

Denis O. Lamoureux

Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?

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Written from an evangelical Protestant perspective, this article examines the doctrine of original sin in the light of scripture, the Western Christian tradition, and human evolutionary science. It begins by examining biblical passages from the apostle Paul and classic creeds dealing with original sin in order that readers can feel the weight of questioning the truthfulness of this doctrine. Next, I challenge the concordist hermeneutic that undergirds both the Pauline passages and the traditional understanding of original sin as first formulated by St. Augustine. Finally, this article offers one possible approach for moving beyond the belief in original sin. I will assume an evolutionary creationist view of human origins and argue for a nonconcordist interpretation of biblical passages dealing with the creation of humanity. By embracing a biblically based approach to natural revelation, I then cast human sinfulness within the framework of a Christian evolutionary psychology.

The doctrine of original sin has been a foundational belief of the Christian faith throughout most of church history. It is a complex doctrine that is intimately connected to the fall of humans in Genesis 3 and later interpreted by the apostle Paul primarily in Romans 5:12–21. Original sin features at least ten different facets: fallenness, universal sin, first sinful act, original guilt, original sin as a disease, hereditary sinfulness, inclination toward sinning, propagation of sin through sexual desire, power of the flesh, and corporate sin.¹ This doctrine can be summarized in two basic concepts: (1) original sin is the very first sin committed by the very first man created, whom the Bible identifies as Adam; and (2) original sin includes the belief that all humans have descended from Adam, and that Adam's sin has been passed on to everyone as their own through natural reproduction.²

Recent scientific findings in genetics have called into question the historicity of Adam. Remarkably, this discussion

is occurring even within evangelical Protestant circles.³ For example, a landmark issue of *Christianity Today* in June 2011 featured a cover with a Neanderthal-looking male and the title "The Search for the Historical Adam: The State of the Debate." The cover commented, "Some scholars believe that genome science [i.e., genetics] casts doubt on the existence of the first man and first woman. Others say that the integrity of the faith requires it." This article not only assumed that biological evolution was a fact, but contended that the debate today is over whether there really was a human being who corresponds to the biblical figure Adam.⁴

To be sure, rejecting the historicity of Adam will have significant consequences

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Article

Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?

for the doctrine of original sin. If Adam did not exist, then he could never have committed the first sin. And if there was no Adam, then all of humanity did not descend from him, and his sin could never have been passed on to every human being. Or to cast this issue in the form of a question: If Adam never existed, is it inevitable that Christian theology will experience a theological paradigm shift similar to those scientific paradigm shifts that have been seen in the history of science?

Scripture and Original Sin

The term “original sin” does not appear in the Bible. However, the basic concepts undergirding this doctrine—Adam as the first sinner and his sin passed on to all humans—appear within the Word of God. The notion of original sin is found in the writings of the apostle Paul, especially in his letter to the Romans.

Romans 5:12 is often seen as the primary biblical verse supporting original sin. As Paul states, “Therefore, just as sin entered the world through one man, and death through sin, and in this way death came to all people, because all sinned” (NIV).⁵ There has been much debate regarding the translation of the final clause. Older Bibles have “in whom all sinned,” with the relative pronoun referring to Adam. Modern renditions prefer “because all sinned,” directing sinfulness more toward individuals instead of Adam. Both translations are grammatically possible and biblical commentators throughout history have suggested over a dozen different ways of translating this verse.⁶

Despite this difficulty with the translation of Romans 5:12, the fifth chapter of Romans offers five other statements that are consistent with the doctrine of original sin.

^{15a}the many [all humans] died by the trespass of the one man [Adam], ...

^{16a}the result of one man’s [Adam] sin: The [divine] judgment followed one sin and brought condemnation [to all humans], ...

^{17a}by the trespass of the one man [Adam], death reigned [from the time of Adam to the time of Moses; v. 14] through that one man [Adam], ...

^{18a}one trespass [by Adam] resulted in [divine] condemnation for all people, ...

^{19a}through the disobedience of the one man [Adam] the many [all humans] were made sinners, ...⁷

It is clear that Paul believed Adam was a real person because he identifies him as part of a historical period—“from the time of Adam to the time of Moses” (v. 14). These five statements are consistent with other Pauline assertions. For example, Romans 6:23 states, “the wages of sin is death,” and 1 Corinthians 15:21–22 claims, “For since death came through a man [Adam] ... in Adam all [humans] die.”

In the light of these passages, there is little doubt that Paul accepted that (1) Adam was a historical person, (2) sin first entered the world through Adam, (3) Adam’s sin resulted in all humans becoming sinners, (4) death entered the world as the divine condemnation for the sin of Adam, and (5) Adam’s sin resulted in the divine condemnation and death of all humans.

In Romans 7, Paul expands his understanding of human sinfulness to include the natural propensity within all of us to act sinfully. This is another important feature in the traditional view of original sin.⁸ In confessing his struggles, Paul writes,

¹⁵I do not understand what I do. For what I want to do I do not do, but what I hate I do. ¹⁶And if I do what I do not want to do, I agree that the law is good. ¹⁷As it is, it is no longer I myself who do it, but it is sin living in me. ¹⁸For I know that good itself does not dwell in me, that is, in my sinful nature [Greek, *sarx*, flesh]. For I have the desire to do what is good, but I cannot carry it out. ¹⁹For I do not do the good I want to do, but the evil I do not want to do—this I keep on doing. ²⁰Now if I do what I do not want to do, it is no longer I who do it, but it is sin living in me that does it.

²¹So I find this law at work: Although I want to do good, evil is right there with me. ²²For in my inner being I delight in God’s law; ²³but I see another law at work in me [Greek, *melos*, parts of the human body; better translated as, “the members of my body”], waging war against the law of my mind and making me a prisoner of the law of sin at work within me [Greek, *melos*]. ²⁴What a wretched man I am! Who will rescue me from this body of death?⁹

In Galatians 5:17, Paul further explains this battle within each of us. “For the flesh desires what is contrary to the Spirit, and the Spirit what is contrary to the flesh. They are in conflict with each other, so that

you are not to do whatever you want." Paul refers to this human propensity to sin as "the flesh" five times in Galatians 5 and lists fifteen different sinful acts that gratify the flesh: "sexual immorality, impurity, and debauchery; idolatry and witchcraft; hatred, discord, jealousy, fits of rage, selfish ambition, dissensions, factions and envy; drunkenness, orgies" (vv. 19–21).¹⁰

To complete Paul's view of human sin and its powerful impact, we need to include Romans 8:20–22 and his belief in the cosmic fall. God's judgment of Adam in Genesis 3 led not only to physical death (v. 19), but it also extended to the entire creation and the cursing of the earth (v. 17). It is important to emphasize that this was not merely spiritual death because, in judging Adam, God states, "For dust you are and to dust you will return" (Gen. 3:19). In this way, Paul acknowledges,

²⁰ ... the creation was subjected to frustration, not by its own choice, but by the will of the one who subjected it, in hope ²¹that the creation itself will be liberated from its bondage to decay and brought into the freedom and glory of the children of God. ²²We know that the whole creation has been groaning as in the pains of childbirth right up to the present time.

Note that Paul refers to "the *whole* creation" and not merely to a local region like the Garden of Eden. Divine judgment results in changes that are cosmic and to the entire natural world.¹¹ In pointing back to Romans 7:24 and his "body of death," Paul acknowledges in Romans 8:23 that we "groan inwardly" and await "the redemption of our bodies." For the apostle Paul, it is clear that decay, suffering, and death entered the world with Adam in Genesis 3.

In sum, the foundational concepts undergirding the traditional doctrine of original sin are within the Bible, especially in Paul's letter to the Romans. Anyone challenging this doctrine should feel the weight of these passages. And I certainly do. Yet it is worth noting that Paul's views are based on a concordist reading of Genesis 3. He understands the account of Adam as similar to a historical and scientific record of real events from the past. But the question must be asked, "Is a concordist interpretation of Genesis 3 correct?"

