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The Theology of Original Sin and the Science of Human Origins

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THE SAINT PAUL SEMINARY SCHOOL OF DIVINITY
UNIVERSITY OF ST. THOMAS

The Theology of Original Sin and the Science of Human Origins

A THESIS

Submitted to the Faculty of the School of Divinity

of the University of St. Thomas

In Partial Fulfillment of the Requirements

For the Degree

Master of Arts in Theology

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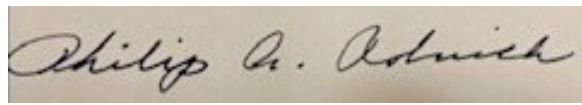
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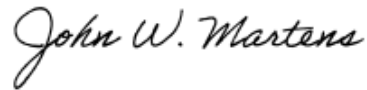
St. Paul, MN

2021

This thesis by Mark Schumacher fulfills the thesis requirement for the Master of Arts degree in Theology approved by Dr. Philip Rolnick, Ph.D. as Thesis Advisor, and by John Martens, Ph.D. and by Fr. Brian Zuelke, O.P., M.A.T., as Readers.

A handwritten signature in cursive script that reads "Philip A. Rolnick". The signature is written in dark ink on a light-colored, slightly textured background.

Philip Rolnick, Ph.D., Thesis Advisor

A handwritten signature in cursive script that reads "John W. Martens". The signature is written in dark ink on a light-colored background.

John Martens, Ph.D., Reader

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Rev. Brian Zuelke, O.P., M.A.T., Reader

CHAPTER I

Introduction

As the scientific world grows in its knowledge of evolution, the theological teachings about human origins are being questioned, including the fall and original sin. The focal point of this study will be the Catholic magisterial teaching known as “monogenism.” Monogenism is “the doctrine that the human race derived from one original human being, identified in Scripture with Adam.”¹ This definition derives from Pope Pius XII’s encyclical *Humani Generis* (1950), written in response to advances in the study of evolution and human origins that were contrary to the Church’s teaching. Monogenism concerns several other Church teachings as well: the creation of the human person by God, Adam and Eve, the fall, and interpreting Genesis 1-11. As Ludwig Ott states in *The Fundamentals of Catholic Dogma*, “The teaching of the unity of the human race is not, indeed, a dogma, but it is a necessary pre-supposition of the dogma of original sin and Redemption.”² This study will explore several alternative explanations for the origins of humanity and original sin, both monogenetic and polygenetic. Theories will be presented and then assessed by how well they adhere to the traditional Catholic understanding of original sin, especially the historicity of the original sin and its transmission through propagation. Fr. Nicanor Austriaco provides what this author believes to be the most plausible explanation for how to reconcile the Catholic doctrine of original sin with the science of human origins. His theory exhibits fewer theological problems while remaining scientifically plausible.

¹ John Hardon, “Monogenism,” at *Modern Catholic Dictionary*, Real Presence Association (2020), www.therealpresence.org.

² Ludwig Ott, *Fundamentals of Catholic Dogma*, ed. James Canon Bastible, trans. Patrick Lynch (Charlotte, NC: TAN Books, 1977), 96.

This study will be broken into three chapters. The first chapter will examine the state of the question about monogenism by first explaining the traditional Catholic teachings concerning Adam and Eve, the fall, and original sin as expressed by the Magisterium and preserved in the tradition of the Church through ecumenical councils, papal declarations, scripture, and the writings of various Church fathers, especially Augustine and Thomas Aquinas. Then this chapter will examine how the Catholic Church has responded to challenges to monogenism, as well as present various Protestant scholars' interpretations of original sin and evolutionary science. Throughout, there will be commentary on the viability of various theories about original sin and evolutionary science in light of the traditional Catholic doctrine of original sin.

The second chapter will look at three scholars who have each written more extensively on this subject, each of them seeking to synthesize the theological teachings of original sin and human origins with the newfound knowledge from the sciences concerning evolution and human origins. Their approaches are all polygenetic and not fully in agreement with the Magisterium. Daryl Domning, a Catholic lay-person and paleontologist, argues that the selfishness hard-wired into our genes through millions of years of evolution is the source of sin in the world, not a prehistoric fall. Patricia Williams is a sociobiologist who argues that the traditional Catholic understanding of Adam and original sin is in direct conflict with scientific truth and she offers a new approach to evolution and original sin based in human sociology and biology that discards much of the tradition. Karl Rahner is a Catholic theologian who offers novel reflections on the theology of human origins in order to bring it into greater harmony with evolution. Their diverse expertise and backgrounds give a broad range of ways in which scholars are seeking to bridge the gap between the theological teachings of original sin and the science of human origins and

evolution. Advantages and disadvantages of each theory in light of the traditional Catholic understanding of original sin will receive commentary.

The third chapter will examine the monogenetic theory of the Dominican Friar Fr. Nicanor Pier Giorgio Austriaco who currently teaches in the biology and theology departments at Providence College in Rhode Island.³ Austriaco, rooted in his Dominican Tradition, uses Thomistic arguments to support his theory. His goal is to show the plausibility of a connection between what is known about human origins from science and what is known about human origins from revelation. His theory exhibits the least amount of conflict with the traditional Catholic understanding of original sin while still maintaining the best scientific data available. This theory does, however, contain weaknesses remaining to be developed further as more data becomes available and time for reflection passes.

The Catholic Theology of Original Sin and the Fall

While the doctrine of original sin does not draw any direct material from the Gospels, the doctrine does find expression in Romans 5: “Therefore as sin came into the world through one man and death through sin, and so death spread to all men because all men sinned... Then as one man’s trespass led to condemnation for all men, so one man’s act of righteousness leads to acquittal and life for all men.”⁴ According to Paul, there was a time before sin was in the world, but it entered through the sin of one man, Adam.⁵ Because of Adam’s trespass, all men and

³ Providence College, “Nicanor Austriaco O.P.,” at Theology Faculty (2020) at www.theology.providence.edu.

⁴ All scripture citations are from the New Revised Standard Version unless otherwise noted. Romans 5:12; 18. *The Holy Bible: New Revised Standard Version* (National Council of Churches of Christ, 1989).

⁵ One may ask why Paul calls it “Adam’s sin,” even though Eve was the first to eat of the tree in the biblical narrative? There are several possible explanations. In Romans 5, Paul’s rhetoric is contrasting the New Adam, Christ, with the Old Adam, using their common status as men in his contrasting of them. The culture of the Jewish people, of which Paul was a former member, often used male patriarchs as representatives of the family,

women are condemned. Romans 5 is the primary scriptural source used in the Catholic tradition to support a doctrine of original sin.

Augustine is the next key figure in the traditional Catholic understanding of original sin. Augustine develops his doctrine of original sin in response to the heresy named after Pelagius but spread successfully by his disciple Caelestius.⁶ Caelestius is accused of spreading teachings that claim

his [Adam's] sin injured only himself and not the human race; that infants at the time of their birth are in the same state that Adam was in before the Fall; that mankind as a whole did not die through Adam's death or transgression... and that before the coming of Christ there had been sinless men.⁷

The implication of this is that Adam's sin did not impact his descendants and all men and women are born as blank slates, free of any stain of original or actual sin; as such, there is no need of baptism or forgiveness until the first actual sin is committed. Additionally, before the sanctifying grace given through Christ's death and resurrection, men and women could remain free of any stain of sin and even after sanctifying grace, some men and women can save themselves through their own good lives. It is these ideas that Augustine is quick to counter with what is now considered the traditional Catholic teaching.

Augustine's concerns are about the relationship between human nature, free will, and God's grace. Gerald Bonner, an Augustine scholar, notes that even before the fall, Augustine

community, or entire people. In this instance, Adam is the patriarch of the entire human family. Additionally, when comparing the story of the fall in Genesis 3 to the science of human origins, one will struggle to find strong evidence for a *pair* of humans acting like Adam and Eve. One can posit, however, without strong contradictions from the science, a *single* human being with the capacity for a relationship with God as revealed in Genesis. Using the Revelation in Paul and the Tradition of the Church, one deduces that the first human to sin was in fact Adam. This argument will be further developed in the last section of this work.

⁶ Most of the material here is taken from Gerald Bonner, *St Augustine of Hippo* (Norwich: Canterbury Press, 2002), 320. I use Bonner's summary of Augustine's teachings in many places as Bonner has taken several of Augustine's writings on similar topics and synthesized them together. Many of the summaries I quote below have corresponding Latin source texts in Bonner's footnotes.

⁷ Bonner, *Augustine of Hippo*, 321.

would say that Adam remained sinless only because of God's grace: "Man lived in Paradise as he wished, *so long as he wished what God had ordered.*"⁸ Adam's will only chose the good and remained blessed so long as it willed what God willed. With the original sin, Adam *and all humanity* fell from a life of grace. Augustine reiterates the universal nature of original sin, in direct opposition to the Pelagian idea that Adam's sin harmed only himself. Augustine does not specify the act by which Adam fell⁹, but he is clear about the consequences of the act:

first, death: death of the body and, more awfully, death of the soul—a punishment inflicted justly upon all of Adam's seed... secondly, it means a clouding and weakening of all man's faculties... the power of the will of vitiated nature is inadequate to avoid sin, unless it has a special aid—the grace of Christ. Not that human nature is utterly corrupt; it still retains some trace of the divine image.¹⁰

Adam's sin introduced spiritual death and alienation from God and it inhibits *all* future persons' ability to avoid sin and choose the good, what we now call concupiscence.

Augustine sees the effects of Adam's sin as passing on to his progeny in two ways: as an inherited disease and as inherited guilt. We all sinned in Adam; thus, original sin makes us spiritually sick, so we are in need of a Divine Physician, and we also share in the guilt because

⁸ Augustine, *City of God*, XIV, xxvi in Bonner, *Augustine of Hippo*, 359, fn. 7. Emphasis is mine.

⁹ In his book, *The Problem of Pain*, Lewis presents a thoughtful explanation for how it was possible for a man with all these gifts of grace to commit the first sin: "From the moment a creature becomes aware of God as God and of itself as self, the terrible alternative of choosing God or self for the centre is opened to it... They wanted, as we say, to 'call their souls their own.' But that means to live a lie, for our souls are not, in fact, our own. They wanted some corner of the universe of which they could say to God, 'This is our business, not yours...' This act of self-will on the part of the creature, which constitutes an utter falseness to its true creaturely position, is the only sin that can be conceived as the fall. For the difficulty about the first sin is that it must be very heinous, or its consequences would not be so terrible, and yet it must be something which a being free from the temptations of fallen man could conceivably have committed. The turning from God to self fulfills both conditions. It is a sin possible even to Paradisal man, because the mere existence of a self—the mere fact that we call it 'me'—includes, from the first, the danger of self-idolatry" (63, 68-69). C.S. Lewis, *The Problem of Pain* (New York City: MacMillan Company, 1947), 54.

¹⁰ Bonner, *Augustine of Hippo*, 370.

Adam's sin is just as much our sin.¹¹ How all men sinned in Adam is the part of Augustine's theory that has aged the worst:

'In that one man were we all, when we were all that one man,'¹² Augustine's theory is that of the seminal identity of the human race with Adam. Since all future generations were, in one sense, present in our progenitor's loins at the time of the Fall, so all mankind participated, in some mysterious fashion, in the sin, and drew upon itself condign punishment.¹³

Augustine believed that all future generations in a family line were present in the sperm of the earliest male progenitor, which, in the case of all humanity, would be Adam. Augustine bases this theory on a faulty translation¹⁴ of Romans 5 and limited scientific knowledge at the time; but even with a different and proper translation, Bonner notes Augustine likely would not change the basic ideas of his theory of original sin.¹⁵

The last major contribution Augustine made to the doctrine of original sin was the idea of concupiscence. Adam's "disobedience to his creator drew upon itself as an inevitable consequence a loss of power to control his own body";¹⁶ this understanding of concupiscence has been taken up and used by the Church to this day. Bonner summarizes Augustine: "This loss of

¹¹ Bonner, *Augustine of Hippo*, 371. This, along with the next point, are the two biggest arguments that modern scholars take issue with: How can I be guilty of a sin I never committed, supported, or had any ability to actively will its happening or prevent said act from happening? Some see it as an issue of justice and this point will be taken up later.

¹² Augustine, *City of God*, XIII, xiv in Bonner, *Augustine of Hippo*, 371, fn 3.

¹³ Bonner, *Augustine of Hippo*, 371-372.

¹⁴ According to Bonner, Augustine's faulty translation is a result of his emphasis on the Latin text of Romans against the more original Greek text. In Latin, Romans 5:12 ends with *in quo omnes peccaverunt*, which translates to "in whom all men sinned." This is the obvious translation of the Latin and Augustine's faulty interpretation finds precedence in other Latin theologians before his time. However, the Greek does not allow for this interpretation. In Greek, the end of 5:12 reads (transliterated) *Eph ho pantes hemarton*. So in the Greek the end of 5:12 reads not "in that man all sinned," which would give credence to Augustine's seminal identity argument; rather, translated from the Greek, the ending reads "because all have sinned." Bonner notes that Augustine was familiar with the Greek translations and referenced it frequently in other arguments, so why the strong adherence to the Latin here? Bonner hypothesizes that Augustine was "so absorbed in his theory that he did not give it the critical examination which it required" (Bonner, *Augustine*, 272). It is also essential to keep in mind that Augustine was responding directly to Pelagian adversaries and was not forming an independent theology of original sin. See Bonner, *Augustine of Hippo*, 272-273.

¹⁵ Bonner, *Augustine of Hippo*, 372-374.

¹⁶ Bonner, *Augustine of Hippo*, 374.

power is particularly evident in human sexuality... concupiscence is present even in the legitimate sexuality of Christian marriage... It is from and by concupiscence that the guilt of original sin is conveyed from the parents to the child.”¹⁷ A person’s inability to control one’s sexual desires and one’s physical responses to those desires is a continuation of Adam’s loss of bodily integrity after the fall. Because the sexual act is tainted in this way, it is the vehicle by which original sin is transmitted. Trent will reevaluate the transmission of original sin through the sexual act as presented by Augustine. However, the Second Council of Orange, which began in AD 529, formally declared orthodox Augustine’s teachings affirming the physical and spiritual consequences of Adam’s sin for himself and all his offspring. This synod, however, was only recognized as a regional synod and not an ecumenical council and was forgotten until being revisited a millennium later at Trent.¹⁸

Thomas Aquinas is the next major contributor in the traditional Catholic understanding of original sin, writing about it in his *Summa Theologiae, Prima Secunda*, questions 81-83 and *Prima Pars* 94-97. First, Aquinas makes it clear that original sin is passed on by origin, not by imitation.¹⁹ By origin, Aquinas means origin of our nature: “all men born of Adam may be considered as one man, inasmuch as they have one common nature, which they receive from their first parents.”²⁰ So, when Adam²¹ committed the original sin, he damaged his nature and

¹⁷ Bonner, *Augustine of Hippo*, 374-375, 377-378.

¹⁸ For more on the information provided here about the Second Synod of Orange see Peter Hunermann, Helmut Hoping, Robert L. Fastiggi, Anne Englund Nash, and Heinrich Denzinger, *Compendium of Creeds, Definitions, and Declarations on Matters of Faith and Morals* (San Francisco: Ignatius Press, 2012), p. 529; p. 371-372.

¹⁹ Thomas Aquinas, *Summa Theologiae*, I-II, q. 81, art. 1, s.c., in *The Summa Theologiae of St. Thomas Aquinas*, 2nd ed., trans. Fathers of the English Dominican Province (2017), at www.newadvent.org/summa.

²⁰ *Summa Theologiae*, I-II, q. 81, art. 1, resp., trans. English Dominican Province.

²¹ One objection someone may have is our consistent use of “Adam’s Sin” or “the Sin of the Man” or similar language. After all, Eve was the first human person to commit a sin as she “ate the fruit” first. Aquinas gives an answer in *Summa Theologiae*, I-II, q. 81, art. 5, which asks, “Whether if Eve, and not Adam, had sinned, their children would have contracted original sin?” to which Aquinas answers in his *Responsio*, “Now it is evident that in the opinion of philosophers, the active principle of generation is from the father, while the mother provides the

the nature that is passed on to future generations. Thus, original sin is not an actual sin of the person, nor is it something we learn from our parents, but it is a sin attached to our nature.²² This is different from Augustine’s idea that original sin passes on because the sexual act is tainted.

Augustine saw original sin as an alienation of ourselves from God that especially disordered our wills, implanting within us a sickness in need of a cure and guilt in need of repayment. Before any of this alienation, however, Aquinas surmises that humanity was in a blessed state known as Original Justice. Aquinas builds on Augustine’s understanding of the will, noting that before the fall, Adam and Eve enjoyed perfect integrity of their passions: their physical bodies, especially their desires, were perfectly subject to their souls, the seat of will and reason, “for man’s soul, in the state of innocence, was adapted to perfect and govern the body.”²³ God also gave Adam infused knowledge “of all those things for which man has a natural aptitude... that is, whatever truths man is naturally able to know,” and, “because the life of man is directed to a supernatural end... Wherefore the first man was endowed with such a knowledge of these supernatural truths as was necessary for the direction of human life in that state.”²⁴ Because of integrity and knowledge, Adam also possessed all virtues, for “the virtues are nothing but those perfections whereby reason is directed to God.”²⁵ Adam also possessed immortality before the fall, “for man’s body was indissoluble not by reason of any intrinsic vigor of immortality, but by reason of a supernatural force given by God to the soul, whereby it was

matter. Therefore original sin, is contracted, not from the mother, but from the father: so that, accordingly, if Eve, and not Adam, had sinned, their children would not contract original sin: whereas, if Adam, and not Eve, had sinned, they would contract it.” This study will follow Aquinas, and the Tradition of the Church, and maintain the language of Adam’s sin. The Church may, however, wish to revise or ignore this question of Aquinas’ *Summa* given new understandings of human reproduction and in light of John Paul II’s theology of the body.

²² *Summa Theologiae*, I-II, q. 81, art. 1, resp., trans. English Dominican Province.

²³ *Summa Theologiae*, I-I, q. 94, art. 2, resp., trans. English Dominican Province.

²⁴ *Summa Theologiae*, I-I, q. 94, art. 3, resp., trans. English Dominican Province.

²⁵ *Summa Theologiae*, I-I, q. 95, art. 3, resp., trans. English Dominican Province.

enabled to preserve the body from all corruption so long as it remained itself subject to God.”²⁶

The state that Adam enjoyed because of these gifts is called Original Justice, which was lost because of the fall.²⁷

The next significant development in the doctrine of original sin in the Catholic tradition is at the Council of Trent. At this council, the Magisterium recognized what had been believed and handed on in tradition for a millennium: through the sin of one individual, humanity “at once lost the holiness and justice in which he had been constituted.”²⁸ Trent provides a crucial affirmation of Aquinas’ developments:

If anyone asserts that this sin of Adam, which is one in origin and is transmitted by propagation, not by imitation, and which is in all men, proper to each, can be taken away by the powers of human nature or by any remedy other than the merits of the one mediator our Lord Jesus Christ... let him be anathema.

The fathers at Trent are making clear what was disputed by some breaking away from the Church during the Reformation.²⁹ Original sin came from the single act of one man, the effects of which are transmitted by propagation³⁰ and are not learned by imitation of the world around us. Following Aquinas, this propagation takes place through the passing on of our nature to our descendants. An implication of this statement, though not explicitly stated, is if all are to have received original sin through propagation, then all must necessarily share fallen ancestors. To go a step further, one could limit it to one common fallen ancestor, Adam, the single origin or

²⁶ *Summa Theologiae*, I-I, q. 97, art. 1, resp., trans. English Dominican Province.

