could we be missing? Furthermore, what would the implications be for our understanding of reality in that case?

Whatever answers we give to these questions express our understanding of God, the cosmos, and human beings, and these ideas become hermeneutical presuppositions to interpret everything else. They are our fundamental assumptions about reality, what we take for granted, usually without examination. That is, once defined, these concepts operate in our reasoning processes before we engage with other data. Thus, they are referred to as *a priori* assumptions. They form our "index of reality"²² against which we assess the validity or truthfulness of anything else. This is why these categories—God, the cosmos, and humanity—are the principal components of worldviews. These ontological categories are the *core* elements of any worldview. If changed, these components cause a major reconfiguration of the entire system, as opposed to *peripheral* components that, while important, do not produce as dramatic a change in the grand scheme of things.²³ Thus, identity,

²² The expression *index of reality* is taken from Robert J. Richards, "The Structure of Narrative Explanation in History and Biology," in *History and Evolution*, ed. Matthew H. Nitecki and Doris V. Nitecki (Albany, NY: State University of New York Press, 1992), 24, 26, quoted in Fernando Canale, *Creation, Evolution, and Theology: An Introduction to the Scientific and Theological Methods* (Libertador San Martín, Argentina: Editorial Universidad Adventista del Plata, 2009), 76.

²³ I am indebted to DeWitt for the idea of "core" and "peripheral" beliefs, which I adapt and apply here to the major components of worldviews (see *Worldviews*, 11).

convictions, values/ethics, actions/behavior,²⁴ and to a certain extent even epistemology (how we come to know things),²⁵ as important as they may be, are substantially derived from our understanding of these three foundational components and their interactions.

Several factors affect the relationships between these components; here, I will mention just a few. One is *the environment* in which the major components interact. In other words, on what level or in what sphere could God, humans, and the world interact? This has to do with issues of time and space. Is God in a timeless sphere? Why so? Or why not? Is God compatible with time (the historical sequence of events we experience)? Are humans merely temporal beings (functioning consciously in time only)? Do humans have an eternal soul? Or don't they? The answers one gives to these questions become major assumptions that condition one's understanding of the interaction between God and humans.²⁶ If the environments in which God and humans operate are different and incompatible (e.g., time vs. timeless), this may create major obstacles for their relationship.²⁷ In addition, *time scales* profoundly affect worldviews. Due to their defining effects on reality perception, the issues of deep, recent, or hybrid time scales, among others, must also be considered.

General Characteristics

When one looks at the characteristics that scholars have observed in worldviews, several different traits come to the fore. Examining some of these can be helpful, as they highlight possible nuances and also make us sensitive to what worldviews do and how they function. Below are some common attributes of worldviews described in the literature.

1. *Deep*. Core commitments that shape one's worldview are usually *not* noticed at the surface level.²⁸ From a societal perspective, similarly, world-

²⁴ Phrase adapted from Wilkens and Sanford, *Hidden Worldviews*, 19.

²⁵ "Epistemology and ontology are co-dependent. Our concept of ontology assumes already that some epistemological questions have been answered. Our concept of epistemology assumes the answer to some ontological questions." Oliver Glanz, communication with author, 17 April 2020.

²⁶ See Fernando Canale, *Toward a Criticism of Theological Reason: Time and Timelessness as Primordial Presuppositions* (PhD diss., Andrews University, 1983).

²⁷ See Fernando Canale, *The Cognitive Principle of Christian Theology: A Hermeneutical Study of the Revelation and Inspiration of the Bible* (Berrien Springs, MI: Andrews University Lithotech, 2005); Idem, *Basic Elements of Christian Theology*, 40–74.

²⁸ See the iceberg metaphor in E. Randolph Richards and Brandon J. O'Brien, *Misreading Scripture with Western Eyes: Removing the Cultural Blinders to Better Understand Scripture* (Downers Grove, IL: InterVarsity Press, 2012), 12.

views are deep and “unseen structures underlying the entire explicit culture.”²⁹ For this reason, they often go unnoticed to most observers.

2. *Not Immediately Apparent to Possessors*.³⁰ People are often unaware or unconscious of their worldviews,³¹ both what these worldviews *are* and what they *do*.³² It is common for worldviews and the core commitments embedded in them to become apparent to their possessors only once contrasted,³³ challenged,³⁴ or reflected upon.³⁵

3. *Presuppositional*. “Worldviews are pretheoretical in nature,” that is, “they develop prior to or devoid of conscious reflection and rational deliberation.”³⁶ Worldviews are formed as people go through life and are influenced by their parents, friends, teachers, educational systems, religion, media, their own experiences, and so forth.³⁷ Once established, one’s foundational components for understanding reality— notions of God, the cosmos, and humanity, along with other peripheral commitments—become *a priori* convictions that shape all *a posteriori* perceptions.³⁸ As a result of their presuppositional nature, such foundational assumptions are what some call *faith commitments*.³⁹ In this sense, worldviews have precedence over philosophy and science.⁴⁰ This is because philosophy and science are inevitably done with

²⁹ Hiebert, *Transforming Worldviews*, 32.

³⁰ This assumes a maximal approach to worldviews.

³¹ See Nash, *Worldviews in Conflict*, 25; Hiebert, *Transforming Worldviews*, 90; Goheen and Bartholomew, *Living at the Crossroads*, 25; Bartholomew and Goheen, *Christian Philosophy*, 13.

³² Anderson, Clark, and Naugle, *Introduction to Christian Worldview*, 15.

³³ It is frequently easier for an outsider to perceive these assumptions than for an insider to do so.

³⁴ See Hiebert, *Transforming Worldviews*, 47.

³⁵ *Ibid*, 47.

³⁶ Anderson, Clark, and Naugle, *Introduction to Christian Worldview*, 14.

³⁷ Cf. *ibid*, 14–15.

³⁸ “Knowing always takes place within the context of prior belief. To grow in knowledge, one must make at least a provisional commitment to a framework of thought, to accept something as a ‘given’ on trust and then to go on to test it.” Vanhoozer explaining Lesslie Newbigin and Augustine in *The Drama of Doctrine*, 295. “When . . . we perceive external reality, we do so within a prior framework. That framework consists, most fundamentally, of a worldview.” Wright, *New Testament and the People of God*, 43.

³⁹ See Goheen and Bartholomew, *Living at the Crossroads*, 23–24. “Science does have worldview content even in its presuppositions and method.” Irzik and Nola, “Worldviews and Their Relation to Science,” 87.

⁴⁰ Cf. Michael R. Matthews, “Science, Worldviews and Education: An Intro-

the fundamental assumptions provided by one's worldview.⁴¹ Obviously, such presuppositional commitments "may be true, partially true or entirely false."⁴²

4. *Narrative*. The major, as well as the derivative components of worldviews and their interactions, are not dealt with in a static vacuum. These concepts are dynamically processed within a story framework that provides the context in which they can be understood.⁴³

5. *Real*. This refers to historical correspondence or consistency with reality.⁴⁴ Worldview stories claim "to be the true story of the world."⁴⁵ That is, even when making use of metaphorical language or highly symbolic imagery, worldviews attempt to portray reality, not an illusory or imagined world.

6. *Internally Coherent*.⁴⁶ For a worldview to operate well, its different parts must be able to integrate and form a functional whole. Some worldviews do this better than others. Often, such consistency requires the connection of diverse and sometimes disparate parts into one overarching whole.

duction," in *Science, Worldviews and Education*, 9–10; Irzik and Nola, "Worldviews and Their Relation to Science," 87, 90; Giannetto, "Electromagnetic Conception of Nature," 118. Bishop summarizes it well: "Presuppositions can only be motivated or justified as elements of a larger philosophical or theological view. So, the sciences are dependent on deep, underlying philosophical commitments just like any other human inquiry. . . . In this sense, the sciences are in a position of trust not unlike religious commitment." Robert C. Bishop, "Science, Limits of," in Copan et al., *Dictionary of Christianity and Science*, 591.

⁴¹ "A worldview . . . is deeper than either philosophy or science; indeed, philosophy and science stand upon the foundation of one's worldview." Goheen and Bartholomew, *Living at the Crossroads*, 13. Giannetto also observes, "One particular formulation or interpretation of a scientific theory can dominate over other interpretations within the scientific community and constitute a scientific paradigm *for reasons external to science*, that is *for ideological reasons*" ("Electromagnetic Conception of Nature," 131; emphases added).

⁴² Sire, *The Universe Next Door*, 21.

⁴³ For the use of narrative by scientists, especially in regards to human evolution, see Misia Landau, "Human Evolution as Narrative," *American Scientist* 72 (1984): 262–268, cited in John R. Durant, "Evolution, Ideology and World View: Darwinian Religion in the Twentieth Century," in *History, Humanity and Evolution: Essays for John C. Greene*, ed. James R. Moore (Cambridge: Cambridge University Press, 1989), 360, 371n12.

⁴⁴ Brian J. Walsh and J. Richard Middleton, *The Transforming Vision: Shaping a Christian World View* (Downers Grove, IL: InterVarsity Press, 1984), 37–38.

⁴⁵ Goheen and Bartholomew state that this is a reference to the *biblical* and *Western* stories. See *Living at the Crossroads*, 7. However, the statement is an equally valid description of a number of other worldviews.

⁴⁶ Walsh and Middleton, *The Transforming Vision*, 38.

7. *Universal, Inescapable, and Unique*.⁴⁷ “Because everybody has a worldview, there are literally countless worldviews held by people across the globe. Each worldview is unique to its owner. No two people have precisely identical worldviews.”⁴⁸

8. *Existential*. Human beings are often interested in finding adequate responses to questions of ultimate significance, viz., their deep existential concerns. Walsh and Middleton organize these as four basic questions: “(1) *Who Am I?* ... (2) *Where am I?* ... (3) *What’s wrong?* ... (4) *What is the remedy?*”⁴⁹

9. *Comprehensive*. Worldviews attempt to tell a story that makes sense of large chunks of reality. Sometimes, they are even “all-embracing,”⁵⁰ explaining the whole history of the world. In this sense, they are sometimes called *metanarratives*.⁵¹

⁴⁷ Uniqueness assumes a maximal approach to worldviews.

⁴⁸ Anderson, Clark, and Naugle, *Introduction to Christian Worldview*, 22.

⁴⁹ Walsh and Middleton, *The Transforming Vision*, 35; emphases original.

⁵⁰ Goheen and Bartholomew describe the biblical and Western cultural stories as all-embracing. See *Living at the Crossroads*, 7, 75. This does not seem to be the case for many non-Abrahamic and non-Western worldviews (a point made by David J. Hamstra; email to author, 29 October 2018).

