

## Praise for *Darwin and Doctrine*

“*Darwin and Doctrine* provides an invaluable synthesis of science and theology that graciously addresses topics that can often become sources of controversy. I highly recommend it to anyone who wants to see how Catholicism provides a framework to unite faith and reason in the quest to understand the origins of God’s creation.”

—**Trent Horn**, author of *The Case for Catholicism*

“Many Catholics are unsure how biological evolution fits together with the truths of faith. How do the Genesis accounts of the fall of man fit with scientific discoveries about human origins? Is the role of chance in evolution inconsistent with divine providence? What about the death and violence inherent in the evolutionary process? Daniel Kuebler draws on his expertise as a biologist, his solid grounding in the faith, and his great pedagogical skill to give illuminating and satisfying answers to these and many other questions in this marvelous and much-needed book.”

—**Stephen M. Barr**, professor emeritus of theoretical physics and president of the Society of Catholic Scientists

“Despite the questions and assumptions of conflict between evolution and faith, very few books address the issues with the clarity, candor, and insight of this one. Kuebler’s love for the Catholic faith and for biological science is palpable. He is a leading voice in the dialogue between the Catholic faith and modern science, and *Darwin and Doctrine* will certainly prove to be his most important and lasting contribution to date.”

—**Christopher T. Baglow**, Academic Director, Science & Religion Initiative, McGrath Institute for Church Life, University of Notre Dame

“This is an important book that reveals the compatibility of a Darwinian evolutionary account of the origins of life and the Catholic Church’s understanding of God’s providential work in creation. It is specifically written for the undergraduate or the educated layperson who is trying to understand both sides of the evolution-creation debate within the rich context of the Catholic intellectual tradition. Of particular significance, this book responds well to many of the objections raised by Catholic creationists who often deploy philosophical arguments to suggest that, in principle, evolutionary change is impossible. In my view, if one accepts that hydrogen and oxygen, two gases, can chemically react with each other to produce water, a liquid, then one should be able to accept that, in principle, two lizards can mate and give rise to a snake.”

—**Fr. Nicanor Pier Giorgio Austriaco**, OP, professor of biological sciences and sacred theology, University of Santo Tomas (Manila, Philippines)

“In an age where perceived conflicts with science have led many to feel estranged from the Church, *Darwin and Doctrine* is a master class in Catholicism’s ‘both/and’ vision of the relationship between faith and reason. Drawing from decades of research and teaching experience, Daniel Kuebler presents a comprehensive yet accessible exploration of the most pressing questions at the intersection of creation and evolution. The book speaks to those who feel compelled to reject evolution in defense of their Catholic faith, as well as those who are tempted to abandon their faith, thinking science has debunked Christianity. With remarkable clarity, this must-read book offers a way to understand evolution not as an obstacle to faith but as a testament to the Creator’s guiding hand in the natural world.”

—**Matthew J. Ramage**, professor of theology and co-director of the Center for Integral Ecology, Benedictine College

Darwin  
*and*  
Doctrine

# Darwin *and* Doctrine

*The Compatibility of  
Evolution and Catholicism*

Daniel Kuebler

WORD  on FIRE.

Published by Word on Fire, Elk Grove Village, IL 60007

© 2025 by Daniel Kuebler

Printed in the United States of America

All rights reserved

Cover design, typesetting, and interior art direction by Katherine Spitler,  
Clark Kenyon, and Rozann Lee

Scripture excerpts are from the New Revised Standard Version Bible: Catholic  
Edition (copyright © 1989, 1993), used by permission of the National Council  
of the Churches of Christ in the United States of America.

All rights reserved worldwide.

Excerpts from the English translation of the *Catechism of the Catholic Church*  
for use in the United States of America copyright © 1994, United States  
Catholic Conference, Inc.—Libreria Editrice Vaticana. Used by permission.  
English translation of the *Catechism of the Catholic Church*: Modifications from  
the Editio Typica copyright © 1997, United States Conference of Catholic  
Bishops—Libreria Editrice Vaticana.