Christian Tradition and Original Sin

Christians throughout history have thought deeply about their beliefs, and the fruits of their scholarly labor have produced creeds and confessions of faith. Though the doctrine of original sin does not explicitly appear in the first creeds, the conceptual elements were present in the early church.¹² For example, Irenaeus the Bishop of Lyons (ca. 140–202) believed that humans became sinful and mortal because Adam sinned. Appealing to Paul in Romans 5, he writes,

By the disobedience of the one man [Adam] who was originally moulded from virgin soil, the many were made sinners, and forfeited life ... For we were debtors to none other but to him [God] whose commandment we had transgressed at the beginning.¹³

The doctrine of original sin as understood throughout most of history was shaped by the towering church father St. Augustine, the Bishop of Hippo (354–430). He coined the term "original sin" in 396, and Paul's letter to the Romans played a foundational role. Augustine writes,

"To will," Paul says, "is close to me, but to do the good is not" (Rom. 7:18). For those who do not correctly understand these words, Paul seems to be eliminating free choice. But how does he eliminate it since he says, "To will is close to me"? For certainly willing itself is in our power, but what is not in our power is doing what is good. This [inability] is among the results of *original sin*. This comes not from our original human nature, but rather is the penalty for our guilt through which mortality itself has become a sort of second nature.¹⁴

Like many early church fathers, Augustine believed that Paul's comment in Romans 7:18 was a reference to the apostle before his conversion to Christianity. As Augustine qualifies, "But these words [of Paul] are the voice of a person who is under the law and not yet under grace."¹⁵ However, late in life, he changed his position. Reinterpreting Romans 7, Augustine argued that "as the law of sin, in the body of death, wars against the law of mind, so that not only all the good and faithful *but also the great Apostle [Paul] fought against it.*"¹⁶

Article

Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?

In defending his view of original sin, Augustine repeatedly appealed to the Latin translation of Romans 5:12.¹⁷ “Through one man sin entered the world and through sin death so that it passed on to all human beings, *in whom all have sinned*.” For Augustine, the relative pronoun “in whom” (Latin, *in quo*) referred to Adam. Because of Augustine’s powerful influence in the church, his understanding of original sin was incorporated into the Council of Carthage in 418.¹⁸

CANON 1 ... Anyone who said that Adam was made mortal in such a way that he would have died physically whether he had sinned or not, that is, he would have left the body not a punishment for sin, but from the necessity of nature, let him be anathema [Greek, “consigned to damnation”].

CANON 2 ... If anyone denies that infants newborn from their mothers’ wombs should be baptized, or if anyone says that infants are baptized for the forgiveness of sins but contract nothing from Adam, no *original sin* expiated by the bath of rebirth, such that, as a result, the formula of baptism “for the forgiveness of sins” is understood not as true but as false, let him be anathema. What the Apostle said: “Through one man sin entered the world and through sin death so that it passed on to all human beings, in whom all have sinned” [Rom. 5:12].¹⁹

This council affirmed (1) the historicity of Adam, (2) the entrance of sin into the world through Adam, (3) physical death as a punishment for Adam’s sin, and (4) that original sin is passed on from Adam to all humans, including newly born infants.

Despite differences between conservative Protestants and Roman Catholics, these traditions stand united with regard to the historicity of Adam and the doctrine of original sin.²⁰ For example, consider the *Augsburg Confession* (1530), which is foundational to the Lutheran Church. “Article II: Concerning Original Sin” states that

since the fall of Adam, all human beings who are born in the natural way are conceived and born in sin. This means that from birth they are full of evil lust and inclination ... this same innate disease and original sin is truly sin.²¹

In the *Thirty-Nine Articles* (1562) of the Anglican Church, the name “Adam” appears three times. “Article IX: Of Original or Birth-Sin” asserts,

Original sin standeth not in the following of Adam ... but it is the fault and corruption of the nature of every man, that naturally is engendered of the offspring of Adam; whereby man is very far gone from original righteousness, and is of his own nature inclined to evil, so that the flesh lusteth always contrary to the spirit; and therefore in every person born into this world, it deserveth God’s wrath and damnation. And this infection of nature doth remain, yea in them that are regenerated.²²

The name “Adam” also appears three times in the *Westminster Confession of Faith* (1646) held by Presbyterian churches. “Chapter VI: Of the Fall of Man, of Sin, and of Punishment thereof” states,

Our first parents, being seduced by the subtilty and temptation of Satan, sinned in eating the forbidden fruit ... They being the root of all mankind, the guilt of this sin was imputed, and the same death in sin and corrupted nature conveyed to all their posterity descending from them by ordinary generation. From this original corruption, whereby we are utterly indisposed, disabled, and made opposite to all good, and wholly inclined to all evil, do proceed all actual transgressions. This corruption of nature, during this lifetime, doth remain in those that are regenerated.²³

To summarize, the doctrine of original sin is deeply entrenched within the Western Christian tradition. Once again, everyone should feel the weight of challenging this historic doctrine, as I do. Yet in examining these traditional documents, it is obvious that biblical interpretation plays a critical role. The formulators of creeds on original sin were concordists. They read Genesis 3 and Romans 5 as accounts referring to actual historical and scientific events. In particular, they accepted the historicity of Adam as the very first human and believed that every man and woman had descended from him. However, is a concordist interpretation of human origins in the Word of God correct?

Scripture and Ancient Science

My answer to this question is “no.” The best evidence against concordism is found *within scripture itself* in passages dealing with the structure of the world.²⁴ As figure 1 reveals, the Bible features a 3-tier universe. In other words, scripture has an ancient understanding of nature that could be termed “ancient science.”²⁵ For example, we can appreciate

why ancient people believed the sun moved across the sky every day. As Ecclesiastes 1:5 states, "The sun rises and the sun sets, and hurries back to where it rises." From an *ancient* phenomenological perspective, that is exactly what it looks like to the naked eye.²⁶ Notably, belief in the daily movement of the sun lasted until the seventeenth century.

Ancient science is unmistakably present in the Genesis 1 account of creation. On the second day, God makes a firmament (Hebrew, *rāqîa'*) to separate the waters above from the waters below. When ancient people looked up, what did they see? A huge blue dome. To suggest there was a sea of water in the heavens being held up by a solid structure was completely reasonable given their limited knowledge of astronomy. Regarding the fourth day of creation, God places the sun, moon, and stars in the firmament right in front of the heavenly sea. Is this heavenly arrangement not what it looks like without the aid of modern scientific instruments such as telescopes? In fact, the 3-tier universe was science-of-the-day in the ancient Near East.²⁶

The apostle Paul also accepted an ancient understanding of the structure of the world. In Philippians 2:9–11, he concludes,

Therefore God exalted him to the highest place and gave him the name that is above every name,

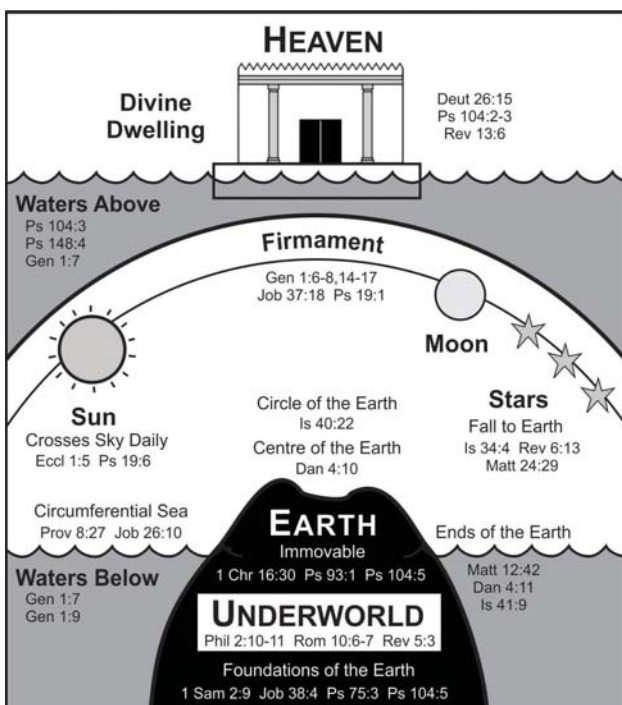


Figure 1. The 3-Tier Universe

that at the name of Jesus every knee should bow, [1] in heaven and [2] on earth and [3] in the underworld, and every tongue confess that Jesus Christ is Lord ...