²⁷ Defending Aquinas’ original justice is another task separate from this study. Modern science does raise significant objections to original justice, some of which will be raised below. However, one need not argue for an entirely blessed state for mankind at the beginning like that of Aquinas’ original justice to maintain a theologically and scientifically plausible explanation for original sin.

²⁸ DH 1511.

²⁹ See intro to the document on original sin in DH p. 371, before 1509.

³⁰ What the fathers mean here specifically by propagation is not clear. The distinction being made is that sin is not something that one ONLY learns from one’s environment (to use a term from modern psychology, nurture) but that sinfulness is a part of our very nature from birth (nature in the philosophical and psychological sense) that we receive from our parents. Using this definition, and using the data from analyzing the doctrine of original sin and evidence from evolutionary science on human origins, one concludes that monogenism is the plausible solution.

monogenesis, of original sin. The fathers also note that no one is immune to the effects of original sin and the only way to remove the stain of original sin is by the merits of Jesus Christ, not our own human efforts or merit. The effects, however, remain, especially concupiscence: “The holy council professes and thinks that concupiscence or the tinder of sin remains in the baptized. Since it is left for us to wrestle with, it cannot harm those who... resist it by the grace of Jesus Christ.”³¹ Breaking from Augustine, the fathers see concupiscence as a side-effect of original sin and not necessarily a factor in the transmission of original sin. The main points affirmed at Trent are the historicity of original sin and its propagation to future generations. These are the teachings that Pius XII has in mind when he writes *Humani Generis*.

***Humani Generis* and John Paul II’s Address to the Pontifical Academy of Sciences (1996)**

Pope Pius XII promulgated his encyclical *Humani Generis* (On Human Origins) to address “some false opinions threatening to undermine the foundations of Catholic doctrine.”³² While the latter part of the document does address human origins, the first part of the document deals with such topics as divine revelation and the magisterium’s role in receiving, interpreting, and disseminating revelation. The Magisterium’s role, including Pius’ document, is crucial.

Pius XII begins by elaborating on the inability of man to fully perceive the truths that God wills to show him; rather, these truths “demand self-surrender and self-abnegation in order to be put into practice and to influence practical life.”³³ Pius highlights four “isms” that exemplify a resistance to the humility necessary when examining truth: most relevant to our study is Evolutionism, “which has not been fully proved even in the domain of natural sciences,

³¹ DH 1515.

³² Pope Pius XII, *Humani Generis* (12 August 1950), (Vatican City: Libreria Editrice Vaticana) at www.vatican.va, title.

³³ *Humani Generis*, §2.

explains the origins of all things, and audaciously support the monistic and pantheistic opinion that the world is in continual evolution.”³⁴ It is not the whole theory of evolution that Pius is repudiating here; rather, he is condemning the philosophy derived from evolution, *evolutionism*, which contrasts with the Catholic approach marked by humble surrender to the mystery of God and a theology of creation.

Pius reminds Catholic theologians and philosophers “of their grave duty... to defend natural and supernatural truth,” and condemns those who, “desirous of novelty, and fearing to be considered ignorant of the recent scientific findings, try to withdraw themselves from the sacred Teaching Authority.”³⁵ Pius is adamant about the importance of the magisterium here, especially because he sees the implications³⁶ of misinterpreting or misstating doctrine influenced by some scientific theory that could be changed, revised, or disposed of when new theories arise in the near or distant future. He clearly states for these theologians that “this sacred Office of Teacher in matters of faith and morals must be the proximate and universal criterion of truth for all theologians.”³⁷ His point is not to censor theologians of his day; rather, he is reminding them that certain doctrines, like the doctrine of original sin expressed at Trent, have elements that cannot be abandoned when developing new theories that address human origins and original sin. Instead, theologians should be looking for ways to express how these doctrines are found in the sources of revelation.³⁸

³⁴ *Humani Generis*, §5. Along with Evolutionism, Pius also lists Communism, Existentialism, and Historicism.

³⁵ *Humani Generis*, §9-10.

³⁶ See *Humani Generis*, §35.

³⁷ *Humani Generis*, §18.

³⁸ *Humani Generis*, §19, 21

After listing several ways theologians have tried to use scripture to refute declarations from an ecumenical council,³⁹ Pius is troubled that, “disregarding the Council of Trent, some pervert the very concept of original sin.”⁴⁰ It is with this doctrine in mind that Pius enters into his teaching about human origins. Pius begins by stating that it is praiseworthy to use scientific fact and proven theories to enhance our understanding of Scripture and Tradition; however, one must be careful when attempting to use unproven scientific theories to modify or enhance our understanding of scripture and tradition.⁴¹ Pius writes concerning evolution that both favorable and unfavorable opinions must “be weighed and judged with the necessary seriousness, moderation and measure, and provided that all are prepared to submit to the judgment of the Church, to whom Christ has given the mission of interpreting authentically the Sacred Scriptures and of defending the dogmas of faith.”⁴² Pius is emphasizing the magisterium’s role in these discussions.

§37 of *Humani Generis* reflects the stance of the Church to this day and is supported and critiqued by scientists, Protestant theologians, and some Catholic scholars of science, philosophy, and theology:

When, however, there is question of another conjectural opinion, namely *polygenism*, the children of the Church by no means enjoy such liberty. *For the faithful cannot embrace that opinion which maintains that either after Adam there existed on this earth true men who did not take their origin through natural generation from him as from the first parent of all, or that Adam represents a certain number of first parents.* Now it is in no way apparent how such an opinion can be reconciled with that which the sources of revealed truth and the documents of the Teaching Authority of the Church propose *with regard to original sin, which proceeds from a sin actually committed by an individual Adam and which, through generation, is passed on to all and is in everyone as his own.*⁴³

³⁹ See *Humani Generis*, §22, 25-26.

⁴⁰ *Humani Generis*, §26.

⁴¹ *Humani Generis*, §5.

⁴² *Humani Generis*, §36

⁴³ *Humani Generis*, §37, emphases are mine.

In this paragraph, Pius is affirming the historicity of original sin and its transmission⁴⁴ to future generations as declared at Trent. Pius rejects the polygenetic theories of his time as incompatible with revealed doctrine expressed by the Church. Specifically, he is saying Catholics should not claim that there existed human beings with souls who do not take our origin from Adam biologically. Additionally, Catholics should not claim that “Adam” is simply the term for an indeterminate population of *homo sapiens* that God chose to ensoul all at once at some point in history. He is not rejecting polygenism per se, he is simply recognizing that the polygenetic theories of his day either jettison the traditional understanding of original sin, or modify it in an unacceptable way. There is a possibility that future polygenetic theories could be reconcilable with the traditional doctrine of original sin, but Pius does not seem sympathetic to polygenism. The contrasting theological term that Pius seems to be affirming is monogenism. Monogenetic theories, ones with a single origin for original sin, align more closely with and have fewer conflicts with the traditional doctrine of original sin. This study will favor monogenetic theories and demonstrate that they are just as scientifically defensible as polygenetic theories and have fewer conflicts with the traditional doctrine of original sin.

Since this declaration from Pius XII, the Church has grown more receptive to input from the scientific community, especially concerning evolution. Notable is John Paul II’s address to the Pontifical Academy of Sciences in 1996. He reminds the scientists gathered there of Pius XII’s affirmation “that there is no conflict between evolution and the doctrine of the faith

⁴⁴ Pius uses the term “through generation” here, rather than the more familiar theological term (at least when speaking about original sin) “propagation.” However, this author would argue that, following Aquinas and Trent, using the term generation is equivalent to using the term propagation because who else is the child supposed to receive its nature from other than its parents? Generation and propagation imply the same thing—that original sin is passed on to the child because it derives its nature from fallen parents.

regarding man and his vocation, provided that we do not lose sight of certain fixed points.”⁴⁵

While in Pius’ days evolution was not a strong, unified theory, John Paul II remarks that, “some new findings lead us toward the recognition of evolution as more than an hypothesis.”⁴⁶ John Paul II is encouraging the scientists he is addressing, and all of humanity, to continue to seek the truth regarding evolution and human origins. However, he is quick to note, just as Pius XII did, that man is in a different category than material creation.⁴⁷ While recognizing the value of discovering and pinpointing the “manifestations of life,” and writing “them down along the time-line,” he notes that “the moment of passage into the spiritual realm is not something that can be observed in this way— although we can nevertheless discern, through experimental research, a series of very valuable signs of what is specifically human life.”⁴⁸ Some of these valuable signs include evidence of creative thought like art, musical instruments, and advanced tools.

Additional signs, though more difficult to pinpoint due to their lack of tangible evidence, include abstract thought and language.⁴⁹ While recognizing the value of scientific research, John Paul II is insistent here “on the relevance of philosophy and theology for an adequate understanding of the ‘ontological leap’ to the human which cannot be explained in purely scientific terms.”⁵⁰

John Paul II never condemns polygenism outright, he never uses the word “monogenism,” nor does he refer to §37 of *Humani Generis* in this address. However, he does remind his audience that the spiritual aspect of man did not derive from physical matter, but was

⁴⁵ Pope John Paul II, *Message to the Pontifical Academy of Sciences: On Evolution* (22 October 1996), §3, (Smithsonian Institution, 2020) at <https://humanorigins.si.edu/about/broader-social-impacts-committee/members-member-resources/tom-weinandy-emeritus>.

⁴⁶ *On Evolution*, §4.

⁴⁷ In continuity with previous twentieth century papal teaching on evolution (especially Pope Pius XII’s encyclical *Humani Generis*), the Holy Father’s message acknowledges that there are “several theories of evolution” that are “materialist, reductionist and spiritualist” and thus incompatible with the Catholic faith. International Theological Commission, *Communion and Stewardship: Human Persons Created in the Image of God* (23 July 2004) at <http://www.vatican.va/>, §64.

⁴⁸ *On Evolution*, §6.

⁴⁹ These will be the cornerstone of Fr. Nicanor Austriaco’s theory in chapter 3.

⁵⁰ *Communion and Stewardship*, §64.

directly created by God.⁵¹ The International Theological Commission builds upon John Paul II's words, writing

Catholic theology affirms that the emergence of the first members of the human species (whether as individuals or in populations) represents an event that is not susceptible of a purely natural explanation and which can appropriately be attributed to divine intervention. Acting indirectly through causal chains operating from the beginning of cosmic history, God prepared the way for what Pope John Paul II has called "an ontological leap...the moment of transition to the spiritual."⁵²

Notably, the ITC is not affirming polygenism or monogenism in this paragraph, but they are emphasizing God's activity at the beginning of human history. John Paul II also emphasizes God's involvement and the importance of maintaining the cornerstones of the traditional Catholic understanding of original sin when investigating scientifically the mysteries of human origins. Science and theology must work in tandem to seek the truth of human origins and original sin, while maintaining the revelation expressed at Trent and maintained by Pius in *Humani Generis* that original sin was an historical event and it is passed on through propagation. There are now serious scientific theories and strong theological doctrines that can be synthesized to support the teachings found in *Humani Generis* §37, including monogenism.

Protestant Understandings of Adam and the Fall

Many Protestant scholars disagree with the Catholic reading of the Adam and Eve story in Genesis 2-3. There are really two questions being asked in the following commentary from various Protestant scholars: was there an historical Adam, and, if so, was there a sin, or fall, that so fractured human and divine relationships that we all bear remnants of it to this very day, what we call original sin? The Catholic Church responds affirmatively to both.

⁵¹ See *On Evolution*, §5.

⁵² *Communion and Stewardship*, §70.

Henri Blocher, an influential Protestant theologian, claims that three things have made the traditional understanding of Adam and Eve problematic: first, the weight of the scientific advances in the study of human origins; second, the “conclusions of critical-literary study work”; and third, the “passage is better preserved, better promoted, indeed liberated, if we break it loose from a contingent, local accident.”⁵³ This next section will follow Blocher’s three categories, first looking at how scholars use science to support or refute Adam, the fall, and original sin. Then, we will look at how scholars use the study of scripture and other ancient manuscripts to support or refute Adam, the fall, and original sin. Finally, we will use Blocher’s last category to look at a wide-ranging set of arguments and ideas that generally free themselves from a “contingent local accident,” and offer diverse arguments both for and against Adam, the fall, and original sin.

Using scientific evidence to generate what he calls “the Adam of Science,” physicist John McIntyre claims that Adam was a Neolithic farmer sometime after 9,000 BC but most likely around 4,000 BC. From archaeological evidence, he concludes the Garden of Eden was a real place in Mesopotamia and that around that time cities and culture began to develop in the region. Moreover, because Cain and Abel practiced animal husbandry and farming and had relations with other nations around them, then Adam and Eve, Cain and Abel’s parents, must be from around this time period. It follows for McIntyre that “God presumably selected one of the men in the Mesopotamian community to be the Adam of Scripture.”⁵⁴ Thus, Adam is not an early, lone progenitor of humanity: he is simply one chosen among many. These arguments all derive from McIntyre’s reading of the scriptures and correlate with his understanding of “the Adam of

⁵³ Henri Blocher, *Original Sin: Illuminating the Riddle* (Downers Grove, IL: Intervarsity Press, 2004), 37-38.

⁵⁴ John A. McIntyre, “The Real Adam,” *Perspectives on Science and Christian Faith* 56, no. 3 (September 2004): 169.

Science.” McIntyre accounts for original sin’s historicity, placing it in the recent history of humanity, but his theory is polygenetic and fails to address propagation.

The scientific arguments against the traditional understanding of Adam and the fall attack the state before the fall: immortality, integrity, and moral perfection. John Bimson, an expert in Old Testament literature, notes, “The evolution of *homo sapiens* from more primitive hominids is incompatible with the idea that the first human beings fell from a state of perfection.”⁵⁵ This argument is not unfounded, as evolution understands changes in populations to happen over thousands and millions of years, not in an instant as the biblical story presents.⁵⁶ Science wholeheartedly disagrees with the premise that the first humans enjoyed any kind of perfection based on the understanding of evolution through natural selection. George Murphy, an episcopal scholar and pastor, writes, “natural selection presents a serious challenge to the idea that the first humans lived in a sinless state of integrity for any period of time.”⁵⁷ He continues:

Our prehuman ancestors cannot be called ‘immoral,’ let alone ‘sinful,’ because they killed, deceived, were sexually promiscuous, and did other things that would be sinful for their human descendants. But when the first humans... came into being, they would have had strong propensities for the same types of behavior. When they began to become aware that such actions were contrary to God’s will, these creatures would have been moral agents for whom such acts were sinful. But because of their inherited tendencies, it would have been difficult for them to avoid these acts.⁵⁸

Murphy is arguing for a slow development of the awareness of God and His law and the biological “inherited tendencies” were not removed or perfectly ordered when God elevated Adam. The difficulty here is that sin appears to be inevitable. Humanity was created just to fall.

⁵⁵ John J. Bimson, “Doctrines of the Fall and Sin After Darwin,” in *Theology After Darwin*, ed. Michael Northcott and R.J. Berry (Carlisle, UK: Paternoster Press, 2009), 106.

⁵⁶ One could wonder, though, what immediate effects would occur biologically when spirit is fused with matter in the first *homo sapiens* to receive an immaterial soul.

⁵⁷ George L. Murphy, “Roads to Paradise and Perdition: Christ, Evolution, and Original Sin,” *Perspectives on Science and Christian Faith* 58, no. 2 (June 2006): 115.

⁵⁸ Murphy, “Roads to Paradise and Perdition,” 114.

While it may be difficult to maintain the entire state of Original Justice as theorized by Aquinas, the idea that God gave no grace to the first human to at least have a fighting chance at maintaining this new relationship with Him is difficult to reconcile with God's perfection and goodness.

Daniel C. Harlow, an expert in ancient Jewish literature, seconds Murphy's claim that the moral development of the first humans took place over time, not instantaneously.⁵⁹ Harlow criticizes Augustine and implies that our fallen state was inevitable:

evolutionary biology gives us a better explanation than Augustine did of why all humans are united in sin: not because we bear the guilt of a single ancestral couple who fell from a state of original righteousness, but because we share a trans-temporal and universal biological and cultural heritage that predisposes us to sin.⁶⁰

Harlow claims that we are predisposed to sin: but from this thesis spring several other theological issues. If sin is inevitable, is God's image and likeness necessarily flawed in humans? Did God create fallen beings? Are humans truly free beings who can choose God, despite this inevitability to choose not-God or sin? Harlow is removing personal responsibility, chalking sin up to nature, biological factors, or nurture, cultural and societal factors. As C.S. Lewis puts it, people like Harlow claim "what we call badness is an unavoidable legacy from our animal ancestors,"⁶¹ with which Lewis strongly disagrees. Today, sin is a reality linked to our nature *despite* God's loving creation of humanity; attributing to God any responsibility for our sin, even at the very beginning of our creation, brings into question God's love and goodness.

There is a tendency in this field of scientific and historical dialogue with religion to disagree with anything that goes against our modern sensibilities. Gary Anderson, who wrote a

⁵⁹ Daniel C. Harlow, "After Adam: Reading Genesis in an Age of Evolutionary Science," *Perspectives on Science and Christian Faith* 62, no. 3 (September 2010): 180.

⁶⁰ Harlow, "After Adam," 191.

⁶¹ Lewis, *The Problem of Pain*, 54.

book on the history of sin, notes that, “The doctrine of original sin appears woefully ill-matched to modern existence.”⁶² Modern people prefer information that is logical, empirical, and backed by science. Thus, an argument that can claim sin is a biological remnant of our animal past will win over the modern individual better than an argument made from faith using a biblical story, which claims sin entered the world through one person at or very near the dawn of our species. The skepticism of modern man is not a bad thing. A healthy level of skepticism will lead a person to dig deeper and seek to discover what, if anything, makes the skeptical idea worthy of belief. This skepticism becomes bad when it dismisses something before engaging it and seeking out more information about it. Mark Pretorius, an evangelical theologian, is highly critical of the idea that anything in the Bible that contradicts our modern sensibilities must be considered myth. Pretorius notes that this way of thinking leads to a methodology, “in which the criteria for demythologizing the Bible become predetermined views of what is and is not reasonable to modern man.”⁶³ This way of thinking has been contested from the beginning, with the apostles having to refute those who denied the plausibility of the resurrection. While the bible certainly contains stories that are “mythical,” choosing to ignore them or their truth value based on this categorization misses the point that these stories are inspired Revelation and must be interpreted with that in mind.

Not all scholars, however, are willing to agree wholeheartedly with the scientific arguments against Adam and the fall. Their arguments focus primarily on the image of God and

⁶² Gary Anderson, “Necessarium Adae Peccatum: An Essay on Original Sin,” *Pro Ecclesia* 8, no. 3(August 1999): 327. Additional comments from other theologians include: “the traditional understanding of original sin cannot stand alongside the base assumptions of modern culture,” and “Modern science has killed original sin.” See Thomas H. McCall, *Against God and Nature: The Doctrine of Sin* (Wheaton, IL: Crossway Press, 2019).