No part of this book may be used or reproduced in any manner whatsoever  
without written permission, except in the case of brief quotations in critical  
articles or reviews. For more information, contact Word on Fire Catholic  
Ministries, PO Box 97330, Washington, DC 20090-7330 or email  
[contact@wordonfire.org](mailto:contact@wordonfire.org).

ISBN: 978-1-68578-158-3

Library of Congress Control Number: 2024946117

# Contents

Preface	ix
1. Introduction	1
2. Evolution and Creation: The Unity of Faith and Reason	14
3. The Church's Historical Engagement with Evolutionary Theory	38
4. A Catholic Understanding of Creation	68
5. The Science of Evolution	95
6. The Order of Evolution: Reconciling Chance and Purpose	125
7. Evolution and Aquinas: Emergence, Change, and the Potentiality of Matter	150
8. Human Origins: From the Dust of the Earth	182
9. Original Sin and the Evolution of Man	207
10. In the Beginning Was Reason: Matter from Mind	245
Bibliography	263
Index	279

# Preface

“Then the LORD God formed man from the dust of the ground, and breathed into his nostrils the breath of life” (Gen. 2:7). This line, from the second Genesis creation account, aptly reflects the enigma that is man. As a species, we have our roots firmly planted in the dust of the earth. We are composed of the same stuff as frogs, planets, and stars. The carbon found in our bodies is no different than the carbon formed via the fusion of helium atoms inside stars or the carbon found in a grain of wheat. In fact, it is one and the same. The same carbon that was formed inside a star long ago is now a carbon atom in a grain of wheat. Likewise, that same carbon from a grain of wheat can, through processes of digestion and metabolism, become part of my body. We are fully integrated into the dynamic processes of the physical world.

But that is not the whole story. While we have a home within material creation, we never seem to be fully satisfied within its confines. There is a line from a Bruce Springsteen song that has resonated with me since I was a teenager because it sums up precisely this sentiment. In the song “Badlands” he sings, “Poor man wanna be rich, rich man wanna be king / And a king ain’t satisfied ’til he rules everything.” But we can never rule everything—life makes that abundantly clear—so we are inevitably restless. There is a transcendent aspect to our being that makes us recognize that there is a longing this material world fails to satisfy. It is why Augustine exclaims to God in his *Confessions*, “Our hearts are restless till they rest in Thee.”<sup>1</sup>

This dichotomous union of dust and breath, of worldliness and transcendence, is what Scripture tells us man is. But what

1. Augustine, *Confessions*, trans. F.J. Sheed, ed. Michael P. Foley (Park Ridge, IL: Word on Fire Classics, 2017), 2.

exactly does that mean? Is the dust merely a shell for our true self, that inner spirit? Or is the spirit merely an epiphenomenon tacked on to our true animal selves, selves that are fundamentally the same as other animals? How do we truly integrate matter and form, spirit and matter, soul and body? How do we integrate what the science reveals about the human body with what we know through faith and reason about the human person? These are the questions that lie at the heart of the evolution and creation discussion, and these are the questions that have doggedly followed me ever since I began to reflect seriously on evolution as an undergraduate student.

Over the years, my thinking about the science of evolution has itself evolved significantly, from the cursory simplistic understanding of Darwinian evolution I had as an undergraduate to a more complex and nuanced awareness of the broader extended evolutionary synthesis (EES). Likewise, my thinking regarding how evolution might fit within a Catholic understanding of both creation and man has developed over the years. At the beginning of this journey, I was merely exploring whether I could fit the two together without doing violence to either Catholic teaching or the scientific evidence. But this book is less about avoiding conflict between the two—although that is certainly an important aspect—and more about how evolution and Catholic teaching can be mutually enriching and complementary. Over the years, I have gone from wrestling with how evolution might fit with Catholicism to exploring how an evolutionary understanding can enlighten our understanding of how God relates to his creation.