Modern translations render the phrase in [3] as "under the earth." However, the original Greek is *katachthoniōn*, and it is made up of the preposition *kata* meaning "down" and the noun *chthovios* referring to the "underworld" or "subterranean world." The apostle Paul believed in a 3-tier universe.²⁸

In the light of this biblical evidence, it is obvious that concordism fails. The world is not made up of three tiers. Therefore, scripture does not offer an account of actual historical and scientific events in the creation of the universe.

It is also evident that the Holy Spirit, by inspiring the biblical writers, descended to their level and allowed the use of the science-of-the-day in order to reveal inerrant spiritual truths. In other words, the Lord *accommodated* in the same way he comes down to our level when he speaks to each of us in prayer. Figure 2 depicts the message-incident principle and my approach to statements in scripture dealing with the physical world. I suspect many Christians hold this interpretative principle in some implicit way. Most would agree that the primary purpose of the Bible is to reveal life-changing messages of faith. For example, whether birds were created before humans (Genesis 1) or after the man and before the woman (Genesis 2) is ultimately incidental and not essential to our personal relationship with the Lord.

Let us now deal directly with human origins in scripture. If the astronomy and geology/geography reflect an ancient science, then it is only logical that the Bible also has an ancient biology. In particular,

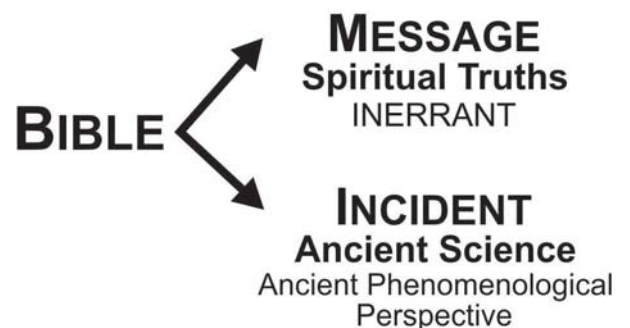


Figure 2. The Message-Incident Principle

Article

Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?

consistency argues that scripture would have an ancient understanding of human origins. This is exactly what we find in the Word of God. Humans are created *de novo* in Genesis 1 and 2 (Latin, *de* means “from, of”; *novus*, “new”). That is, they are made quickly and fully formed. Ancient peoples were quite reasonable in conceptualizing the *de novo* creation of humanity. They would have seen that humans give birth to humans, who give birth to humans, et cetera. In thinking about the origin of humans, they would have reversed this data set of human births and worked backwards through time to come to the logical conclusion that there must have been an original human/s created *de novo* by God.²⁹

In fact, *de novo* creation was the origins science-of-the-day in the ancient Near East. One approach viewed God as a craftsman using earth to fashion the first humans.³⁰ This appears in the *Epic of Gilgamesh* where a pinch of clay is used to create a man.³¹ In the *Myth of Enki and Ninmah*, an intoxicated divine being makes seven imperfect humans employing some moist earth.³² A goddess in the *Epic of Atrahasis* mixes clay with the blood from a slain god to fashion seven males and females.³³ And in the *Memphite Theology*, a god creates babies on a potter’s wheel by shaping clay and then places them in their mother’s womb.³⁴ These examples of the *de novo* creation of humans are similar to Genesis 2:7 where the Lord God is like a craftsman who forms Adam from the dust of the ground. Clearly, the creation of Adam is based on an ancient conceptualization of human origins.

Modern science complements this ancient evidence. Physical anthropology reveals an incontestable pattern of transitional fossils from pre-humans to humans. Genetics demonstrate that humans were not created *de novo*, but evolved from a population of about 10,000 pre-humans. And geology undermines the concept of a cosmic fall. If Adam is the reason suffering and death entered the world, then human bones should be at the bottom of the fossil record. But humans appear at the very top.³⁵ These are facts of science. All the lines of biblical and scientific evidence point to only one conclusion: *Adam never existed*.

How then are Christians to deal with biblical passages referring to Adam? My suggestion is that by applying the message-incident principle, we can draw these inerrant spiritual truths: God created

humans, humans are created in the image of God, humans are sinful, and God judges humans for their sins. In order to deliver these life-changing messages during the inspiration process, the Holy Spirit accommodated and allowed the ancient origins science of the *de novo* creation of Adam to be used as a vessel. Therefore, when reading passages dealing with Adam, we need to separate and not conflate the incidental ancient science from the inerrant messages of faith.

In sum, concordist interpretations of the Bible fail to recognize and respect that the creation of Adam, and thus his very existence, is based on an ancient conceptualization of human origins. If Christians want to uphold the historicity of Adam through concordist readings of the biblical creation accounts and the writings of the apostle Paul, then to be consistent they should also accept the 3-tier universe in scripture. But I am doubtful that anyone today would choose to do so.

Christian Tradition and Ancient Science

As we noted earlier, Christian tradition, through the powerful influence of St. Augustine, formulated the doctrine of original sin. We also saw that the Bible has an ancient understanding of the physical world. A number of questions naturally arise. Does Christian tradition also include ancient science? Is it possible that an incidental ancient view of human origins has become an essential part of our faith? If so, was this ancient conceptualization integrated (or better, conflated) into the doctrine of original sin?

Let us first consider the astronomy held by some of the most important church leaders from the past. Augustine, at the beginning of the fifth century, reveals the deeply embedded concordism of his generation. He observes, “It is also frequently asked what our belief must be about the form and shape of heaven according to Sacred Scripture. Many scholars engage in lengthy discussions on these matters.”³⁶ During Augustine’s day, there was a debate over geocentricity and the 3-tier universe. Putting this discussion in perspective, he asks, “What concern is it of mine whether heaven is like a sphere and the earth is enclosed by it and suspended in the middle of the universe, or whether heaven like a disk above

the earth covers it over on one side?"³⁷ Yet Augustine had a definitive position regarding the structure of the heavens mentioned in Genesis 1:6–7.

Bear in mind that the term “firmament” does not compel us to imagine a stationary heaven: we may understand this name as given to indicate not that it is motionless but that it is solid and that it constitutes an impassable boundary between the waters above and the waters below.³⁸

Ancient views of astronomy also appear with the two leading Protestant reformers of the sixteenth century. Martin Luther accepted geocentricity as depicted in figure 3. This diagram appears in his 1534 Bible translation, across from Genesis 1. Luther’s concordism is evident as he explains in his *Lectures on Genesis*,

Scripture ... simply says that the moon, the sun, and the stars were placed ... in the firmament of the heaven ... The bodies of the stars, like that of the sun, are round, and they are fastened to the firmament like globes of fire.³⁹



Figure 3. Martin Luther’s Geocentric Universe. Redrawn by Andrea Dmytrash from Martin Luther, *Luther Bible of 1534, Complete Facsimile* (Köln: Taschen, 2003), no page number.