⁶³ Mark Pretorius, “The Creation and the Fall of Adam and Eve: Literal, Symbolic, or Myth?” *Conspectus* 12, no. 9 (September 2011): 171. A prime example of this method of dismissing biblical events because of their apparent contradiction with modern science and thought is the Jesus Seminar. See Luke Timothy Johnson, *The Real Jesus* (New York City: HarperCollins, 1997).

what makes us distinct from our nearest relative, the chimpanzee. R.J. Berry, a biologist, writes that we must avoid any indication that our humanness is reducible to our genes, given that only 1.6% of our genes are different from the chimpanzee.⁶⁴ He argues that the change from being a member of the biological species *homo sapiens* to a being in relationship with the Creator would not “produce any change in the skeleton which could be detected by anthropologists, nor in the genome which could be found in genetic analysis, nor in culture which might be remarked by archaeologists.”⁶⁵ It is, rather, an elevation to a spiritual realm that man is incapable of reaching through natural means, similar to John Paul II’s argument. Morality, sin, etc. require something more than mere evolution and biology can provide.⁶⁶ John W. Mahoney, an evangelical theologian, points out a flaw in the strictly evolutionary positions in that they all “must affirm that humans evolved physically *and* morally.”⁶⁷ There is little room for an image of God in the naturalistic and anti-spiritual realm of evolutionary science. C.S. Lewis provides a witty reminder to scientists of the limits of their archaeological studies: “Clearly the prehistoric men who made the worst pottery might have made the best poetry and we should never know it.”⁶⁸ He is reminding scientists that their acquisition of knowledge has limits as tools, painting, and pottery left behind do not necessarily indicate character traits and intangible attributes like poetry, morality, and language that would indicate higher levels of intelligence and activities similar to modern man. Science has given strong evidence that requires some modification of the

⁶⁴ R.J. Berry, “This Cursed Earth: Is ‘the Fall’ Credible?” *Science and Christian Belief* 11, no. 1 (1999): 37-38.

⁶⁵ Berry, “This Cursed Earth,” 37.

⁶⁶ Berry, “This Cursed Earth,” 40. In section 3, Fr. Austriaco will argue that there are, in fact, biological and genetic changes that could coincide with this spiritual and supernatural elevation that *homo sapiens* underwent to move from animals to beings in relationship with God.

⁶⁷ John W. Mahoney, “Why an Historical Adam Matters for a Biblical Doctrine of Sin,” *Southern Baptist Journal of Theology* 15, no. 1 (Spring 2011): 72, emphasis not in original.

⁶⁸ Lewis, *The Problem of Pain*, 62.

traditional Catholic understanding of Adam and the fall but not a total abandonment of the doctrine.

We turn now to the critical-literary study arguments for and against Adam and the fall. The strongest argument is that of Harlow, who compares of the story of Adam and Eve with other Mesopotamian myths.⁶⁹ He draws the conclusion that “no one today takes *Gilgamesh*, *Atrahasis*, or *Adapa* as historical writings; therefore, since early Genesis shares the same literary genre as these older works—and even borrows details from them—it should not be taken as historical either.”⁷⁰ In response to Harlow’s analysis of Mesopotamian literature, C. John Collins, an Old Testament scholar, argues that Genesis 1-11 was talking about real events, citing Egyptologist Kenneth Kitchen: “The ancient Near East did *not* historicize myth (i.e., read it as imaginary ‘history’). In fact, exactly the reverse is true—there was, rather, a trend to ‘mythologize’ history, to celebrate actual historical events and people in mythological terms.”⁷¹ Examples might include a great flood⁷² in their region, retold through several generations, becomes a great flood encompassing the entire earth; or an heroic king who protects the people from enemies in spectacular ways becomes a great warrior demi-god. While there may be scientific and reasonable explanations for these events, like geologic or meteorological evidence for the flood or the fact that the heroic king just had a natural gift for military strategy, to the people these stories were worthy of preservation in a mythic way. Collins is contending Harlow’s premise of a purely figurative reading of Genesis, which Harlow defends by arguing that the genre of Genesis 1-11 is “etiological, designed to explain the origins or cause of aspects

⁶⁹ See Harlow, “After Adam,” 182-185 for full arguments as well as detailed tables.

⁷⁰ Harlow, “After Adam,” 184.

⁷¹ Kenneth A. Kitchen, *On the Reliability of the Old Testament* (Grand Rapids, MI: Eerdmans, 2003), 262, 300, in C. John Collins, “Adam and Eve as Historical People, and Why It Matters,” *Perspectives on Science and Christian Faith* 62, no. 3 (September 2010): 150, fn 19.

⁷² Stories like Gilgamesh and Noah.

of human life in the world.”⁷³ Collins is not arguing for a perfectly literal interpretation; rather, he concludes that a middle-ground between literal and figurative is more appropriate for the Genesis narrative. Kitchen’s argument, however, likely ascribes this historical status to more recent events such as a flood or great king from within a few hundred years or less. In order to maintain the traditional understanding of propagation and historicity of original sin, this present study dates the historical events Genesis is based upon to tens of thousands of years before the book was written. The point is still relevant, though, that these stories were thought of as historical by the peoples of that time. A balance is needed between a literal and figurative readings of the text.

Unlike Harlow, McIntyre argues strongly that the scriptures are the basis for theology and only what can be verified by the text can be considered true. He claims that Adam had not eaten from the tree of life; therefore, he was not immortal, and “furthermore, the scriptural references for knowledge, righteousness, and true holiness are from the New Testament where the new self of the Christian, and not the earthly nature of the created Adam, is being described.”⁷⁴ McIntyre denies the effects of the fall because he denies that there was a blessed state from which to fall. Bimson also uses scripture to argue against the effects of the fall: he does not believe that Adam and Eve enjoyed any type of elevated status of splendor, prestige, exaltation, or immortality before their sin, and he denies a type of heaven-like existence before the primal sin.⁷⁵ Harlow draws similar conclusions, claiming immortality was never a trait possessed by the first humans; they did not possess spiritual maturity and moral perfection, citing scriptural interpretations of early Church fathers like Irenaeus and Theophilus of Antioch; and nowhere in Genesis 3 does it

⁷³ Harlow, “After Adam,” 181.

⁷⁴ McIntyre, “The Real Adam,” 166.

⁷⁵ Bimson, “Doctrines of the Fall and Sin after Darwin,” 110.

say that Adam's transgression was passed on to his future progeny.⁷⁶ Harlow is not denying the reality of original sin; rather, he is disagreeing with elements of the doctrine as preserved in the tradition of the Christian church, especially original justice.⁷⁷

Despite McIntyre's stated belief that what is in the Scriptures is all we can say with certainty regarding Adam and original sin, he makes some conjectural arguments that are extra-biblical. First, he argues that before eating from the tree, Adam had no knowledge of good and evil and "was aware of no law and so could not sin (aside from his disobedience of a direct command of God)."⁷⁸ Second, McIntyre argues "it was not necessary for Adam and Eve to disobey God to acquire his image. If they had obeyed God and not eaten of the tree, they would have remained in the garden in communion with God and have acquired the knowledge of good and evil from God himself."⁷⁹ McIntyre is claiming that God gave the direct command not to eat from the tree to *homo sapiens* who had not yet received God's image. He is claiming that it was only *after* eating of the tree that Adam and Eve attained the image of God.⁸⁰ Moral responsibility is not demanded of animals even today, so why would it be demanded of Adam the animal? McIntyre then makes the argument that, had Adam obeyed and not eaten of the tree, God would

⁷⁶ I summarized the arguments from Harlow, "After Adam," 188-189.

⁷⁷ This is one of the difficulties that denominations that rely on scripture and less on tradition run into, namely which of the Church councils and elements of tradition to adopt and which to deny. Anderson notes this tension in E. Oakes, "Original Sin: A Disputation," *First Things* 87 (1998): 16, in Anderson, "Necessarium Adae Peccatum," 327, fn 7, "Even in those denominations that pride themselves on their adherence to the Orthodox dogmas of the once-universal church, the doctrine of original sin is met with either embarrassed silence, outright denial, or at a minimum a kind of halfhearted lip service that does not exactly deny the doctrine but has no idea how to place it inside the devout life." How does one catechize about an event that science claims could not have happened how Genesis presents it? Is it helpful to even speak of the consequences of original sin when we live in a world redeemed by Christ? Does one's church, Protestant or Catholic, lose some of its authority in theological or pastoral matters with its people when it tries to speak about difficult scientific issues? What are the implications for one's faith if his or her church got Adam and Eve wrong? What else might they be wrong about? This doctrine is not an easy one to assimilate into a 21st century worldview that is skeptical of authority and non-empirical data.

⁷⁸ McIntyre, "The Real Adam," 165.

⁷⁹ McIntyre, "The Real Adam," 165.

⁸⁰ McIntyre does say elsewhere, "Before they ate the forbidden fruit, Adam and Eve saw the world as animals." McIntyre, "The Real Adam," 163.

have eventually given man His image. There is a tension between what McIntyre understands is required to be in communion with God and what is actually required to be in communion with God. The divine indwelling in each of us is what allows us to communicate and be in communion with God. To say Adam was merely an animal makes the story of the fall on par with a house cat ripping up your sofa with its claws or a dog refusing to sit when instructed to do so. It is because of Adam's new state as a human being who had God's life breathed into him, Adam's ensoulment, which gives us any insight into the human condition and theological doctrine we understand as original sin.

In his third category, Blocher claims that the "passage [Genesis 2-3] is better preserved, better promoted, indeed liberated, if we break it loose from a contingent, local accident."⁸¹ This category serves as a catchall for various other arguments for and against Adam, the fall, and original sin, generally ones made from a theological perspective as opposed to scripture or science. The first requires a review of terms introduced earlier: monogenism and polygenism. Monogenism is the belief that all human beings are in some way biologically descended from a single ancestor, Adam. As such, we are born as a body-soul composite like him and carry some trace of his original sin, which wounds our nature and separates us from God. In contrast, one common type of Christian polygenism claims that God bestowed his image on different populations of hominids in different places around the world at the same or different times.⁸² A derivation or perhaps compromise of polygenism to monogenism is that God bestowed his image not on simply one person, Adam, or two people, Adam and Eve, but a large, indeterminate number of hominids living in one connected group or geographic area which allowed for close

⁸¹ Blocher, *Original Sin*, 37-38.

⁸² Collins, "Adam and Eve as Historical People," 156.

contact between the members.⁸³ It is this second definition, which might be called pseudo-polygenism, that is relevant here.

The argument for Adam as the federal head of the first, small group to which God gave his image supports some type of original sin without necessitating a single person or couple be the only human beings present on earth. R.J. Berry places Adam as a Neolithic farmer around ten thousand years ago (10kya).⁸⁴ Pretorius seconds this dating, adding that the location was likely Mesopotamia given that locations like Assyria and the Euphrates River are used in the narrative.⁸⁵ We have the setting, now let us look at the arguments. Collins offers support for Derek Kidner's theory that

after the special creation of Eve, which established the first human pair as God's vice-regents and clinched the fact that there is no natural bridge from animal to man, God may now have conferred his image on Adam's collaterals to bring them into the same realm of being. Adam's federal headship of humanity extended... outwards to his contemporaries as well as onwards to his offspring, and his disobedience disinherited both alike.⁸⁶

After transforming the two *homo sapiens* who became Adam and Eve into human beings, God chose to extend humanity to Adam's contemporaries. Berry contends that once we abandon the idea of one single ancestor, "we can readily see that God could have gone on to put ('breathed') his image into all members of the species of *H. Sapiens* alive at the time of Adam."⁸⁷ This argument does correlate with some of Paul's arguments in Romans 5, as both Berry and Pretorius note that Adam's federal headship directly contrasts with Christ's second federal headship. This maintains some level of literal interpretation of the Genesis narrative, as "interpreting this narrative [Genesis 2-3] as non-literal significantly dilutes the coming of Christ in his redemption

⁸³ Collins, "Adam and Eve as Historical People," 156.

⁸⁴ Berry, "This Cursed Earth," 42.

⁸⁵ Pretorius, "The Creation and the Fall of Adam and Eve," 173.

⁸⁶ Derek Kidner, "Genesis," *Tyndale Old Testament Commentary* (Downers Grove, IL: InterVarsity Press, 1967), 30, in Collins, "Adam and Eve as Historical People," 160.

⁸⁷ Berry, "This Cursed Earth," 39.

of *all* humankind as the second *federal* head of the human race.”⁸⁸ Just as one man, Christ, really attained salvation for all, so too did one man, Adam, really bring condemnation upon all.

While this theory seems to be an acceptable compromise of the scientific evidence and monogenism, pseudo-polygenism presents more questions than viable answers. The premise of their argument seems to be that Adam was simply the chief or representative of many and because of his leadership position or intermediary position between God and the other human beings, his guilt passed on to them as well. Scholars like Berry and Pretorius are not clear as to how or when the other humans became human, which contradicts the Church’s teaching of propagation. If God gave all Adam’s tribesmen His image *before* the primal sin, then imputing Adam’s guilt on them all seems even more unjust than the present doctrine of original sin, which argues our guilt comes from our common descent from the one who sinned, not a tenuous kin or clan relationship. Theoretically, these human beings could have remained sinless, with God’s assistance of course, and remained in perfect relationship with Him even if this one Adam could not keep from sinning. On the other hand, if God chose to give His image to Adam’s tribesmen *after* the primal sin, then he necessarily created damaged persons, as Adam’s tribesmen were not human yet and did not possess a human nature until they received God’s image within them. Thus, the moment God gave them His image, they were necessarily fallen because they shared in the nature of Adam. A third alternative could claim that all of Adam’s tribesmen, whether they received their nature before or after Adam’s sin, could have remained sinless but did not and Adam’s sin has no more effect than any other sin in history. There is also the question of the other *homo sapiens* dispersed throughout the world by 10,000 BC, as Adam had no connection to

⁸⁸ Pretorius, “The Creation and the Fall of Adam and Eve,” 161.

them at all. The theological deficiencies of pseudo-polygenism are evident and create different questions about human origins than the traditional understanding of Adam and original sin.

Bimson takes a different approach. He asks “what was the nature of that first sin,” and answers by arguing that it all comes down to an interpretation of the knowledge of good and evil, which he claims is “the capacity to distinguish between right and wrong, not in an abstract moral sense but specifically to decide *what is good and bad for human beings*.”⁸⁹ Summarizing several other scholars, Bimson notes that the first human’s sin was one of mistrust of God, which manifested itself in disobedience in some way. God was seeking to protect humanity from something it was not ready to handle and the result was fear, shame, and discord.⁹⁰ Bimson also considers a much earlier moment for the fall, claiming that the fall was the symbolic turning away from God to the self that happened at the dawn of human consciousness, perhaps with anatomically modern humans 200kya or more recently with the dawn of abstract thought 60-70kya.⁹¹ Bimson’s placement of the fall is different from many of the earlier scholars, and allows for fewer difficulties with the traditional understanding of original sin, as will be demonstrated in Chapter III. Several notable figures hold similar positions about the dawn of human consciousness being the moment of the fall, including C.S. Lewis, Benedict XVI⁹², and Francis Collins, the scientist who was in charge of the Human Genome Project. While Bimson’s fall is merely a symbolic turning away from God, these three men hold to some kind of historic, actual fall.

⁸⁹ J. Goldingay, *Old Testament Theology. Volume 1: Israel’s Gospel* (DownersGrove, IL: InterVarsity Press, 2003), 132, in Bimson, “Doctrines of the Fall and Sin after Darwin,” 112.

⁹⁰ Bimson, “Doctrines of the Fall and Sin after Darwin,” 112.

⁹¹ Bimson, “Doctrines of the Fall and Sin after Darwin,” 116-118.

⁹² Ratzinger writes “The first ‘thou’ that—however stammering—was said by human lips to God marks the moment in which spirit arose in the world. Here the Rubicon of anthropogenesis was crossed,” Joseph Cardinal Ratzinger, *Dogma and Preaching*, (Chicago, IL: Franciscan Herald Press, 1985), in John Farrell, “Saving Adam: Evolution & Original Sin.” *Commonweal* 145, no. 12 (2018): 24.

While Bimson's reference to the dawn of human consciousness seems a strong point for his theory and shares similarities with other theories that are in line with traditional Catholic understanding of original sin, he uses two key points from Fr. Raymund Schwager, SJ that contradict Catholic teaching. First, Bimson summarizes Schwager: "For Schwager the primal sin can therefore be understood at one level as a choice to continue in ways that had been natural (indeed vital for human evolution), but which became unnatural in the context of newly expanded consciousness."⁹³ The primary issue with this idea is, again, the lack of clarification about God's activity. Perhaps human consciousness evolved via natural selection but at some point, God needed to intervene by adding spirit to what was just a material body, therefore making man a spiritual and moral being. An expanded consciousness doesn't necessarily make one aware of one's essential relationship with God. While Bimson never denies God's activity and revelation, he certainly doesn't emphasize it in his approach. The second key point of Schwager's that Bimson supports is the denial that there is an original sin that affects us all; rather, Schwager argues for a mimetic theory of transmission as opposed to the dogmatic teaching of transmission through propagation.⁹⁴ For Schwager, humanity's continual sinfulness is a result of nurture and imitation of the world, not an ontological defect. While it is true that humans learn how to sin through imitation of the world, it is not the first or primary way that humans enter into rebellion against God. Schwager seems to reduce original sin to a learned skill rather than an inherited defect, suggesting that, theoretically, one could remain sinless if no one were around to teach otherwise. After sin entered the world, there is no possible way to remain free of sin outside of God's grace. Mimetic theory is in direct opposition to the doctrine of

⁹³ Bimson, "Doctrines of the Fall and Sin after Darwin," 117.

⁹⁴ Bimson, "Doctrines of the Fall and Sin after Darwin," 118.

original sin expressed at Trent and ever since maintained by the Church, especially the teachings regarding propagation.

The last argument I will look at is that of the Church father Irenaeus. Generally a trusted source of early Christian doctrine, the Church in the West has rejected Irenaeus' understanding of Adam, the fall, and original sin. Bimson summarizes Irenaeus: "Irenaeus believed that the first human beings were not created morally and physically perfect, because at the beginning they were childlike and could not receive perfection... In Irenaeus' view, therefore, there was no fall from perfection but a failure to ascend by the correct route."⁹⁵ For Irenaeus, Adam was like an ignorant child who needed time and nurturing to develop into the being he was destined to become. Thus, there was no fall; rather, man chose the immediate, selfish, and God-less path to maturity which brought with it suffering, death, and alienation from God. A maturity achieved through experience of sin rather than grace to do the good. But what else would one expect of a child? The problem with the Irenaeian model is "if Adam were only a child morally then the fall is more of a mistake based in human ignorance. Sin, then, is not such a big deal."⁹⁶ There is some appeal in this theory, as one could plausibly surmise that the first humans to receive revelation from God, barring miraculous infused knowledge and understanding, would be rather childlike and unsure of how to follow this God who speaks with them. However, culpability for sin becomes limited without a developed understanding of right, wrong, and the consequences of the sin. Irenaeus offers valuable insight in other areas, but his interpretation of Genesis 2-3 never found a foothold in the Western church.

For Irenaeus, sin is an inevitable mistake to be expected of a child; however, Mahoney makes it clear sin is an intrusion, an outsider in God's creation: to claim sin was inevitable or a

⁹⁵ Bimson, "Doctrines of the Fall and Sin after Darwin," 119.

⁹⁶ Mahoney, "Why an Historical Adam Matters," 72.

childish mistake is not substantiated by the creation narratives of Genesis 1 or Genesis 2-3. God made Adam in His image, a sinless one. Adam clearly understood his task to obey God and he was ashamed when he had committed the offense. Michael Williams writes, “The Bible does not describe an eternal struggle between good and evil. Sin is not an eternal principle, a necessary or structural element of either the universe or human beings, or the product of God’s creative intent.”⁹⁷ This is the danger of attributing to God, in any way, through evolution or otherwise, any responsibility for sin entering creation. We are not as God intended, as C.S. Lewis notes rather graphically: “We actually are, at present, creatures whose character must be, in some respects, a horror to God, as it is, when we really see it, a horror to ourselves... and I notice that the holier a man is, the more fully he is aware of this fact.”⁹⁸ These issues should not be studied in a vacuum; rather, they should be viewed in light of religious experience, prayer, and ultimately the redemption of Christ. Anderson writes, “Original sin is not a self-contained philosophical doctrine, but depends on the religious experience of redemption. The moment we isolate the sin of Adam from this broader framework we lose its larger meaning.”⁹⁹ It does no good to talk about how wretched humanity is or how much of a horror we must be to God if there is no good news, no hope of overcoming that wretchedness through the grace and power of Christ. Reflecting on the story of the prodigal son, Anderson writes, “The gospel narrative brings home, in a powerful way, that the depth of human sin is seen most clearly from the vantage point of one shown mercy... Or to reverse the matter, the more powerful one’s sense of redemption the more profound is one’s sense of sinfulness.”¹⁰⁰ The traditional Catholic understanding of original

⁹⁷ Michael D. Williams, *Far as the Curse is Found: The Covenant Story of Redemption* (Phillipsburg, NJ: P&R, 2005), 65, in Mahoney, “Why an Historical Adam Matters,” 75, fn 80.

