S JOSHUA SWAMIDASS

A Response to Denis Lamoureux's Critique of 'The Genealogical Adam & Eve'[1]

It has been several years since *The Genealogical Adam and Eve* (GAE)[2] was first published. In hindsight, we can see that the GAE did, in fact, substantially reconfigure the debate on Adam and Eve.[3] I am grateful and fortunate that, all these years later, the book continues to be a useful starting point for conversation.

Denis Lamoureux's article forcefully responds to the GAE, presenting several arguments purportedly against the GAE.[4] I write 'purportedly' because Lamoureux misreads my position in several ways.

I am, nonetheless, grateful for Lamoureux's contribution because it reflects the oft repeated objections, largely unpublished until now, of many leading evolutionary creationists,[5] particularly those at the BioLogos Foundation. Lamoureux himself ranks among the most pre-eminent evolutionary creationist exegetes alive today, and he certainly has closely read the GAE.[6] So, his article serves me well, giving opportunity, by way of responding to him, to address the evolutionary creationists too.

1 Lamoureux, D.O. 'The Swamidass Genealogical Adam & Eve Hypothesis: Rooted in Genre Misidentification, Ad Hoc Concordism, and a Biblical Proof-Text,' *Science & Christian Belief* (2024), 36, 188-215.

2 Swamidass, S.J. *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry*, InterVarsity Press (2019).

3 Several scholars of different persuasions published follow-on books constructively engaging the GAE. Now, a four-views book moderated by the eminent Baptist theologian, Kenneth Keathley, has just been published. Contributions from Kenton Sparks, Marcus Ross, Andrew Loke and William Lane Craig all constructively engage the central claim of the GAE, and there is still much to discuss. Keathley, K.D. *Perspectives on the Historical Adam and Eve: Four Views*, Brentwood, TN: B&H Academic (2024*)*; *ibid*., Swamidass, p.201 ff

4 Swamidass, S.J. "Fixing a Math Error in My Book," *Peaceful Science* (2022) https://doi.org/10.54739/6gvt.

5 I do not use this term 'evolutionary creationists' as an overly broad synonym with 'theistic evolution,' but in reference to the scholarship and approach associated with the BioLogos Foundation. This is a theological approach that privileges no-Adam readings of Genesis, much as does Lamoureux, both in his article and in his book: Lamoureux, D.O. *Evolutionary Creation: A Christian Approach to Evolution*, Eugene.OR: Wipf&Stock (2009).

6 To his credit, I am very grateful for Lamoureux's correction to one of the mathematical sections of the book.

The Central Point

> My central point is that at least some 'traditional' readings of Genesis, whether correct or not, can be consistent with modern evolutionary science. I define 'traditional' readings of Genesis as those that affirm that Adam and Eve were real people who, listed in increasing importance: (1) lived in the relatively recent past, (2) were miraculously created by God without parents, and (3) were genealogical ancestors of everyone alive in the present theological era.[7]

There are many traditions in the Church, but this definition reflects how the overwhelming majority of pre-modern readers of Genesis understood its account of our origins.[8] Both historically and in contemporary practice, a large variety of different hermeneutical roads lead to this account of Adam and Eve, and this is evident in the variety of hermeneutics employed by other scholars in their follow on work to the GAE.[9]

Moving beyond the definition of 'traditional' accounts of Adam and Eve, the GAE's thought experiment follows a particular hermeneutic when it proposes a specific model and a particular literalist interpretation. I define 'literal' differently than Lamoureux, and explain my reasoning for taking this approach in several places,

> The literalist tradition is important in parts of the Church, and it is being followed through this book. This tradition is well expressed in the Chicago Statements on Inerrancy and Hermeneutics.[10] Whether or not this is the correct way to read the Bible is beside the point, as other hermeneutics are easily accommodated.[11]

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7 Swamidass, *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry*. p. 5.

8 In contrast, Lamoureux thinks 'most people would say [the Genesis] account of origins is a story somewhat like a parable, but not real and actual history.' The historical evidence, however, clearly demonstrates that most readers of Genesis understood it to be speaking about historical events. The only notable exceptions to this pattern arise very late, in and after the modern era.

9 See, for example: Loke, A.T.E. *The Origin of Humanity and Evolution: Science and Scripture in Conversation,* T&T Clark (2022); Craig, W.L. 'Preferring an Ancient Genealogical Adam and Eve' *Peaceful Science*, (2020) https://doi.org/10.54739/t9q9; Craig, W.L. *In Quest of the Historical Adam: A Biblical and Scientific Exploration*, Eerdmans (2021); Garvey, J. *The Generations of Heaven and Earth: Adam, the Ancient World, and Biblical Theology*, Wipf and Stock (2020); Heiser, M.S. 'A Biblical Scholar's Perspective on People Outside the Garden,' *Peaceful Science* (2020) https://doi.org/10.54739/3gp6.

10 'Chicago Statement on Biblical Inerrancy' (1978) https://library.dts.edu/Pages/TL/Special/ICBI_1.pdf; 'Chicago Statement on Biblical Hermeneutics', 1982, https://library.dts.edu/Pages/TL/Special/ICBI_2.pdf.

11 Swamidass, *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry*.

International readers may not be familiar with the Chicago Statements of 1978 and 1982, but these documents are the key to understanding what I mean by a 'literal' hermeneutic.