John Calvin held another form of geocentricism. He believed that there was a series of spheres between the earth and a final sphere with each sphere carrying its respective heavenly body—sun, moon, or each planet. Calvin comments,

We indeed are not ignorant, that the circuit of the heavens is finite, and that the earth, like a little globe, is placed in the center ... The *primum mobile* [the final sphere] rolls all the celestial spheres along with it.⁴⁰

The point of presenting these passages on astronomy is obvious. These three historic Christian theologians had an incorrect view of the structure of the universe. And since their astronomy does not align with physical reality, then is this also the case with their biology? Or to ask more incisively, did Augustine, Luther, and Calvin have a mistaken understanding of human origins? And was it conflated with their belief in original sin?

To answer these questions, let us focus on the biological views of Augustine, because he was the central figure in formulating the doctrine of original sin. Pivotal to his biology is the concept of seed or seminal principles (Latin, *rationes seminales*).⁴¹ According to Augustine, God created the world in two stages. In the “first creation,” he made everything simultaneously.⁴² To support his position, he repeatedly used a concordist reading of the Latin translation of John 1:3a, “He [God] created all things together.”⁴³ In this initial creative act, Augustine believed that God made the inanimate universe (“the firmament, and land and sea”) instantaneously in their visible form.⁴⁴ However, with living organisms, the Creator formed them merely as seed principles, which he “scattered as seeds at the [initial] moment of creation.”⁴⁵ In the second or “later creation,” these seed principles “would later spring forth with the passage of time, plants and animals, each according to its kind.”⁴⁶

The theory of seed principles and the belief in two stages of creation are foundational to Augustine’s understanding of the origin of Adam.

For in that first creation of the world, when God created *all things simultaneously*, he created man in the sense that he made the man who was to be, that is, the causal [seed] principle of man to be created, not the actuality of man already created ... And then creating all things *not together* but each in its own time [i.e., during the second creation],

Article

Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?

God formed man from the slime of the earth and the woman from a bone taken out of man.⁴⁷

In explaining Adam's creation in Genesis 2:7, Augustine bluntly commented, "Now to think of God as forming man from the slime of the earth with bodily hands is childish."⁴⁸ Instead, he interpreted the fashioning of Adam as "a metaphor" to indicate "the power and might of God."⁴⁹ Being created from a seed principle, Adam "would be like the grass of the field, which was made before it sprang forth from the earth."⁵⁰

The implications of Augustine's seed principles for original sin emerge in his interpretation of Hebrews 7:9-10. These verses state, "One might even say that Levi, who collects the tenth, paid the tenth through Abraham, because when Melchizedek met Abraham, Levi was still in the body [Greek, *osphus* means "loins, reproductive organs"] of his ancestor." Scripture records that Abraham fathered Isaac, who fathered Jacob, who fathered Levi. Augustine contended that "Levi was there [in Abraham's loins] according to the seminal [seed] principle by which he was destined to enter his mother on the occasion of carnal union"⁵¹ (notably, "*Christ was there also!*"⁵²). Augustine then connected seed principles to original sin.

For the same flesh not only of Abraham but also of the first and earthly man [Adam] [contained] the wound of sin in the law of the members at war with that of the mind [Rom. 7:23], a law transmitted thence by a seminal reason [seed principles] to all generations of descendants.⁵³

In other words, Adam's original sin was passed on into every human being through seed principles.

Augustine's ancient biology of seed principles is also found in one of his most famous books, *City of God*.

When the first couple [Adam and Eve] were punished by the judgment of God, the whole human race, which was to become Adam's posterity through the first woman, *was present in the first man* ... God, the Author of all natures but not of their defects, created man good; but man, corrupted by choice and condemned by justice, has produced a progeny that is both corrupt and condemned. For, *we all existed in that one man*, since, taken together, we were the one man who fell into sin ... our nature was already present in the seed [*seminales*] from which we were to spring.⁵⁴

This ancient biology sheds light on Augustine's repeated use of the clause "in whom all have sinned" from the Latin translation of Romans 5:12. It would have made perfect sense to him that we all sinned "in Adam" because we were, in fact, all in Adam's body as individual seed principles. And we were all infected by Adam's sin.

To conclude, the traditional doctrine of original sin as formulated by Augustine is rooted in a concordist interpretation of scripture and steeped in an ancient understanding of biology. Augustine conflated inerrant biblical truths regarding human sinfulness with the ancient concept that humanity originated and descended through seed principles. If Christians today want to continue embracing original sin, then to be consistent, they should also believe in seed principles. But I am doubtful that anyone with a basic knowledge of modern genetics will do so.

Beyond Original Sin: Toward a Christian Evolutionary Psychology of Sinfulness

Evolutionary psychology is dominated by religious skeptics, giving the impression that this academic discipline is necessarily atheistic. However, I believe that every scholarly field can be viewed in the light of Jesus Christ and scripture. In order to move beyond the traditional belief in original sin, and in an attempt to understand human sinfulness through a Christian interpretation of evolutionary psychology, I begin with three assumptions.

First, I believe that the Father, Son, and Holy Spirit created the universe and life, including humans, through an ordained, sustained, and intelligent design-reflecting evolutionary process. This evangelical view of origins is often termed "evolutionary creation."⁵⁵ It is important to underline that I am not conflating my religious beliefs with evolutionary science. Evolution is incidental to my faith and only a vessel that delivers my belief that the world is the creation of the Holy Trinity. Should the theory of evolution be overturned, then without any difficulty, I will use the next model of origins as a platform to convey these same religious beliefs.

Second, I accept polygenism (Greek *polus* means "many"; genesis, "origin"). Humans descended from

a small population of pre-human creatures, and not from just one person. The variability in our genes rules out monogenism (monos, "single") and indicates that this group was about 10,000 individuals.⁵⁶ Moreover, by embracing a nonconcordist reading of the biblical creation accounts, it is clear to me that the traditional Christian belief in monogenism and the historicity of Adam is based on the ancient science of *de novo* creation. In using the modern sciences of evolutionary genetics and physical anthropology as an incidental vessel, I believe that the manifestation of the image of God and human sinfulness occurred roughly 50,000 years ago with the emergence of behaviorally modern humans. Once again, this is not a conflation. Rather, it is to acknowledge that science can be a vehicle for delivering inerrant truths about the human spiritual condition to a modern scientific generation. To make my position perfectly clear: sin did indeed enter the world ... but not through Adam.

Third, I embrace natural revelation. God employed evolution to create the human brain with an ability to recognize intelligent design in nature (Ps. 19:1-4; Rom. 1:19-20).⁵⁷ He also equipped us with a capacity to distinguish the good from the bad, and he gave us the freedom to choose between them. In the classic biblical passage dealing with moral natural revelation, the apostle Paul in Romans 2:14-15 writes,

¹⁴Indeed, when Gentiles, who do not have the law, do by nature things required by the law, they are a law for themselves, even though they do not have the law. ¹⁵They show that the requirements of the law are written on their hearts, their consciences also bearing witness, and their thoughts sometimes accusing them and at other times even defending them.

Though the Gentiles did not have the scriptures, they still had God's moral standards within "their consciences." Paul affirms a natural morality since they "do by nature things required by the law" (NRSV translates, "do instinctively"). Applying this passage within an evolutionary creationist context, one can say that the Creator used evolution to "write" the moral "requirements of the law" within the human brain. I contend that this natural morality can be extended back in time to the emergence of the first behaviorally modern humans about 50,000 years ago. It was then that men and women became morally accountable before God.

In addition to my three assumptions, I need to comment on two disproportionate tendencies related to this discussion. The first deals with the excessive focus on sin at the expense of the reality that humans also act righteously. To be sure, sinfulness is humanity's greatest problem and this fact is emphasized repeatedly throughout the Bible. But scripture often uses hyperbole in dealing with sin. For example, in Romans 3:12b, Paul states, "There is no one who does good, not even one." To say that not even one person does good is clearly a hyperbole because, if this were literally true, it would contradict Paul's earlier statement in Romans 2:14-15 that the Gentiles do "things required by the law" and that their conscience at times defends them for righteous behavior. In other words, though we are without a doubt notoriously sinful, we also do acts of goodness.