⁵¹ Note that Jean-François Lyotard’s postmodern critique of metanarratives (*The Postmodern Condition: A Report on Knowledge* [Minneapolis: University of Minnesota Press, 1984], xxiv) was not unqualified. He was critiquing modernity (the Enlightenment’s naïve belief in the inexorable march toward progress) and ideologies that arose from it, such as “Marxist Utopia . . . and . . . the triumph of science,” which had “lost their credibility” since the Second World War.” Christopher Butler, *Postmodernism: A Very Short Introduction* (Oxford: Oxford University Press, 2002), 13. Moreover, postmodern thought is skeptical of any and all kinds of authoritative discourse, not only of metanarratives. That being said, there are potential problems associated with metanarratives. Grand narratives may not “allow for disputes about value, and often enough lead to totalitarian persecution” (Butler, *Postmodernism*, 14). Such scenarios may arise out of the universal and potentially coercive nature of metanarratives. In assessing how these charges may apply to the biblical metanarrative, J. Richard Middleton and Brian J. Walsh argue that two “antitotalizing factors” are built into the biblical story that potentially subvert its oppressive use, namely, “a radical sensitivity to suffering” and “God’s overarching creational intent that delegitimizes any narrow, partisan use of the story” (*Truth Is Stranger than It Used to Be: Biblical Faith in a Postmodern Age* [Downers Grove, IL: InterVarsity Press, 1995], 87–107; emphases original). MacIntyre also critiques postmodern deconstruction of narratives, pointing out that such “deconstructionists . . . have not abandoned narrative at all. . . . This can be seen first simply by recognizing that the method . . . they have used to undermine ‘master narratives’ is effective precisely because it provides a counternarrative, not the absence of narrative.” See Diogenes Allen and Eric O. Springsted, *Philosophy for Understanding Theology*, 2nd ed. (Louisville: Westminster John Knox, 2007), 236–237. On the unavoidability of metanarratives, see Yi, “Despite their uses, abuses,

10. *Limited*. Even though worldviews attempt to explain the whole of reality, at the personal level, one's worldview is necessarily partial and fragmentary. In this functional sense, worldviews "will inevitably be a mixture of truth and error."⁵² In other words, even if the adopted story is a veritable representation of reality, each person's understanding of its elements and their interactions is limited, deficient, and provisional.⁵³

11. *Embodied*.⁵⁴ From an existential perspective, what matters is how worldviews are lived out (embodied), not so much the discourse about them (theoretical constructs). In actuality, there are varying levels of internal appropriation of worldview stories. This disconnect between theory and practice is what some label "incongruity."⁵⁵ In addition, there is the issue of several competing stories being appropriated simultaneously. In such syncretic scenarios, the embodied experience manifests elements of more than one story.

12. *Deeply Affected by the Background*. One's total experience and surrounding influences deeply affect one's perception of reality. When speaking of worldviews in a maximal sense, this must be taken into account. However, given the infinite variability of this element, it is difficult to assess, measure, or value it.

13. *Resistant to Change*. The "underlying, hidden level of culture . . . defines the way in which people see the world." This deep structure, also known as "PL [primary level] culture," is "particularly resistant to manipulative attempts to change it from the outside."⁵⁶ Though enduring, worldview commitments are not immutable: they can change in the face of critical reflection, better explanations, and experiences that challenge them.⁵⁷

and short-comings, it turns out that master narratives are unavoidable." Zane G. Yi, "Telling a Better Story: Reasoning about God in a Secular Age," *Spectrum* 43.4 (Fall 2015): 40; cf. McGrath, *Narrative Apologetics*, 10; Hiebert, *Transforming Worldviews*, 27n6.

⁵² Anderson, Clark, and Naugle, *Introduction to Christian Worldview*, 14.

⁵³ This requires an openness to constant correction and fine-tuning of one's worldview in order to further improve its correspondence to reality.

⁵⁴ This characteristic assumes a maximal approach to worldviews.

⁵⁵ Wilkens and Sanford, *Hidden Worldviews*, 22.

⁵⁶ Edward T. Hall, *Hidden Differences: How to Communicate with the Germans*, Studies in International Communication (Hamburg, Germany: Stern, 1983), 6–7, quoted in Hiebert, *Transforming Worldviews*, 32.

⁵⁷ For an example of a biblical theist who became an evolutionist, see Karl W. Giberson, *Saving Darwin: How to Be a Christian and Believe in Evolution* (New York: HarperOne, 2008). For an example of an evolutionist who became a theist, see Matti Leisola and Jonathan Witt, *Heretic: One Scientist's Journey from Darwin to Design* (Seattle: Discovery Institute Press, 2018).

14. *Partly Non-Empirical*. Due to their comprehensive scope, worldviews sometimes deal with inaccessible and unobservable past phenomena as well as unknown future scenarios. Certainly, researchers subscribing to different worldviews may use scientific tools and experimentation to attempt to trace and theoretically reconstruct past events as well as estimate future possibilities. These efforts, however, are different from present and repeatable empirical research.

Function

How do worldviews work? A variety of metaphors are usually used to explain how worldviews function, such as maps, eyes, lenses, etc. The common thread in these analogies is that worldviews describe “how the world is,” and thus provide guidance so that people can navigate life.⁵⁸ That is, by seeing reality in a certain way, people may be better able to make decisions on how to live their lives. Unlike entertaining stories that provide an escape from the world, worldview stories invite us to interpret reality through them.⁵⁹ In this sense, worldviews function as interpretative grids⁶⁰ that mediate reality.⁶¹

The mediatory role that worldviews play can serve positive as well as negative (restrictive) functions. Here I discuss just a few of these.⁶² Positively, worldviews organize the different parts of perceived reality into a whole through a process of selection, editing, and weaving perspectives and trajectories in an often historical or history-like template.⁶³ This process brings *meaning* to otherwise unintelligible, seemingly unrelated, disparate pieces. It is precisely this narrative configuration of reality that allows people to find their place in the story and through it a sense of personal identity, a place in society/community, and values to live by. As Neil Postman puts it, “without a narrative, life has no meaning.”⁶⁴

Another positive function is that the “mental models of deeply ingrained assumptions, generalizations, or pictures and images” that worldviews provide are “the foundations on which to build our systems of explanation and supply rational justification for belief in these systems.”⁶⁵ In this way,

⁵⁸ Goheen and Bartholomew, *Living at the Crossroads*, 25.

⁵⁹ Goheen and Bartholomew make this argument in reference to the biblical story, but their point is equally applicable to other worldviews. See *idem*, 3–4.

⁶⁰ See Naugle, *Worldview*, 301–302.

⁶¹ See Goheen and Bartholomew, *Living at the Crossroads*, 17.

⁶² For a more extended treatment, see Hiebert, *Transforming Worldviews*, 28–69.

⁶³ Cf. *idem*, 28.

⁶⁴ Neil Postman, *The End of Education: Redefining the Value of School* (New York: Vintage, 1995), 6, quoted in Goheen and Bartholomew, *Living at the Crossroads*, 169.

⁶⁵ Hiebert, *Transforming Worldviews*, 29.

worldviews provide people with *emotional stability*, reassuring us that “the world is truly as we see it.”⁶⁶ Moreover, worldviews help people perceive and assess “cultural change.” Since modifications in thought patterns “may introduce assumptions that undermine our cognitive order,” worldviews help people to examine such challenges critically by either “adopt[ing],” “reject[ing],” or “reinterpret[ing]” changes according to the preestablished index of reality provided by the grand story.⁶⁷

Now turning to the negative function, it is important to observe that worldviews *filter* reality, acting “in a regulatory fashion.”⁶⁸ One reason for this is the impossibility of processing all of reality. The amount of information is infinite. Thus, in order for people to function, they must selectively choose what information to deal with. In this sense, worldviews function as hermeneutical sifters that “both enable us to see reality and blind us from seeing it fully.”⁶⁹ While the beneficial outcome is functionality, the downside to this characteristic is that phenomena that do not fit our preestablished categories tend to go unnoticed. We don’t “see” them. As Thomas Kuhn put it while describing the scientific enterprise, “those [phenomena] that will not fit the box [paradigm] are often not seen at all.”⁷⁰

On the other hand, when people *do* notice things that do not fit their paradigm, this can lead to a worldview crisis,⁷¹ which can be very uncomfortable, painful, and disorienting.⁷² Solving the crisis usually entails the expansion of one’s worldview to accommodate the anomaly.⁷³ If the adjustment cannot be made, the crisis might require a significant reconfiguration of the whole system and, thus, of life. Due to the anguish this may involve, people cannot maintain a worldview crisis indefinitely. Stability is needed to live a normal and flourishing life. At the same time, even though worldview crises

⁶⁶ Hiebert, *Transforming Worldviews*, 29–30.

⁶⁷ Charles H. Kraft, *Christianity in Culture: A Study in Dynamic Biblical Theologizing in Cross-Cultural Perspectives* (Maryknoll, NY: Orbis, 1979), 56, as expressed by Hiebert, *Transforming Worldviews*, 29–30.

⁶⁸ Naugle, *Worldviews*, 303.

⁶⁹ Hiebert, *Transforming Worldviews*, 23.

⁷⁰ Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 4th ed. (Chicago: University of Chicago Press, 2012), 24. Even though Kuhn describes a narrower concept, that of scientific paradigms, his rationale equally applies to our grander paradigm of worldviews.

⁷¹ See Hiebert, *Transforming Worldviews*, 30.

⁷² “To question worldviews is to challenge the very foundations of life, and people resist such challenges with deep emotional reactions. There are few human fears greater than a loss of a sense of order and meaning.” Hiebert, *Transforming Worldviews*, 84.

⁷³ Cf. Kuhn, *The Structure of Scientific Revolutions*, 4th ed., 53, 77–78.

are distressing, they can be liberating when they lead people to a better understanding of reality and a more positive vision of the future.⁷⁴

A Contemporary Metaphor

One way to understand how worldviews work in our day and age is to think of them as software:⁷⁵ not any software, but base, controlling software. Think, for instance, of the now nearly omnipresent⁷⁶ smartphones and their operating systems. As of 2018, over 3 billion smartphones run on iOS⁷⁷ and Android,⁷⁸ which are the operating systems for Apple and non-Apple devices respectively.⁷⁹

Consider how they work: iOS and Android perform tasks that help users in their daily lives. One can check the weather, receive and send email and

⁷⁴ For the role crises play in identity development and maturity in religious contexts, see Tiago Baltazar and Ron Coffen, “The Role of Doubt in Religious Identity Development and Psychological Maturity,” *Journal of Research on Christian Education* 20.2 (2011): 182–194.

⁷⁵ The insight about worldviews acting as software was taken and adapted from Annette Simmons, *The Story Factor: Inspiration, Influence, and Persuasion through the Art of Storytelling*, rev. ed. (Cambridge: Basic Books, 2006), 41, 44. Kevin J. Vanhoozer—in his keynote lecture “Being Biblical in a Pluralistic Age” (paper read at the “Transforming Worldview(s): Biblical Faithfulness in a Pluralistic Age” Symposium at Andrews University, Berrien Springs, MI, 18 October 2018)—brought to my attention that Mary Poplin makes the same point and uses the expression “operating system” in *Is Reality Secular? Testing the Assumptions of Four Global Worldviews* (Downers Grove, IL: InterVarsity Press, 2014), 26–27.