It took quite some time for me to arrive at this stage; in fact, when I initially began this book during an academic sabbatical in 2014, I wasn't quite there yet. As I reread that first draft at the end of my sabbatical, I realized that I was not quite prepared to write the book I had hoped to write. Not sure what to do and having to return to full-time teaching, I put the draft of the book aside,



and there it sat, undisturbed, until I finally had the time to turn my attention to it again six years later.

While I did no writing or editing of the book during that six-year period, it was precisely during those years that the book in its present form took shape. There were three things that happened during that time that helped me develop my thinking on evolution and Catholicism such that this book became possible. All three of these experiences put me in regular contact with colleagues who, through their wisdom and efforts, helped me gain a much deeper and richer understanding of the issues regarding evolution and creation.

The first experience involved being asked to create a course on science and Catholicism for our Catholic Studies master's program at Franciscan University. As I began to develop and then teach the course, I recognized how much I needed to augment my understanding of the Catholic theological and philosophical tradition. On this front, I found that my colleagues in these disciplines at Franciscan University were more than willing to share their expertise. It was conversations, recommendations, and fraternal corrections from these colleagues that particularly deepened my understanding of the Catholic intellectual tradition. As the book took shape, my Franciscan colleagues Paul Symington and Brandon Dahm from the philosophy department provided much-needed feedback on the chapters that were heavy in philosophical content (at least heavy for a biologist), and for that I am most grateful.

The second pivotal event was the foundation of the Society of Catholic Scientists in 2016. In the SCS, I was blessed to find a group of serious thinkers who were looking to integrate science and Catholicism in all aspects of their lives. From interacting with the speakers at our annual conferences to the after-dinner conversations I had with colleagues about such topics as original sin, the nature of creation, life on other planets, and Adam and Eve, my interactions with fellow SCS members have enriched me

both personally and intellectually. In particular, Steve Barr, the president of the SCS, has been a constant source of guidance and support during the writing of this book. It was his encouragement years ago that got me started down the path of producing it, and his willingness to share his incalculable breadth of knowledge on science and faith topics has been invaluable to me. Over the years, he has been generous enough with his time to read early chapters of the book, and every editing suggestion or additional insight he provided has vastly improved the final version. Most importantly though, it is his friendship and the conversations, both serious and humorous, we have had over the years for which I am most grateful.

The third pivotal event that happened during this time was an invitation to become involved with the Science and Religion Initiative at Notre Dame's McGrath Institute for Church Life. The director of the initiative, Chris Baglow, asked me to assist in their efforts to help high school teachers better integrate Catholicism and science in their classrooms. Participating in these events has been career-changing. The colleagues I have met through these seminars and the interdisciplinary discussions we have had over beers and cigarettes (even though I don't smoke) have been invaluable for both my intellectual formation and the completion of this book. While I have been blessed to meet and learn from innumerable colleagues and participants during these seminars, it has been the repeated discussions with Chris Baglow, Heather Foucault-Camm, Cory Hayes, and Jordan Haddad that have particularly influenced my thinking and my writing on evolution and the faith. I am very grateful to Cory for the time he took to edit chapters and enlighten me on critical theological and philosophical points that, through his wisdom, eventually made their way into the book.

As I worked through the final version, Joe Miller, my collaborator on the Purposeful Universe project (funded by the John Templeton Foundation), was invaluable. Joe's encouragement,

feedback, and stimulating phone conversations provided insightful edits and helped get the book over the finish line.

I am most grateful to Word on Fire Publishing for their interest in the manuscript as the final version took shape. While it is a topic that often sparks controversy and acrimonious discussions, it is nevertheless an important one for Catholics to reflect upon seriously. My editor, Matthew Becklo, has been supportive throughout the entire process and has not shied away from including some of the more speculative sections of the book. He has made excellent suggestions to sharpen and focus the manuscript, and the final version that has emerged owes much to his efforts.