Jewish tradition offers an insight that brings balance to this disproportionate focus on sinfulness. It recognizes that there are two natural propensities or desires within humans: *yētzet ha-tov* (the inclination to do good) and *yētzet ha-ra* (the inclination to do evil).⁵⁸ As a consequence, men and women experience an inner struggle between these two impulses. In Jewish tradition, *yētzet ha-tov* and *yētzet ha-ra* were seen as natural and as part of the human condition created by God. In contrast, within Christian tradition through the influence of Augustine, *yētzet ha-ra* took on a more sinister nuance and came to be termed as "concupiscence."⁵⁹ It was understood as an unnatural and disordered condition that arose because of original sin. I believe that moving away from Augustinian overemphasis on sin and returning to Jewish roots provides a healthier and more accurate description of our spiritual experience.

A second disproportionate tendency deals with the excessive emphasis on selfishness within evolutionary psychology. It is regrettable that Richard Dawkins's book *The Selfish Gene* has had such a widespread impact on this academic discipline. He believes that humans "are born selfish" and that we are merely "selfish machine[s], programmed to do whatever is best for its genes as a whole."⁶⁰ Despite being sharply criticized, his concept of so-called "selfish genes" continues to skew the discipline, in particular with the belief that even altruism and acts of goodness are ultimately selfish. However, Frans de Waal charges Dawkins with "coining a metaphor prone to be misunderstood."⁶¹ He adds,

Article

Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?

Genes can't be any more "selfish" than a river can be "angry," or sun rays "loving." Genes are little chunks of DNA. At most, they are "self-promoting," because successful genes help their carriers spread more copies of themselves.⁶²

De Waal introduces balance into evolutionary psychology and a welcomed alternative to Dawkins's excessive focus on selfishness. In *The Age of Empathy*, he argues for the reality of empathy and its evolutionary origins, beginning with mammals over 100 million years ago. Offering numerous examples of empathetic acts in chimpanzees, dolphins, elephants, and other mammals, de Waal contends that this behavior has "been selected over the ages, meaning it has been tested over and over with regard to its survival value."⁶³ In response to the criticism that empathy and the "warm glow" we experience for assisting others is ultimately selfish, he argues, "Yes, we certainly derive pleasure from helping others, but since this pleasure reaches us *via* the other, and only *via* the other, it is genuinely other-oriented."⁶⁴ In addition, de Waal believes that civilization would never have arisen had human evolution been rooted in selfishness only. He argues that empathy is "the glue that holds communities together."⁶⁵ De Waal then concludes that the human psychological state features a tension between evolutionarily selected empathetic/social behaviors and those which are selfish. He offers the metaphor, "We walk on two legs: a social one and a selfish one."⁶⁶

Of course, it is evident that there is a problem with the terminology in this discussion.⁶⁷ To speak of mammals, other than humans, as being "selfish" or "empathetic" is anthropomorphic and dripping with moral overtones.⁶⁸ From my Christian perspective, only humans are morally accountable because we are the only creatures who truly understand the difference between good and evil. And only humans have the free will to choose between them. Therefore, I believe that *truly* selfish and *truly* empathetic acts appeared only about 50,000 years ago with behaviorally modern humans, because the natural revelation "written on hearts" would have made these first humans morally accountable before God.

Being evolved mammals, we certainly inherited through evolution deeply embedded behavioral propensities/proclivities within our brains. But it is more accurate to suggest that evolution gave us powerful "self-preserving inclinations," instead of calling

these "selfish."⁶⁹ Similarly, the apparent "good" done by nonhuman mammals requires an understanding of the meaning of goodness in order to be categorized as "empathy" or "altruism." I have no reason to believe that such reflection occurs in animals other than humans. Terms free of moral nuances such as "pair or group bonding inclinations" between individuals or within groups seem more appropriate.⁷⁰

Natural selection chose these self-preserving and bonding behavioral propensities since they contributed to the survival and evolution of mammals, including humans. With the appearance of the first morally accountable human beings, these proclivities deeply embedded in our brain became components of moral natural revelation. Therefore, our natural morality stems from an evolutionarily adaptive trait, and as a consequence, it is universal to humanity.⁷¹ Evidence for the reality of a moral revelation within humans featuring self-preserving and bonding inclinations is that it transcends cultures and religious and philosophical beliefs. Here are a few examples.

Charles Darwin rejected Christianity in the late 1830s while formulating his theory of evolution. In *Descent of Man*, he acknowledged two evolutionary behavioral inclinations—"the social instincts" and "the lower impulses or desires." Darwin believed that the social instincts "no doubt were acquired by man as by the lower animals for the good of the community," and that they "served him at a very early period as a rude rule of right and wrong."⁷² He then argued that the social instincts would "naturally lead to the golden rule, 'As ye would that men should do to you, do ye to them likewise' [Luke 6:31] and this lies at the foundation of morality."⁷³ Darwin also offered another significant insight into the human moral condition. Echoing the "war" within Paul (Rom. 7:23), he noted, "It is not surprising that there should be a *struggle* in man between his social instincts, with their derived virtues, and his lower, though momentarily stronger, impulses or desires."⁷⁴

Evidence for the requirements of God's moral laws having been written on the hearts of Gentiles (Rom. 2:14-15) appears in the Cherokee legend of the "Two Wolves."

An old Cherokee is teaching his grandson about life. "A fight is going on inside me," he said to the boy.

"It is a terrible fight and it is between two wolves. One is evil—he is anger, envy, sorrow, regret, greed, arrogance, self-pity, guilt, resentment, inferiority, lies, false pride, superiority, and ego." He continued, "The other is good—he is joy, peace, love, hope, serenity, humility, kindness, benevolence, empathy, generosity, truth, compassion, and faith. The same fight is going on inside you—and inside every other person, too."

The grandson thought about it for a minute and then asked his grandfather, "Which wolf will win?"

The old Cherokee simply replied, "The one you feed."⁷⁵

The metaphor of two wolves accurately depicts the turmoil we often experience between our evolutionary behavioral proclivities. The "terrible fight" within all of us again reflects the "war" within Paul in Romans 7, and the "conflict" he identifies between "the flesh" and "the Spirit" in Galatians 5. In the latter chapter, the deeds of the evil wolf are consistent with the "acts of the flesh" (vv. 19–21), and those of the good wolf are similar to the "fruits of the Spirit" (v. 22). And human free will undergirds the moral lesson in the Cherokee legend—which wolf will we feed?

Modern Buddhism offers another example of the universality of moral natural revelation outside of the Judeo-Christian religious tradition. In the *Nghi Thuc Hang Tuan Chanting Book*, two behavioral propensities are understood to be deeply embedded within humans.

Our heart's garden is sown with attachment,
hatred, and pride.

In us are seeds of killing, stealing,
sexual misconduct, and lies ...

We know so well in our consciousness are buried
all the wholesome seeds—

seeds of love and understanding,
and seeds of peace and joy.

But if we do not know how to water them,
how can they spring up fresh and green?⁷⁶

Another chant reveals that humans can be "swept along by the seeds of unwholesome acts into paths of darkness."⁷⁷ The agricultural metaphor of two types of seeds in "our heart's garden" and "buried" within "our consciousness" is an effective description of our inherited evolutionary inclinations. This

aligns with Romans 2:15 and Paul's view of a natural moral revelation within Gentiles that is "written on their hearts" and "their consciences." The Buddhist chants urge us to "water" the "wholesome seeds." Similarly in Galatians 5:16, Paul encourages, "Live by the Spirit and you will not gratify the desires of the flesh."