⁷⁶ “Two-thirds of the world’s 7.6 billion inhabitants now [30 January 2018] have a mobile phone.” Simon Kemp, “Digital in 2018: World’s Internet Users Pass the 4 Billion Mark,” We Are Social, <https://wearesocial.com/blog/2018/01/global-digital-report-2018>, accessed on 19 April 2020.

⁷⁷ 1.3 billion iOS users worldwide as of 1 February 2018. “Apple Reports First Quarter Results,” <https://www.apple.com/newsroom/2018/02/apple-reports-first-quarter-results/>, accessed on 19 April 2020.

⁷⁸ Two billion Android users worldwide as of 17 May 2017. Google (@Google), “Thanks to developers and our partners around the world, there are now more than 2 billion monthly active Android devices,” Twitter, 17 May 2017, 1:09 p.m., <https://twitter.com/Google/status/864890655906070529>.

⁷⁹ While the iOS/Android illustration is time sensitive and may not be helpful in the future as technologies quickly change and make previous ones obsolete, the operating system analogy seems to be lasting, for all complex data processing mechanisms we are aware of—both in nature and in human-developed technology—use such systems.

text messages, call others, and so forth. Both systems do such things. Some may prefer one over the other. But still, to a great degree, both help users go about their lives.

These systems are always in operation. Many other kinds of software (apps) can be running on a cell phone simultaneously. These apps can even be in the foreground, appearing on the screen and performing their work. However, the operating system, though invisible, is in charge. In fact, all operations depend on and are controlled by the operating system.

There is also the issue of compatibility. If one desires to download and use a specific app, one has to use an app that will connect with the appropriate operating system. Thus, Apple users will select options from Apple's "App Store,"⁸⁰ while Android users will choose something from "Google Play."⁸¹ Google Play apps will not run on an iPhone. They are incompatible.

Worldviews, to a certain extent, can be understood in a similar way. They are operational as people process information, relate to other people, deal with situations, and make decisions in their daily lives. Though they are invisible at the surface level, their presence is ubiquitous. They are everywhere. They inform every decision. They are present and manage everything from an unseen and deeper structure. Furthermore, they are incompatible with all kinds of information.⁸² They are open to "seeing" things in a certain way and not open to "seeing" things in some other ways. When not functioning well (unable to deal properly with reality), worldviews can be updated. In fact, worldview formation is a "process" that requires constant "fine-tuning."⁸³ However, the update process can be very time-consuming. In general, the closer to the core of the worldview the update is, the more time-consuming it will be.⁸⁴ Moreover, worldviews are sensitive to "bugs," that is, smaller software

⁸⁰ "App Store (iOS)," Wikipedia, [https://en.wikipedia.org/wiki/App_Store_\(iOS\)](https://en.wikipedia.org/wiki/App_Store_(iOS)), accessed on 19 April 2020.

⁸¹ "Google Play," Wikipedia, https://en.wikipedia.org/wiki/Google_Play, accessed on 19 April 2020.

⁸² As Koukl explains it through the jigsaw puzzle metaphor, "pieces from one puzzle usually cannot be mixed with pieces of another because they are made of different pictures." *The Story of Reality*, 26.

⁸³ While Wilkens and Sanford refer to the development of a Christian worldview, their observation is valid for worldviews in general. *Hidden Worldviews*, 11.

⁸⁴ Consider, for instance, an example from the biblical narrative. The apostle Paul (then Saul) was a persecutor of the early church (Acts 7:58–8:3). But after encountering the risen Christ on the road to Damascus (9:1–9), Paul had to update his understanding of God to include Jesus. While the change might have been initiated in that encounter, the reconfiguration of his whole understanding of life—as mediated through his operating system, the Old Testament—may have taken a lot longer. Paul's letter to the Galatians gives us some clues as to how long the major update may have taken. The text tells us that Paul spent three years in Arabia (Gal 1:17–18); it also

(ideas, concepts, stories, etc.) that can undermine the optimum functioning of the primary system. Finally, in practice, we notice that people often have various worldviews running simultaneously. While such syncretism is common, it can be challenging because the diverse worldviews often lead to different data interpretations, and thus, offer different—at times competing and even mutually exclusive—approaches for dealing with reality.

The Biblical Narrative and Atheistic Evolutionary Models as Case Studies

Though several worldviews are part of the public consciousness in the West, in this article, I limit the discussion⁸⁵ to the comparison of two subcategories of theism and atheism, respectively: the biblical narrative (BN)⁸⁶ on its own terms⁸⁷ and atheistic evolutionary models (AEMs).⁸⁸ The reason for this choice is their influential status and their placement at the two ends of a wide spectrum of divine intervention.⁸⁹ The assessment of these two narratives should make apparent some of the controlling effect worldviews have on data interpretation.

Ideally, it would be helpful, for dialogical and contextual purposes, to provide minimal accounts of these stories side by side as they are understood today⁹⁰ and then suggest how they function as both guiding and restricting

mentions that after fourteen years Paul went to Jerusalem again (2:1). While scholars do not agree on whether Paul's first missionary journey was before or after this trip, it is clear that most of what we know Paul did and wrote in the NT happened *after* those fourteen years. In other words, Paul seems to have been ready for the great missions of his life after a long "software update" process. This does not mean, however, that all worldview updates take that long. The process can be much shorter. But in general, updates that require new definitions for God, the cosmos, and humans (core components, or macro-hermeneutical assumptions) are very time-consuming because the entire system needs to be reprocessed in order to accommodate those changes.

⁸⁵ Theistic evolutionary models are *not* considered in this article (see n. 12).

⁸⁶ See notes 9 and 95.

⁸⁷ That is, observing the BN's own narrative logic, internal consistency, and embedded assumptions.

⁸⁸ I use the expression *atheistic evolutionary models* (AEMs) to acknowledge a range of possible scenarios within strictly *naturalistic evolution*, either ontological or methodological (see n. 10).

⁸⁹ Rau organizes the spectrum of options into six categories: Naturalistic Evolution, Nonteleological Evolution, Planned Evolution, Directed Evolution, Old-Earth Creation, and Young-Earth Creation (Gerald Rau, *Mapping the Origins Debate: Six Models of the Beginning of Everything* [Downers Grove, IL: IVP Academic, 2012], 41). To his six-category schema, I add a seventh one, Old-Earth/Young-Life (as suggested by my reading of the biblical narrative), which is a hybrid model of Rau's categories five and six.

⁹⁰ Regarding the philosophical developments from the rise of modern evolution-

software for interpreting reality. As it has been observed, “in trying to under-

ary theory to today, some historical issues are important to consider. In the nineteenth century, when the paradigmatic shift to solely materialistic research in the sciences matured, the study of the biblical narrative had long been eclipsed by critical studies seeking historical reconstructions (see Hans W. Frei, *The Eclipse of the Biblical Narrative: A Study in Eighteenth and Nineteenth Century Hermeneutics* [New Haven: Yale University Press, 1974]) and disregarded by most scientists (see Neal C. Gillespie, *Charles Darwin and the Problem of Creation* [Chicago: University of Chicago Press, 1979]). The contested status of biblical revelation among intellectuals resulted from several historical occurrences that cannot be explored here in detail. However, mentioning a few of these philosophical and cultural changes is necessary at this point.

1) Since the seventeenth century, through the influence of Newtonian mechanistic science, nature had begun to be “conceived as a law-bound system” (John C. Greene, *Darwin and the Modern World View* [Baton Rouge: Louisiana State University Press], 6). This led to the deistic notion that God would not intervene in creation, but only act through secondary causes, i.e., through laws. Such philosophical shift made the biblical narrative, which often describes God acting through direct intervention in the world, untenable in the minds of many (see also John Hedley Brooke, “Laws Impressed on Matter by the Creator? The *Origin* and the Question of Religion,” in *The Cambridge Companion to the “Origin of Species”*, ed. Michael Ruse and Richard J. Richards [Cambridge: Cambridge University Press, 2009], 259–260, 263–264; John Hedley Brooke, “Science and Secularization,” in Harrison, *Cambridge Companion to Science and Religion*, 119; John Hedley Brooke, “Darwin and Victorian Christianity,” in *The Cambridge Companion to Darwin*, 2nd ed., ed. Jonathan Hodge and Gregory Radick [Cambridge: Cambridge University Press, 2009], 202–3; David L. Hull, “Darwin’s Science and Victorian Philosophy of Science,” in Hodge and Radick, *Cambridge Companion to Darwin*, 187; Jonathan R. Topham, “Natural Theology and the Sciences,” in Harrison, *Cambridge Companion to Science and Religion*, 74). 2) With the decline of revealed theology, natural theology (“a type of theology which relies on reason [which is natural], unaided by any evidence derived from God’s revelation [which is supernatural]”) was revived, and theological arguments were generally drawn from it, not from the biblical narrative. As early as “the start of the eighteenth century . . . natural theology was a widely adopted practice” in Europe. And in the following century, while “those who practiced science were Christians, and many . . . were clergymen,” they articulated their views by means of natural theology (Topham, “Natural Theology and the Sciences,” 59, 64, 70; cf. Greene, *Darwin and the Modern World View*, 39–40). 3) Before Darwin, the dominant presupposition about nature assumed a “static version of the doctrine of creation.” “As evidences of natural mutability accumulated,” this assumption, derived from natural theology and contemporary culture, was undermined and eventually overthrown (Greene, *Darwin and the Modern World View*, 40–41). 4) During the eighteenth century, a wide array of interpretations to explain the earth’s crust were offered by European scholars. In such context, Rapaport notes that “those naturalists who made use of the flood often departed considerably from the biblical text” (Rhoda Rapaport, “Geology and Orthodoxy: The Case of Noah’s Flood in Eighteenth-Century Thought,” *The British Journal for the History of Science* 11.1 [1978]: 8; while cognizant of studies of English geologists, Rapaport assesses the situation mostly from the perspective of French scholars). These