Though not as well-known as the more widely affirmed Lausanne Covenant of 1974, these two documents rank among the most important documents in modern evangelicalism, each reflecting a consensus of about 200 evangelical scholars. Many US evangelical institutions, including the Southern Baptist Convention, the largest denomination in the US, require affirmation of one or both these two statements. Likewise, alignment with the Chicago Statement on Inerrancy is required for membership in the Evangelical Theological Society, though many evangelical scholars who affirm the statements also think some points should be updated to reflect current scholarship.[12]

We can question whether a literalist reading of Genesis, as defined by the Chicago Statements, is correct. Surely Lamoureux would answer that it is incorrect. But this question is outside the scope of the GAE. Rather than defending the correctness of the Chicago Statements, I am merely demonstrating, with an example, that a surprisingly literalistic—here and with respect to specific interpretations, I mean 'concrete' or physically real—reading of Genesis, arrived at by the statements' 'literal' hermeneutic, is not in conflict with the fundamental claims and findings of evolutionary science.

Even if ultimately judged incorrect, this interpretive choice serves to directly demonstrate my central point, that traditional readings—including even surprisingly literalistic readings of Genesis—can be compatible and coexist with evolutionary science. Affirming this central point does not imply agreement with the Chicago Statements. One can agree with my point, while at the same time rejecting this literalistic reading.

For this reason, the GAE does not discuss or disclose my personal views on Adam and Eve. My beliefs on these matters are irrelevant to the point.[13] The GAE even convinced several scholars who personally reject a historical Adam and Eve. Nathan Lents, an atheist biologist, explains in USA Today,

p. 164.

12 'All members must subscribe annually to the Doctrinal Basis of the Society. Initially, this is done by completing the application process and affirming the ETS Doctrinal Basis.
The case for biblical inerrancy rests on the absolute trustworthiness of God and Scripture's testimony to itself. A proper understanding of inerrancy takes into account the language, genres, and intent of Scripture. We reject approaches to Scripture that deny that biblical truth claims are grounded in reality.' https://etsjets.org/membership_requirements/

13 One source of Lamoureux's confusion may be on discerning what I personally believe about Adam and Eve. As he explains it is 'difficult at times to determine what exactly [the author of the GAE] believes.'

> …modern science might actually be silent on the issue of Adam and Eve. The effect of this new realization is that Christians, Jews and Muslims can effectively move the Adam and Eve story from the column of miracles that science has soundly disproved — such as a recent global flood — to the column of miracles that science cannot disprove, like the virgin birth of Jesus.[14]

Lents and other secular scientists also endorsed my book. They did so because my central scientific conclusion is solid and my reasoning is sound, regardless of what they personally believe about Genesis.

Lamoureux wants to argue on hermeneutical grounds against traditional readings of Genesis. He is welcome to, so long as he does not claim that evolutionary science undermines these readings and his argument is sound.

Mistaken Self-Defeaters

Nothing in Lamoureux's response attempts to dispute this central point. Even if everyone were to agree with Lamoureux that traditional readings of Genesis are incorrect, there would still be some such readings that are entirely consistent with modern evolutionary science.

Instead, Lamoureux complains I am exploiting a 'loophole,' and that my central conclusion 'is scientifically vacuous. A theory that cannot be tested or falsified is inconsequential to science,'[15]

This objection is a deflection. Distinguishing genetic and genealogical ancestry is not a 'loophole,' but a correction to a common but indefensible category error. There is, moreover, solid scientific evidence and sound reasoning behind every scientific claim I make in the book. Correcting false scientific claims with careful inquiry, as does the GAE, is hardly vacuous. Instead, putting to rest false claims with solid science is one of the primary ways our knowledge progresses.

More fundamentally, Lamoureux mistakes an *unfalsified* hypothesis for an *unfalsifiable* one. Science cannot, even in principle, falsify an entirely fictional Adam and Eve, so Lamoureux's position is *unfalsifiable*. In contrast, there is counter-factual evidence that would disprove the GAE's hypothesis. As is the hallmark of a yet *unfalsified* hypothesis, however, many of us tried and failed to falsify the central hypothesis of the GAE.

14 Lents, N. 'Upcoming Book Leaves Scientific Possibility for Existence of "Adam and Eve,"' *USA Today*, (October 4, 2019) https://www.usatoday.com/story/opinion/2019/10/04/upcoming-book-leaves-scientific-possibility-existence-adam-eve-column/3826195002/.

15 This objection fails on too many levels to fully explain. It is widely known and agreed that falsification criteria fail to demark good and bad science. And what of the Virgin Birth, which is also unfalsifiable? Does Lamoureux mean to argue should Christians reject it on these grounds?

Ironically, were these objections remotely valid, Lamoureux would face a strong defeater for his own position. He insists that Adam and Eve were not real people in the past, an interpretation that certainly 'insulates them from scientific investigation' so they 'cannot be tested or falsified.'

The Missing Context

Furthermore, Lamoureux omits entirely the critical context that demonstrates that my central point carries both scientific salience and content. The GAE forcefully pushes back against several evolutionary creationists, including Lamoureux himself,[16] who incorrectly proclaimed strong *scientific* evidence against the existence of Adam and Eve.