In proposing a Christian approach to human sinfulness and evolutionary psychology, I am certainly not advocating concordism whereby the Pauline biblical passages cited above are disclosing this modern science. Instead, under the inspiration of the Holy Spirit, Paul is revealing inerrant truths about our spiritual condition without having any idea of the evolutionary roots of our behavioral proclivities. What Christian has not cried out like Paul, "What a wretched man I am! Who will rescue me from this body that is subjected to death?" (Rom. 7:24). Or to cast this question within the context of evolutionary psychology, "Who will rescue me from my evolutionary self-preserving inclinations?" Paul gives the answer, "Thanks be to God, who delivers me through Jesus Christ our Lord!" (Rom. 7:25). The apostle then commands, "Be transformed by the remodeling of your mind" (Rom. 12:2) and "clothe yourselves with the Lord Jesus Christ, and do not think about how to gratify the desires of the flesh" (Rom. 13:14). Updated for our generation, let Jesus be the Lord over our evolutionary past, encouraging our pair- or group-bonding inclinations and denying our self-preserving inclinations.

Similarly, Augustine had no idea of evolutionary psychology, yet he too experienced the powerful inner workings of evolutionary self-preserving inclinations. Acknowledging the desires of the flesh, he confessed that "not to consent to them is a struggle, a conflict, a battle."⁷⁸ Troubled by our conflicted spiritual condition, Augustine asked, "For how is sin dead when it works many things in us while we struggle against it?"⁷⁹ Of course, Augustine's answer is original sin. He explains, "It is the result of the guilt of the first man [Adam] ... it revives and reigns."⁸⁰ Even though Christians are forgiven for their sins and dead to sin (Rom. 6:2, 11), Augustine recognized the continuing presence of "foolish and harmful desires" within all of us and saw that "we must take care, as it were, of their burial ... aided by the grace of God through Jesus Christ our Lord."⁸¹ Self-preserving evolutionary proclivities are indeed

Article

Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?

powerful, but they do not control us.⁸² The gifts of God's grace and our own free will allow us to control our evolutionary past.

Final Reflections

Challenging the doctrine of original sin, the towering church father St. Augustine, and Western Christian tradition throughout most of history is not only daunting, but could be viewed as outright hubris. My justification begins by recognizing that scripture and tradition are intimately connected to the scientific paradigms-of-the-day. As this article reveals, both include ancient conceptualizations of astronomy, geology/geography, and biology. In particular, the Bible and Christian tradition feature an ancient understanding of human origins—the *de novo* creation of Adam. The implications are obvious. No one today believes in a firmament, a heavenly sea, a 3-tier universe, or a geocentric world. Nor should we then believe in the historicity of Adam, and as a consequence, the doctrine of original sin.

To be sure, the greatest problem in moving beyond Adam and original sin comes from the apostle Paul in Romans 5 and 7. But if we recognize and respect the incidental ancient biology of human origins embraced by Paul, then we can draw out these inerant spiritual truths: we are all sinners, God judges us for our sins, and the Good News of the Gospel is that we are offered the hope of eternal life through the sacrificial death of Jesus on the cross. No doubt about it, separating these messages of faith from the incidental ancient science is a counterintuitive way to read scripture. However, I am convinced that once Christians discover the ancient astronomy and geology/geography throughout the Bible as well as Paul's 3-tier universe in Philippians 2:9-11, they will begin to reconsider the truthfulness of the biology in scripture, including the historicity of Adam and the doctrine of original sin.

In closing, most readers will have recognized that the subtitle of this article—*Is a Theological Paradigm Shift Inevitable?*—points back to Thomas S. Kuhn's famed *The Structure of Scientific Revolutions*.⁸³ Kuhn offered a theory of scientific progress that entailed extended periods of "normal science" punctuated by intense intervals of "revolutionary science" in which the foundational "paradigm" of a scientific discipline is completely overthrown. The classic example

of a "paradigm shift" is the radical change from Ptolemaic (geocentric) to Copernican (heliocentric) astronomy.

A paradigm shift begins with the discovery of "scientific anomalies" that fail to fit within the reigning paradigm and that eventually lead to a "crisis." Kuhn noted that "battles over paradigm change" are "inevitable" and that "a generation is sometimes required to effect the change."⁸⁴ The conflict between paradigms arises because of their "incommensurability." They are not just incompatible; they are utterly different ways of looking at the very same scientific data. As Kuhn elaborates, a paradigm shift "cannot be made a step at a time, forced by logic and neutral experience. Like the gestalt switch, it must occur all at once (though not necessarily in an instant) or not at all."⁸⁵ To illustrate the massive perception change of a paradigm shift, Kuhn points to the well-known duck-rabbit diagram (figure 4). So too in science, a new paradigm offers another platform from which to view the very same scientific data in a radically different way.

Can Kuhn's understanding of scientific revolutions be applied to theology? For most of church history, normal theology has been steeped in concordism and ancient science, resulting in creedal statements that authorize the historicity of Adam and the doctrine of original sin. The first scientific anomalies challenging the paradigm of monogenism appeared with Charles Darwin's *Origin of Species*, and now they are intensifying since the publication of the *Human Genome Project*, once led by evangelical Christian Francis Collins.⁸⁶ Theological anomalies also arose in the nineteenth century with the birth of biblical criticism

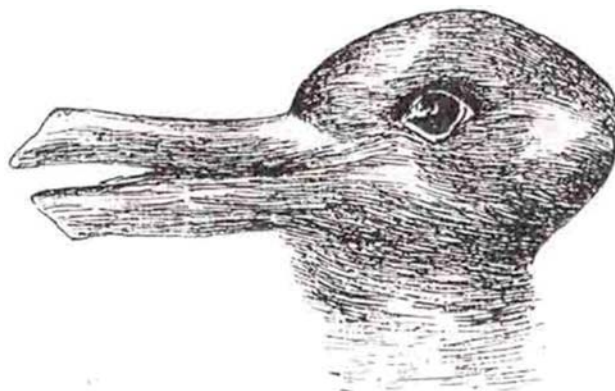


Figure 4. The Duck-Rabbit Diagram. Duck-rabbit illusion from J. Jastrow, "The Mind's Eye," *Popular Science Monthly* 54 (1899): 312.

and the questioning of concordist interpretations of Genesis 1–11. Within the evangelical theological academy today, there is growing acknowledgment that scripture features common ancient Near Eastern motifs, literary genres, and views of origins.⁸⁷ The appearance of influential evangelicals rejecting concordism and Adam indicates that these individuals have personally experienced a theological paradigm shift. And the June 2011 *Christianity Today* article reporting a debate within evangelicalism over the historicity of Adam might be a signpost of the start of a theological crisis.

Is a theological paradigm shift overthrowing the doctrine of original sin inevitable? Only history will tell. There is no doubt that concordist and nonconcordist interpretations of Genesis 3 and Romans 5 are incommensurable. Christians seeing the ancient science in scripture for the first time certainly experience a radical perception change in passages they had previously viewed only as scientifically and historically concordant. Personally, I think evangelicalism is in the initial stages of a theological crisis. My hope and prayer for my community is that the inevitable bloodshed of a paradigm shift be limited, and that we be united by the atoning blood shed on the cross for our sins. ♦

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Notes

¹T. A. Noble, "Original Sin and the Fall," in *Darwin, Creation and the Fall*, ed. R. J. Berry and T. A. Noble (Nottingham, UK: Apollos, 2009), 101–12. This paper is written from an evangelical Protestant perspective. For an eastern approach to original sin, see Peter C. Bouteneff, *Beginnings: Ancient Christian Readings of the Biblical Creation Narratives* (Grand Rapids, MI: Baker Academic, 2008).

²This distinction reflects the Latin theological terms *peccatum originans* (the event of original of sin) and *peccatum originatum* (the condition of original sin) (Tatha Wiley, *Original Sin: Origins, Developments, Contemporary Meanings* [Mahwah, NJ: Paulist Press, 2002], 5, 56).