stand some phenomenon, especially some human phenomenon, . . . we must

four points, among others not covered here, suggest that both the biblical narrative and its assumptions about the nature of reality had lost much of their influence at the time of the rise of modern evolutionary theory. With a few exceptions, such as the argument that human beings are made in the image of God (see Brooke, "The *Origin* and the Question of Religion," 268–270), the biblical narrative and its embedded assumptions exerted only an indirect influence on European elites by the time Darwin's *Origin of Species* was published in 1859. The biblical narrative was so under-represented that historians of science interpret "the Darwinian 'revolution' . . . as the triumph of a secular scientific paradigm over a religiously inspired *natural theology*" (Brooke, "The *Origin* and the Question of Religion," 259; emphasis added). With these historical background markers in mind, I intend to compare in this article the influence of the atheistic forms of the evolutionary narrative and the biblical narrative as they are understood today. This entails benefiting from the scientific developments of the past century and a half as well as the development of literary and hermeneutical approaches that are better suited to understanding the biblical narrative as a whole, such as canonical and narrative theology. See Peckham, *Canonical Theology*; Joel B. Green, "The (Re-)Turn to Narrative," in *Narrative Reading, Narrative Preaching: Reuniting New Testament Interpretation and Proclamation*, ed. Joel B. Green and Michael Pasquarello III (Grand Rapids: Baker Academic, 2003), 11–36; Craig G. Bartholomew and Michael W. Goheen, "Story and Biblical Theology," in *Out of Egypt: Biblical Theology and Biblical Interpretation*, Scripture and Hermeneutics Series 5, ed. Craig Bartholomew et al. (Grand Rapids: Zondervan, 2004), 144–171; and Jo Ann Davidson, "Biblical Narratives: Their Beauty and Truth," *AUSS* 49.1 (2011): 149–158 (brought to my attention by Jônatas de Mattos Leal). Interestingly, while the biblical narrative had been eclipsed, nineteenth-century England experienced the rise of the evolutionary epic—in its theistic, agnostic, and atheistic varieties. Lightman pinpoints the modern resurgence of this literary genre to the immensely successful publication of Robert Chambers's *Vestiges of Natural History of Creation* in October 1844 (for the date, see Charles C. Gillispie, *Genesis and Geology: A Study in the Relations of Scientific Thought, Natural Theology, and Social Opinion in Great Britain, 1790–1850* [Cambridge: Harvard University Press, 1951], 163). In Lightman's estimation, from the time of the publication of *Vestiges* onward, "the evolutionary epic became one of the most important narrative formats in the second half of the nineteenth century." Bernard Lightman, *Victorian Popularizer of Science: Designing Nature for New Audiences* (Chicago: University of Chicago Press, 2007), 220–221 (for the impact of *Vestiges*, see James A. Secord, *Victorian Sensation: The Extraordinary Publication, Reception, and Secret Authorship of Vestiges of the Natural History of Creation* [Chicago: University of Chicago Press, 2000]). The evolutionary epic continued robust in the West throughout the twentieth century. As Harvard professor E. O. Wilson describes one of its manifestations, "the core of scientific materialism is the evolutionary epic. . . . The evolutionary epic is probably the best myth we will ever have." Edward O. Wilson, *On Human Nature* (Cambridge: Harvard University Press, 1978), 201; quoted in Lightman, *Victorian Popularizers of Science*, 500–501. In the early part of the twenty-first century, the evolutionary epic has remained strong as attested by recent publications (see n. 93).

cast about the narratives that we have in order to make it come to light.”⁹¹ Since the scope of this article does not allow for the retelling of these stories, I suggest having these narratives in mind in order to facilitate comparison. For the reconstruction of the modern evolutionary narrative in its non-theistic forms, I consulted early works, such as those of Darwin,⁹² and more recent publications from various fields: cosmology, geology, paleontology, and biology.⁹³ In general, the information presented in these works is available to students with a secondary education, but the average reader may not be

⁹¹ Allen and Springsted, *Philosophy for Understanding Theology*, 235.

⁹² While Darwin—a deist turned agnostic—is not representative of strictly atheistic models, given his paradigmatic role in the articulation of modern evolutionary theory (cf. Michael Ruse, “Evolution and the Idea of Social Progress,” in Alexander and Numbers, *Biology and Ideology*, 262) and given the trajectories of his narrative strategies leading to either theistic evolution or atheism (as Lustig puts it, “all of his [Darwin’s] rhetoric [in the *Origin of Species*], all of his narratives, are designed to demonstrate the *nonexistence*, or at least the *non-necessity*, of God as a proximate cause of the historical development of living things”; see Abigail Lustig, “Natural Atheology,” in *Darwinian Heresies*, ed. Abigail Lustig, Robert J. Richards, and Michael Ruse [Cambridge: Cambridge University Press, 2004], 75), attention to his work is necessary here and elsewhere in this article. For an assessment of the narrative strategies in Darwin’s *Origin of Species*, see also David J. Depew, “The Rhetoric of the *Origin of Species*,” in Ruse and Richards, *Cambridge Companion to the “Origin of Species,”* 237–255; Richards, “The Structure of Narrative Explanation in History and Biology,” 19–53; Helen P. Liepman, “The Six Editions of the ‘Origin of Species,’” *Acta Biotheoretica* 30.3 (1981): 199–214.

⁹³ I consulted the following works, among others: Jim Baggott, *Origins: The Scientific Story of Creation* (Oxford: Oxford University Press, 2015); David Christian, *Origin Story: A Big History of Everything* (New York: Little, Brown and Company, 2018); Robert M. Hazen, *The Story of Earth: The First 4.5 Billion Years, from Stardust to Living Planet* (New York: Penguin, 2012); Norriss S. Hetherington, ed., *Encyclopedia of Cosmology: Historical, Philosophical, and Scientific Foundations of Modern Cosmology* (New York: Garland, 1993); John Grotzinger and Thomas H. Jordan, *Understanding Earth*, 6th ed. (New York: W. H. Freeman, 2010); Martin J. S. Rudwick, *Earth’s Deep History: How It Was Discovered and Why It Matters* (Chicago: University of Chicago Press, 2014); Angeles G. Guerrero and Peter Frances, eds., *Prehistoric Life* (New York: DK Publishing, 2009); Alice Roberts, ed., *Evolution: The Human Story*, 2nd ed. (New York: DK Publishing, 2018); Steve Parker, ed., *Evolution: The Whole Story* (Buffalo, NY: Firefly, 2015); Jerry A. Coyne, *Why Evolution Is True* (New York: Penguin, 2009); Edward J. Larson, *Evolution: The Remarkable History of a Scientific Theory* (New York: Modern Library, 2004); Peter J. Bowler, *Evolution: The History of an Idea*, 25th anniversary ed. (Berkeley: University of California Press, 2009). I do not claim that these authors are atheists. They may, perhaps, represent a wide spectrum of positions between theism and atheism. However, I went through their works because, in them, I could find explanations of purely naturalistic evolutionary models (whether the naturalistic viewpoint was ontological or methodological I did not determine).

able to perceive some details, variables, and difficulties of the evolutionary story through a surface reading. Nitecki's assessment summarizes some of the challenges one may encounter:

There are many interpretations of evolutionary history and human history. . . . The data to support paleontological interpretations of history as either gradual or catastrophic are still controversial. . . . Events narrated in history and in evolution do not necessarily correspond to the real events occurring in history or in nature. Instead, both are based on models. Our models about evolution reflect our political-social milieu . . . no intellectual discipline escapes the impact and delusions of its own time. . . . Both evolutionary biology and history are equally subjective activities because both are influenced by the training and social standing of their respective practitioners. . . . We must beware of not confusing the model with the reality. . . . Paleontology, geography, or cosmology certainly tell stories. . . . The historian gathers extant fragments of past events and imaginatively rebuilds those events. . . . The evolutionist, such as the paleontologist, does precisely the same. . . . The methodologies of general history and evolutionary biology are homologous. . . . Both seem to be involved in the construction of narratives based on historical artefacts, necessitating the interpretation of their significance and the synthesis of these into an explanatory narrative.⁹⁴

Despite these difficulties, as one surveys the literature, some trends emerge that allow for the construction of a broad mental model of the atheistic evolutionary narrative.

Concerning the biblical story, I tried to rely on the narrative available in the common canonical core on its own terms.⁹⁵ However, given the length and scale of the biblical narrative, it may be overwhelming as a starting point for those who are not familiar with it. In such cases, I suggest some literature

⁹⁴ Matthew H. Nitecki, "History: La Grande Illusion," in Nitecki and Nitecki, *History and Evolution*, 4–6, partially quoted in Canale, *Creation, Evolution, and Theology*, 68.

⁹⁵ My understanding of the narrative found in the common canonical core cannot be equated with the biblical narrative itself. My reading is necessarily limited, deficient, and provisional. However, I intend, as much as possible, to focus on the biblical narrative as the source for the sequence of events as well as for its embedded assumptions, as far as those can be perceived. In this I attempt to follow Osborne's hermeneutical spiral. See Grant R. Osborne, *The Hermeneutical Spiral: A Comprehensive Introduction to Biblical Interpretation*, 2nd ed. (Downers Grove, IL: InterVarsity Press, 2006), 22. I am also aware that my assessment is influenced by my own Protestant/Seventh-day Adventist tradition. Hence, I am open to revising and nuancing my reading in the future as others point out to me better ways to understand the BN.

as a minimum basis for understanding the story.⁹⁶

Data Interpretation through Both Models

The thesis I am working with throughout this article is that worldviews⁹⁷ have a significant, though not absolute, controlling effect on the interpretation of data.⁹⁸ That is, while people may have access to the same data about reality because their interpretations are guided by and filtered through a controlling story (or stories), they will at times arrive at different conclusions when they subscribe to different controlling stories.⁹⁹ With this in mind, I will now examine a few¹⁰⁰ of the crucial issues about reality in light of the two grand narratives I compare in this article—atheistic evolutionary models (AEMs) and the biblical narrative (BN)—and then mention some possible minimal outlooks from each perspective.¹⁰¹ The results from my assessment of AEMs and the BN seem to fall into three possible categories: compatible, partially compatible, and incompatible.¹⁰²

⁹⁶ For a concise summary of the BN, see Wilkens and Sanford, *Hidden Worldviews*, 183–205 (“The Contours of a Christian Worldview”). For a book-length summary, see Bartholomew and Goheen, *The Drama of Scripture*. For an important complement to these works related to the problem of evil, see John C. Peckham, *Theodicy of Love: Cosmic Conflict and the Problem of Evil* (Grand Rapids: Baker Academic, 2018), especially chapters 3–5.

⁹⁷ This thesis might work for worldviews in any sense. In this article, however, I focus on the discussion of worldviews in their midrange meaning—as grand stories—because as such they provide the most comprehensive available basis to understand the phenomenon.

⁹⁸ My proposal is close to Rau’s thesis, that “although everyone has access to the same evidence, the presuppositions implicit in a person’s philosophy determine the perspective from which he or she views the data, leading to different logical conclusions about which explanation best fits the evidence.” *Mapping the Origins Debate*, 20.

⁹⁹ People who subscribe to different controlling stories *may* interpret data in a similar way and *may* arrive at similar conclusions. In fact, this happens often. As Tom Goodwin puts it, “Many interpretations of data can be widely shared across individuals with different worldviews” (email to author, 22 April 2019). Thus, the controlling effect is *relative* to one’s exposure to conflicting data, openness to better explanations, and engagement in critical reflection.

¹⁰⁰ Due to the constraints of space, I limited the discussion to nine issues.