In 2011, Darrel Falk and Dennis Venema explained that scientific evidence shows that we are not, 'as C.S. Lewis puts it in his *Chronicles of Narnia*, the "sons of Adam and daughters of Eve."'[17] Asked by *National Public Radio* if we all descend from Adam and Eve, Dennis Venema responded, 'That would be against all the genomic evidence that we've assembled over the last 20 years.'[18] Similarly, this time confronting Timothy Keller, Deborah Haarsma insisted that this same scientific evidence demonstrates Adam could not have been specially created.[19] Indeed, the organization's position was that 'the *de novo* creation of Adam and Eve is not compatible with what scientists have found in God's creation.'[20]

Simply put, these claims of conflict 'were wrong.'[21] Darrel Falk, former presi-

16 Lamoureux, D.O. 'Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?'. *Perspectives on Science and Christian Faith* (2015*)* 67, 35-49.

17 Venema, D.R. and Falk, D.R. 'Does Genetics Point to a Single Primal Couple?,' *BioLogos* (April 5, 2010), https://doi.org/10.54739/vqbj. Also see Ostling, N.R. 'The Search for the Historical Adam,' *Christianity Today*, (2011) https://www.christianitytoday.com/ct/2011/june/historicaladam.html.

18 Hagerty, B.B. 'Evangelicals Question The Existence Of Adam And Eve,' *National Public Radio* (2011), https://www.npr.org/2011/08/09/138957812/evangelicals-question-the-existence-of-adam-and-eve.

19 This article by Deborah Haarsma, years later, was edited by the BioLogos Foundation. Swamidass, S.J. 'In Defense of Tim Keller,' *Peaceful Science* (2017) https://doi.org/10.54739/p9cc; Swamidass, S.J. *BioLogos Edits Their Response to Keller*, *Peaceful Science* (2019) https://discourse.peacefulscience.org/t/_/4798.

20 Swamidass, S.J. 'A U-Turn on Adam and Eve,' *Peaceful Science* (2021) https://doi.org/10.54739/83rj.

21 Many of these claims have been known to be false for more than a decade. Special credit is due to Kenneth Kemp, Ed Feser, and Vern Poythress. Kenneth W. Kemp *Science, Theology, and Monogenesis*, *American Catholic Philosophical Quarterly* (2011) 85, 217-236; Venema, D.R. 'Vern Poythress, Population Genomics, and Locating the Historical Adam,' *BioLogos* (April 7, 2015) https://doi.org/10.54739/atjo; Poythress, V.S. *Did Adam Exist? (Christian Answers*

dent of BioLogos, graciously concedes in his endorsement of the book,

> I am one of the many scientists who have maintained that the existence of Adam and Eve as ancestors of all people on earth is incompatible with the scientific data. In this book, Joshua Swamidass effectively demonstrates that people like me, stuck in a specific genetic paradigm, were wrong…. In writing this book, Swamidass removes our blinders. In a clearly written and highly accessible style, he shows how a traditional understanding of the Genesis narrative, including the sudden creation of Adam and Eve, is fully compatible with science.

The BioLogos Foundation itself was less forthright. Eventually, they responded with a vague statement of error, and then by deleting a keystone article on population genetics from their website.[22] Unfortunately, they did not make transparent corrections and retractions.[23] They did, however, continue to edit and delete several more scientifically inaccurate articles on their website.[24] Since then, they largely exited the conversation on Adam and Eve.

A 'scientifically vacuous' body of work does not provoke actions like these. To the contrary, one substantive contribution of the GAE is to clearly lay out some (though not all)[25] of the scientific reasons why these evolutionary crea-

to Hard Questions), P & R Publishing (2014); Feser, E. *Monkey in Your Soul?*, (2011), http://edwardfeser.blogspot.com/2011/09/monkey-in-your-soul.html. These early objections to evolutionary creationist population genetics, followed later by Richard Buggs as well, were all essentially correct. Swamidass, S.J. 'The Misunderstood Science of Genetic Bottlenecks,' in *Annual Meeting of The American Scientific Affiliation* (2022), https://doi.org/10.54739/1w7j; Buggs, R. 'Adam and Eve: Lessons Learned' (accessed July 8, 2022), https://richardbuggs.com/2018/04/18/adam-and-eve-lessons-learned/ McKnight, S. and Venema, D.R. *Adam and the Genome : Reading Scripture after Genetic Science*, (2017).

22 Haarsma, D. 'Truth-Seeking in Science,' BioLogos (January 10, 2020,) https://biologos.org/articles/truth-seeking-in-science/.

23 Swamidass, S.J. 'BioLogos Deletes an Article,' *Peaceful Science* (2021), https://doi.org/10.54739/rv8k; Venema and Falk, 'Does Genetics Point to a Single Primal Couple?'

24 Read an overview here: Swamidass, 'A U-Turn on Adam and Eve'; Swamidass, 'The Misunderstood Science of Genetic Bottlenecks.' Deleted articles include Venema, D.R. 'Genetics and the Historical Adam: A Response to William Lane Craig,' *BioLogos* (July 17, 2015), https://doi.org/10.54739/hqh1; Venema, 'Vern Poythress, Population Genomics, and Locating the Historical Adam'; Venema, D.R. 'Adam, Eve and Population Genetics: A Reply to Dr. Richard Buggs (Part 1), '*BioLogos* (November 3, 2017), https://doi.org/10.54739/ju3t; Venema, D.R. 'Adam, Eve and Population Genetics: A Reply to Dr. Richard Buggs (Part 2), '*BioLogos* (November 30, 2017), https://doi.org/10.54739/2xqh.