⁹⁸ Lewis, *The Problem of Pain*, 55.

⁹⁹ Anderson, “Necessarium Adae Peccatum,” 332.

¹⁰⁰ Anderson, “Necessarium Adae Peccatum,” 334.

sin maintains that this sinfulness is a state all human beings share and one which cannot be overcome through ordinary human means. Investigations into the science of human origins cannot fully explain this shared state. To better understand the origins of sin we need to better understand why humanity needed redemption—and why we are worth saving.

Chapter II

This chapter will present the work of one scientist, one philosopher, and one theologian who wrote monographs about the science and theology of human origins. They were chosen because of their unique approaches to the questions surrounding Adam, the fall, and original sin. Each section will offer background on the author being discussed, the key points of his or her argument, and what is helpful or harmful when comparing his or her ideas to the traditional Catholic understanding of original sin, especially the historicity and propagation of original sin.

Daryl Domning – Selfishness as Original Sin

Daryl P. Domning¹⁰¹ is a paleontologist, anatomist and evolutionary biologist currently in the Anatomy department at the School of Medicine at Howard University. He specializes in fossil records, specifically the link between semi-terrestrial, aquatic mammals dating back 50 million years and modern-day manatees and dugongs. In the late 90s and early 2000s, Domning developed an interest in the intersection of science and religion, especially concerning evolution. He participated in a science-religion discussion group with the Washington Theological

¹⁰¹ Biographical information taken from Howard University, “Faculty Profiles,” at Howard University College of Medicine (2020), www.medicine.howard.edu; also Daryl P. Domning, *Original Selfishness: Original Sin and Evil in the Light of Evolution*, commentary by Monika K. Hellwig (Burlington, VT: Ashgate Publishing, 2006), third cover.

Consortium and continues to dialogue with scientists and theologians about the intersection of science and religion. Domning first approaches the question of Adam and the fall from a scientific and naturalistic perspective, then later uses his scientific findings to reformulate and discard different aspects of the religious tradition about Adam, the fall, and original sin. His treatment is thorough, well-researched, and represents a significant theory that has gained traction among other scholars in this area.¹⁰² He disagrees with monogenism and the traditional Catholic doctrine of original sin, arguing that his interpretation of the theological and scientific data regarding Adam and the fall “renders moot the entire issue of monogenism, and lays to rest the theological need (still strongly felt by many Christians) to postulate a literal Adam and Eve.”¹⁰³ Therefore, there is a need to present his research and offer a rebuttal.

Domning opens his work by arguing for the implausibility and incorrectness of any position that holds in high-regard the theological teachings about Adam and the fall: some thinkers accept

geologic time, evolution, and even human evolution, while simultaneously retaining belief in a literal Adam, Eve, and Garden of Eden. But such a hybrid view (reflecting the persistent influence of *Humani Generis*...) depends on an untenably superficial understanding of evolution and its pervasive theological implications.¹⁰⁴

Domning thus directly challenges those who uphold both the Church’s position and current biology, people like Fr. Nicanor Austriaco whose ideas will make up chapter three of this work. Domning makes several more arguments against any type of theological interference in the realm of science: “Theistic evolutionists... often advocate... a process of evolution by ‘saltation’: sudden ‘leaps’ to new levels of complexity, brought about by means that remain mysterious (and

¹⁰² Patricia Williams. See also earlier scholars’ insistence above of man’s animal nature being primary and the cause or root of sin.

¹⁰³ Domning, *Original Selfishness*, 6.

¹⁰⁴ Domning, *Original Selfishness*, 20.

are, by implication, supernatural).”¹⁰⁵ The two most common moments are the origin of life and human emergence from non-human ancestors.¹⁰⁶ Domning specifically rejects John Paul II’s suggestion that man arose because of an ‘ontological leap forward.’¹⁰⁷ According to Domning, humankind has no special, privileged place in the evolutionary chain, just more high-level adaptations, which is a difference of degree, not kind.

Along with this refutation of theistic evolution and any supernatural intervention in our development, Domning also denies descent from an original person or couple, which is *the* tenet of monogenism and original sin. Using the best theory available, Domning argues there was a population bottleneck of *homo sapiens* 100-200kya. However, the smallest that bottleneck could have gotten was around 4,000 breeding pairs in a total population of 15,000. Thus, Adam could not be one of two people left to populate the earth; rather, if we argue for an Adam at all, he must have been one among many.¹⁰⁸ This is because without a minimum number of ancestors, current genetic diversity would be impossible.¹⁰⁹ Based on these two significant pieces of scientific evidence, Domning concludes the “evidence makes clear that monogenism... is not tenable, and it should no longer be relied on as a presupposition for theology, or accepted as a valid inference

¹⁰⁵ Domning, *Original Selfishness*, 42; Domning’s analysis of sudden leaps, or saltation, being mysterious, and therefore supernatural, is contradicted by recent scientific findings. “Lynn Margulis has presented a convincing case for *symbiogenesis* that was a major leap... Margulis proposed that mitochondria were originally independent bacteria cells. The major change occurred when a larger cell swallowed a smaller bacterial cell but did not digest it. Instead, the two cells formed a new symbiotic whole... Margulis’ work is causing many biologists to reconsider saltation theory.” Philip Rolnick, *Origins: God, Evolution, and the Question of the Cosmos* (Waco, TX: Baylor University Press, 2015), endnote 12, 203. Regardless, a theistic argument reliant upon consistent miraculous intervention by God moves the science/religion dialogue backwards rather than forwards. See Austriaco’s chapter on “A Thomistic Response to Intelligent Design Proposal,” in Austriaco, *Thomistic Evolution*, 183-187.

¹⁰⁶ Domning, *Original Selfishness*, 42.

¹⁰⁷ Domning, *Original Selfishness*, 57; See also Pope John Paul II, Address to the Pontifical Academy of Science (1996).

¹⁰⁸ Domning, *Original Selfishness*, 72.

¹⁰⁹ Domning, *Original Selfishness*, 73.

from other theological propositions.”¹¹⁰ Domning clearly has in mind here the traditional Catholic teachings of original sin.¹¹¹

Domning also takes issue with the supposed detrimental effects of the fall, which suggested humans enjoyed a prior state of elevated intelligence, moral uprightness, and lives free of suffering or death. He contends that “physical suffering is a necessary consequence of animals’ ability to feel pain. This ability is in itself a good thing, with important survival value: in fact, an adaptation.”¹¹² So feeling pain is a part of creation, and, getting even more specific in light of the biblical narrative,¹¹³ Domning notes that suffering during childbirth is a necessary consequence of our highly evolved body:

human childbirth... is painful and risky to a degree unique among mammals. This came about in human evolution because of conflicting selective pressures for efficient bipedal locomotion in adults (which calls for a narrow pelvis) and for a larger brain in their offspring (which requires a wider pelvis for the child’s head to pass through).¹¹⁴

After showing how pain and suffering are natural to life, Domning then attacks death. He notes that programmed cell death, called *apoptosis*, is an essential part of the created world. He gives the examples of a woman shedding her uterine lining and deciduous trees losing their leaves and highlights that “all these deaths of cells are essential to the normal living and functioning of the entire organism.”¹¹⁵ Later in this study, Austriaco will agree with this point, but Domning does present a strong argument. Determining which elements of the narrative to take as literal and which to read figuratively is a challenge in this area of science and religion dialogue. It is more

¹¹⁰ Domning, *Original Selfishness*, 74.

¹¹¹ See H. Haag, *Is Original sin in Scripture?* (New York City: Sheed and Ward, 1969), 107, in Domning, *Original Selfishness*, 74, fn 7.

¹¹² Domning, *Original Selfishness*, 77.

¹¹³ To the woman he said, “I will greatly multiply your pain in childbearing; in pain you shall bring forth children.” Genesis 3:16, NRSV.

¹¹⁴ Domning, *Original Selfishness*, 78.

¹¹⁵ Domning, *Original Selfishness*, 79.

likely the death described in the Genesis narrative is not physical death, but the spiritual death that accompanies sin and the loss of relationship with God. Regardless, Domning's point is that God created a world that included suffering and death well before man committed the first sin. This point is not disputed in the Church any longer and does not affect the two main ideas being defended in this work: the historicity and propagation of original sin.

Believing that he has refuted monogenism and an elevated status before a primordial fall, Domning argues that selfishness is a necessary part of evolution as evidenced in our close primate relatives and our own evolutionary development. He claims "biological adaptation, biological diversity, and evolution itself are, and have always been, the results of individual characteristics or behaviors that tend to preserve and perpetuate the individual's own genes...to put it crudely but not really anthropomorphically, the results of selfishness."¹¹⁶ This selfishness is all pervasive. Domning cites several primatologists and studies that demonstrate our nearest biological ancestors, primates like chimpanzees and bonobos, exhibit selfish behaviors benefiting either the individual directly or the group to which one claims membership. Actions like bullying, theft, deliberate deception, murder, serial killings, infanticide, cannibalism, and prideful behavior are all present, and not that uncommon, among these near relatives of ours.¹¹⁷ Noting that it might be uncomfortable to notice these behaviors in our own lives, Domning writes plainly, "we must apply to these data the principle of parsimony: barring evidence to the contrary, detailed resemblances between species are most possibly and economically explained by inheritance from a common ancestor, rather than by independent acquisition of the similar traits."¹¹⁸ Domning argues that because the actions we call sin today are evident in our

¹¹⁶ Domning, *Original Selfishness*, 101.

¹¹⁷ Domning, *Original Selfishness*, 102-104.

¹¹⁸ Domning, *Original Selfishness*, 105.

evolutionary family tree, then the selfishness of “sin” has been around longer than any one Adam: it predates him by millions of years.¹¹⁹

One might ask when these biologically programmed (though not deterministic) actions leave the realm of acceptable natural behavior and become actions one must take responsibility for in light of moral culpability:

The harmful acts themselves, however, only acquired a moral dimension (became ‘actual sin’) when committed deliberately by self-conscious creatures aware that they were harming others; and the evolution or infusion of this freedom of moral choice is what made us human in the theological sense.¹²⁰

He does seem open to some kind of infusion of moral knowledge from some outside source, perhaps God. However, based on the rest of Domning’s work, a more naturalist explanation favoring evolution rather than divine intervention seems his preferred option. Domning also notes that the acts themselves did not change, but man’s intellectual adaptations allowed him to foresee the future good or harm these actions would have upon oneself or others and then make a decision after weighing the outcomes. In a sense, one attained “the godlike Knowledge of (that is, sovereignty over) Good and Evil,”¹²¹ but from evolution and *not* from a mythical tree.

Domning rejects moral agency as a divinely given gift; it is merely a byproduct of evolution. He compares morality to mental tool using in that morality “serves to facilitate the individual’s success in society, and incidentally makes social life more safe, tolerable, and pleasant for all.”¹²² Just as sin is a by-product of animal selfishness, the ability to do the good is also a by-product of evolution. Morality is simply one adaptation that man developed to a higher degree than the apes, not a divinely given gift infused into *homo sapiens*.

¹¹⁹ Domning, *Original Selfishness*, 107.

¹²⁰ Domning, *Original Selfishness*, 118.

¹²¹ Domning, *Original Selfishness*, 227.

¹²² Domning, *Original Selfishness*, 120.

Domning now presents a new model for the doctrine of original sin that does away with Adam and the fall and instead finds the pervasive selfishness found in all of nature to be the true primal sin. Domning recognizes the objections some may have to his using of the term “selfish” to describe the behavior of non-human animals without a developed concept of self; he contends that there is in fact an “historical continuity between the amoral self-centered behavior of non-human life and our own morally ‘selfish’ acts.”¹²³ He demonstrates that the amoral, self-centered behavior is found in the process of natural selection and evolution itself:

In the course of perpetuating and reproducing themselves, individuals compete for whatever resources are in short supply, and through this competition they are exposed to selection... Selfish behaviors of some sort, whether in a literal or an abstract sense of ‘behavior’ (and in the evolutionary but not necessarily the psychological sense of ‘selfish’), is the mainspring of Darwinian evolution.¹²⁴

With this understanding of selfishness in mind, Domning creates a working definition of original sin, calling it “*that need for salvation (by Christ) which is universal to all human beings and acquired through natural generation.*”¹²⁵ These minimum requirements are met in the traditional Catholic understanding of original sin, but Domning significantly differs from the doctrine.

Domning argues that

the *overt selfish acts* which, in humans, demonstrate the reality of original sin (by manifesting it in the form of actual sin) do indeed owe their universality among humans to natural descent from a common ancestor. This ancestor, however, far from being identifiable with the biblical Adam, must be placed in the very remote past, indeed at the very origin of life itself...¹²⁶

There is some precedence to associate all sin with selfishness, as selfishness could be seen as synonymous with pride, the queen of all vices.¹²⁷ The fall itself is the single greatest act of pride

¹²³ See Domning, *Original Selfishness*, 31, fn 17.

¹²⁴ Domning, *Original Selfishness*, 101.

¹²⁵ Domning, *Original Selfishness*, 140.

¹²⁶ Domning, *Original Selfishness*, 140.

¹²⁷ “St. Thomas, however, endorsing the appreciation of St. Gregory, considers it [pride] the queen of all vices, and puts vainglory in its place as one of the deadly sins. In giving it this pre-eminence he takes it in a most

in the Catholic Tradition. Domning is arguing that actual sin is a derivation of original sin, which is that selfishness programmed into us from our earliest, single-celled ancestor; however, actual sin came about much later in the timeline, not at the same time as original sin as taught by the traditional doctrine of the fall. This is his biggest disagreement with the traditional Catholic understanding of original sin. According to Domning, the Church rejects any biological considerations for our sinfulness and need of salvation.¹²⁸ The Church places the first actual sin at a moment in time and claims that first actual sin also introduced systemic and ontological evil into all human beings, which leads to concupiscence and disordered desires. Through this placement, the Church is able to maintain the universality of original sin through propagation from that first sinner, an argument that Domning rejects.

Domning's theory rests on a distinction he makes between the universality of sin and the source of sin's moral character:

*The human acts themselves share a genealogical unity, but their sinfulness proceeds from a source that is logically and temporally separate from their common genealogical origin, much more recent, and not necessarily unitary... This explicit logical differentiation, and radical historical decoupling, of the source of original sin's universality (the common origin of life) from the source of its moral character (human free will) is the essence of what I here propose as new.*¹²⁹

Essentially, what Domning is doing is decoupling the universality of sin, which has its roots in evolution from the first single-celled organism, and the moral agency of human beings, which came about much later. He uses this to show how the Catholic understanding of concupiscence

formal and complete signification. He understands it to be that frame of mind in which a man, through the love of his own worth, aims to withdraw himself from subjection to Almighty God, and sets at naught the commands of superiors. It is a species of contempt of God and of those who bear his commission. Regarded in this way, it is of course mortal sin of a most heinous sort. Indeed St. Thomas rates it in this sense as one of the blackest of sins." Joseph Delaney, "Pride." *The Catholic Encyclopedia*, Vol. 12 (New York: Robert Appleton Company, 1911) <http://www.newadvent.org/cathen/12405a.htm>.

¹²⁸ Domning, *Original Selfishness*, 140.

¹²⁹ Domning, *Original Selfishness*, 141, italics in the original.

as an inclination to sin is invalid because the inclination to act selfishly did not appear at the fall, but rather at the origins of life itself.¹³⁰ Noting that his formula retains some elements of the Catholic doctrine, Domning writes that he has retained “identification of original sin with some definite trait that is passed on by ‘propagation’ or ‘generation’ as part of our human nature, and not merely by imitation. I have identified this trait as the biological ‘selfishness’ that is literally programmed into the genes of all living things”¹³¹ For Domning, our salvation is necessary because of the selfishness programmed into us from the beginning. The genes of the first single-celled organism caused it to act selfishly in order to survive and reproduce and we inherited selfishness from it. It was not a primal sin performed by an ancient human ancestor that doomed us all.

Domning’s ideas carry with them some problematic implications. By decoupling original sin, which Domning argues is biological selfishness, from the first actual sin to occur in human history, it seems that the first human being already carried within him original sin, so what did that first actual sin actually cause? Sin, here, seems inevitable as there was never a time when *homo sapiens* existed without this inclination to selfishness, or at least the first human had no divine assistance to overcome this inclination. By giving the first living being this inclination to selfishness and then having that selfishness get passed on to humans billions of years later, which in turn will lead them to commit actual sins in rebellion against God, one might be tempted to attribute to God the origins of sin. Additionally, if morality developed through evolution, which was only successful because of this innate selfishness, then what role does morality play in how one interacts with God? In Domning’s theory, moral agency was either given by God without sufficient grace to do the good and overcome one’s biological selfishness, therefore making sin

¹³⁰ See Domning, *Original Selfishness*, 145.

¹³¹ Domning, *Original Selfishness*, 143.

inevitable and God's creation imperfect¹³²; or, moral agency developed naturally via evolution and God had no direct part in making known to man the laws necessary for relationship with Himself. While he does affirm the historicity of original sin, in that it did occur in history, his placement at the beginning of life creates more difficulties than keeping original sin at the dawn of humanity.

One thing that is lacking in Domning's theory is a thorough reflection on that first actual sin and its implications for the rest of humanity. Domning is limiting propagation to a biological trait passed down to offspring through genes. By contrast, theologians like Rahner and Austriaco interpret propagation in a metaphysical sense, not limiting it to genetic reproduction. While it is true that selfishness is a trait passed down through genes, original sin is tied to not only to human genes, but also one's entire being, body and soul. Adam's first sin damages the relationship between God and man irreparably, at least irreparable by us alone. This inability to be in perfect relationship, to truly atone for our sins and achieve our destiny in Heaven, is Adam's state after his sin. That is what is passed on by propagation, not simply the inclination to sin. If selfishness is all that is passed on, then no one is doomed until he or she reaches an age of moral maturity and succumbs to the selfishness in one's genes. Locating original sin in our genes means the first human was doomed before he even committed the first actual sin and there was never a time before Christ when humans were in perfect relationship with God. However, if the first actual sin was what truly caused this irreparable damage to the human/divine relationship, then why does locating selfishness along the evolutionary timeline help me understand my present state if it all points back to Adam and not the first single-celled organism? Domning doesn't disagree with the

¹³² See earlier arguments stating that sin is entirely alien and exterior to God's good creation as revealed in Genesis 1-3.

traditional understanding of the historicity of original sin, but refusing to place it at the dawn of humanity, as the Church does, presents theological difficulties.