¹⁰¹ Admittedly, these issues would be better investigated with a full essay each, but here, I modestly cover these topics with some general patterns that hopefully will be sufficient for the purposes of this article.

¹⁰² The authors listed in the discussion below do not necessarily subscribe to the positions I advocate in this article. They are listed in association with these discussions because their works are compatible with the arguments I present in their immediate context.

Compatible

Age of the Universe

AEMs currently estimate the age of the universe at close to 14 billion years.¹⁰³ While the BN does not specify a precise period since the creation of the cosmos, it is compatible with an old universe.¹⁰⁴ Genesis 1:1 states that “God created” the universe (“the heavens”) “in the beginning.” Furthermore, while describing the earth as having been created along with the universe (Gen 1:1), the BN explains that the earth remained “without form and void” (Gen 1:2) for an undetermined duration until it was later organized and fashioned with life (Gen 1:3–2:3). Thus, the narrative is compatible with an old cosmos that could far predate the creation of life on earth.¹⁰⁵ This is further supported by other passages in the BN, such as Job 38:4–7, which mentions “all God’s children”¹⁰⁶ (v. 7), i.e., other rational nonhuman beings, witnessing the subsequent organization of earth and creation of life on it with celebration and joy. The scene may imply the existence of a universe, along with other intelligent beings, anteceding the time humans appeared on earth.

Partially Compatible

Reality Perception

Though the issue of reality perception can be nuanced within models and across different areas of inquiry, in general, AEMs and the BN acknowledge an objectively real cosmos that can be studied and understood.¹⁰⁷ These narra-

¹⁰³ See Grotzinger and Jordan, *Understanding Earth*, 216; Hazen, *The Story of Earth*, 7; Baggott, *Origins*, 9; Christian, *Origin Story*, 13.

¹⁰⁴ Biblical theists are divided on the issue of the age of the universe. Some argue for a young universe, mostly based on an isolated reading of Genesis 1–2, while others think of an old universe through a harmonizing reading of Genesis with current deep time cosmology. I also favor an old age for the cosmos, but arrive at it by a different route: namely, an integrative reading of Genesis with other creation texts in the BN, i.e., a canonical, narrative reading of biblical creation texts. See more below.

¹⁰⁵ I am following the “Passive-gap A view” here, i.e., “old universe (including earth)” and “young life (on earth),” as described in Richard M. Davidson, “The Genesis Account of Origins,” in *The Genesis Creation Account and Its Reverberations in the Old Testament*, ed. Gerald A. Klingbeil (Berrien Springs, MI: Andrews University Press, 2015), 59–129. See also Randall W. Younker, *God’s Creation: Exploring the Genesis Story* (Nampa, ID: Pacific Press, 1999), 28–36; Harold G. Coffin, Robert H. Brown, and L. James Gibson, *Origin by Design*, rev. ed. (Hagerstown, MD: Review and Herald, 2005), 34.

¹⁰⁶ Author’s translation of *kol-bene ’elohim*.

¹⁰⁷ In this assessment I assume *critical realism*, which “posits an objectively existing world and the possibility of trustworthy knowledge of it, but also recognizes the prejudice that inevitably accompanies human knowing and demands an ongoing

tives differ, however, in their level of confidence as to how much of reality can be perceived and adequately interpreted. AEMs tend to operate under the assumption that reality is adequately perceived through human senses and that presently observable phenomena accurately point to past realities. The BN, on the other hand, while attempting to depict the real world, also emphasizes a complex reality that is not sufficiently apprehended by our senses (e.g., God, angels, evil spirits, and so on are not ordinarily perceived). Our knowledge of reality, in this view, is incomplete. Also, the BN depicts humans and nature in a fallen condition that does not represent the original state of creation. Thus, the present status of reality cannot be safely extrapolated into the distant past; nor is human capacity at present sufficient to know and uncover all of reality by observation and reason alone.

Evil

Both AEMs and the BN notice a pervasive presence of violence, cruelty, predation, waste, pain, death, and so forth in nature, but they evaluate it differently. AEMs interpret these phenomena as typical actions in the struggle for survival. The expectation is that these phenomena are likely to continue indefinitely—at least as it relates to nonhuman life—and are a normal part of reality.¹⁰⁸ The same events are interpreted in the BN as temporary anomalies

critical conversation about the essentials of one's outlook. . . . This position avoids the arrogance of modernity and the despair of postmodernity." Naugle, *Worldview*, 324.

¹⁰⁸ Again (see n. 92), given Darwin's significant contribution to shifting the worldview of the elites from a theistic to a naturalistic spectrum (see Greene, *Darwin and the Modern World View*, 10–11), his ideas are very informative. Darwin's unbelief in a benevolent God who interacts directly with creation does not stem so much from his science, but mostly from the problem of evil (Brooke, "Science and Secularization," 111; Brooke, "The *Origin* and the Question of Religion," 261), observed in at least three aspects: 1) nature, 2) personal life, and 3) his theology and personal philosophy of life. In other words, his unbelief was "significantly motivated by nonscientific premises" and his theory was an attempt to deal with those problems. As Hunter puts it, "Darwin's theory of evolution was . . . a theodicy ['a solution to the age-old problem of evil']." See Cornelius G. Hunter, *Darwin's God: Evolution and the Problem of Evil* (Grand Rapids: Baker, 2001; repr., Eugene, OR: Wipf & Stock, 2019), 13, 14, 16; cf. Frank M. Turner, "Darwin and Creation," in *European Intellectual History: From Rousseau to Nietzsche*, ed. Richard A. Lofthouse (New Haven: Yale University Press, 2014), 117–120; Abigail J. Lustig, "Darwin's Difficulties," in Ruse and Richards, *Cambridge Companion to the "Origin of Species"*, 109–128; John Hedley Brooke, *Science and Religion: Some Historical Perspectives*, Canto Classics ed. (Cambridge: Cambridge University Press, 2014), 431; Depew, "Rhetoric of the *Origin*," 249; Gillespie, *Charles Darwin and the Problem of Creation*, 124–133. Regarding the first issue—evil observed in nature—Darwin could not believe that "a beneficent and omnipotent God would have designedly created" so "much misery in the world" seen in waste, predation, pain, and death. See Charles Darwin to Asa Gray, 22

that result from the presence of evil in our planet. Evil challenges the sover-

May 1860, in *The Life and Letters of Charles Darwin*, ed. Francis Darwin (New York: Appleton, 1898), 2:105, quoted in Greene, *Darwin and the Modern World View*, 45. Given the problem in nature (which had been magnified through Malthusian influence; see Turner, "Darwin and Creation," 117–120) and the inadequate responses provided by natural theology, "Darwin solved the problem by coming up with a natural law [natural selection] that he argued could account for evil." "Evil was somehow an unfortunate byproduct of the workings of those natural laws." In this scenario, "God [was] . . . distanced from creation and . . . therefore absolved of its evil" (Hunter, *Darwin's God*, 16–17, 121). The problem had been created by natural theology, which "ascribed nature's wonders to the Creator," but "tended to avoid nature's quandaries." "The evil side of nature was either ignored or redefined as something positive" by Victorian natural theologians. It represented an "overly optimistic view of the world" that "failed to account for its evil" (Hunter, *Darwin's God*, 130–131). Darwin created a solution that took evil seriously. While his solution did not, in fact, solve the problem of evil, it offered a more realistic and, in some sense, more satisfying explanation than the one offered by natural theology at the time (though Darwin himself was not fully satisfied with it either; see Turner, "Darwin and Creation," 119). For a contemporary proposal for the problem of evil that is compatible with the biblical narrative, see Peckham, *Theodicy of Love*, esp. chs. 3–6. On the second issue that troubled Darwin—evil experienced in personal life—it is important to have in mind at least two dimensions: Darwin's extremely poor health and the great losses he went through in the nearly two decades prior to the publication of the *Origin of Species*. His son Francis stated that "for nearly forty years [Darwin] never knew one day of the health of ordinary men, and thus his life was one long struggle against the weariness and strain of sickness" (quoted in Wudan Yan, "Charles Darwin Was One Sick Dude," *Jstor Daily*, 12 February 2016, <https://daily.jstor.org/charles-darwin-was-one-sick-dude/>). Darwin lost "his third child in 1842 and . . . his beloved Annie in 1851" (Brooke, "Darwin's Science and His Religion," 62; see also the detailed assessment of James R. Moore, "Of Love and Death: Why Darwin 'Gave Up Christianity,'" in Moore, *History, Humanity and Evolution*, 195–229). Darwin also lost his father in 1848; see Nora Barlow, ed., *The Autobiography of Charles Darwin 1809–1882* (London: Collins, 1958), 117n3, available at John van Wyhe, ed., "The Complete Work of Charles Darwin Online," <http://darwin-online.org.uk>. These losses were aggravated by the third problem—Darwin's view of God. Besides other theological views discussed in this paper, Darwin wrestled with the traditional/medieval doctrine of hell—which significantly impinges on the character of God—and feared that the concept of eternal torment "would include . . . [his] Father, Brother and almost all . . . [his] best friends" (Barlow, *Autobiography*, 87, quoted in Moore, "Why Darwin 'Gave Up Christianity,'" 197). Interestingly, this was not his wife's view. Emma, who was a devout Christian, did not believe in the traditional view of hell and annotated Darwin's *Autobiography* saying that "nothing can be said too severe upon the doctrine of everlasting punishment." She also added her perception of their immediate cultural and religious context: "but very few now would call that [everlasting punishment for disbelief] 'Christianity'" (Barlow, *Autobiography*, 87n1, quoted in Moore, "Why Darwin 'Gave Up Christianity,'" 203). For the available theological options on this issue at the time of Darwin, see Geoffrey Rowell, *Hell and the Victorians: A Study of the*

eignty of God and has caused structural modifications in nature, not present in the original creation.¹⁰⁹ These problems are expected to be eliminated as God carries out his redemptive plan. Its completion includes the destruction of evil and the renewal of the earth.