Finally, I would like to thank my wife, Nellie, not only for her constant love and support, but also for her intellectual contributions to this book. Most of the original ideas found in it emerged directly from conversations the two of us have had, and they flow from insights she gleaned or theological connections she made—connections that have changed the way I view the issue. In addition, she has been the first and second (and often third) editor of the manuscript, striking out much of the academic jargon, reordering sections for clarity, and generally making it readable. Any mistakes or issues that remain are solely due to my inherent stubbornness rather than her excellent editing skills.

Clearly this book would not have been possible without the influence of a host of people who have found the issue of creation and evolution as fascinating as I do. Even my children, Joseph, Patrick, Carolyn, Brendan, Julia, and Elena, have contributed. Their curiosity on the subject and the pertinent questions they posed forced me both to rethink my ideas and to learn to express them more clearly. Their curiosity and support have not only helped bring this book finally to fruition, but also made me acutely aware of what I still do not know on the subject.

Toward that end, the reader will notice that there are many questions posed in the book that go unanswered. In addition, there are other questions for which I propose tentative answers,

recognizing that in many cases the truth on these matters may be forever beyond our grasp. But this does not make the exercise of exploring these questions fruitless. While acknowledging that some aspects of the creation/evolution discussion transcend our understanding, by using faith to enlighten our reason, we can hopefully come closer to the truth on these matters. Along these lines, it is my hope that this book helps readers come closer to the ultimate truth about creation and evolution, and aids them—as they seek understanding enlightened by the richness and depth of the Catholic faith—in asking the right questions.

# I

## Introduction

I mean that it is as strange that monkeys should be so like men with no historical connection between them, as the notion that there should be no course of history by which fossil bones got into rocks.<sup>1</sup>

—St. John Henry Newman

“How exactly do you make sense of the story of Adam and Eve given the science of evolution?” That wasn’t the question I was expecting my friend to ask when we sat down to eat lunch in the shade of the eucalyptus grove outside our lab building. He was a post-doctoral researcher, someone whom I respected and who had helped me get my bearings as a young graduate student in molecular biology at the University of California, Berkeley. He knew I was both a practicing Catholic and a budding scientist, and he was genuinely curious to get my opinion. It seemed to him that you had to choose only one option: either creation or evolution.

I could certainly see where he got that impression. Unlike most scientific theories, evolution had been co-opted in the larger cultural wars, with many people using evolution as the trump card in the battle of science over religion. Particularly in Berkeley at the time, one couldn’t walk more than two blocks without spotting a car proudly displaying the Darwin fish sign on its bumper. The Darwin fish was a response to the Christian fish logo that represented Christ. It was an outline of a fish that not only had the word Darwin inscribed within it but had evolved

1. John Henry Newman, Letter of December 9, 1863, in *Sundries*, 83, cited in A. Dwight Culler, *The Imperial Intellect* (New Haven, CT: Yale University Press, 1955), 267.

legs as well. An even more polarizing version had the Darwin fish eating the Jesus fish.<sup>2</sup>

The Darwin fish was a fitting symbol that succinctly summed up what the atheist philosopher Daniel Dennett deemed to be the logical consequences of evolution. He referred to evolution as a “universal acid,” an idea that necessarily alters our way of thinking about everything—largely by eating away at our belief in a loving providential Creator. It was a visual representation of the biologist Richard Dawkins’ famous claim that Darwin’s theory allowed him to be an intellectually fulfilled atheist. As a lifelong committed Catholic, I was confident that the science of evolution did not necessarily lead to atheism or override the truths of the faith. But despite this confidence, I wasn’t sure how to answer my friend’s question.