Domning's theory does share new insights about Adam and Eve. Domning believes God knew the first human being that came about through evolution, and perhaps some divine inbreathing,¹³³ would be limited in will-power and moral culpability. Far from seeing their first offense as worthy of damnation for the rest of human history, God "surely viewed their moral blunders with forbearance... seeing them as a practically-necessary consequence of the process that had raised them to the human plane."¹³⁴ In a world where human beings evolved from simpler organisms, Domning sees no other possibility than for man to fall away from his Creator. With this line of reasoning, Domning appears to fall in line with the Irenaean camp. Adam and Eve were moral children and, "in short, the 'Fall' was inevitable; the old selfish behavior was freely chosen, predictably though not deterministically, by all our early human ancestors, as well as by ourselves today."¹³⁵ Because of this inevitability, Domning claims "God knew from the beginning that... humans would need divine help to transcend what selfish evolution by itself could do for them... They would need a divine example of altruism," Jesus.¹³⁶ It follows that sin was inevitable and the Incarnation was predestined from the beginning of time.

Domning's theory is well-researched and presents a strong case that challenges the traditional Catholic understanding of original sin. While his criticisms of some of the Church's teachings are valid¹³⁷, his theory presents difficulties that are difficult to reconcile with the elements of the tradition that have been deemed essential. Domning's innovation is the

¹³³ Though again, Domning seems to favor a naturalistic approach and not divine intervention

¹³⁴ Domning, *Original Selfishness*, 150.

¹³⁵ Domning, *Original Selfishness*, 152.

¹³⁶ Domning, *Original Selfishness*, 151.

¹³⁷ His criticism of *Humani Generis*; concupiscence, pain, suffering, and death only occurring after the first actual sin; the state of original justice.

distinction between the inclination to sin, what we now call concupiscence, and the first actual sin committed in history. Biological selfishness is the root of all behaviors we now call sin. These behaviors are no longer necessary, though, as man's purpose is no longer limited to hedonism and reproduction like his animal peers. Biological selfishness contrasts with man's higher purpose—communion with God. According to Domning, the first actual sin was committed when man's awareness of this new purpose was rejected in favor of the biological selfishness present in his genes. In seeking to remove an historical Adam and fall, Domning created problems similar to scholars above who sought to jettison traditional doctrine in favor of novel scientific data.

Patricia Williams – A Sociobiological Approach to Adam and the Fall

Patricia Williams writes primarily about the philosophy of science and the relationship between scientific and theological knowledge. She received her Ph.D. in philosophy from the University of Guelph in Ontario and specializes in the philosophy of biology and evolution.¹³⁸ Williams opens her book, *Doing without Adam and Eve*, with three tests of truths, all beginning with “C,” and then applies those tests to theology, science, and scripture in order to see which deserves the most weight and, as such, should be the starting point for the others. These three tests of truth are coherence, correspondence, and consilience. Coherence is dependent upon logic and “it says if a theory is logically coherent, it is true.”¹³⁹ If the statement is logical and structured, it is coherent; the degree to which it is logically presented will determine the level of truth one can attribute to that statement. Correspondence “says that a statement is true if it

¹³⁸ Biographical information taken from Patricia A. Williams, *Doing without Adam and Eve: Sociobiology and Original Sin*, (Minneapolis, MN: Fortress Press, 2001), x-xi.

¹³⁹ Williams, *Doing without Adam and Eve*, 21.

corresponds to the way the world is... If I tell you that the apple is in the cooler, and you look for an apple there and find one, then you will credit my statement with being true.”¹⁴⁰ This test of truth looks for evidence for the claims it is making. Little or no evidence means the statement carries little to no truth-value. The last test of truth is consilience: “A consilience of inductions unifies scientific theories that originally seemed to apply to separate fields, although the term *consilience* can be used loosely to indicate the consolidation of evidence in any field.”¹⁴¹ If something discovered in genetics correlates to a recent archaeological find, then those pieces of data stand stronger together because of their relationship. The more a piece of data correlates to other pieces of data, the stronger the data becomes. Evolution is a prime example of consilience.

Williams uses an additional word, also beginning with a “C,” which is not a test of truth but does form part of her argument in this work: canalization. Canalization is a typical reaction to a catastrophe (ex. earthquake, disease, storm) that is demonstrated across geographic, temporal, and cultural divides.¹⁴² A person experiencing a devastating tsunami in the Philippines will react the same way a person experiencing an earthquake in Europe will, generally following this pattern: “First people construe the event as a catastrophe; second, they consult a mediator; third, the mediator explains the catastrophe as the result of transgression; fourth, the people make atonement.”¹⁴³ The example of canalization relevant for this study is the death of Jesus Christ atoning for the fall of Adam that affects all humanity.¹⁴⁴ Following the canalization theory, Williams notes that early Christians, when trying to understand the humiliating and excruciating death of God made man, sought out an equally devastating catastrophe: “By the third century,

¹⁴⁰ Williams, *Doing without Adam and Eve*, 23.

¹⁴¹ Williams, *Doing without Adam and Eve*, 29.

¹⁴² Williams, *Doing without Adam and Eve*, 20.

¹⁴³ Williams, *Doing without Adam and Eve*, 20.

¹⁴⁴ Williams, *Doing without Adam and Eve*, 21.

Genesis 2:4b-3:24 had become the central text Christians accepted as describing the catastrophe they sought.”¹⁴⁵ Williams uses this idea of canalization to strip the early Christians’ understanding of the fall of any cosmic meaning. They were simply just responding to the catastrophe of the Passion how any group or culture would respond to a similar tragedy.

Williams uses the tests of truth and canalization to delegitimize the Catholic understanding of Adam, the fall, and original sin in order to show how the scientific and sociobiological explanation is better suited to understand human sinfulness. She finds fault with Aquinas’ explanation of the doctrine of original sin: “much of Aquinas’ discussion fails the test of correspondence to Scripture,”¹⁴⁶ highlighting that there is no mention of human faculties, sanctifying grace, or original justice in Genesis; additionally, the distance between humans’ pre and post-lapsarian state is too large.¹⁴⁷ Aquinas is inventing these concepts to add to the myth of the fall that accounts for the necessity of Jesus’ redemptive death. She argues Aquinas’ treatment “of a catastrophic fall fits the canalization of catastrophe and atonement.”¹⁴⁸ However, Williams concedes that Aquinas’ arguments are only partly canalized, they pass the coherence test, and partially correspond to the Scriptural narrative.¹⁴⁹ For Aquinas, the fall is not *only* an explanation for why Christ came, but has meaning outside the catastrophe/atonement theme known as canalization. In addition to Aquinas, Williams also examines Genesis 1-9 in light of her tests of truth. She claims that Genesis 1-3 fails the coherence and correspondence tests as one cannot hold two contradictory accounts of creation as both being true nor do Genesis 1-3 reflect the way the world actually is.¹⁵⁰ Genesis 1-9 also fails the correspondence test as the fossil record and

¹⁴⁵ Williams, *Doing without Adam and Eve*, 33.

¹⁴⁶ Williams, *Doing without Adam and Eve*, 56.

¹⁴⁷ Williams, *Doing without Adam and Eve*, 56.

¹⁴⁸ Williams, *Doing without Adam and Eve*, 58.

¹⁴⁹ Williams, *Doing without Adam and Eve*, 58.

¹⁵⁰ Williams, *Doing without Adam and Eve*, 64-66.

biogeography tell us that all the animals dispersing from Mount Ararat after the flood is not how the world actually works.¹⁵¹ Williams prefers scientific data as a better explanation of Adam and the origins of sin in the world.

While Darwin's *Origin of Species* focuses specifically on evolution of species by natural selection, in the 1930's through the 1960's, there was an orchestrated effort to synthesize and bring into one theory the many different areas of scientific research concerning the origins and development of life on Earth. Scientists brought together natural selection, genetics, geology, physics and the Big Bang, paleontology, and more recently, sociobiology. All these different disciplines have been combined to make evolution, as John Paul II concedes, "more than an hypothesis." This is an example of consilience. What started as the theory of evolution by natural selection has developed into a multi-disciplinary, comprehensive theory of evolution explaining the origins and development of all life on earth. Sociobiology is Williams' discipline and the primary tool she uses to support her arguments for "doing away with Adam and Eve."¹⁵²

Williams notes in detail that evolution passes the three tests of truth.¹⁵³

Williams defines sociobiology as, "the scientific study of animal social behavior from a genetic and evolutionary perspective."¹⁵⁴ There is an emphasis on analyzing behavior. The relevant behavior here is altruism as opposed to selfishness:

In sociobiology, altruism is a technical term referring to observable behavior affecting reproduction. Altruistic behavior enhances another organism's prospects

¹⁵¹ Williams, *Doing without Adam and Eve*, 67; 70. The problem with this way of analyzing scripture and theology is that there are teachings that aren't explicitly mentioned in the scriptures that are in fact central to the Christian faith. The Trinity is not mentioned explicitly in the scriptures, but is a central dogma of the faith.

¹⁵² For a more detailed and informative treatment of the New Synthesis, see Williams, *Doing without Adam and Eve*, 72-78.

¹⁵³ For more on Williams arguments for evolution and the tests of truth (coherence, correspondence, consilience), see Williams, *Doing without Adam and Eve*, 104-120. However, this study agrees evolution is true and, therefore, will bypass this part of Williams' work.

¹⁵⁴ Williams, *Doing without Adam and Eve*, 77.

for reproduction while diminishing the altruist's own reproductive potential...
 Biologists explain the evolution of altruism by the theory of *kin selection*.¹⁵⁵

The goal of evolution is to pass on one's own genetic material to the next generation. Altruistic behavior goes against one's own reproductive goals by promoting another organism's genes. Kin selection is often used to explain this altruism. Kin selection is the tendency of organisms to assist relatives who share genetic material with them, often at the expense of other organisms with less or no shared genetic material. However, most altruism in nature is actually false-altruism; it is actually a product of evolutionary selfishness: "Some sociobiologists think altruistic behavior is ultimately selfish because it promotes the survival of copies of the altruist's genes."¹⁵⁶ The apparent altruism in nature most often occurs with one's kin, passing on genes similar to one's own; thus, the act is inherently selfish. This selfishness is similar to Domning's theory.

Another evolutionary adaptation relevant to this study is the idea of freedom. Williams notes that freedom is present in nature in different degrees. The example she gives is of a bird, the killdeer¹⁵⁷, who when presented with a threat to her nest, will make a choice of how best to protect the eggs. If there is a fox or other predator, the adult bird will fly away from the nest and act crippled, enticing the predator away from the nest. If there is a non-predator, like a cow and the threat is an inadvertent hoof, the bird will make a conspicuous display, making it clear to the cow that it should stay away from that spot. The adult bird considers various factors in a given situation and is free to choose from several courses of action. The urgency of the choice she *must* make to protect the lives of her offspring limits her freedom. Humans, on the other hand, have much more freedom than a bird.

¹⁵⁵ Williams, *Doing without Adam and Eve*, 126.

¹⁵⁶ Williams, *Doing without Adam and Eve*, 130.

¹⁵⁷ Information summarized from Williams, *Doing without Adam and Eve*, 145-146.

Williams points out that with our increase in freedom comes an increase in the possibility for conflict, both within ourselves and with others: “we do not lack freedom. Instead, we have more than we can handle... By exercising our freedom, we often increase the conflict in our lives.”¹⁵⁸ Our increased freedom allows us to take in more data, think about possible outcomes, and make complex decisions that have a greater fallout than ‘will my nest, and therefore my offspring, remain undisturbed or not.’ However, our freedom is not limited to merely practical and physical choices. Freedom also “brings spiritual conflicts, the ability to hate and reject God when our religion commands love and obedience... Our extensive freedom is a source of sin.”¹⁵⁹ The choice to love or hate my neighbor, to stockpile resources or give to the needy reflects a conflict between our natural, biological needs and the true altruism our God demands. When looking at sin, Williams homes in on concupiscence:

Sociobiology cannot proffer a definition of it [sin], but it [sociobiology] paints a clear picture of our desire for temporal goods... Natural desires in themselves cannot be sinful because they lead us to garner resources so we can live and reproduce, activities that help individuals thrive and our species survive. Only inordinate or inappropriate desires can be sinful. Inordinate and inappropriate desires spring from natural ones that become distended and distorted in various ways and for various reasons.¹⁶⁰

Our desires are good because they are a part of our biology, but it is their disorder that leads to sin. Her primary argument is that simply desiring things is not sin, neither actual nor original, because it is a part of our very nature. For example, sexual reproduction is a good desire and our genes tell us with whom we should try to reproduce through our sexual desires. Our genes remove our sexual desires for close relatives, like siblings, and those who do have a desire for

¹⁵⁸ Williams, *Doing without Adam and Eve*, 146.

¹⁵⁹ Williams, *Doing without Adam and Eve*, 146; 148.

¹⁶⁰ Williams, *Doing without Adam and Eve*, 148; 151.

incest are seen as having an inordinate desire.¹⁶¹ This is right in line with the traditional understanding of original sin. It was not Adam's desires that caused him to sin, it was his disordered desire for autonomy apart from God that led to sin. Williams is right in contending that greater freedom leads to greater conflict, and that conflict is often a source of sin.

Williams surmises two things about God based on a brief analysis of the history of our universe and planet: "First, the creator seems to rejoice in development and the accelerating increase of variety and structure... Second, the creator seems to enjoy creating structures that are increasingly autonomous."¹⁶² For Williams, these are God's primary purposes for creating. There is some theological support for these principles, as Aquinas notes that God's goodness is more perfectly represented in the multitude of creation, so that what is lacking in one is made up for in another.¹⁶³ Williams claims that the evolution toward *homo sapiens* exemplifies the two principles of development and increasing autonomy, noting five evolutionary innovations that human beings inherited from our primate ancestors but exhibit in different ways.

The first innovation is symbolic language, which is the only innovation she argues is actually different in kind from other organisms and thus a unique evolutionary attribute of human beings.¹⁶⁴ Using complex language, men and women increase variety through the creation of new words, languages, and concepts. Men and women also display more autonomy through the expression of ideas and opinions unique to oneself and distinguishing between "I" and "you."¹⁶⁵

¹⁶¹ Williams, *Doing without Adam and Eve*, 150.

¹⁶² Williams, *Doing without Adam and Eve*, 163.

¹⁶³ *Summa Theologiae*, I, q. 47, a. 1, resp., trans. English Dominican Province, "For He brought things into being in order that His goodness might be communicated to creatures, and be represented by them; and because His goodness could not be adequately represented by one creature alone, He produced many and diverse creatures, that what was wanting to one in the representation of the divine goodness might be supplied by another. For goodness, which in God is simple and uniform, in creatures is manifold and divided and hence the whole universe together participates the divine goodness more perfectly, and represents it better than any single creature whatever."

¹⁶⁴ Williams, *Doing without Adam and Eve*, 165.

¹⁶⁵ The next two paragraphs are my summary of the section "Locating Ourselves" in Williams 164-168.

The second innovation is the understanding of the self. While human beings have an advanced understanding of self, there is evidence of the self present in modern day chimpanzees.¹⁶⁶ This recognition of my “self” as opposed to other “selves” establishes my autonomy and distinguishes me from others, while developing my self increases variety in the world. The third innovation is moral agency. Williams, citing Darwin,¹⁶⁷ claims that “our moral capacities arise from our ancestors’ social nature.”¹⁶⁸ Morality stems from an understanding of one organism’s relationship with other organisms. In order to be around others, one cannot be harming others consistently; at the very least, one must cooperate with others.¹⁶⁹ This leads to the fourth innovation, culture. Culture includes the laws, both implicit and explicit, we make and the communities we build. In order to be a member of a community, there needs to be some kind of community consciousness and agreement, a kind of reciprocity. We see this in the communities of modern-day apes as well, rewarding those who support the community and punishing those who harm it. The fifth innovation is the ability to envision a future for ourselves, which “is a concomitant of our symbolic language, sense of self, culture, and morality.”¹⁷⁰ I recognize I have a self, I distinguish my self from other selves using language like “I” and “you,” I recognize that we should treat our selves in a certain way and avoid other behaviors against our selves, and because of this commonality, we form a community or culture. As part of this culture, we look to

¹⁶⁶ The most popular example of this being the “mirror test,” where a chimpanzee will “recognize” the image in the mirror as itself. For comparison, human beings will begin to recognize themselves around 16-24 months. The mirror test, however, is not conclusive about whether chimps recognize a “self” as humans do, but simply that they can recognize the mirror is a reflection of their body. See Annamarie W. Huttunen, Geoffrey K. Adams, and Michael L. Platt, “Can self-awareness be taught? Monkeys pass the mirror test-again,” *Proceedings of the National Academy of Sciences* 114, no. 13 (2017) 3281-3283.

¹⁶⁷ “The following proposition seems to me in a high degree probable—namely, that any animal whatever, endowed with well-marked social instincts, the parental and filial affections being here included, would inevitably acquire a moral sense or conscience, as soon as its intellectual powers had become as well, or nearly as well developed, as in man.” Charles Darwin, *The Descent of Man, and Selection in Relation to Sex*. (Princeton, NJ: Princeton University Press, 1981), 71-72. in Williams, *Doing without Adam and Eve*, 165.

¹⁶⁸ Williams, *Doing without Adam and Eve*, 165.

¹⁶⁹ Prime examples of this include pack animals like wolves and gorillas.

¹⁷⁰ Williams, *Doing without Adam and Eve*, 167.

what we would like to become, whether it be smarter, stronger, faster, in possession of more territory, or more populous, and we align the ideals of our community to achieve those future goals. Williams notes we should not think that God is done because he made his crowning achievement, humanity; rather we should strive to continue developing creation and be co-creators with God. This is the future that we should be striving to achieve.

The question then becomes if, according to Williams, our entire social lives, symbolic language excluded, can be derived from our common primate ancestors, how does sin (there is no fallenness) fit into evolution? Williams contends, “Sociobiology suggests that personal sin is inherent in our good and necessary nature.”¹⁷¹ Sin is not the result of some ancient ancestor. For Williams, there is no fall. For her, sin is inevitable and is a direct result of our evolved selves: “Having a self allows us to self-reflect, create morality, and control our undesirable impulses. Yet, having a self also means that we can be egocentric. Egocentricity lies at the root of sin.”¹⁷² There is a conflict in creation: on the one hand, humanity’s intelligence and autonomy have allowed it to become more in the image and likeness of God, while on the other hand, this intelligence and autonomy cause us to focus on ourselves over and above God. Williams claims, “Sociobiology makes sense of God’s readiness to accept and forgive, for it says the very capacities and talents that make us human are the capacities and talents that enable us to be evil.”¹⁷³ We cannot have these high-level adaptations without the capability (and culpability) to do evil. Williams does not explain when the transition occurs where all of the five innovations have reached the degree that makes us truly human beings and not just higher primates.

¹⁷¹ Williams, *Doing without Adam and Eve*, 173.

¹⁷² Williams, *Doing without Adam and Eve*, 174.

¹⁷³ Williams, *Doing without Adam and Eve*, 192.

Williams controversially claims, “If God loves us, it cannot be merely our good part, because there is no good part. We are whole beings, good-and-evil beings, not good beings who became evil, as the doctrines of original sin declare.”¹⁷⁴ God loves the whole person, but He does not love sin. This is a theological statement, and thus one should expect it to pass the test of truth with other theological statements. Her statement fails the test of correspondence to scripture, as God declares creation “very good,” which humanity would not be a part of were we good-and-evil beings.¹⁷⁵ Williams also claims that sin is a disorder, implying that there is some inherent order¹⁷⁶ within us that should be followed and this order, given from God, is good. If sin is inherent to our nature, which God created good, then how can it also be a disorder of that same nature?

Williams does provide a new approach to Adam and original sin. Her tests seek to eliminate ideas that are contrary to truth. Her approach from a sociobiological perspective offers some strong evidence that it is our social behavior that sets us apart from our less-evolved ancestors, with symbolic language being the pinnacle of our advantages. (In chapter III below, Fr. Nicanor Austriaco will also use language as a cornerstone for his argument). Williams is also attuned to the complexity and possibility for sin that freedom brings to our lives. Because of this freedom, she recognizes that the very fact humans have a self predisposes us to choose that self over another self or even God, which is at the root of the traditional Catholic teachings of original sin. She attempts to show how human beings are not defined by our evil actions or status, nor are we perfect either.