25 Other ways these claims are in error are explained in Swamidass, S.J. *Three Stories on Adam*, *Peaceful Science* (2018) http:/peacefulscience.org/three-stories-on-adam/; Swamidass, S.J. 'Heliocentric Certainty Against a Bottleneck of Two?' (2018), https://doi.org/10.5281/zenodo.1328247 Craig, W.L. 'What Became of the Genetic Challenge to Adam and Eve?' *Peaceful Science* (2020) https://doi.org/10.54739/e7r9; Swamidass, S.J. 'The Misunderstood Science of Genetic Bottlenecks'; Swamidass, S.J. 'Heliocentric Certainty Against a Bottleneck of

tionist claims are false, concluding that 'evolutionary science does not require us to reject the Genesis narrative. Adam and Eve, ancestors of us all, could have lived as recently as six thousand years ago in the Middle East. They could have been *de novo* created, the first 'humans' of Scripture, free of death in a sinless environment.' [26]

Many More Deficiencies

I could easily end my rebuttal here. But it would be a disservice to readers to leave unmentioned other deficiencies in Lamoureux's case. So, in service of promoting understanding across our differences, I will expand on just five of the most salient points.

1. Untangling Three Definitions of Concordism

The GAE is anti-concordist, neither aligning modern science with Scripture nor reading modern science into Scripture. Lamoureux does not cite work by Andrew Loke, a leading scholar, who explains why the GAE is not making the error of scientific concordism.[27] This is a material omission, particularly because Loke's article thoroughly rebuts Lamoureux's argument. Setting this aside, there are several additional holes in Lamoureux's argument.

Let's start by defining three distinct meanings of 'concordism,' only the first two of which are examples of 'scientific' concordism.

i. 'Alignment' concordism, aligns the bible with facts from modern science, and can be both negative or positive, depending on the details. This is an old definition of concordism, and work is not necessarily in error if concordist in this sense.

ii. 'Eisegetical' concordism, which reads modern scientific ideas into Scripture, even though ancient authors did not have categories to make such claims. This is the more common meaning of scientific concordism in current scholarship, and it is always negative because eisegesis is always incorrect.[28]

iii. 'Historical' concordism, which holds that Scripture aligns with past events that played out in the physical world we all inhabit, regardless of whether such

Two?'; Buggs, 'Adam and Eve'; Buggs, R. 'Adam and Eve: A Tested Hypothesis?,' *Nature Portfolio Ecology & Evolution Community* (October 28, 2017), https://ecoevocommunity.nature.com/posts/22075-adam-and-eve-a-tested-hypothesis.

26 Swamidass, *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry*.

27 Loke, A.T.E. 'Showing There Is No Incompatibility Between Evolution and the Bible, '*Peaceful Science* (2020) https://doi.org/10.54739/rcx8

28 Alexander, D. 'The Various Meanings of Concordism,' *BioLogos*, https://biologos.org/articles/the-various-meanings-of-concordism (accessed August 10, 2024)

events are visible to science or not.

Only 'alignment' and 'eisegetical' concordism are 'scientific,' because 'historical' concordism has nothing to do with science. The orthodox Christian claims that Jesus bodily rose from the dead and that he was born of a virgin are examples of historical concordism. As we will see, the GAE—by the 'alignment' and 'eisegetical' definitions of the term—is explicitly anti-concordist, so it is not an example of scientific concordism. The approach taken in the GAE, however, is an example of 'historical' concordism, but this sort of concordism is not in-and-of-itself an error.

Now let's look at Lamoureux's definition of concordism, which he gives as

> the assumption that the Bible in some way aligns with the facts of modern science. To be more specific, the moment anyone states that Adam was an actual person in history, he or she is assuming a concordist hermeneutic. This idea [of a historical Adam] does not come from science. It originates in Scripture.

Lamoureux starts with the old 'alignment' definition of concordism. He elsewhere acknowledges that this sort of concordism can be positive, and in fact is theologically well-grounded, though he deploys the term against the GAE in an exclusively negative sense. This exclusively negative application of the term only makes sense if we are conflating 'alignment' with the more common meaning of concordism, that of scientific 'eisegesis,' which is always negative.

Further conflating concordism, in the next sentence Lamoureux equates this reasonable (though antiquated) definition of 'alignment' concordism with 'historical' concordism of Adam and Eve. Lamoureux's justification of this conflation is 'This idea [of a historical Adam] does not come from science. It originates in Scripture.' That's true, but this is also precisely why merely stating Adam and Eve were 'actual people' in the past is not by itself *scientific* concordism, of either the 'alignment' or 'eisegetical' sort.

It is, indeed, *because* the idea of a historical Adam and Eve 'originates in Scripture, not science,' that pre-scientific readers of Genesis affirmed a historical Adam and Eve. Before the rise of modern science, most readers of Genesis, including the apostle Paul, thought that Adam and Eve were real people in our past, genealogical ancestors of us all. These readers are neither reading science into Scripture, nor are they aligning Science with Scripture, because they are unaware of modern scientific knowledge. These counter examples make unequivocally clear that it cannot possibly be scientific concordism of either sort to merely 'state that Adam was an actual person in history'.

Now let's consider whether the reading offered in the GAE is concordist by the 'alignment' definition. By this definition, GAE's central claim and thought experiment is profoundly anti-concordist. I argue that the evolutionary account from science and traditional readings of Adam and Eve, are speaking

about *different* things, so for this reason they *cannot* be aligned. And precisely because they are speaking about separable and distinct aspects of our past, traditional understandings of Adam and Eve and modern evolutionary science can be consistent, i.e. without contradiction with one another. For all we know, both could be true at the same time.