Nineteenth-Century Theological Controversies concerning Eternal Punishment and the Future Life (Oxford: Clarendon Press, 1974), ch. 7 (cited in Moore, "Why Darwin 'Gave Up Christianity,'" 226n18) and Brooke, *Science and Religion*, Canto Classics ed., 419. In Moore's estimation, "Darwin had stuck at an outmoded version of Christianity" (203). In this I concur with Ruse, "Biography after biography of the nineteenth- and twentieth-century believers show that what led to non-belief was theological not scientific." Michael Ruse, "Atheism, Naturalism, and Science," in Harrison, *Cambridge Companion to Science and Religion*, 236 (cf. Brooke, "The Origin and the Question of Religion," 261–262). The traditional doctrine of eternal torment is dependent upon a specific understanding of human nature, namely, that humans are or have an eternal soul. For a present articulation of human nature that fits the biblical narrative, see Richard M. Davidson, "The Nature of the Human Being from the Beginning: Genesis 1–11," in "What Are Human Beings That Your Remember Them?": *Proceedings of the Third International Bible Conference; Nof Ginosar and Jerusalem, June 11–21, 2012*, ed. Clinton Wahlen (Silver Spring, MD: Biblical Research Institute, 2015), 11–42. In the same volume, see also Félix H. Cortez, "Death and Future Hope in the Hebrew Bible," 95–106; Félix H. Cortez, "Death and Hell in the New Testament," 183–204; Jiří Moskala, "Eternal Punishment in Hell and the Immortality of the Soul: Overview of the Current Debate," 293–305. For other important works on this issue, see Joel B. Green, "The Strange Case of the Vanishing Soul," in *The Blackwell Companion to Substance Dualism*, ed. Jonathan J. Loose, Angus J. L. Menuge, and J. P. Moreland (Oxford: Wiley Blackwell, 2018), 427–438; Christopher M. Date, Gregory G. Stump, and Joshua W. Anderson, *Rethinking Hell: Readings in Evangelical Conditionalism* (Eugene, OR: Cascade, 2014). Finally, Charles Darwin's theology and personal philosophy were influenced by the beliefs of others: his grandfather's (Erasmus's) distrust of divine revelation, his father's (Robert's) unbelief, John Sterling's and Francis Newman's distrust of biblical religion via German criticism (Moore, "Why Darwin 'Gave up Christianity,'" 204, 212–216), David Hume's skepticism, Auguste Comte's positivism (Edward Manier, *The Young Darwin and His Cultural Circle*, *Studies in the History of Modern Science* 2 [Dordrecht, Holland: D. Reidel, 1978], 24, 40–47, 86–89, quoted in Brooke, "Darwin's Science and His Religion," 61; while somewhat disagreeing with Manier's assessment, Brooke states significantly that the influence of "Hume and Comte together might be thought to constitute an overkill!" [61]), his brother Erasmus's atheism, and Harriet Martineau's association and "her circle of heterodox intellectuals," to name a few (Brooke, "Darwin's Science and His Religion," 61; Brooke, "Science and Secularization," 111). These, along with other influences not mentioned here, seem to have interacted synergistically with Charles Darwin's suffering and theology, leading him on a path from cultural theism to agnostic skepticism.

¹⁰⁹ Failure to consider the structural modifications in nature that result from the Fall radically decontextualizes the biblical story and makes it unintelligible. For a helpful treatment of this issue, see Peckham, *Theodicy of Love*.

Trajectory

Evolutionary thinking flourished in an unprecedented way during modernity, a period marked by a focus on progress. Historically, this focus was first observed sociologically (technological advances, industrial revolution, colonial expansion, economic flourishing, etc.) and then extrapolated into biological speculations.¹¹⁰ This upward trajectory has always been foundational for AEMs to be accepted by the general public.¹¹¹ The BN, on the other hand, while compatible with progress in the sense of the accumulation of empirical knowledge and its active and intentional use (technological progress) for the well-being of humans and nature at large, points to a moral and biological downward trajectory since humanity departed from God's benign rule. Moreover, while the BN calls humans toward restoration (a form of progress) on all levels—personal, interpersonal, and environmental—to mitigate the effects of this descent, ultimately, in this narrative, the situation will only be remedied by God's own intervention. Thus, while both narratives may be compatible with technological progress, at present, the imagery they project onto the general public has opposing trajectories for moral and biological mobility (AEMs upward vs. BN downward).¹¹²

¹¹⁰ Cf. Michael Ruse, *Darwinism as Religion: What Literature Tells Us about Evolution* (Oxford: Oxford University Press, 2017), 1–3, 9–11, 18, 29.

¹¹¹ After the 1930s, however, with the progress of Mendelian genetics, professional biologists moved away from social considerations (such as progress) in order to turn evolutionary biology into a scientifically respectable discipline. This led to a sharp decline in the use of the idea of progress in technical works (popular works, however, have continued to use and intertwine the notions of social, cultural, and biological progress). Interestingly, these professional biologists, while silent about progress in their technical works, for the most part, have remained personally committed to the idea of progress. See Ruse, "Evolution and the Idea of Progress," 247–275.

¹¹² Due to the catastrophic events of the twentieth and early twenty-first centuries (WWI, WWII, the Holocaust, mass genocides in the USSR and China, 9/11, ISIS, etc.), the sociological perception of progress has become ambiguous, with many rejecting the notion. As a result, some question if AEMs will continue to appeal as an explanation for the development of life once the foundational sociological perception of progress, which led to the quick acceptance of Darwinism, is mostly out of the picture. See "The Rise and Fall of Progress" in Tom Bethell, *Darwin's House of Cards* (Seattle: Discovery Institute Press, 2017), 247–257.

Incompatible¹¹³*God*

The existence of a personal Creator who is other than creation, along with the participation of that Being in the affairs of the cosmos, is likely the point on which AEMs and the BN are most different. While AEMs tend to conceive reality as something that originated and came to its present status through natural means, the BN is explicit about divine agency and identity in the

¹¹³ By *incompatible* I do not claim incompatibility between science and religion, but between the two grand stories discussed in this article, which inform and largely condition one's science and religion. Looking back at historical junctures of potential incompatibility since the nineteenth century, we notice some significant actors and trends. The people I mention below were not necessarily representative of these grand stories and did not cause such tensions in isolation, but acted as parts of sociological trends too large to analyze in this article. They are mentioned here for their influential roles in those trends in their historical and cultural periods and their impact in the interpretation of these two grand stories. Besides the significant philosophical shifts in the seventeenth and eighteenth centuries mentioned earlier (see n. 90), tensions between these two metanarratives were aggravated in the nineteenth century by many agents and trends. One of these was Charles Lyell and his uniformitarianism and professionalization of geology. Geology had, to a large degree, previously been marked by incompetence, anti-intellectual attitudes, and *nominal* attachment to the Genesis flood, i.e., early geologists, while subscribing to a belief in the flood and using the concept in their explanations, in practice indulged in wild speculations greatly departing from the biblical narrative (compare early flood geologists' explanations in Gillispie, *Genesis and Geology*, 41–72 with the biblical narrative; see also pp. 89–90 for the state of affairs just prior to Lyell's *Principles of Geology*). In his efforts to professionalize the nascent discipline, Lyell sought to define the limits of inquiry within uniformitarianism (following James Hutton in a much more robust and thorough fashion). Since the biblical flood account was incompatible with his uniformitarian assumption, Lyell also “thought it necessary to *rewrite* the history of geology *as though* every path of inquiry in the science had been blocked repeatedly with Noah's ark,” thus making it appear unprofessional and unscientific to use the Genesis flood as an explanation (quote from James R. Moore, “Geologists and Interpreters of Genesis in the Nineteenth Century,” in *God and Nature: Historical Essays on the Encounter between Christianity and Science*, ed. David C. Lindberg and Ronald L. Numbers [Berkeley, CA: University of California Press, 1986], 328, emphasis added, inference mine; for further nuance, see Moore). As Radick puts it, Lyell “saw his books [*Principles of Geology*] as an attempt to expunge biblical religion from geology” (Gregory Radick, “Is the Theory of Natural Selection Independent of Its History?” in Hodge and Radick, *Cambridge Companion to Darwin*, 163).

process. As one of the three core elements in one's worldview, the concept of

While Lyell's erudite anti-catastrophism was an effective attempt to discredit the global flood described in Genesis as a potential geological explanation, later geologists as well as present-day scholars—while not supporting a global flood—recognize that complete uniformitarianism cannot explain the earth's crust, but rather acknowledge that “the history of life and of the planet” has been shaped by “catastrophic events” (Martin Redfern, *The Earth: A Very Short Introduction* [Oxford: Oxford University Press, 2003], 30). For the unempirical sources of Lyell's uniformitarianism, see Gillespie, *Charles Darwin and the Problem of Creation*, 59. A second agent of tension was Auguste Comte and his positivism. Comte, who has been considered “the most influential sociologist and philosopher of science in the Nineteenth Century” (Kenneth S. Sacks, “Auguste Comte and Consensus Formation in American Religious Thought—Part 1: The Creation of Consensus,” *Religions* 8.8 [2017]: 1), published “between 1830 and 1842 . . . a six-volume work entitled *Cours de philosophie positive*” in which he proposed a “three-stage theory of human intellectual development”—the theological, the metaphysical, and the positive stages. Comte suggested that supernatural beliefs were part of the most primitive form of human development—the theological stage, and that the most advanced phase was the positive or scientific phase which was not marred by metaphysical and theological considerations (see Frank M. Turner, “Old Faiths and New,” in Lofthouse, *European Intellectual History*, 239–40). Within such model Comte stated that “all real science stands in radical and necessary opposition to all theology” (quoted in Gillespie, *Charles Darwin and the Problem of Creation*, 54). While Comtean positivism partially “lost intellectual favor” in the second half of the nineteenth century (Henry S. Tillinghast, “Positivism,” in *A Science and Religion Primer*, ed. Heidi A. Campbell and Heather Looy [Grand Rapids: Baker Academic, 2009], 175–176) after Comte had established a “secular cult” “which he termed Religion of Humanity” and “dubbed himself the High Priest” (Turner, “Old Faiths and New,” 238, 241), positivistic ideas remained strong in the sciences well into the twentieth century. They only began to lose some ground as positivist science failed to provide convincing demarcation lines between science and pseudo-science (see Larry Laudan, “The Demise of the Demarcation Problem,” in *But Is It Science? The Philosophical Question in the Creation/Evolution Controversy*, ed. Michael Ruse [Buffalo, NY: Prometheus, 1988], 337–350, quoted in Stephen C. Meyer, “Intelligent Design,” in *Four Views on Creation, Evolution, and Intelligent Design*, ed. Stanley N. Gundry and J. B. Stump [Grand Rapids: Zondervan, 2017], 206n58; cf. Larry Laudan, *Beyond Positivism and Relativism: Theology, Method, and Evidence* [Boulder, CO: Westview, 1996], 23, quoted in Stathis Psillos, “Having Science in View: General Philosophy of Science and Its Significance,” in *The Oxford Handbook of Philosophy of Science*, ed. Paul Humphreys [New York: Oxford University Press, 2016], 140). For a recent appraisal of the demarcation question, see Stephen C. Meyer, “Sauce for the Goose: Intelligent Design, Scientific Methodology, and the Demarcation Problem,” in *The Nature of Nature: Explaining the Role of Naturalism in Science*, ed. Bruce L. Gordon and William A. Dembski (Wilmington, DE: ISI Books, 2011), 95–131. A third cause of tension was the popularization of the Nebular Hypothesis (NH) among British audiences in the 1830's and thereafter (from 1845 onward, also American audiences largely through the twenty American editions enjoyed by Robert Chambers's *Vestiges of the Natural History of Creation*; see James A. Secord, “Behind the Veil: Robert Chambers and