¹⁷⁴ Williams, *Doing without Adam and Eve*, 192.

¹⁷⁵ See Genesis 1:27; 31.

¹⁷⁶ Perhaps Natural Law.

Many of these insights are commendable, but her theory has some difficulties as well. Williams approaches her study from a scientific perspective, only later bringing in theological ideas to try and reconcile them with her scientific data. This presents some difficulties in regards to the traditional understanding of original sin. Williams wants to do away with Adam and Eve, but doesn't provide a satisfactory replacement for the origins of human relationship with God or the origins of sin. She seems to be suggesting that sin is a part of our very nature and always has been because of our evolution from lesser beings. For her there has never been a time that humanity enjoyed a perfect relationship with God. Williams does not address other key ideas of the teachings of original sin because for her there was no original sin committed by an early ancestor of humanity. By doing away with Adam and Eve, she denies the historicity of original sin, she denies that humanity was good and then became evil after the fall, and she offers no support or rebuttal to the idea of propagation. Williams does not engage the theology of original sin in a way that either replaces or enhances the doctrine. Williams is making an effort to bring together a difficult doctrine with scientific theory. The desire to continue bringing science and theology into dialogue is noble, but oftentimes theology is thought of as the student who must learn from the master, science. Williams follows this pattern. The idea that God created humanity and destined us to be in rebellion against Him runs contrary to divine love and mercy. Williams' suggestion that God willed our rebellion is inconsistent with thousands of years of religious reflection on the character of God.

Karl Rahner – Hominisation and Evolution

Karl Rahner was an important 20th century figure in Catholic Theology, often pushing the envelope with regard to traditional Catholic teachings. Rahner's contributions to the Church's understanding of human origins display a willingness to remain faithful to the magisterial

teachings, especially as presented in *Humani Generis*, while also presenting ideas that may seem controversial. His contributions are inquisitive and open to revision. This is likely a result of his participation in the “Görres-Gesellschaft, an association focused on the interdisciplinary dialogue within the sciences from a Catholic perspective.”¹⁷⁷ Rahner saw the dialogue in this group “to be less a dispute over correct methodology, but rather an exchange of concepts.”¹⁷⁸ One can see a change in Rahner’s own position as the years go by: he begins with a strict adherence and defense of monogenism in *Reflections on Monogenism* in 1961 but shifts to openness to some form of polygenism in later writings like *Evolution and Original Sin* in 1967 and *Sin of Adam* in 1965-1967. Regardless, Rahner sees his approach to the question of human origins as adhering to the magisterial teachings offered since the theory of evolution entered the world in the mid-19th century.

Rahner’s most comprehensive work is *Hominisation: The Evolutionary Origin of Man as a Theological Problem*. Rahner claims that science and theology each carry priority in their respective areas of study, noting that revelation can only claim priority over science in a way that is *norma negativa*¹⁷⁹: “The magisterium can only reject a scientific theory if directly or indirectly it contradicts a revealed doctrine.”¹⁸⁰ The relevant disagreement in our study is how much the theory of evolution challenges the revelation contained in Genesis 2-3, which is the basis for the traditional Catholic doctrine of original sin, as interpreted by the Church’s magisterium. Rahner’s approach to this tension is to examine what makes man “man,” in order to reconcile the theological and scientific arguments, thus the title of *Hominisation*.

¹⁷⁷ Oliver Putz, “Evolutionary Biology in the Theology of Karl Rahner,” *Philosophy and Theology* 17, no. 1 (January 2005): 87.

¹⁷⁸ Putz, “Evolutionary Biology,” 94.

¹⁷⁹ See Karl Rahner, *Hominisation: The Evolutionary Origin of Man as a Theological Problem*, trans. W.J. O’Hara (New York City: Herder and Herder, 1968), 17.

¹⁸⁰ Rahner, *Hominisation*, 25.

The key concept for Rahner is the unity of spirit and matter in man. Rahner contends finite spirit, can never be thought of in such a way that in order to attain perfection it must move away from material reality, or that its perfection increases in proportion to its distance from matter... Spirit must be thought of as seeking and finding itself through the perfection of what is material. This... is only conceivable if by their very natures spirit and matter are not simply juxtaposed as alien, heterogeneous realities... Matter, therefore, is the outward expression and self-revealing of personal spirit, in the finite realm... Christianity... positively requires this kinship and mutual relationship of finite spirit and matter in respect to origin, history, and goal.”¹⁸¹

Rather than a spiritualism or materialism, Rahner sees the relationship between spirit and matter as symbiotic. Rahner is dismissing dualism in humans: spirit needs matter to manifest itself and show forth its perfection and matter finds its fulfillment in union with spirit. This is shown most exemplarily and beautifully in man.

For Rahner, the creation of man’s soul comes about because there was a material cause present in the evolutionary history of man: *homo sapiens* reached the point, in regards to matter, where spirit could unite with it in the way God had intended from the beginning.¹⁸² In this sense, it seems that man brought about his own indwelling of the spirit by evolving naturally and independent of God’s direct activity, which causes Rahner to ask how it is possible for man to produce something higher, metaphysically speaking, than what he is: a material creature. Essentially, how does man receive his soul? Rahner asks if we must think of God’s creation of the soul at the beginning of human history as an extraordinary occurrence; or if perhaps the creation of the soul is brought about by man, with God as the first cause just as he is similarly the first cause of all being and creation?¹⁸³ Rahner answers, “Only by including God and his action is the self-transcendence by the creature possible which occurs in the passage from *potential* to

¹⁸¹ Rahner, *Hominisation*, 59, 61.

¹⁸² See Rahner, *Hominisation*, 63.

¹⁸³ See Rahner, *Hominisation*, 67.

genuine *actus* which involves an increase in being.”¹⁸⁴ We can only act as secondary causes because God, the First Cause, gives us that capacity. In this way, perhaps God gave the first humans the capacity to transcend at the proper time from animal to man. God’s action is still present as the first cause to our second cause. God remains the ground of the self-movement from only-matter being to matter-spirit being and cognition serves as the primary vehicle for this self-transcendence.¹⁸⁵ Rahner claims God’s activity of soul creation need not be viewed as “miraculous”, or predicamental as Rahner puts it, so long as the activity can be “ascribed to a cause within the world.”¹⁸⁶ The cause in the world that Rahner argues for is procreation:

The parents are the cause of the one entire human being and so also of its soul, because...¹⁸⁷ that not only does not exclude, but positively includes, the fact that the parents can only be the cause of the human being in virtue of the power of God which renders possible their self-transcendence... This procreation belongs to that kind of created efficient causality in which the agent by virtue of divine causality essentially exceeds the limits set by his own essence.¹⁸⁸

If one follows Rahner’s argument for the unity of matter and spirit, especially as it manifests itself in human beings, then the idea that each soul is not miraculously created is not so far-fetched. Rahner is arguing against the idea that the parents cause *just* the matter for their child and have no participation in causing the soul.¹⁸⁹ God remains the First Cause as the source of all being and giving all matter its potential to act in the world. Human beings take this potential and cooperate with God to bring about new spirit-matter beings. Putz observes that Rahner sees the

¹⁸⁴ Rahner, *Hominisation*, 77-78.

¹⁸⁵ See Rahner, *Hominisation*, 88; 82.

¹⁸⁶ Rahner, *Hominisation*, 98.

¹⁸⁷ Rahner includes here a brief parenthetical note referring back to his argument of God as First Cause and man as second cause.

¹⁸⁸ Rahner, *Hominisation*, 99.

¹⁸⁹ Rahner’s position seems to favor Traducianism, which has been condemned by the Church. See Dubray, Charles, "Traducianism." *The Catholic Encyclopedia*, Vol. 15 (New York: Robert Appleton Company, 1912) at <http://www.newadvent.org/cathen/15014a.htm>. However, a sympathetic reading of Rahner seems to suggest a compromise between total creationism (God creates the soul with no input from the parents) and total traducianism (human beings are able to create their child’s soul from their own souls). This treatment of Rahner is brief, and will not address this larger issue.

universe as “evolving in a self-transcending self-realizing process to the point where God can self-communicate with the cosmos.”¹⁹⁰ He adds that “Rahner sees man essentially as the telos to which evolutionary history developed... Man’s goal is the universe’s goal, since man is the universe come to self-consciousness. The overall goal of the finite universe is immediacy with God.”¹⁹¹ Evolution is a sign of matter’s ability to march towards greater complexity and greater being. It finds its climax in the union of matter with spirit in its highest form when *homo sapiens* crossed the threshold held in the mind of God from the beginning of time and brought about by His agency cooperating with man’s. Rahner is attempting to satisfy both the theological camp, which argues for God’s direct involvement in the creation of human souls, and the scientific camp, which tends away from any miraculous intervention in nature. This has the danger, however, of portraying God as the clockmaker who simply wound up the spring and stepped back to watch time progress without any further involvement.

Given this new way of thinking about how *homo sapiens* elevated themselves, with God’s agency as foundational to their own agency, Rahner then looks at how his theory could help us understand Adam, the fall, and original sin. Rahner generally resides in the “Adam as federal head of humanity” camp described above, with some notable differences. He has also abandoned his insistence on monogenism, arguing that polygenism or a pseudo-polygenism could work better and shouldn’t be condemned by the magisterium as it pertains to original sin.¹⁹² Rahner begins by discrediting the idea that Adam was the only one who evolved or “self-transcended” in the original community of hominids, noting that even just ceding that Eve evolved as well, in order to remain faithful to the biblical narrative, is a form of polygenism.

¹⁹⁰ Putz, “Evolutionary Biology,” 93.

¹⁹¹ Putz, “Evolutionary Biology,” 92.

¹⁹² See Karl Rahner, “Evolution and Original Sin,” in *The Evolving World and Theology*, ed. Johannes Metz (New York City: Paulist Press, 1967), 73.

Thus, if we are willing to give humanity to Eve as well, who is to say there were not others in the community who also broke through the barrier to humanity?¹⁹³ In Rahner's view, *homo sapiens* did not become human because of a special intervention by God in creation; rather, material bodies reached the point at which God had willed for spirit to perfectly unite with them in the form of souls. Rahner does not elaborate on how exactly this happened. Fr. Austriaco will demonstrate later that the odds of even just two material bodies advancing in the same way simultaneously via evolution to the level God intended for spirit to unite with it are infinitesimally small. So, while Rahner's efforts here are not directly in conflict with the Church's teachings, they do not truly reconcile the science with the theology.¹⁹⁴

Rahner also has a unique way of understanding how original sin was propagated through generation in a singular way. He argues that this original community of hominids formed a "biological-historical unity," listing several reasons such as their common genetics, procreation within the tight-knit community, and human and personal intercommunication.¹⁹⁵ In the beginning of humanity, this community formed a real unity in which one member could affect all others. Because of this biological-historical unity, one man or woman *could* have been the downfall of the entire community, but there also certainly could have been multiple instances of guilt simultaneously within the community.¹⁹⁶ This is not important, though, as Rahner views original sin not as the passing on of the subjective guilt of Adam (not necessarily the first man to self-transcend, but the first man to sin) to the community or his descendants; rather, the "personal guilt of one individual within the original group of human beings can be thought of as

¹⁹³ See Rahner, "Evolution and Original Sin," 66.

¹⁹⁴ It should be emphasized that Rahner is writing at a time when there was little knowledge of the genetics of human origins. Rahner's attempt here does deserve credit for being at least a plausible explanation for how original sin could exist in a polygenetic account. It does though, as stated, not resolve all the difficulties.

¹⁹⁵ See Rahner, "Evolution and Original Sin," 67.

¹⁹⁶ See Rahner, "Evolution and Original Sin," 68-69.

blocking the grace-transmitting function which accompanied human descent from this group.”¹⁹⁷ When man self-transcended and united spirit and matter within himself, he received God’s Spirit to sanctify him and put him in personal relationship with God. God’s revelation came to the entire community, not just one member. When man committed the first sin and broke the relationship with God, this spirit-transmitting ability through procreation was lost, never to be restored again.¹⁹⁸ This is original sin for Rahner.¹⁹⁹ As for those innocent members of this biological-historical unity, they “can (or must) be thought of as grace-transmitting insofar as they are members of this one mankind (of this original covenant of God with mankind).”²⁰⁰ The real unity of the community means that the ability to transmit grace to one’s offspring is lost because of the actions of one of the individuals in this same community. After this initial fall of the entire community, the traditional Catholic understanding of propagation from one to all through reproduction is easily reconcilable with Rahner’s theory. However, the first sin’s ability to affect those not born of Adam, but simply in community with him, does seem to contradict how the Church understands propagation as the passing on of wounded human nature to one’s offspring. The others who did *not* sin were not propagated by sinful parents, so their damaged nature would have been caused in a different way than how the rest of us inherited original sin.

Rahner’s arguments rest on two major premises concerning unity. First is the relationship between matter and spirit, especially as manifested in man. Second is the unity of the original

¹⁹⁷ Rahner, “Evolution and Original Sin,” 69.

¹⁹⁸ “The factor of human descent should have the function of providing the medium for this holiness to be imparted to man. Now his failure to do this is only conceivable as the outcome of the guilt of those men who existed at the beginning of the human race and provided the origins of the rest.” Karl Rahner, “Sin of Adam,” in *Theological Investigations: Volume XI*, trans. David Bourke (New York City: Seabury Press, 1974), 257.

¹⁹⁹ “That state of analogous guilt which is called original sin is not a projection of the personal state of guilt ‘of Adam’ to us, but is constituted by the absence of the holy Pneuma which, prior to any moral decision, sanctifies man interiorly when it is present, or would sanctify him if it were so, but the absence of which correspondingly, prior to any personal decision, constitutes an analogous state of guilt, seeing that this deficiency consists not merely in the fact that the holy Pneuma is not present, implies a deficiency which is the opposite of the situation which ought to exist.” Rahner, “Sin of Adam,” 257.

²⁰⁰ Rahner, “Evolution and Original Sin,” 70.

community of *homo sapiens* who became human. Rahner problematically gives too much agency to man and his ability to self-transcend and become more than what he is. After man has received spirit, it seems more than plausible that man bestows spirit upon his offspring as well without God's miraculous intervention but rather God working through human agency. However, the first human being had no such origin from spirit-matter parents and the tendency to give a creature like *homo sapiens* the ability to self-transcend without some intentional and temporal divine invitation seems overly naturalistic. Rahner's efforts here were speculative, though, and his language was never polemical or adversarial. He does uphold the historicity of the fall and he attempts to reconcile the Catholic understanding of propagation and the single origin of original sin with the best scientific data he had available. However, as our scientific knowledge has grown and our understanding of Church doctrine has developed, a new speculative effort is needed, one that remains faithful to monogenism and the doctrine of original sin expressed at Trent.

Chapter III

Nicanor Austriaco – Thomistic Evolution and the First Speaking Primate, Adam

Fr. Nicanor Pier Giorgio Austriaco, O.P., Ph.D., S.T.D.²⁰¹ is a biologist and theologian who defends the historicity of Adam and the fall and does so while maintaining monogenism. He was ordained a Dominican Priest in 2004, received his Ph.D. in Biology from M.I.T and his S.T.D. from the University of Fribourg in Switzerland in 2015. Fr. Austriaco currently works as a professor of Biology and Theology at Providence College in Rhode Island. His education and

²⁰¹ All biographical information taken from "Our Team of Dominican Friars and Scholars," at *Thomistic Evolution* (2020), www.thomisticevolution.org.

background qualify him to speak about Adam and the fall in both a scientific and a theological context. His methodology draws upon Aquinas' *Summa Theologiae* as well as the most up to date and reliable scientific data. He endeavors to remain faithful to the Church's magisterium, especially as presented in the Catechism of the Catholic Church and documents²⁰² released by the Vatican. His background as a scientist gives Austriaco's theology added potency. He writes that evolution is a reliable scientific theory and then demonstrates why it is reliable using biological evidence, including the fossil record, organismal biology, molecular biology, and biogeography. He also makes it clear that while he fully supports the scientific data for evolution, he vehemently opposes the philosophy of Neo-Darwinism that has sprung out of this theory.²⁰³ His desire is to synthesize science and theology without sacrificing the truth and beauty of either, as well as maintain a metaphysical worldview absent in thinkers like Harlow, McIntyre, and Williams. Let us first examine why Austriaco finds his contemporaries' revisions concerning Adam and the fall troubling and then look at his own approach to reconciling the supposed dissonance between the science of human origins and the theology of Adam, the fall, and original sin.

He begins by addressing what he considers a fundamental error of his contemporaries—jettisoning theology and instead relying on evolution as the only guiding principle: “They begin their reflections with the brute fact of evolution and move from there to a revisionist theological account that is at odds with the received tradition.”²⁰⁴ He then gives three reasons why their revisionist theological accounts fail. First, “their theological proposals lead to contradictions

²⁰² Documents like *Humani Generis* and the document from the Council of Trent concerning original sin.

²⁰³ For more on his defense of evolution see Nicanor Pier Giorgio Austriaco, O.P., James Brent, O.P., Thomas Davenport, O.P., and John Baptist Ku, O.P., *Thomistic Evolution: A Catholic Approach to Understanding Evolution in the Light of Faith*, 2nd ed., (Providence, RI: Cluny Media, 2019), 131-139.

²⁰⁴ Nicanor Pier Giorgio Austriaco, O.P., “A Theological Fittingness Argument for the Historicity of the Fall of *Homo Sapiens*,” *Nova et Vera*, 13, no. 3 (2015): 665.

within the Christian worldview.”²⁰⁵ Proposals by Domning, Harlow, and Williams support the theological opinion that “sin flows from human nature as God had intentionally created it,”²⁰⁶ and we are prone to sin from the outset of our origins. This is in conflict with the idea that God created man in His image and likeness, good and free of sin until man used his freedom to disobey God.

Second, the revisionist theories are “problematic for churches and ecclesial communions that take the truth claims of doctrine seriously.”²⁰⁷ Austriaco notes that the doctrine of original sin has been professed *de fide* by the Church at Trent and, as such, is a defined doctrine requiring a Catholic’s full assent.²⁰⁸ He cites the Catechism to remind his readers of the obedience due to the Church’s magisterium and their role as receivers and interpreters of revelation.²⁰⁹ These revisionist theories present difficulties to the key elements of the Catholic understanding of original sin. Protestant believers and theologians also struggle with the dissonance between their doctrinal convictions and these new theories. Revisionist theologians are “altering our self-understanding of how God guides and governs his people.”²¹⁰ Rather than attributing a high truth-value to doctrines of the Church, revisionist theologians reduce these doctrines’ truth-value and instead favor the scientific evidence contrary to these doctrines. They favor the hands-off, “clockmaker” god of the Enlightenment over the omnipotent God of revelation. Lastly, “the revisionist approach is particularly troubling because it is unwarranted... one can bring an evolutionary perspective into conversation with theology without jettisoning essential dogmatic

²⁰⁵ Austriaco, “Theological Fittingness Argument for the Historicity of the Fall,” 665.

²⁰⁶ Austriaco, “Theological Fittingness Argument for the Historicity of the Fall,” 665.

²⁰⁷ Austriaco, “Theological Fittingness Argument for the Historicity of the Fall,” 665.

²⁰⁸ Austriaco, “Theological Fittingness Argument for the Historicity of the Fall,” 665-666.

²⁰⁹ Austriaco, “Theological Fittingness Argument for the Historicity of the Fall,” 666; *Catechism of the Catholic Church*, 2nd ed. (Washington, DC: United States Catholic Conference, 2000), 2034-2035.