But just as importantly, even if the GAE was concordist by the first definition of 'alignment,' this would not necessarily be negative, because Christians expect correct readings of Scripture to align with accurate science. One positive example of concordism is that both the Big Bang Theory and Genesis appear to teach that there was a beginning. Though, of course, we cannot derive the Big Bang Theory *per se* from Genesis, which would be eisegetical concordism. Nor can we derive the doctrine of creation from the Big Bang, which would be improper science. But if we avoid eisegesis and improper science, this sort of widely agreed upon 'alignment' cannot be salient to Lamoureux's exclusively negative use of the term; he himself affirms this type of concordism is well-grounded and positive.

Is the GAE guilty of the 'eisegetical' definition of concordism? By this definition, the GAE's thought experiment is decidedly anti-concordist too, emphasizing that it is an eisegetical error to think Scripture is making claims about the scientifically modern concept of *genetic* ancestry. In contrast, Scripture can make claims about *genealogical* ancestry, because genealogical ancestry is an 'ordinary' term referent to a pre-scientific concept, a concept certainly within the cognitive framework of the original authors and audience of Scripture.

Certainly, it would be blatant eisegetical concordism to argue that 'Genesis teaches humans arose by evolutionary processes' but this is a claim that the GAE explicitly rejects. In agreement with Lamoureux, I argue that the findings of modern science give us good warrant to think evolution is how God created us, even though Scripture does not ever teach how most of our ancestors were created. This is no more concordist than when Lamoureux himself explains that Genesis teaches *that* God created us, but not *how*, so therefore we can affirm the scientific account of our evolutionary origins.

Of course, the GAE's thought experiment is rightly understood as historical concordism, but *historical* concordism is not *scientific* concordism. *Contra* Lamoureux, the historical concordism in the GAE's thought experiment is no more error than is our shared—and historically concordist—affirmations of the bodily Resurrection of Jesus and his Virgin Birth.

2. Even if Genesis is Myth…

Even if we agree that Genesis is a myth, it does not follow that Adam and Eve were not real people in a real past. Lamoureux's hermeneutical argument is that the genre of early Genesis is myth, as if this demonstrates that Adam and

Eve were not real people. In making this point he makes a category error when he equates 'myth' with non-historical fiction, like a 'parable'. Ancient myths are not non-historical fiction or fables.

What if Genesis is in the genre of myth, but still intends to teach and convey information about real individuals in the past? Lamoureux does not consider this possibility, even though contemporary scholarship suggests it.

We find that the ancients cared about history, and they conveyed their history by way of myth. For this reason, ancient myths are better classified as 'mytho-history,'[29] a term that highlights that ancient myths recount a mix of both fictional and non-fictional elements.

For example, it is possible—maybe even likely—that the *Epic of Gilgamesh* refers to a real Sumerian king named Gilgamesh and his companion Enkidu, even if many of the details of the narrative are fantastical embellishments of this historical core. If we are to read Genesis in the same way, we would similarly be inclined to understand Adam and Eve as real people in a real past, even if other aspects, such as the talking Serpent[30] or the *de novo* creation of Adam and Eve, are judged to be mythological embellishments.

More familiar to Western readers, consider the *Iliad* and the *Odyssey*, which are both excellent examples of mytho-history. Though fantastical myths, they most likely refer to real historical conflicts of some sort or another, maybe even an actual Trojan War over a woman named Helen. As G. S. Kirk explains, '…much of the *Iliad* is obviously historicizing in content…. Even those least confident in the existence of a "Trojan War" concede that some attack took place and that some Achaeans were among the attackers…. The story is based on some kind of memory of the past and…its progress is described in largely realistic terms.'[31]

Debate will continue about the historicity of specific aspects of these and other myths, but in the last few decades this debate is framed by wide-spread

29 This idea has been around for quite some time in the academic literature and perhaps the dominant approach to ancient myths. In 1994, based on comparative studies of Sumerian literature, Assyriologist Thorkild Jacobsen coined 'mytho-history' as a more apt genre for ancient myths. Jacobsen, T. 'Eridu Genesis,' in *I Studied Inscriptions from Before the Flood: Ancient Near Eastern, Literary, and Linguistic Approaches to Genesis 1-1* (1994), https://www.eisenbrauns.org/books/titles/978-1-57506-211-2.html. Most recently, it has been advocated by William Lane Craig and C. John Collins, Lents, N. 'Mytho-History: The "Evolution" of Adam and Eve,' *Skeptic* (2021), https://www.skeptic.com/reading_room/mytho-history-evolution-of-adam-and-eve-quest-of-historical-adam/; Craig, 'Preferring an Ancient Genealogical Adam and Eve'; Craig, *In Quest of the Historical Adam*. Also see Collins, C.J. *Reading Genesis Well: Navigating History, Poetry, Science, and Truth in Genesis 1-11* (2018).

30 Note that there is debate about how to translate the Hebrew word for 'Serpent' in this passage. Given the linguistic ambiguity, the text might be better translated and understood as referring to a member of the Divine Council, not a snake. By this reading, it would not be a mythological embellishment, but perhaps holds a double or metaphorical meaning as well.

31 Kirk, G. S. S. *Myth: Its Meaning and Functions in Ancient and Other Cultures* (1973)

scholarly acknowledgement that ancient myths usually contain both fictional and non-fictional elements. Why would Genesis be any different? Against this backdrop, a historical Adam and Eve is a plausible reading of the Genesis myth, arguably even the reading most likely to be correct.