By the time I had arrived at UC Berkeley to pursue my PhD, I had eighteen years of Catholic schooling under my belt. In addition to an undergraduate English literature degree from the Catholic University of America (CUA), I had also completed a master’s in cell biology from that same institution. As an undergraduate at CUA, I had been introduced to many of the great minds of the Catholic tradition, including Aquinas, Anselm, Bonaventure, and Augustine. As a graduate student at CUA, I had seen science and religion not only coexist but flourish. The notion that Catholicism was anti-intellectual or that the science of evolution and Catholicism were somehow in conflict was completely contrary to my lived experience at CUA. Here, though, sitting across from my inquisitive friend in the warm noonday sun of Berkeley, the apparent conflict between evolution and my faith was staring directly at me, awaiting an answer.

2. A new Christian version in this symbol war is a fish labeled Truth eating the Darwin fish.

## THE EVOLUTION QUESTION

In my twenty-two years of teaching at Franciscan University of Steubenville, I have encountered many students wrestling with the same apparent conflict between the science of evolution and the Catholic understanding of creation. These students have approached me with the same question my friend in Berkeley asked, as well as many others besides. How can an evolutionary process that is influenced by chance events be reconciled with the belief that God deliberately and purposefully created human persons in his image? If evolution is correct, how do we properly understand the Genesis account of the origin of the universe and of man? How can a naturalistic evolutionary process bring about the human person who is at once spiritual and material? How can man be viewed as having been created in a state of original justice and holiness if evolution indicates the world has a four-billion-year history of death and extinction?

These are all key questions that Catholics struggle with regarding the evolution/creation issue. What makes all these questions particularly difficult is that they sit at the intersection of theology, philosophy, and science. Science alone cannot address them, nor can theology alone. These two disciplines, with the aid of philosophy, must be in dialogue with each other to successfully address these issues. Unfortunately, such dialogue is a particularly difficult task in our increasingly fragmented world.

Yet, to move the dialogue forward, an interdisciplinary approach is essential. Clearly, one must properly address the scientific questions that impact the debate. What exactly does the scientific data demonstrate about evolution? Is it a solid theory? What data suggests that it applies to the origin of man? However, this is not enough. One must properly address a host of theological questions as well. What does the Church teach about the creation of man? What does the Catholic understanding of creation entail? What does the Church teach about the

proper exegesis of Genesis? While addressing these scientific and theological questions is critical, alone that is not enough. In fact, the most difficult task of all still remains: integrating the truths from both science and theology into a cohesive whole.

Fortunately, it is precisely in this task, the integration of knowledge, where the Catholic intellectual tradition redounds to our benefit. Despite often being lambasted as backward and irrational by the popular culture, the Church boasts a rich intellectual heritage, having spent two millennia systematically addressing fundamental questions that integrate knowledge from all disciplines of study. Throughout its history, in its documents and in its Doctors, the Church has examined fundamental questions related to human existence and meaning, the relationship between science and faith, and the nature of God and creation. For those approaching the thorny scientific, theological, and philosophical issues in the creation/evolution discussion, they could not find another guide with more experience dealing with these big questions.

Even when it does not have answers readily at hand to some of the novel questions posed by evolution, the Church, with its deep intellectual tradition, still provides a productive framework in which to properly investigate them. It is a framework that does justice to both the relevant science and the theology. In this discussion, neither negates nor subsumes the other. As Pope St. John Paul II has indicated, “Both religion and science must preserve their autonomy and their distinctiveness. . . . The unprecedented opportunity we have today is for a common interactive relationship in which each discipline retains its integrity and yet is radically open to the discoveries and insights of the other.”<sup>3</sup> Investigating the evolution/creation question within this framework, all under the guidance of the Church, is the purpose of this book.

3. John Paul II, “Letter of His Holiness John Paul II to Reverend George V. Coyne, SJ, Director of the Vatican Observatory,” June 1, 1988, [vatican.va](http://vatican.va).