God (which includes *how* such a Being is and operates) or the lack thereof

Vestiges,” in Moore, *History, Humanity and Evolution*, 166). The NH attempted to explain the origin and development of the solar system through natural means. Its advocates, like Herbert Spencer, contrasted the “mythic” idea of divine creation “with the eminent pedigree of the nebular hypothesis—Immanuel Kant, William Herschel and Pierre Laplace.” Legitimacy for the theory was also sought by associating it to the prestigious science of astronomy, though such link was precarious. Other advocates would specifically interpret the NH against the Christian story. Phrenologist George Combe, for instance, understood the NH as promoted by John Pringle Nichol, as “invaluable in a high degree as a means of destroying superstition,” which Schaffer explains as referring to “the implausibility of Christ’s incarnation” (see Simon Schaffer, “The Nebular Hypothesis and the Science of Progress,” in Moore, *History, Humanity and Evolution*, 131–164). Promoted at a time in which progress was a high value, the NH was culturally extremely successful. As Philip Lawrence puts it, “the nebular hypothesis caught the imaginations of almost all thinking men and strongly influenced the form of scientific and historical explanations they were willing to entertain” (“Heaven and Earth—The Relation of the Nebular Hypothesis to Geology,” in *Cosmology, History and Theology*, ed. Wolfgang Yourgrau and Allen D. Breck [New York: Plenum, 1977], 279, quoted in Stephen G. Brush, “The Nebular Hypothesis and the Evolutionary Worldview,” *History of Science* 25 [1987]: 245). A fourth agent who raised tensions between these two metanarratives was Charles Darwin and his naturalism against special creations. As Gillespie puts it, “the *Origin* [of *Species*] was, in effect, a manifesto for positivist science. As such, the *Origin* was profoundly incompatible with special creation” (*Charles Darwin and the Problem of Creation*, 66). Evidently, Darwin’s *Origin* was in tension with the BN, which describes a type of special creation. The caveat, however, is that Darwin’s attack was on the notion of divine special creation of individual species through time—an idea put forward by natural theologians, but not by the biblical narrative. In other words, the attack was on the cultural (not biblical) view of special creation. For other Darwinian challenges to the BN, see Brooke, *Science and Religion*, Canto Classics ed., 383. A fifth agent was Thomas Huxley, who, along with “the young guard of science,” directed systematic efforts to exclude religious scientists from the practice of professional science and from participating in scientific societies (see “The Victorian Conflict between Science and Religion: A Professional Dimension,” in Turner, *Contesting Cultural Authorities*, 171–200). Stanley concludes that “the scientific naturalists’ . . . victory in removing theism from the expectations and parlance of the scientific community had little to do with how science was done (despite their claims to the contrary) and much more to do with attempting to secure better access to professional positions, resources, and cultural authority.” Matthew Stanley, “Where Naturalism and Theism Met: The Uniformity of Nature,” in *Victorian Scientific Naturalism: Community, Identity, Continuity*, ed. Gowan Dawson and Bernard Lightman (Chicago: University of Chicago Press, 2014), 257–258. Huxley, in particular, “adopted the polemical strategy of asserting that virtually any criticism stemmed from religious sources and consequently played up any and all religious criticism. . . . By linking any opposition to evolution . . . with the religious criticism, Huxley simply practiced the tactic of guilt or, in this case, incompetent obscurantism by association. Any opponent of Darwin had to be opposing the great man for religious reasons. In this regard, the image and metaphor of a

profoundly impacts how one perceives reality and, thus, how one goes about life, including one's science.¹¹⁴

necessary conflict between science and religion was of immense polemical advantage to [non-religious] scientists. Since Huxley wrote one of the earliest accounts of the reception of the *Origin of Species*, on which, until the 1960s, most other later accounts were based, the image of scientific light against religious darkness prevailed in our understanding of the reception of Darwin's theory" (Turner, "Darwin and Creation," 103–104). A sixth cause of increased tension was the publication of John William Draper's *History of the Conflict between Religion and Science* (1874) and Andrew Dickson White's *A History of the Warfare of Science with Theology in Christendom* (1896), which promoted the conflict thesis based on "personal reasons" against "ecclesiastical authority" (Brooke, "Darwin and Victorian Christianity," 213; cf. Brooke, "Science and Secularization," 107). While poorly representative of the relationships between science and religion even then, Draper's and White's military metaphors unfortunately continued to influence, shape, and distort later historical discussions on the relationship of science and religion (for details and the need to discard the military metaphors in the dialogue between science and religion, see James R. Moore, *The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America 1870–1900* [Cambridge: Cambridge University Press, 1979], 19–100). In this regard, I agree with Gillespie's assessment, that "scientific popularizer John Fiske was impressively correct when he scolded . . . Draper, saying that the real conflict was not between science and religion, but between two systems of science" (Gillespie, *Charles Darwin and the Problem of Creation*, 18).

¹¹⁴ As a paradigmatic example of the effects of one's understanding of God on one's worldview, it is helpful to be aware of Darwin's own views of God and how they shaped the articulation of his evolutionary theory. See Stephen Dilley, "Charles Darwin's Use of Theology in the *Origin of Species*," *British Society for the History of Science* 45.1 (2011): 29–56. Dilley shows how Darwin used two kinds of theology to serve his rhetorical purposes: an "Enlightenment-style theology" to "enhance the credibility of his argument or theory" and a "*reductio* theology" through which Darwin attempted to "reduce their [creationists'] theology to an absurdity . . . by showing that it was at odds with the facts of nature," thus discrediting them. Dilley concludes that "*reductio* theology forms a crucial part of Darwin's argument for evolution" (30–31). Hunter makes essentially the same point: "The strength of . . . [Darwin's] argument [against design] lies in its implicit rebuke of divine creation. . . . Negative theology was a consistent theme for Darwin" (*Darwin's God*, 46–47). See also Paul A. Nelson, "The Role of Theology in Current Evolutionary Reasoning," *Biology and Philosophy* 11 (1996): 493–517, cited in Lustig, "Natural Atheology," 69–83. For a recent example within AEMs of how one's view of God influences one's worldview, see Richard Dawkins, *The God Delusion* (New York: Houghton Mifflin, 2006). For contrary views, see Alister McGrath and Joanna Collicutt McGrath, *The Dawkins Delusion?: Atheist Fundamentalism and the Denial of the Divine* (Downers Grove, IL: InterVarsity Press, 2007) and David Berlinski, *The Devil's Delusion: Atheism and Its Scientific Pretensions* (New York: Basic Books, 2009).

Origin and Age of Life on Earth

In AEMs, the origin of life must be interpreted without resorting to any supernatural cause.¹¹⁵ Accordingly, the origin of life is considered spontaneous,¹¹⁶ even though this proposal is not derived from empirical data,¹¹⁷ but from a prior philosophical commitment to methodological naturalism.¹¹⁸ Likewise, from the perspective of the BN, life is understood as originating from the intentional action of the Creator, something that similarly cannot be observed.

¹¹⁵ As Reiss puts it, “The scientific worldview is materialistic in the sense that it is neither idealistic nor admits of non-physical explanations.” Michael J. Reiss, “Imagining the World: The Significance of Religious Worldviews for Science Education,” in Matthews, *Science, Worldviews and Education*, 138.

¹¹⁶ Baggott, *Origins*, 202–203.

¹¹⁷ “Never, in the entire history of science, has life ever been observed to spring from anything other than life.” Baggott, *Origins*, 203. Rupke speaks of “the embarrassing fact that, until the present day, we have not solved this fundamental problem of organic origins. We neither know how life began nor have we succeeded in reproducing in the laboratory the processes that during primeval times led—one assumes—to abiogenesis.” Nicolaas Rupke, “Darwin’s Choice,” in Alexander and Numbers, *Biology and Ideology*, 161. “To be perfectly frank, we don’t know exactly how such organic chemicals began behaving like living organisms, or how they developed cellular complexity.” Ian Tattersall, *Paleontology: A Brief History of Life* (West Conshohocken, PA: Templeton Press, 2010), 45.

¹¹⁸ From a historical perspective, Larson observes that “commitment to methodological naturalism in science made the acceptance of evolution in biology virtually inevitable” (*Evolution*, 51). Dilley notes that “methodological naturalism . . . [was] an increasingly pervasive view of science among biologists during Darwin’s era” and that “it was Darwin’s adherence to this method—more than his extensive empirical evidence—that helped his theory win converts” (“Darwin’s Use of Theology,” 35n29; Dilley attributes the thought in the latter quote to Ronald Numbers). At present, this method retains very strong support: “Methodological naturalism . . . lays down which sort of study qualifies as *scientific*.” Ernan McMullin, “Plantinga’s Defense of Special Creation,” *Christian Scholar’s Review* 21.1 (September 1991): 56. “Science neither denies or opposes the supernatural, but *ignores* the supernatural for methodological reasons.” Eugene C. Scott, “Darwin Prosecuted: Review of Johnson’s *Darwin on Trial*,” *Creation Evolution Journal* 13.2 (1993). Both sources quoted in Alvin Plantinga, *Where the Conflict Really Lies: Science, Religion, and Naturalism* (Oxford: Oxford University Press, 2011), 170. Menuge makes an important observation about this issue: “If MN [methodological naturalism] is restricted to standard *operations of science*, which uses an inductive method to investigate repeatable connections between secondary causes (as typical in a chemistry experiment), few will object to it. . . . However, MN is highly controversial when applied to *historical science*, which attempts to infer the best explanation of a singular event or state of affairs. This is particularly clear when historical science investigates questions of ultimate origins, like the origins of the universe, life, biological information, consciousness, and morality.” Angus J. L. Menuge, “Methodological Naturalism,” in Copan et al., *Dictionary of Christianity and Science*, 438.

Both are based on *a priori* philosophical commitments. AEMs require deep time for the origin and subsequent development of life,¹¹⁹ while the BN seems to suggest a much more recent time scale for these processes.¹²⁰

Complexity of Life

When looking at the complexity of life through AEMs, one has to find solely naturalistic explanations for the phenomenon. The evolutionary story, through its combination of factors such as deep time,¹²¹ advantageous mutations,¹²² natural selection,¹²³ descent with modification, gradual

¹¹⁹ For concerns about the sufficiency of the current evolutionary time scale, see “So Little Time for Everything” in Ariel Roth, *Science Discovers God: Seven Convincing Lines of Evidence for His Existence* (Hagerstown, MD: Autumn House, 2008), 131–158.

¹²⁰ Many, especially in the theistic evolution spectrum, interpret the BN as compatible with longer time scales for the origin and development of life. Such positions require the syncretism of the BN with the evolutionary story. For an elaboration of such models, see Bishop et al., *Understanding Scientific Theories of Origins*.