It might initially seem a mytho-historical reading is at odds with the Chicago Statements, because the statement on hermeneutics explicitly rejects Genesis 1-11 is merely myth. However, a mytho-historical reading is—at least in principle—aligned with the Chicago Statements, because it is sensitive to the genre of the text without reducing the account to merely a non-historical or fictional myth.

Refuting Lamoureux's accusation of *ad hoc* hermeneutics, a mytho-historical understanding Genesis gives justification for understanding Adam and Eve as real people in the past, while at the same time judging other elements of the account to be fictional.

Now, the GAE itself leaves open which elements are mythological embellishment, but its thought experiment treats most details as historical realities for the stated purpose of making a specific point. For all we know from science, there could have been a literal Adam and Eve, in a literal Garden, two literal trees, and even a deceiver who takes the form of a literal snake. Science does not tell us either way which of these elements is an embellishment and which is historical.

To rescue his argument, Lamoureux needs to close this gaping hole. Even if we grant that Genesis is an ancient myth—i.e. mytho-history to be read the same way we read other ancient myths—Lamoureux must demonstrate that the existence of an Adam and Eve as real people in a real past are among the entirely and exclusively fictional elements of the Genesis myth.

3. Implicated, Not Incidental

Even if Genesis is a myth, the primary reason most Christians affirm a literal Adam and Eve is because their historicity is implicated by, not incidental to, New Testament teachings—Romans 5, Acts 17, and 1 Corinthians 15, and Luke 3—and the doctrinal traditions that built up around these teachings.[32]

Most scholars, including Lamoureux, agree that the Apostle Paul believed that Adam was a real person, whose actions in the past affected us all. Paul had many incidental beliefs that were incorrect, perhaps geo-centrism, for exam-

32 In order of importance, the key doctrines include (1) a historical fall, (2) monogenesis, particularly as a statement of human familial unity, and (3) original sin of some sort or another. Kemp, *Science, Theology, and Monogenesis*; Keathley, K.D. 'Antipodes and the Scandal of Particularity,' *Peaceful Science* (2020) https://doi.org/10.54739/g98q.

ple. But the actions of a fictional Adam in a fictional past cannot affect us in the real world, so Paul's beliefs here are *implicated* by, not merely *incidental* to, his teaching.[33] Even if we were all to agree that Genesis is a myth—even if we were to remove Genesis from the canon—Paul's teaching alone still gives sufficient reason for Christians to affirm a historical Adam and Eve.

So, Lamoureux must plausibly demonstrate how a historical Adam is incidental to, and not implicated by, New Testament teachings. Failing to do so, no-Adam theology seems to conflict with the Lausanne Covenant of 1974, one of the foundational statements of modern evangelicalism, which holds that Scripture is 'without error in all it affirms.'[34]

The only discernable reasoning that Lamoureux offers— that Adam's historicity is incidental because it is 'ancient science'—is an inadequate non-sequitur, which both (1) relies heavily on an anachronistic conceptual category 'ancient science' that the ancients did not have, and also (2) whistles past the entirely independent reasons New Testament teaching seems to *implicate* a historical Adam and Eve.

To be sure, there is a body of work that argues the Pauline passages do not require a historical Adam and Eve.[35] In every case I have seen, this work concedes Paul was teaching a historical Adam and Eve, but then argues or assumes his teaching is just wrong on this point. From here, as the arguments go, Paul's teaching can be reinterpreted or reduced to other spiritual truths, such as the teaching that we are all sinners. But in these reductions, central doctrines with far reaching consequences - such as a historical Fall, monogenesis, and original righteousness - are either abandoned or significantly revised.

This sort of revisionist argument is largely rejected by evangelical Christians, who seek to '[stand] in continuity with how the church historically has read Scripture.'[36] So, the salient question is, 'why would we revise interpretation of Scripture and doctrine so broadly attested, for so long, across so many different Christian traditions?'

Historically, the answer emphasized by revisionists—modernists, neo-mod-

33 Swamidass, *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry*. p. 139; Hilber, J.W. 'Implicated vs. Incidental: Relevance Theory and The Meaning of Genesis,' *Peaceful Science* (2020), https://peacefulscience.org/articles/implicated-vs-incidental/.

34 Swamidass, S.J. 'A Theological Monument to Unity amid Diversity,' *Christianity Today* (2024), https://www.christianitytoday.com/2024/07/theological-unity-diversity-lausanne-covenant/.

35 McKnight, S and Venema, D.R. *Adam and the Genome : Reading Scripture after Genetic Science*; Lamoureux, 'Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?'

36 "'Do You Understand What You Are Reading?,"' Lausanne Movement https://lausanne.org/occasional-paper/do-you-understand-what-you-are-reading-toward-a-faithful-evangelical-hermeneutic-of-scripture. (accessed October 5, 2024)

ernists, and post-evangelicals alike—was that evolutionary science demanded a revision. But this scientific challenge has evaporated in recent years, in large part due to the GAE.

4. A Traditional Understanding of 'Literal'

I also reject the 'literal' readings of Genesis that Lamoureux tries to pin on me, and I'm using a very different definition of 'literal.' Throughout his article, Lamoureux deploys a strawman understanding of 'literal,' as if it were my position. Judging from his use of the term, Lamoureux seems to think 'literal' means a (1) naïve and rigid reading of Genesis, (2) insensitive to context, genre, figures of speech, metaphor, and idiomatic language, and (3) insistent Scripture speaks in scientific language with scientific precision, yet also (4) essentially synonymous with even the decidedly non-literal embellishments of many creationists. If this is what 'literal' really means, I also find it to be incoherent and indefensible.