³Francis S. Collins, *The Language of God* (New York: Free Press, 2006); Dennis R. Venema, "Genesis and the Genome: Genomics Evidence for Human-Ape Common Ancestry and Ancestral Hominid Population Sizes," *Perspectives on Science and Christian Faith* 62, no. 3 (2010): 166–78; Daniel

C. Harlow, "After Adam: Reading Genesis in an Age of Evolutionary Science," *Perspectives on Science and Christian Faith* 62, no. 3 (2010): 179–95.

⁴Richard N. Ostling, "The Search for the Historical Adam," *Christianity Today* 55, no. 6 (June 3, 2011): 23–31.

⁵Since this article is directed to an evangelical Protestant audience, I will use the *New International Version* (Grand Rapids, MI: Zondervan, 2011).

⁶Joseph A. Fitzmyer, "The Consecutive Meaning of Eph' Hō in Romans 5:12," *New Testament Studies* 39 (1993): 321–39.

⁷*Ibid.*, 339. Fitzmyer notes, "Yet no matter how one understands 5:12d, the universal causality of Adam's sin is presupposed in 5:15a, 16a, 17a, 18a, 19a." In the block quote, I have removed the reference to Jesus juxtaposed at the end of each verse in order to magnify the concept of original sin.

⁸Christian tradition has often termed this inclination toward sinful behavior as "concupiscence." Today it is usually restricted to mean "sexual desire." However, the Latin *concupiscentia* carries a much wider meaning. For example, Augustine viewed all sinful acts as the result of "promptings of concupiscence" or "concupiscence of the flesh" (quoted in *Augustine in His Own Words*, ed. William Harmless [Washington, DC: Catholic University of America Press, 2010], 334, 387). Noble insightfully suggests that concupiscence is "the self-centered mind-set" (Noble, "Original Sin," 108).

⁹Instead of the 2011 NIV's "body that is subjected to death" in v. 24, I have returned to this Bible's original "body of death" (so too NASB, NRSV, KJV), since, in my estimation, it is the best translation of the Greek text.

¹⁰In the 2011 NIV Bible, most occurrences of the Greek word *sarx* have been translated as "flesh" instead of "sin nature" (Rom. 7:18 is a notable exception). See "Updating the New International Version of the Bible: Notes from the Committee on Bible Translation," <https://www.biblegateway.com/niv/Translators-Notes.pdf> (2010), 8. Of course, all translations of the Bible are interpretations, and use of the term "sinful nature" to translate *sarx* is loaded with theological nuances, especially from a Calvinist (Reformed) perspective with its imbalanced focus on sinfulness (e.g., the notion of total depravity). Douglas J. Moo identifies five basic meanings of *sarx* in Paul's letters: (1) the flesh covering bones, (2) the human body, (3) the human being, (4) the human state or condition, and (5) the human condition of fallenness. Moo terms the last "the ethical sense of *sarx*" and defines it as an "ingrained tendency toward sin" or a "compulsion, or force, namely, the bent toward sin that prevents the *egō* (Greek, first person personal pronoun; literally, 'I') from putting the will to do the law into practice" (Moo, "'Flesh' in Romans: A Challenge for the Translator," in *The Challenge of Bible Translation*, ed. G. Scorgie, M. Strauss, and S. Voth [Grand Rapids, MI: Zondervan, 2003], 366–67, 369, 371).

¹¹F. Bruce expresses the traditional understanding of the cosmic fall in stating, "Like man, creation must be redeemed because, like man, creation has been subjected to a fall" (Bruce, *The Epistle of Paul to the Romans* [London: Tyndale Press, 1963], 169).

¹²Wiley, *Original Sin*, 37–55.

¹³Irenaeus, "Against Heresies," in *Ante-Nicene Fathers*, ed. A. Roberts and J. Donaldson (Grand Rapids, MI: Eerdmans, 1973), 1:448, 544.

¹⁴Augustine, quoted in Harmless, *Augustine*, 384; my italics.

¹⁵*Ibid.* This interpretation of Romans 7 by the early fathers is not surprising since many embraced asceticism.

Article

Beyond Original Sin: Is a Theological Paradigm Shift Inevitable?

¹⁶Ibid., 424; my italics.

¹⁷For example, *ibid.*, 394, 404, 406, 411, 423.

¹⁸Ibid. As Harmless comments, "The hand of Augustine is clearly visible in their [the canons of the council] wording" (p. 414).

¹⁹Ibid.; my italics.

²⁰See "Decree on Original Sin," in Council of Trent (1546), in Heinrich Denzinger, *A Compendium of Creeds, Definitions, and Declarations on Matters of Faith and Morals*, 43rd ed., ed. Peter Hünermann (San Francisco, CA: Ignatius Press, 2012), 371–74; Pope Pius XII, "Humani Generis (1950)," in *The Papal Encyclicals 1939–1958*, ed. Claudia Carlen (Wilmington, NC: McGrath, 1981), 181–82; *Catechism of the Catholic Church* (Ottawa, ON: Publication Services, Canadian Conference of Catholic Bishops, 1992), 89–93.

²¹"Augsburg Confession" (1580), in *The Book of Concord: The Confessions of the Evangelical Lutheran Church*, ed. Robert Kolb and Timothy J. Wengert (Minneapolis, MN: Augsburg Fortress Press, 2000), 36, 38.

²²"Thirty-Nine Articles," in *The Creeds of Christendom*, ed. Philip Schaff, 3 vols. (Grand Rapids, MI: Baker, 1996), 3:492–93.

²³"Westminster Confession of Faith," in Schaff, *The Creeds of Christendom*, 3:615–16. With these three Protestant creeds, we could also include the foundational documents of Christian Reformed churches which uphold the traditional belief in original sin: "Belgic Confession" (1561); "Heidelberg Confession" (1563) Question 7, Article XV; and "Canons of the Synod of Dort" (1619) Third and Fourth Heads of Doctrine, Articles II and III.

²⁴Paul H. Seely, *Inerrant Wisdom* (Portland, OR: Evangelical Reformed, 1989); Denis O. Lamoureux, "Lessons from the Heavens: On Scripture, Science and Inerrancy," *Perspectives on Science and Christian Faith* 60, no. 1 (2008): 4–15.

²⁵For a series of lectures on the ancient in the Bible, see http://www.ualberta.ca/~dlamoure/ancient_science.html.

²⁶It is important not to confuse (and conflate) the ancient phenomenological perspective of the biblical writers with our modern phenomenological perspective. What ancient people saw with their eyes, they believed to be real, like the literal rising and literal setting of the sun. In contrast, when we see the sun "rising" and "setting," we know that it is only an appearance or visual effect caused by the rotation of the earth.

²⁷For examples of Egyptian and Mesopotamian views on the structure of the world, see <http://www.ualberta.ca/~dlamoure/h83.pdf>.

²⁸It is possible that Paul may have been a geocentrist. But if this is the case, it does not affect my argument that he accepts an ancient science of the structure of the universe.

²⁹This thought process is known as "retrojection" (Latin *retro* means "backward"; *jacere*, "to cast, throw"). It is the very same type of thinking used today in crime scene investigations. Present evidence found at the scene is used to reconstruct criminal events in the past.

³⁰The other mechanism was a natural plant-like sprouting of humans from the earth. For example, in KAR 4 the gods plant the seeds of humans into the earth and people later "sprout from the ground like barley" (quote in Richard J. Clifford, *Creation Accounts in the Ancient Near East and in the Bible* [Washington, DC: Catholic Biblical Association, 1994], 30).

³¹Ibid., 48–49.

³²Ibid., 39, 75.

³³Ibid., 74.

³⁴Ibid., 105, 107.

³⁵By acknowledging scripture's ancient biology for the origin of life, it is only consistent that the Bible also has an ancient understanding of the origin of death. Moreover, a corollary of the *de novo* creation of life is that death can only occur after life has been created. That is, built into the definition of *de novo* creation is the fact that the entrance of death into the world only happens after living organisms have come into existence.