¹²¹ From the evolutionary perspective, “the recognition of the Earth’s deep history was a necessary precondition for any satisfactory explanation of the diversity of living organisms, and particularly of the origin of our own species” (emphasis added). Rudwick, *Earth’s Deep History*, 3. As the Nobel laureate George Wald once said, “Time is in fact the hero of the [evolutionary] plot. . . . time itself performs the miracles.” “The Origin of Life,” *Scientific American* 191.2 (1954): 48, quoted in David Catchpoole, “Time is the Hero,” *Creation* 34.3 (2012): 6.

¹²² See Masatoshi Nei, *Mutation-Driven Evolution* (Oxford: Oxford University Press, 2013). For limits to what mutations can do, see Michael J. Behe, *The Edge of Evolution: The Search for the Limits of Darwinism* (New York: Free Press, 2007) and Douglas Axe, *Undeniable: How Biology Confirms Our Intuition That Life Is Designed* (New York: HarperOne, 2016).

¹²³ Mayr’s historical assessment on how natural selection moved from a “minority opinion” to “the prevailing explanation of evolutionary change” is insightful. He states, “It must be admitted, however, that it [natural selection] has achieved this position less by the amount of irrefutable proofs it has been able to present than by the default of all opposing theories.” Ernst Mayr, *Toward a New Philosophy of Biology* (Cambridge: Harvard University Press, 1988), 170, quoted in Hunter, *Darwin’s God*, 64. Roberts adds, “The factor that proved most decisive in accounting for the conversion of those scientists [natural historians, “during the decade after 1865”] was neither their belief that Darwin succeeded in providing a mechanism that could plausibly account for transmutation nor a dramatic influx of data favourable to an evolutionary interpretation of the history of life. Rather, the paramount consideration was *meta-empirical*: a conviction that transmutation was more consistent with the norms of scientific discourse than was the ‘dogma of special creations’.” Jon H. Roberts, “Religious Reactions to Darwin,” in Harrison, *Cambridge Companion to Science and Religion*, 87 (emphasis added). For a representative view of natural selection within current

development,¹²⁴ and so forth, provides the conceptual framework to explain complexity through an unplanned and unguided process.¹²⁵ Through the BN, complexity is interpreted as the result of the action of a Designer who engineered complex systems into being¹²⁶ and provided them with ample room for adaptation¹²⁷ to different environments.

Relationships

Because AEMs do not conceive of realities beyond the one presently observed, from this perspective, there can be no personal relationship beyond the ones we experience with fellow human beings. Besides, interhuman relations tend to be broadly framed in the context of competition (for survival, advance-

AEMs, see Richard Dawkins, *The Blind Watchmaker* (New York: Norton, 1986). For a contemporary critique of the effectiveness of this mechanism, see Michael J. Behe, *Darwin Devolves: The New Science about DNA that Challenges Evolution* (New York: HarperOne, 2019). For the growing skepticism within the scientific community about the sufficiency of random mutations and natural selection for the Darwinian evolutionary paradigm, see updated list available at dissentfromdarwin.org/download.

¹²⁴ Douglas H. Erwin and Robert L. Anstey, "Speciation in the Fossil Record," in *New Approaches to Speciation in the Fossil Record*, ed. Douglas H. Erwin and Robert L. Anstey (New York: Columbia University Press, 1995), 11–38. For problems with gradualism in the fossil record, see Stephen C. Meyer, *Darwin's Doubt: The Explosive Origin of Animal Life and the Case for Intelligent Design* (New York: HarperOne, 2013); David Klinghoffer, ed., *Debating Darwin's Doubt* (Seattle: Discovery Institute Press, 2015).

¹²⁵ Cf. Brian and Deborah Charlesworth, *Evolution: A Very Short Introduction*, rev. ed. (Oxford: Oxford University Press, 2017), 1. Coyne explains evolution with "six components," namely, "evolution, gradualism, speciation, common ancestry, natural selection, and non-selective mechanisms of evolutionary change." *Why Evolution Is True*, 4.

¹²⁶ Cf. Michael J. Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution* (New York: Free Press, 1996); Stephen C. Meyer, *Signature in the Cell: DNA and the Evidence for Intelligent Design* (New York: HarperOne, 2009); David Klinghoffer, ed., *Signature of Controversy: Responses to Critiques of Signature in the Cell* (Seattle: Discovery Institute Press, 2010).

¹²⁷ The expression *ample room for adaptation* here does not encompass extrapolation to macroevolution. It refers simply to microevolution. The fixity of species overthrown by evolutionary thinking dates "not from time immemorial but rather from late eighteenth century." Frank M. Taylor, "Nature Historicised," in Lofthouse, *European Intellectual History*, 88. For a biblical appraisal of the issue, see A. Rahel Davidson Schafer, "The 'Kinds' of Genesis 1: What Is the Meaning of *Min*?" *JATS* 14.1 (2003): 86–100. For a helpful short discussion on the issue of the fixity of species, see Hunter, *Darwin's God*, 61–64.

ment, etc.).¹²⁸ The BN, on the other hand, describes creation in relational terms:¹²⁹ humans harmoniously relating to other humans, and humans in direct relationship with God. And while the BN acknowledges disruption in all those relationships at the Fall, it also describes God initiating reconciliation right then.¹³⁰ It further indicates that, while such reconciliation is possible at present, it will reach complete fulfillment in the renewed earth. Moreover, even though the human-divine relationship is limited at present, it can be intimate and positive. Finally, interpersonal relations in this perspective are framed in the context of one family, in which each member is responsible not only for him/herself but also for the well-being of other members of the human family.¹³¹

Death

AEMs consider the present cycle of mortality as normal, that is, as part of the unchanging regularity of human reality.¹³² The BN, on the other hand, while also recognizing the pattern of mortality in the present order, affirms that death is a temporary anomaly in the system—one that will be destroyed¹³³ and reversed,¹³⁴ in due time, as part of God's redemptive plan for the human family.

Conclusion

Worldviews¹³⁵ are very significant because, to a great extent, they direct people's existence; and yet, most people are often unaware of the many influences that attempt to steer their lives. Thus, one of the goals of this article is to invite people to reflect on their worldviews and become aware of the forces that impinge on their recognition of reality and their decision-making processes.¹³⁶

¹²⁸ It seems true that many self-labeled atheists are altruistic and operate in an attitude of cooperation. Conversely, it also seems true that many professed biblical theists are selfish and function with an attitude of competition. This raises the issue of consistency with one's respective story.

¹²⁹ See Goheen and Bartholomew, *Living at the Crossroads*, 33–34.

¹³⁰ See Genesis 3:8–13.

¹³¹ See, for instance, Luke 10:25–37.

¹³² While AEMs committed to ontological naturalism consider death the end of human existence, AEMs committed merely to methodological naturalism may be open to some kind of spiritual continuity of life after death.

¹³³ Cf. 1 Corinthians 15:26.

¹³⁴ Cf. John 11:24–25; Acts 3:20–21; 1 Corinthians 15:20–24; Philippians 3:11.

¹³⁵ Whenever the expression *worldview(s)* is used in an unqualified way in this conclusion, it refers to worldviews in a maximal sense.

¹³⁶ Though using different wording, Ante Jerončić made similar points in his

In order to achieve this aim, I have suggested that while *a priori* commitments (macro-hermeneutical assumptions) deeply affect one's worldview,¹³⁷ they are not sufficient to account for one's view of reality.¹³⁸ Those commitments are better understood in relationship with the dynamic framework of a controlling story (or stories), whose function I illustrated through the operating system metaphor. The controlling function was further demonstrated by comparing some interpretations of data through the frameworks of atheistic evolutionary models and the biblical narrative. While such controlling stories (or software) do not exhaust one's worldview—since other factors in one's experience also contribute to the total picture—they provide a beneficial and relatively broad starting point to assess different views of life.

In light of the information shared in this article, I suggest a few concluding remarks about worldviews. First, worldview development can be healthier when people are aware of the stories influencing them and take an active and intentional role in understanding, accepting, challenging, or rejecting these stories or parts of them.

A second consideration is that for an assessment in this area to be fair and legitimate; it must, as much as possible, take into account the assessed story's full narrative structure and internal cohesion. Each claim must be evaluated from within each narrative's own internal logic and particular assumptions. Analyzing worldview claims from the outside—from a different narrative and different assumptions—prevents adequate understanding because they are decontextualized. Moreover, superficial engagement is not enough to effectively compare, contrast, and critique worldviews; more in-depth study and broad-mindedness are necessary to process information from different narratives, along with their presuppositions.

Third, when there is willingness, openness, and desire to learn, it can be helpful to share these grand narratives with people who subscribe to different controlling stories. This process can promote dialogue and mutual understanding. As Allen and Springsted put it, "To the degree that we share narratives, we share understanding; and to the degree that there is no sharing, there is the same degree of incomprehension."¹³⁹ It seems that the search for

presentation "What Worldview Discourse (Over)Promises: Some Anthropological Considerations" (paper presented at "Transforming Worldview(s): Biblical Faithfulness in a Pluralistic Age" Symposium at Andrews University, Berrien Springs, MI, 19 October 2018).

¹³⁷ Especially when these commitments involve ontological categories such as God, the cosmos, and humanity.

¹³⁸ Concepts in isolation may lead to a static, reductionistic, and distorted understanding of worldviews.

¹³⁹ Allen and Springsted, *Philosophy for Understanding Theology*, 235.

peaceful coexistence in a pluralistic world requires such sharing and dialogue, even when no agreement or resolution is reached.¹⁴⁰

Fourth, in assessing competing worldview narratives, one would do well to pay attention to points of agreement and compatibility before critiquing a position.¹⁴¹

Fifth, one should be open to recognize weaknesses and blind spots in one's own worldview. Since people's worldviews are dynamic and ever-developing, awareness of such weaknesses is an integral part of maturity and identity formation.

Sixth, worldviews are not only mental constructs but embodied realities. Thus, one actively trying to develop a worldview would benefit from reasoning about the possible outcome of living out a controlling story. Is the result of the grand story—its “fruit”—good and desirable? If so, consistency (integrity) in living out the story will be beneficial to the possessor and to others as well. If not, one could consider other stories to live by. In the end, “worldviews are not [only] about better thinking, but about becoming better people.”¹⁴²

Finally, the seventh point is that these powerful influences—the controlling stories—are words. Such words have a source or sources. And it is important to know whose words they are because subscribing to and embodying a controlling story ultimately means following someone else. The vital questions everyone should satisfactorily be able to answer in this context are: “whose words are you following?”¹⁴³ and why?

¹⁴⁰ The postmodern alternatives, such as the hermeneutic of suspicion (here as distrust in the possibility of finding truth) and hostility to dialogue, if not resisted, undermine a plural society, quench individual expression, and impede constructive thought.

¹⁴¹ Jerončić, “What Worldview Discourse (Over)Promises.”

¹⁴² Ibid.

¹⁴³ Cf. Vanhoozer's article “Being Biblical in a Pluralistic Age,” in this journal, 305.