Even under this definition of the term, it is hard to recognize Lamoureux's reading in the Genesis text itself. Unbound from the words in Genesis, Lamoureux reads *de novo* creation into the text at several places where the concept is not actually stated. Of course, such a reading serves his argument by building up a strawman, just to knock it down.

But this is not what I mean by 'literal.' Repeatedly referencing the Chicago Statements, the GAE explicitly defines the 'literal tradition' in a totally different way than does Lamoureux,[37]

> The [Chicago] statements affirm a literalistic interpretation of Scripture that takes genre into account. 'The literal sense is the grammatical-historical sense, that is, the meaning which the writer expressed. Interpretation according to the literal sense will take account of all figures of speech and literary forms found in the text…'
>
> The statements affirm a historical interpretation of Genesis that cannot be overthrown by science. A mythical interpretation of Genesis 1–11 is specifically denied….
>
> The statements insist that…Scripture…does not speak in the precise language of science. 'Scripture is inerrant, not in the sense of being absolutely precise by modern standards, but in the sense of making good its claims and achieving that measure of focused truth at which its authors aimed…'

In this way, the GAE is extending Andrew Loke's seminal response to Wayne

37 Swamidass, *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry*.

Grudem on literalism's compatibility with evolution,[38] offering an extension that is deeply informed by St Augustine's 'literal' reading of Genesis and the doctrine of accommodation expounded in Kepler's introduction to the *Astronomia Nova*.[39] Though subsequently published, the GAE is also closely aligned with *Mere Christian Hermeneutics* —Kevin Vanhoozer's *magnum opus*—in which he retrieves an erudite and illuminating understanding of 'literal' hermeneutics.[40]

Most evolutionary creationists believe 'literalism' as defined by the Chicago Statements is misguided and incorrect. But we should remember,

> It is the literalist and inerrancy tradition from which Tim Keller and Wayne Grudem are speaking when they affirm the *de novo* creation of Adam and Eve. It is this same tradition that leaves [Hugh] Ross and [Fazale] Rana troubled with an Adam and Eve too far back in history.[41]

Even if we reject the statements, many Christians are still committed to the statements, so this hermeneutical approach is still important.

5. The *Ad Hoc* Admission

The accusation of *ad hoc* reasoning is neither correct, nor a serious critique of the GAE. Lamoureux means that I am arbitrarily and inconsistently interpreting Scripture without any guiding principles or rules. Certainly, Lamoureux will disagree with the hermetical approaches used by the GAE, and a discussion of these disagreements could be a useful conversation. But Lamoureux objects that the GAE is *ad hoc*, unguided by any principles he can discern, thereby subverting any meaningful discussion of the principles I do employ.

Compounding the problem, much of what Lamoureux cites as *ad hoc* does not reflect the position presented in the GAE. Much of what he infers about my personal reading of Genesis is incorrect. Certainly, I reject—alongside Lamoureux, and just about everyone else—the absurdist version of literalism he

38 Loke, A.T.E. 'Reconciling Evolution and Biblical Literalism: A Proposed Research Program,' *Theology and Science* (2016) 14, 160–714.

39 Young, D.A. 'The Contemporary Relevance of Augustine's View of Creation,' *Perspectives on Science and Christian Faith* (1988) 40, 42–45.

40 Vanhoozer, K.J. *Mere Christian Hermeneutics: Transfiguring What It Means to Read the Bible Theologically*, Zondervan Academic (2024).

41 Swamidass, *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry*. Also see, Grudem, W. 'The Incompatibility of Theistic Evolution with the Biblical Account of Creation and with Important Christian Doctrines,' in *Theistic Evolution: A Scientific, Philosophical, and Theological Critique*, ed. Moreland J. P. et al., Crossway (2017); Swamidass, 'In Defense of Tim Keller'; Keller, T., Moore, R. and Duncan, L. 'Keller, Moore, and Duncan on the Non-Negotiable Beliefs About Creation', *The Gospel Coallition* (2017) https://www.thegospelcoalition.org/article/keller-moore-duncan-non-negotiable-beliefs-about-creation/.

attacks.

At the risk of belaboring the point, I will illustrate the problem by expanding on one of many examples. Lamoureux argues that the Genesis 1 days are '24-hour' days, and that a literal hermeneutic demands this interpretation. He presumes this must conflict with an old earth, so I must be reading them as long ages instead and doing so for no principled reasons at all. Lamoureux point is that I am being *ad hoc* because I take Adam and Eve literally, but not the 24-hour days of Genesis 1.

Well, in fact, neither interpretation of is affirmed by the GAE nor by me. The Genesis 1 days are not discussed in the GAE at all, because they are totally ancillary to my central point.

Once again missing my definition of 'literal,' the Chicago Statements themselves directly state the 'literal' hermeneutic is consistent with either a young or old earth. Day-age is one possibility, the one adopted by the champion of 'literalism,' Williams Jennings Bryan, of the Scopes 'Monkey' Trial, 100 years ago.