²¹⁰ Austriaco, “Theological Fittingness Argument for the Historicity of the Fall,” 666.

truths.”²¹¹ Austriaco suggest that revisionist theologians see issues with the essential dogmatic truths of original sin, specifically its propagation and historicity, and rather than seeking to maintain these truths and explore the scientific theories relevant to these doctrines, they see the dogmas as unsuitable and the science as normative. Austriaco is unique because of his desire to hold both the theological doctrine and the scientific data in equal regard. Austriaco’s position provides a scientifically plausible solution that doesn’t come with the theological difficulties of current polygenetic theologies.

Austriaco’s framework is based on the idea that God is the source of all being and the cause of all things that occur in the universe: “God must be unlike any other being in the world if he is to be its cause... Aquinas concluded that God alone must be the act of existing itself. Or to put it another way, God’s essence—what God is—is his existence.”²¹² As the source of all being, God is totally distinct from his creation, yet intimately connected with it. For example, the Big Bang did not happen on its own; rather, God caused whatever matter and forces were present in the singularity at the beginning of space-time. To limit God in any way ignores this significant relationship between creator and creature, source and product. This relationship is one based on nature:

Consequently, because [a creature] possesses its own nature, a creature is able to act according to that nature without violating the Creator-creature relationship. In this way, the creature can claim some autonomy in its actions... Thus, for Aquinas, God is the primary cause giving existence to creatures who, acting according to the powers of their natures that God gives them, are true secondary causes.²¹³

God is the source of our natures, but what a creature chooses to do with and because of that nature is independent of God. Because of God’s nature-giving abilities, he is every creature’s

²¹¹ Austriaco, “Theological Fittingness Argument for the Historicity of the Fall,” 666.

²¹² Austriaco et al., *Thomistic Evolution*, 150.

²¹³ Austriaco et al., *Thomistic Evolution*, 151.

primary cause.²¹⁴ Because God is the source of the creature's nature, anything the creature does with said nature is, in one sense, caused by God and, in another sense, independent of God.

Since God is existence itself, we can look at how he creates through evolution and remains the cause of it all. The example Austriaco uses is the FOXP2 gene,²¹⁵ which is a key gene in our ability to speak and understand language and also plays an important part in Austriaco's entire theory. He offers this plausible scenario: The mutation in the FOXP2 gene that facilitates language "occurred when a particular DNA repair molecule in a particular proto-human being who was anatomically human but who did not have the ability to speak, repaired a DNA strand damaged by high-energy radiation in a particular place and time in Southern Africa."²¹⁶ So, how does God act in this seemingly random mutation?

God acts in this event as first cause because he gives the DNA repair molecule and the DNA strand their existence as particular kinds of things with particular natures... In introducing the genetic mutation into the DNA strand, the DNA repair molecule was functioning according to its God-given and God-guided nature.²¹⁷

DNA molecules can only do those things which they are programmed to do, and the source of their programming is known in the mind of God and thus willed by Him. "Moreover, the mutagenic event that made human FOXP2 what it is today, can be said to have been ordained from all eternity," because God made the DNA repair molecule error-prone and knows it exists at a particular time and place and caused it (in the technical sense) to exist at a particular time and place.²¹⁸ Austriaco does ask, though, how a contingent event, one which could have been

²¹⁴ Additionally, Austriaco notes God is also the efficient, material, formal, and final cause of the creature. See Austriaco et al., *Thomistic Evolution*, 152.

²¹⁵ For an example of the importance of the FOXP2 gene, see Staes, N., Sherwood, C.C., Wright, K. *et al.* FOXP2 variation in great ape populations offers insight into the evolution of communication skills. *Sci Rep* 7, 16866 (2017).

²¹⁶ Austriaco et al., *Thomistic Evolution*, 152-153.

²¹⁷ Austriaco et al., *Thomistic Evolution*, 153.

²¹⁸ Austriaco et al., *Thomistic Evolution*, 153.

otherwise, is ordained by God from all eternity? He responds that because God is outside of space and time, *all* temporal events are “simultaneously in the eternal here and now.”²¹⁹ This Thomistic framework allows God to be the cause of all actions, even events contingent on the agency of His creatures. Given our conversation about original sin, one might ask how God is *not* the cause of the first sin if God is still the cause of contingent actions in his creatures. Human beings were given an autonomy unique to all God’s creatures. Part of our nature is to exercise this autonomy; however, we used our autonomy in a way contrary to the way God intended. The original sin was our rejection of the image God gave us in favor of our own way. While God is still the cause of our nature and the freedom that is inherent with it, the choice to reject that nature using this freedom is what constitutes the original sin. God could not be responsible for rejecting Himself. Sin itself is not actually something, but, following Augustine, is rather a lack of charity, and therefore an act absent of God. God is the cause of creation, but sin is outside of creation and not caused by God. For Austriaco, it is imperative that one understands God’s being and God’s agency when examining creation in science or theology.

Now that we have a basic understanding of God’s agency, we can examine how God acts in the world and why he chooses one way over another to achieve His ends. Aquinas examines God’s actions and finds reasons it was fitting or appropriate that God chose this action over that action to achieve His ends. Fittingness arguments are used “to illustrate the coherence, the intelligibility, and the beauty of the Christian faith... for Aquinas, arguing from fittingness involves understanding why an end is attained better and more conveniently with the choice of a particular means rather than another.”²²⁰ Using a well-known Thomistic argument from

²¹⁹ Austriaco et al., *Thomistic Evolution*, 153.

²²⁰ Nicanor Austriaco, “A Theological Fittingness Argument for the Evolution of *Homo Sapiens*,” *Theology and Science* 17, no. 4 (2019): 539-540; 541.

fittingness Austriaco asks, “why did God become incarnate to save us?”²²¹ Aquinas provides ten different reasons why it was fitting for God to become incarnate to save rather than simply snapping His fingers or just willing our salvation. Austriaco notes that each of these ten reasons “is an attempt to reveal why God chose this particular means—the Incarnation—rather than another, to attain his end of human salvation.”²²² The Incarnation is a mystery of faith and no perfect answer can be ascertained until the beatific vision. Much of the action of God is shrouded in this mystery on a macro level, like the Incarnation, and the micro level, such as in our personal lives. Austriaco concludes this brief introduction to fittingness arguments by noting “theological arguments from fittingness are not demonstrative. In other words, they cannot prove that a certain conclusion necessarily has to be the way that it is. They cannot prove that the conclusion is true.”²²³ Therefore, we can look at evolution and know that God, as the source of all being and the First Cause, is in some way involved in the process. Rather than dispel evolution, one can use fittingness arguments to better understand why God chose to act in such a way and *how evolution can be a theological advantage*. Austriaco uses a fittingness argument to demonstrate that evolution and the science of human origins are not in conflict with the church’s theology of human origins.

Austriaco claims, “from the perspective of the Catholic theological tradition and the Thomistic theological synthesis, it was fitting for God to have created human beings via evolution rather than via special creation because the former better reveals God’s glory than the latter.”²²⁴ Again, fittingness is about why God chose this way to achieve an end versus another way. Consequently, we need to examine why God created in the first place: “God chose to create

²²¹ See *Summa Theologiae*, III, q. 1, a. 2, trans. English Dominican Province.

²²² Austriaco, “Theological Fittingness Argument for the Evolution,” 541.

²²³ Austriaco, “Theological Fittingness Argument for the Evolution,” 541.

²²⁴ Austriaco, “Theological Fittingness Argument for the Evolution,” 539.

because he wanted to manifest and to communicate his glory... God communicates his glory by sharing his perfections with his creatures.”²²⁵ Austriaco adds that God communicates His glory by allowing creatures to participate in His existence and He shares His perfections with them “by inviting them to participate in his causality, which in the world manifests itself in his governance of his creation.”²²⁶ One can see here the importance of understanding God as existence itself and the first cause of all other causes. Our very existence gives glory to God and when we manifest or reflect His perfections, we magnify God and His glory even more. Austriaco uses Aquinas to explain that it is better for God to *be* goodness *and* be the cause of goodness in others than simply to *be* good. Through this, God truly allows us, His creatures, to be authentic causes in creation.²²⁷

How exactly do creatures act as causes in the world? It is “not the causality that allows one to create from nothing, because this causality is the sole prerogative of God who alone is creator. Rather, it is the causality that allows one to create novelty and diversity from pre-existing matter.”²²⁸ God as First Cause created DNA to be error-prone and the creature “used” this mechanism, which is a part of its nature, to take pre-existing matter and create something new, diverse, and a unique reflection of some perfection of God. Austriaco notes that this is “the causality called instrumental causality where God, the primary cause, activates the instrumental causality of his creatures so that he and they can act together wholly and fully, to create, in the same way that an author and his pen work together wholly and fully to write a letter.”²²⁹ Each instance in evolutionary history where a creature developed itself through mutation is an

²²⁵ Austriaco, “Theological Fittingness Argument for the Evolution,” 543.

²²⁶ Austriaco, “Theological Fittingness Argument for the Evolution,” 543.

²²⁷ See Austriaco, “Theological Fittingness Argument for the Evolution,” 544.

²²⁸ Austriaco, “Theological Fittingness Argument for the Evolution,” 544.

²²⁹ Austriaco et al., *Thomistic Evolution*, 145.

example of this instrumental causality and a manifestation and increase of God's glory. If God had created each individual creature, species, etc. via special creation, none of this instrumental causality, or a vastly reduced amount of it, would have been present in creation and God's glory and perfections would not have been manifested as eminently.²³⁰ All of creation was advancing towards the moment when matter would evolve and mutate to the point where it could be intimately united to a spiritual soul and God would be able to communicate directly with His creation and allow it the autonomy to choose to love Him reciprocally.

Austriaco claims there are three further points we can draw from the thesis that it is more fitting for us to have been created via evolution rather than special creation because the former better reveals God's glory than the latter. First, "evolution is the most resourceful way for divine providence to use non-personal instrumental causes to generate novel and adaptive life forms on a dynamic and ever-changing planet."²³¹ Given our planet's history, including phenomena such as continental drift, ice ages, super volcanic eruptions, and the asteroid strike 65 million years ago, Austriaco notes that having a process that is able to use preexisting life forms that can adapt and change depending on the environment around them is the best way for God to maintain life on this planet. Thus, evolution is in contrast to God having to specially create new creatures after each massive extinction event or miraculously prevent the extinction event from happening in the first place. Given God's ordering of the natural world and the laws of physics, geology, etc., evolution is the best way to sustain life so it can continue to share in God's glory on Earth.

The second point concerns the punishment that is suffering and death, which scripture claims came from sin:

²³⁰ The process of evolution undergone from single-celled organism to self-aware *homo sapiens* allowed for a multitude of different skills, traits, abilities, and adaptations to reflect God's glory on earth in ways that are not present by any living creature today.

²³¹ Austriaco, "Theological Fittingness Argument for the Evolution," 544.

I affirm that the death and the suffering of the plants and non-human animals that is universally found in an evolving creation is not a consequence of sin. Rather, from the beginning, the death of these creatures was a necessary consequence of the choices that God had made when he chose not to only create creatures with natures that required them to kill other creatures to survive, but also to do so via an evolutionary process that most fittingly revealed his glory.²³²

The key point here is that sin did not cause the suffering and death of animals.²³³ It was a natural part of evolution before the fall, which many of the earlier theologians contend as well. The lion needs to kill and eat the antelope to survive, but God does not allow the antelope to be easy prey for the lion. The antelope that develops the adaptation for speed, increased sight and hearing, or a more fearful disposition increases its odds of survival while the lion can catch and eat the lesser members of the antelope herd. Austriaco notes, “Sin can deform and disorder nature, but it cannot radically undermine and transform it.”²³⁴ He uses the example of a lion that has a lion nature requiring it to catch and eat other animals. If a lion ate grass, it would not be a lion, it would be something else entirely.

Third, in response to the charge that God was cruel and wasteful to allow such evolutionary misfits and mass extinctions, Austriaco writes, “God did not ‘waste’ life when he chose to create via an evolutionary process... There is no waste when the agent fittingly attains his end... Rather, they were the necessary ‘leftovers’ from the creative evolutionary process that God used.”²³⁵ For example, God does not will the loss of life from a natural disaster, such as a hurricane, but the loss of life is a necessary consequence of a created world with weather, atmosphere, etc. An apt example Austriaco uses is Michelangelo, who did not “waste” marble

²³² Austriaco, “Theological Fittingness Argument for the Evolution,” 545.

²³³ However, Genesis 6 seems to suggest that the violence of all flesh, both human and animal, has corrupted God’s creation and as a result will be destroyed.

²³⁴ Austriaco, “Theological Fittingness Argument for the Evolution,” 545. Animals cannot sin, but the point is still made: the nature God gives a creature, say a lion, cannot be transformed by anything other than God Himself, whether in the guided process of evolution or in a quasi-miraculous manner like the first ensoulment. In the case of human beings, not even sin can undermine who we are as beings with a nature destined for union with God.

²³⁵ Austriaco, “Theological Fittingness Argument for the Evolution,” 545.

when constructing his masterpiece, *David*, because there were leftover pieces of marble.²³⁶ Michelangelo, like God, attained his end of a beautiful creation; the leftovers are a necessary part of the process.²³⁷ Summarizing Aquinas, Austriaco adds that because one creature cannot adequately reflect the perfections of God, it is fitting that there have been so many different types of creatures to greater reflect the infinite perfection of God.²³⁸ To put it in perspective, “Four billion species created over a three billion year period” is far more than the “eight million extant species today.”²³⁹ Each individual member of these four billion different species carries different DNA and is able to manifest different perfections of God and magnify His glory. Austriaco also notes that it would have been impossible for all these species to coexist at one point in time; thus, through an evolutionary creation instead of a special creation, “these species were able to exist at separate moments in history to uniquely manifest the glory of their creator.”²⁴⁰

After demonstrating how evolutionary science is actually a strength to the theology of creation, Austriaco moves to the much more recent event of humanity’s origins, specifically the first human being to have a soul. To explain the historicity of Adam, the fall, and original sin, Austriaco claims all things have a soul, which is the animating principle in living things. Austriaco then clarifies that the human soul is the only soul that is immaterial, using Aristotle and Aquinas, who claim, “the human soul is immaterial because it is able to grasp and process abstract ideas like ‘truth’ and ‘justice’ and ‘beauty.’”²⁴¹ Significantly, Austriaco adds, “to put it another way, the human soul is immaterial because it has the capacity to grasp the complex and

²³⁶ See Austriaco et al., *Thomistic Evolution*, 146.

²³⁷ One could take this analogy a step further and recognize pre-human hominids as unremarkable blocks of marble that require a master craftsman, God, to transform them into a beautiful masterpiece, beings with souls.

²³⁸ See Austriaco, “Theological Fittingness Argument for the Evolution,” 545-546.

²³⁹ Austriaco, “Theological Fittingness Argument for the Evolution,” 546.

²⁴⁰ Austriaco, “Theological Fittingness Argument for the Evolution,” 546.

²⁴¹ Austriaco et al., *Thomistic Evolution*, 156.

abstract ideas that are presupposed by human language.”²⁴² The ability to use language and create and understand abstract concepts is central to Austriaco’s argument for the plausibility of an historical Adam. Aquinas also claims that a soul is fitted to a specific body—or to use modern language, an organism—the same way a key fits a lock; thus, “biologically, this means that a human soul can only inform a body that has a brain that is complex enough to deal with and process language.”²⁴³ It follows that the first *homo sapiens* to receive an immaterial, human soul would necessarily have been the first one who evolved to the point of being biologically able to receive such a soul. Austriaco locates the dawn of human consciousness in one individual, remaining faithful to the science of evolution and the theology of monogenism. In short, “biological evolution was a 3.5 billion year process, directed by God, to advance living matter until it was apt to be informed by a human soul.”²⁴⁴ Believing that all creation was directed towards our creation makes sense when one remembers why God created in the first place: to show forth his glory by conferring being upon creation and magnifying His glory by sharing His perfections with His creatures.²⁴⁵ Man is the single best manifestation of God’s perfections, being made in His image and likeness. Because of this, man magnifies God’s glory more fully than any other creature. So, in a sense, all evolution *has* been leading up to man, but it certainly does not *end* with man either.

Austriaco recognizes the difficulty surrounding the historicity of Adam and Eve, calling it, “one of the most controversial disputed questions in the dialogue between evolution and Christian faith.”²⁴⁶ Nonetheless, Austriaco claims “that we can still defend the historicity of

²⁴² Austriaco et al., *Thomistic Evolution*, 156.

²⁴³ Austriaco et al., *Thomistic Evolution*, 156.

²⁴⁴ Austriaco et al., *Thomistic Evolution*, 156.

²⁴⁵ See CCC 293-294.

²⁴⁶ Austriaco et al., *Thomistic Evolution*, 159.

Adam as the single and first human being from whom all of us are descended.”²⁴⁷ The theological data for Adam is tied up in the doctrine of original sin, which Austriaco claims cannot be jettisoned because it is “an integral part of divine revelation that not only emerges from our understanding that God is good but also explains our lived experience of human brokenness.”²⁴⁸ When looking at what the original sin was, Austriaco follows Aquinas in that what was broken was some type of explicit command, “so that they would learn from the very beginning to follow God’s will.”²⁴⁹ When they disobeyed God’s will and broke this explicit command, they lost the blessed state God created them in:

Notice that this account of original sin sees the effect of original sin, not as an addition to or a corruption of human nature... but as a privation of that nature, an absence, a lack, a wound, that leaves human beings struggling with the consequences of their nature as it had been created and evolved.²⁵⁰

Because of this wound, human beings are no longer able to pass on their blessed state to their offspring: rather than passing on an uncorrupted union with God, human beings pass on original sin through propagation. To be more specific, Adam broke this explicit command of God and being the first human being and the source of all other human beings, he passed on this wound to all his offspring who are also human.²⁵¹ Original sin is one in origin: monogenetic. Austriaco notes that propagation is not limited here to biological descent: “When the Council of Trent teaches that the consequences of the original sin... are transmitted by propagation and not by

²⁴⁷ Austriaco et al., *Thomistic Evolution*, 161.

²⁴⁸ Austriaco et al., *Thomistic Evolution*, 163.

²⁴⁹ Austriaco et al., *Thomistic Evolution*, 167. The plural “they” is used as Aquinas assumed both Adam and Eve existed at the dawn of humanity, and Austriaco follows that assumption in this instance. It will later be argued that it is likely only Adam became human before committing the first sin. Difficulties concerning Eve will be addressed later.

²⁵⁰ Austriaco et al., *Thomistic Evolution*, 167-168.

²⁵¹ The difficulties mentioned above about all human beings receiving their souls at the same time and then all receiving the guilt of the first sin simultaneously are avoided in this theory. In this instance, one human being has a soul, that human being sins and tarnishes his soul, which is then passed on to all his offspring as well.

imitation, we should understand this as a metaphysical and not a biological claim.”²⁵² Instead of a human nature that is subservient to one’s spiritual soul, one’s nature reverts to its evolved state before grace. This evolved state fights tooth and claw to be the master of one’s self instead of one’s soul. One can see how a nature developed through millions of years of evolution might interact with and even counteract a new spiritual soul when God’s merciful grace and union with Him are lost.²⁵³

Scientifically, Austriaco follows the leading model for human origins known as the “Out of Africa” theory, which is opposed to the multi-region theory. He writes, “today there is robust evidence from both the fossil record and genetic data that anatomically modern humans—creatures that looked like us—evolved in Africa between 200,000 and 150,000 years ago, and that they migrated out of Africa about 60,000 years ago.”²⁵⁴ Darrel R. Falk confirms that this migratory group is the source of all humans of non-African descent: “geneticists have estimated that about 50,000 to 70,000 years ago there was a population ‘bottleneck,’ and all of today’s non-Africans are descended from the relatively small number of individuals that left Africa about that time.”²⁵⁵ We have the location, so the next question is how many were there:

Studies suggest that the ancestral effective population size for anatomically modern humans in Africa is about 10,000 breeding individuals. In other words, one would need to posit the existence of 10,000 original humans to properly account for the genetic diversity that we see among the seven billion human beings living today.²⁵⁶

²⁵² Austriaco et al., *Thomistic Evolution*, 168.