³⁶St. Augustine, *The Literal Meaning of Genesis*, trans. John H. Taylor, 2 vols. (New York: Newman Press, 1982), 1:58–59; my italics.

³⁷Ibid., 59.

³⁸Ibid., 61.

³⁹Martin Luther, *Luther's Works: Lectures on Genesis*, ed. J. Pelikan (1536; St. Louis, MO: Concordia, 1958), 42–43. Luther's concordism is further seen in that he was a young earth creationist. He asserts, "We know from Moses [the traditional author of Genesis] that the world was not in existence before 6,000 years ago ... the world, with all its creatures, was created within six days, as the words [of Scripture] read" (pp. 3, 5).

⁴⁰John Calvin, *Commentary on Genesis*, 2 vols. (Grand Rapids, MI: Christian Classics Ethereal Library, 2007), 1:24–25, 114. Calvin's concordism is evident in that he embraced young earth creationism. He argues, "Moses relates that the work of creation was accomplished not in one moment, but in six days." He also dismissed the notion of "infinite periods of time" and claimed the world has existed "in the period of six thousand years" (John Calvin, *The Institutes of the Christian Religion* [Grand Rapids, MI: Christian Classics Ethereal Library, 2005], 142–43). For an excellent examination of Calvin's ancient scientific beliefs, see Davis A. Young, *John Calvin and the Natural World* (Lanham, MD: University Press of America, 2007).

⁴¹Other terms Augustine used include *causales rationes* (causal principles), *rationes primordiales* (primordial principles), or simply *rationes* (principles). See Augustine, *The Literal Meaning of Genesis*, 1:253. The concept of seed principles comes from the Stoics. These ancient Greek philosophers were pantheists and viewed God as the seed principle (singular, Greek *logos spermatikos*). In sharp contrast, Augustine asserts that God created a variety of seed principles (in the plural). These were "invisible formative" forces, and not "visible corporeal" substances. In this way, the seed of a plant contains both components (1:153, 174, 185; 2:123–24). See also Maryanne Cline Horowitz, *Seeds of Virtue and Knowledge* (Princeton, NJ: Princeton University Press, 1997), 27–28, 49.

⁴²Augustine, *The Literal Meaning of Genesis*, 1:184.

⁴³For example, *ibid.*, 1:142, 175, 177, 180, 199.

⁴⁴Ibid., 1:177.

⁴⁵Ibid., 1:141.

⁴⁶Ibid., 1:178, 184.

⁴⁷Ibid., 1:185, 189; my italics.

⁴⁸Ibid., 1:192.

⁴⁹Ibid.

⁵⁰Ibid., 1:177. Augustine suggested that Adam "was made to grow through the stages of human development requiring the passage of years which we observe as necessary for man's growth" (1:194).

⁵¹Ibid., 2:123.

⁵²Ibid., 2:122; my italics. Augustine even argued that Christ was in Adam. But to uphold his miraculous birth, Augustine suggests that only Jesus's "visible corporeal germ" was there, not his "invisible formative principle," which came through the Holy Spirit (2:123–24). Augustine

was adamant that Christ was not tainted by original sin (2:125–26).

⁵³Ibid., 2:124.

⁵⁴St. Augustine, *City of God*, ed. V. J. Bourke (426; New York: Image [Doubleday Books], 1958), 271, 278–79.

⁵⁵Denis O. Lamoureux, *Evolutionary Creation: A Christian Approach to Evolution* (Eugene, OR: Wipf and Stock, 2008), 19, 29–35.

⁵⁶Venema, “Genesis and the Genome,” 173–74.

⁵⁷Lamoureux, *Evolutionary Creation*, 53–104.

⁵⁸James Gaffney, *Sin Reconsidered* (New York: Paulist Press, 1983), 32–34. Notable examples of the Hebrew noun *yētzet* appear in Gen. 6:5 and 8:21 with the *inclination* of the heart/mind on evil. The Greek noun *epithumia*, translated as “desire, longing, and craving,” carries both good and bad nuances. Regarding the latter, James 1:15 states, “After desire has conceived, it gives birth to sin.” I am grateful to Brian Glubish for introducing me to these concepts.

⁵⁹See endnote 8 regarding the term “concupiscence.”

⁶⁰Richard Dawkins, *The Selfish Gene* (New York: Oxford University Press, 2006), 3, 66.

⁶¹Frans de Waal, *The Age of Empathy* (New York: Three Rivers Press, 2009), 40. I am forever grateful to Callee Soltys for introducing me to this book.

⁶²Ibid., 39.

⁶³Ibid., 225.

⁶⁴Ibid., 116.

⁶⁵Ibid., x.

⁶⁶Ibid., 159.

⁶⁷Workman and Reader recognize this problem with terms. In commenting on altruism, they observe,

Social psychologists generally define altruism as selfless behavior conducted on behalf of other without regard for one’s self-interest. Note that such definitions include intentionality on the part of the altruist. In contrast, evolutionists define altruism purely in terms of the act performed, not the intention behind it. In this way ethologists [those who study animal behavior] have no problem in discussing examples of *apparent* altruism in animals. (Lance Workman and Will Reader, *Evolutionary Psychology* [Cambridge, UK: Cambridge University Press, 2008], 183; my italics)

⁶⁸This problem with terminology can be seen in the title of Daryl P. Domning’s *Original Selfishness* (Aldershot, UK: Ashgate, 2006). He contends that selfishness extends back to “the very origin of life itself” (p. 140). I doubt that self-replicating molecules and the first cell were “selfish.”

⁶⁹This category reflects the biological notion of a “self-preservation instinct” with animals and would include self-propagating, self-protecting, etc.

⁷⁰I am not committed to this proposed terminology and would certainly invite other suggestions.

⁷¹See Jesse Bering, *The Belief Instinct* (New York: Norton, 2011), 7, 195.

⁷²Charles Darwin, *The Descent of Man*, 2nd ed. (London: John Murray, 1874), 124.

⁷³Ibid., 126.

⁷⁴Ibid., 125; my italics.

⁷⁵<http://www.firstpeople.us/FP-HTML-Legends/TwoWolves-Cherookee.html>. I am grateful to Nathan Barlow for this information.

⁷⁶*Nghi Thuc Hang Tuan Chanting Book* (Edmonton, AB: Truc Lam Monastery, 2011), 10–11. I am grateful to Alexandra Zelazny for this citation.

⁷⁷Ibid., 17.

⁷⁸Harmless, *Augustine*, 425.

⁷⁹Ibid.

⁸⁰Ibid. Augustine attributes this admonition to Ambrose.

⁸¹Ibid.

⁸²Interestingly, Dawkins in principle agrees: “We have the power to defy the selfish genes of our birth” (Dawkins, *The Selfish Gene*, 200).

⁸³Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 3rd ed. (Chicago, IL: University of Chicago Press, 1996).

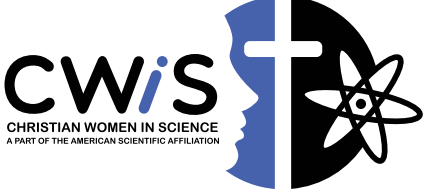
⁸⁴Ibid., 152–53. Or, to put this rather rudely, ideas change within the academy one death at a time!

⁸⁵Ibid., 150.

⁸⁶See “All About The Human Genome Project (HGP)” at <http://www.genome.gov/10001772>.


⁸⁷Peter Enns, *Inspiration and Incarnation* (Grand Rapids, MI: Baker, 2005); Kenton L. Sparks, *God’s Words in Human Words* (Grand Rapids, MI: Baker, 2008); Christopher M. Hays and Christopher B. Ansberry, eds., *Evangelical Faith and the Challenge of Historical Criticism* (Grand Rapids, MI: Baker, 2013).

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