But I reject both the '24-hour' and the day-age views, taking instead a more concretely literal understanding of Genesis days than Lamoureux considered possible. We can understand the Genesis days as 'literal' proclamation days—'ordinary' days lasting from sunrise to sunset—during which the identity of the Garden's *Yahweh* is declared, who we are taught is the creator of all things.[42] This reading easily accommodates an ancient earth when we recognize the textual cues that most of material creation unfolded long before Genesis 1:3, when begins the first Genesis day.

This interpretation of the Genesis days is not *ad hoc,* but guided by leading scholarship, the Genesis tradition, the ancient context of the original readers and authors, and the actual text of Genesis.

Lamoureux also misses that there are multiple 'literal' readings of Genesis. Indeed, one reason I left young earth creationism was the realization that—*contra* both Lamoureux and the creationists—there are many literal readings of Genesis. I found that many plausible readings, including Augustine's 'literal' reading of Genesis, were very different to that which the creationists insisted was the only valid interpretation.[43] This plurality is a great strength, both un-

42 In our context, we would understand them as approximately 12-hours in length, not 24 hours. And 'hours' is a scientific concept that the original authors certainly did not have in the same way as us. So neither '12-hour' days or '24-hour' days are plausibly literal readings of Genesis. Walton, J.H. *The Lost World of Genesis One : Ancient Cosmology and the Origins Debate*, IVP Academic (2009).

43 Also consider St. Augustine's 'literal' interpretation of Genesis. Observing that Genesis 2 states that God created everything in a single day, which Augustine takes to be a single ordinary day. To understand Genesis 1, he proposes the six days are a narrative and logical

dermining rigid creationism and frustrating the sort of argument Lamoureux is trying to make. Even if one literal reading of Genesis is incorrect or *ad hoc*, it does not follow that *all* literal readings—or specifically the ones that the GAE or I discuss —are incorrect or *ad hoc*.

On a few points Lamoureux is partially correct, e.g. in a thought experiment the GAE does hypothesize that Adam and Eve are real people in our past. Likewise, I do consider the possibility of Adam and Eve being *de novo* created. Yet missed by Lamoureux, the GAE also offers literal readings of Genesis that do not require *de novo* creation,[44] and it remains uncommitted to any particular reading of this detail in the text.

And to the extent that Lamoureux accurately represents the GAE, the book offers clear reasoning for each interpretive move it makes. If Lamoureux believes any of these moves are *ad hoc*, he needs to demonstrate awareness and understanding of my actual reasoning, asking for clarification where necessary. Declaring my reading has no guiding principles, and then pinning absurd, *ad hoc* interpretations onto me —interpretations I explicitly reject—is just not a serious or convincing argument.

The Limitations of Space

With the limited space, I cannot fully address the accusation that I am using Acts 1:8 as a 'proof-text.' I direct readers to chapter 11 of the GAE, which lays out an extensive Scriptural case that does not rely on this verse alone. Nor do I address Lamoureux's objection from Genesis 3:20, which is solidly rebutted by the well-grounded reasons why many translations render the verse with '*become* mother of the living,' which is precisely what the GAE hypothesizes.

That Dialogue Might Begin

Despite all our disagreements, I am thankful for this opportunity to respond to Lamoureux. Though I can confidently reject his argument, I commend him for making his case in print.

The conversation need not end. From here, I hope better dialogue could begin. Questions might spark a meaningful exchange.

How do evolutionary creationists respond to my objections to their scientific

framework for explaining what God did in Genesis 2's one day. I think the 'Proclamation Day' approach make more sense. Yet this 'framework' understanding of Genesis 1 falls well within the boundaries of 'literal' readings of Genesis, but likewise it is neither the '24-hour' days nor the 'day-age' views assaulted by Lamoureux.

44 Loke, 'Reconciling Evolution and Biblical Literalism: A Proposed Research Program.'

claims? At their request, in 2022, I published an article detailing several ways it seems that evolutionary creationists continue to misrepresent the scientific evidence.[45] To date, neither the BioLogos Foundation nor the relevant scholars responded. I look forward to seeing a direct and serious response that either acknowledges error or defends their position.

Is the GAE speculative model of human origins consistent with the Chicago Statements? A response from scholars aligned with the Chicago Statements would be particularly helpful, perhaps Ken Keathley, Seth Hart, or Greg Beale. In response, perhaps they also could explain to this journal's international audience why the statements are important in many parts of the Church.

Historically, most arguments against Adam and Eve were not merely hermeneutical, but also relied on inaccurate scientific claims of conflict with evolutionary science, claims that we now know to be incorrect. As Falk admirably concedes, 'we were wrong.' These arguments were also working from the incorrect assumption that ancient myths were fiction or parables, rather than mytho-history, the way how the ancient world conveyed their history. Having corrected these errors, are there any sound and sufficient reasons for Christians to break with the bulk of the Genesis tradition to favor a no-Adam interpretation?

Dialogue on questions like these is one way we can understand and appreciate each other, even across significant disagreement and difference. There is much more to discuss from here.[46]

As it turns out, there is now a much larger community of Christians that affirm evolution, and this community extends far beyond evolutionary creationism. Those, such as myself, that disagree with the evolutionary creationists, also welcome any opportunities for dialogue with them.

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45 Swamidass, 'The Misunderstood Science of Genetic Bottlenecks.' https://doi.org/10.54739/1w7j

46 See some of these question in my afterword of this recently published four views book. Swamidass, 'This Conversation, and the Next.' Other questions are included in my review of Malik's work. Swamidass, S.J. Advancing Evolutionary Science in Dialogue with Islam, *Theology and Science* (2023) 21, 642–659.