²⁵³ Austriaco’s approach is not free of all controversy. In *Thomistic Evolution* 168 he writes, “Instead, when God creates our souls when we are conceived, he creates them without the graces and gifts that we should have inherited from our original parents.” This sentence leads to some further questions: Do we have a different soul than Adam? A soul created without something seems to be in a different order than the original soul of Adam. Perhaps Rahner’s approach of the parents’ spirit co-creating with God to bring about the new child’s spirit is a more promising avenue to tread down. This would allow God to create a perfect soul and the parents would contribute the block in access to sanctifying grace and the other gifts of God.

²⁵⁴ Austriaco et al., *Thomistic Evolution*, 173.

²⁵⁵ Darrel R. Falk, “Human Origins: The Scientific Story” in *Evolution and the Fall*, ed. William T. Cavanaugh and James K. A. Smith (Grand Rapids, MI: Eerdmans, 2017), 11.

²⁵⁶ Austriaco et al., *Thomistic Evolution*, 173-174.

These 10,000 people likely did not live all in one place as the agriculture needed to support such a large community doesn't appear until 14,000 years ago.²⁵⁷ They would have been spread out across Southern Africa in tribes or villages of several hundred members.²⁵⁸ This eliminates any possibility that the bottleneck reduced down to two people, the proverbial Adam and Eve who are the sole parents of humanity, or that the population was small enough to exist as one tight knit community.

There is an important transition from anatomically modern humans, which look very similar to modern day humans, and behaviorally modern humans, which not only look but also act in ways similar to us today; the latter did not show up until much more recently. This transition, “called the Great Leap Forward by evolutionary biologist Jared Diamond,”²⁵⁹ is marked by archaeological evidence such as painting, engraving, carving, and music. The earliest evidence we have is in the Blombos Cave in modern-day South Africa dating to about 75,000 years ago.²⁶⁰ Austriaco argues that the key biological innovation that likely led to this leap forward to behaviorally modern humans is “the evolution of brain structures that would have facilitated the use of language.”²⁶¹ Austriaco notes how Noam Chomsky, the father of modern linguistics, claims that this transition would have taken place first in one man. As Chomsky puts it, “It looks as if—given the time involved—there was a sudden ‘great leap forward.’ Some small genetic modification somehow rewired the brain slightly [and] made this human capacity [for language] available... Mutations take place in a person, not in a group.” Chomsky continues, “Somewhere in that group, some small mutation took place, leading to the great leap forward. It

²⁵⁷ Confirmed in Falk, “Human Origins,” 12.

²⁵⁸ Austriaco et al., *Thomistic Evolution*, 174.

²⁵⁹ Austriaco et al., *Thomistic Evolution*, 174.

²⁶⁰ Austriaco et al., *Thomistic Evolution*, 174.

²⁶¹ Austriaco et al., *Thomistic Evolution*, 174.

had to have happened in a single person.”²⁶² This scientific evidence for the intellectual development of man, especially concerning language, leads us to an historical individual the church calls Adam. This evidence

is critically important because, philosophically, this transformation can be understood to be archaeological evidence for the appearance of the rational soul in human evolution. Theologically, this transformation would be a sign of the arrival on the stage of world history of the *imago Dei*, the creature made in the image and likeness of God with intellect and with will.²⁶³

If the first soul was bestowed on the *homo sapiens* who adapted and mutated to the point of being materially capable of receiving said soul, then the transition to *homo sapiens* who can speak and think abstractly may be the moment of first ensoulment.

In his synthesis of the theological and scientific data, Austriaco begins the chapter with a brief caveat: “Note that this narrative remains only a hypothetical one that attempts to reconcile the data of faith and reason into a coherent whole.”²⁶⁴ Austriaco’s method is not to do away with sacred tradition and revelation; rather, he is seeking to use both science and theology to their maximum potential. Rather than using one to undermine the other, Austriaco uses each to purify the other of error and create a “coherent whole.”

To reiterate, evolution was a 3.5-billion-year process to advance matter to the point of being able to receive a human soul and

this critical point in evolutionary history occurred about 100,000 years ago in Africa among a group of anatomically modern human beings when an individual hominin was conceived with the inherent neurocognitive capacity for language... In my view... this capacity for language would have gone hand in hand with the capacity for abstract thought.²⁶⁵

²⁶² Noam Chomsky, *The Science of Language: Interviews with James McGilvray* (Cambridge: Cambridge University Press, 2012), p. 14, in Austriaco et al., *Thomistic Evolution*, 175.

²⁶³ Austriaco et al., *Thomistic Evolution*, 175-76.

²⁶⁴ Austriaco et al., *Thomistic Evolution*, 177.

²⁶⁵ Austriaco et al., *Thomistic Evolution*, 178.

As Bimson noted above, evidence for abstract thought appears around 60-70kya, simultaneously with language, so the connection is not so far afield.²⁶⁶ Austriaco's position assumes that the first *homo sapiens* with the neurocognitive capacity for language was also the first ensouled human.

Austriaco continues:

As the first speaking primate, this individual would have also been the first rational animal... As he matured, he would have used this linguistic capacity to speak to himself and to God. This first speaking human is the original human we call Adam. Moreover, since every human being today possess the same linguistic capacity, each one of us must have inherited their capacity from him.²⁶⁷

One might ask, could not other of Adam's contemporaries also have developed this mutation and been simultaneously human with Him? Or could not later descendants, outside of this Adam's lineage, also develop the mutation for language? Austriaco answers these objections: "It is known that it is statistically very unlikely, if not impossible, for novel mutations of this kind to appear more than once in a hundred thousand-year period."²⁶⁸ Thus, it is statistically likely we all share this common ancestor. All *homo sapiens*, at least all those whose DNA exist to this day,²⁶⁹ were living in a small region of South Africa, when one of these *homo sapiens* developed language and abstract thought and as a result, received his soul and became the first behaviorally modern human. He would have passed on his mutation to some of his progeny and not others, but the evolutionary advantage of language would have made it a trait that was selected for among this group of *homo sapiens*. One could see this mutation passing to all 10-20,000 (or

²⁶⁶ In Falk, "Human Origins," 10-11, he notes that the dating of these events from anywhere to 100kya to 60kya comes from using both genetic and archaeological evidence. A range is given because the different methods produce slightly different dates, but the relative correlation between the dates gives credence to their reliability, at least as a range. In other words, there is nothing problematic with not having precise dates to form this narrative.

²⁶⁷ Austriaco et al., *Thomistic Evolution*, 178.

²⁶⁸ Austriaco et al., *Thomistic Evolution*, 178, fn 1.

²⁶⁹ There is evidence that earlier migrations of *homo sapiens* out of Africa took place earlier than the great migration roughly 60kya, but either they all died out without contributing to modern day genetics, or they migrated back to Africa and rejoined the original population and assimilated into the gene pool. See fn 16 in Falk, "Human Origins," 10.

more) *homo sapiens* over a period of 40,000 years, from around 100kya, the dawn of Adam, to 60kya, the exodus from Africa to the rest of the world.²⁷⁰

This monogenetic narrative preserves the essential pieces of the traditional Catholic understanding of original sin while also being informed by the best scientific data available. The first human being was the *homo sapiens* who developed the mutation that allowed for language, and with it abstract thought, and this is the body that God willed from the beginning of time would be capable of receiving an immaterial soul. When this human being received his soul, God gave him some type of explicit command, which the individual broke before reproducing. As a result, this human being could no longer pass on a nature free of sin, but a nature that is wounded because of the status of the parent. Austriaco has preserved the historicity of the original sin, the event being the first sin of the first human being, and the single origin of sin in the first and only *homo sapiens* with the adaptation for language. He also preserves the Church's understanding of original sin's propagation and universality as all *homo sapiens* were in one community with a common gene pool. Over time, Adam's mutation for language was a selected trait and ensoulment accompanied this genetic mutation, though the soul was inherently wounded by the sin of the first ensouled *homo sapiens*, Adam.

There are some unanswered questions with this theory, as there are with all theories, but Austriaco does his best to offer plausible answers. The biggest question is, what about Eve? Austriaco reasons that from science we know that the mutation almost certainly took place in only one individual and from revelation²⁷¹ we refer to the first human being as Adam, the man.

²⁷⁰ This is confirmed in Falk, "Human Origins," 10, "genetic analysis demonstrates quite clearly that all whose traceable ancestry is non-Africa are descended from about one thousand people who left Africa approximately 50,000 to 70,000 years ago."

²⁷¹ Two elements of the Tradition point us to using Adam as opposed to Eve for that first human being. First is the text of Romans 5 where Paul contrasts the man, Adam, through whom all have sinned, with Christ, through whom all will be saved. The second is Aquinas' idea that the man is the source of the active principle in

Therefore, the use of Adam versus Eve to refer to the first human being with a soul is more a theological claim than a scientific one.²⁷² However, it is entirely possible “that God providentially ordered evolution so that two hominins, a male and a female, were conceived in the same community and at the same historical time with the mutations to be linguistic creatures.”²⁷³ This would be a relatively small incident of divine intervention in creation, if it is one at all, and one that is completely in line with how science and evolution work. The only “miracle” would be that it is nearly statistically impossible for two individuals to develop this identical mutation, let alone at the same time. However, it is entirely possible *without* God’s intervention. This is Austriaco’s favorite possibility as it remains truer to the biblical narrative and upholds the equal dignity of the sexes. Another possibility is that Eve is not human but simply Adam’s first mating partner after he became human:

God allowed Adam to mate with a non-speaking human female, with whom he had children. Some of these children would have been able to speak while others would not have been... The children who spoke to each other would have mated among themselves giving rise to more speaking children... [and,] given the advantage of speech that allows us to cooperate and to organize ourselves, the speaking individuals who would have been born would have come to dominate the entire population of *Homo sapiens*.²⁷⁴

This adaptation for language would have had roughly 30-40 thousand years to cement itself in the gene pool of the *homo sapiens* community of Africa before the great migration around 60kya spread speaking and thinking human beings to the rest of the world. Two questions arise from

generation, so he is the source of original sin. See my treatment of this idea of Aquinas’ in footnote 22 above. However, the first *homo sapiens* to receive a soul and subsequently commit the original sin certainly could have been a woman, with Paul’s Adam actually being Eve and Aquinas having a faulty understanding of how the parents contribute to the generation of their child both materially and immaterially. Additionally, *Adam* in Hebrews can simply mean “mankind,” and not one specific gender. One ought to also be mindful of the negative sexism that occurred in the Church by attributing the first sin to Eve as told in Genesis 3. See Jean M. Higgins, “The Myth of Eve: The Temptress,” in *Journal of the American Academy of Religion*, vol. 44, no. 4 (December 1976), 639-647.

²⁷² Austriaco et al., *Thomistic Evolution*, 179.

²⁷³ Austriaco et al., *Thomistic Evolution*, 180.

²⁷⁴ Austriaco et al., *Thomistic Evolution*, 180.

this second theory. First, does this imply that early on there would have been relations between close kin, even siblings? Austriaco notes that Aquinas recognized this as a likelihood and concluded, “Brother-sibling relationships, though excluded today by law, would have been necessary early in the history of our species.”²⁷⁵ Second, did early humans have sexual relationships with other non-human hominins such as Neanderthals and Denisovans? There is genetic evidence in modern humans that this occurred. Austriaco remarks, “Theologically understood, these would be instances of bestiality of a sort... In my view, the taboo against bestiality may not apply here precisely because of their biological compatibility.”²⁷⁶ Regardless, God’s mercy likely would have been greater at this point given the limited revelation and organized tradition of these early human communities, thus bestiality was not as grave a sin as it is today.

Austriaco argues this adaptation for language²⁷⁷ necessarily includes an increase of mental capabilities making possible abstract thought. He is adamant about the connection between language and the ability to think abstractly, calling them “inextricably entangled.”²⁷⁸ For him, “The rational animal is the speaking primate, and the speaking primate is the rational animal.”²⁷⁹ In an essay titled, “Thomistic Thoughts on Thought and Talk,” Austriaco uses Aquinas’ understanding of how human beings understand and gain knowledge of the material

²⁷⁵ Austriaco et al., *Thomistic Evolution*, 181; see also *Summa Theologiae*, III, q. 54. a. 4, trans. English Dominican Province.

²⁷⁶ Austriaco et al., *Thomistic Evolution*, 181. As more evidence about our cousins the Neanderthals comes to light, this theory may need future revisions. However, this is outside the scope of this present study.

²⁷⁷ Austriaco suggests it could have been the FOXP2 gene.

²⁷⁸ Nicanor Austriaco to Mark Schumacher, “Thomistic Thoughts on Thought and Talk,” attachment in personal email (22 July 2020), 1. This is seconded in Falk, “Human Origins,” 13, “Archaeological evidence hunts that about 100,000 years ago there was a dramatic change in human evolution—*Homo sapiens* had acquired the ability to think in a manner that included the use of symbols to describe their perception of reality. Language is a form by which objects are represented symbolically.”

²⁷⁹ Austriaco to Schumacher, 1.

world to clarify this connection.²⁸⁰ Austriaco writes, “the formation of an abstract concept presupposes language because the process outlined by Aquinas to perfect the concept can only happen if the rational animal can speak to himself.”²⁸¹ One must be able to classify what one sees and make distinctions in one’s mind using separate words in order to form a conceptual and ordered understanding of the material world. Austriaco uses the example of an American tourist encountering a strange item in a Philippine market and the process her brain goes through to determine what the object is. The tourist observes other things around the item, which resemble familiar fruits and vegetables, to determine it is likely edible and a plant. She then might ask another individual, using verbal language, to further inquire what the item is and what it is called. She also uses her interior linguistic abilities and symbolic thought to further clarify what the object is and discover the commonly accepted name for the object. Using her ability to reason and form an idea or concept of the item in her mind and refine that idea when new information is discovered, she eventually discovers the item is called a *rambutan*. After giving this example, Austriaco proposes “that without the capacity for language and the discourse it facilitates with herself and with others, our American tourist would not be able to perfect her intellect to conceive of the abstract concept of “rambutan” properly so called. She would struggle to know it.”²⁸² He later remarks that “language ‘stabilizes’ concepts. Our words help us to organize bundles of reality into wholes so that we can conceive of them as particulars of one kind of thing or another. They help us to understand the world around us.”²⁸³ Our ability to reason presupposes some type of linguistic ability, at first interiorly, but later we can express that language exteriorly. In Adam, language would have been interior only and any exterior

²⁸⁰ My presentation here is heavily abbreviated from “Austriaco to Schumacher.”

²⁸¹ Austriaco to Schumacher, 7-8.

²⁸² Austriaco to Schumacher, 8.

²⁸³ Austriaco to Schumacher, 12.

communication would have very little meaning to his peers until his adaptation was passed on and utilized by his progeny, or perhaps by his similarly mutated wife, Eve.

Noam Chomsky and Robert Berwick note the importance of this development of language for our species:

We are therefore concerned with a curious biological object, *language*, which appeared on earth quite recently. It is a species property of humans, a common endowment with no significant variation apart from serious pathology, unlike anything else known in the organic world in its essentials and surely central to human life since its emergence.²⁸⁴

Austriaco comments on this, noting that no other species has anything remotely close to the linguistic abilities of human beings. Falk notes that it was not our ability to carry out complex tasks that set us apart from our cousins and previous ancestors, as they demonstrate these abilities as well through an activity like complex tool making; rather, “what became cognitively unique in humans was that ability to symbolize.”²⁸⁵ The emergence of language is contemporaneous with the emergence of abstract thought. Put simply, “You need thought for talk.”²⁸⁶ Austriaco notes that,

Contemporary biologists have struggled to understand how human language evolved from a pre-linguistic population of hominins if it evolved primarily as a means for communication. Why? Because communication presupposes that two individuals capable of communicating evolved in the same geographical area at the same historical time. The probability for this two-hit event is miniscule. However, if language evolved primarily as a cognitive tool that allowed the speaking primate to engage in dialogue with himself, then it is relatively easy to imagine how this trait appeared once in evolutionary history in a single individual.²⁸⁷

²⁸⁴ Robert C Berwick and Noam Chomsky, *Why Only Us: Language and Evolution* (Cambridge: MIT Press, 2016), 55, in Austriaco to Schumacher, 14-15.

²⁸⁵ Falk, “Human Origins,” 13.

²⁸⁶ Austriaco to Schumacher, 17.

²⁸⁷ Austriaco to Schumacher, 19-20.

Austriaco reasons that limiting language to communication in our earliest ancestors' communities does not fully capture its worth. Rather, if language also supports the ability to order and reason in the material world, one's "scientific" knowledge will necessarily increase and innovation is bound to happen. One can see this correlation between language and intelligence leading to a group of behaviorally modern humans communicating to one another a desire for migration, perhaps for pleasure or because of war, famine, etc. They would have the intelligence needed to understand the differences in the natural world one would encounter in geographic areas other than Africa as well as the ability to think of solutions to said differences. Falk adds that "regardless of the main contributing factors, it is clear that a sort of evolutionary big bang of cultural innovation with many accompanying changes began uniquely in our history about 100,000 years ago when most, *if not all, humans were still in Africa.*"²⁸⁸ This development did not occur in multiple regions of the world simultaneously. It is an event unique to this small community of *homo sapiens* living in Africa. This evidence points to a plausible place in the archaeological timeline for human beings to appear in order to defend an historical Adam.

This study has proposed that the essential elements of original sin are its historicity, it was a specific event that happened in time in one individual, and that it is transmitted by propagation, not imitation. Additionally, maintaining that original sin is one in origin creates fewer difficulties when attempting to harmonize it with the science of human origins. Austriaco's narrative preserves each of these while also presenting the best scientific data available. For Austriaco, Adam was the first and only *homo sapiens* to develop the mutation that allowed for language, and with it abstract thought. When Adam reached this milestone in the material world just as God had ordained from the beginning of time, He also willed that Adam receive an

²⁸⁸ Falk, "Human Origins," 15, emphasis is mine.

immaterial soul, as his body was now capable of receiving it. Adam enjoyed some type of special union with God and received some type of explicit command, which Adam broke before reproducing. As a result, Adam kept his soul and destiny as the only creature God willed for Himself, but his nature was wounded. This wounded nature was passed on to all of Adam's offspring, some inheriting his mutation for language as well as his wounded nature, while others remained animals with neither speech nor souls. Over the next 30-40 thousand years, this genetic mutation became cemented in the entire community of *homo sapiens*, becoming a community of speaking and thinking human beings with souls. Around 60 thousand years ago, roughly 1,000 members of this community migrated out of Africa, spreading their species to the rest of the world as well as the wounded nature of their original ancestor, Adam.

Conclusion

This study explored several alternative explanations for the origins of humanity and original sin, both monogenetic and polygenetic. Theories were presented and then assessed by how well they adhered to the traditional Catholic understanding of original sin, especially the historicity of the original sin and its transmission through propagation. Fr. Nicanor Austriaco provided what this author believes to be the most plausible explanation for how to reconcile the Catholic doctrine of original sin with the science of human origins. His theory exhibited fewer theological problems while remaining scientifically plausible. If current theology is going to remain relevant in the 21st century and beyond, it must be able to engage the difficult questions that contemporary biology continues to raise.

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