## WHAT DOES THE CHURCH SAY ABOUT EVOLUTION?

One of the most common questions that my students ask me regarding evolution is the following: “What is the Church’s position on evolution?” This seems to be the million-dollar question that Catholics have regarding the evolution/creation debate. Interestingly, the guidance provided by the Church on this matter is not as straightforward as one might expect. In fact, when it comes to a position on the science of evolution, it turns out that the Church *doesn’t* have one. Just as the Church doesn’t have an official position on atomic theory or the theory of general relativity, the Church doesn’t have an official position on the *science* of evolutionary theory. This should not be surprising given that the Church is not in the business of adjudicating the validity of purely scientific theories. Cell theory, the theory that all living organisms are composed of cells, will rise and fall on the scientific evidence, not on some papal decree. Now, if a scientific theory oversteps its bounds and begins making philosophical claims—as evolutionary theories often do—the Church has every right and indeed the obligation to weigh in on such matters, as it properly has regarding evolution over the years. As John Paul II stated, “The church’s magisterium is directly concerned with the question of evolution for it involves the conception of man: revelation teaches us that he was created in the image and likeness of God.”<sup>4</sup>

However, it is important to remember that the Church’s focus is not on the different *scientific* theories of evolution. Rather, as John Paul II explained, it is concerned about the pseudo-scientific “theories of evolution which, in accordance with the philosophies inspiring them, consider the spirit as emerging from the forces of living matter or as a mere epiphenomenon of this matter.”<sup>5</sup> Such philosophical claims are incompatible with what revelation tells

4. John Paul II, “On Evolution” 4, Message to the Pontifical Academy of Sciences, October 22, 1996, in *Origins* 26, no. 25 (December 5, 1996): 415.

5. “On Evolution” 5 (emphasis added).

us about the truth of man. It is these philosophical claims regarding the science of evolution that explicitly concern the Church, not the scientific theory itself. The science must stand or fall on its own weight.

As a result, when it comes to accepting the *science* of evolution, faithful Catholics are free to hold a range of positions on the matter. Thus, there are Catholics who reject evolution outright and see it as incompatible with a historical reading of the Genesis creation accounts and/or Thomistic philosophical principles. At the other extreme, there are Catholics who believe that the evolutionary process, over a four-billion-year timeframe, has produced the type of creature that was fitting to be endowed with a rational soul—namely, humans.<sup>6</sup> Others accept the evolution of nonhuman life forms but hold to the position that humans were created in a direct manner from the dust of the earth and the breath of God as described in the second chapter of Genesis. Still others accept some aspects of evolution but argue that God directly intervened to alter the material evolutionary process at certain points, a view that falls within the spectrum of views held by the modern-day Intelligent Design movement.<sup>7</sup>

So, while the Church has not and will not take a definitive position regarding the various views on the *science* of evolution, this in no way implies that the Church has nothing of importance to say on the matter. Rather, the Church, through official documents and papal writings, has provided a framework to guide Catholics in their approach to the evolution/creation question. For starters, the Church has repeatedly made clear that the science of evolution cannot explain the totality of man. Even if one is convinced by the scientific evidence that man evolved

6. These individuals are often called theistic evolutionists. Given the diversity of opinions that are lumped under this term, it is not a very useful categorization for the purposes of this book.

7. Like the term theistic evolutionist, there are a multitude of positions that are lumped under the broad classification of Intelligent Design. Dr. Michel Behe's work (see *Darwin's Black Box*) is most associated with this position, but the term Intelligent Design encompasses a broad range of positions, making it difficult to define succinctly.

from other primates, the origin of man involves the immediate creation of an immaterial soul, something no scientific theory can explain. The Church also makes clear that the evolutionary process is entirely dependent upon God and does not operate independently from him or his divine will. Regardless of the exact natural processes by which evolution has operated, even if these have involved chance events, it operates in precisely the manner God has intended from all eternity.

Much more will be said regarding these points in later chapters, but the key notion to address in this opening chapter is that while the Church allows a range of positions regarding the science of evolution, there are some philosophical conclusions that are often appended to the science of evolution that are *not* compatible with Catholic theology.<sup>8</sup> Obviously, any atheistic interpretation of evolution is incompatible with the faith. So too, though, is a reading of evolution that assumes God is “surprised” by the outcome of evolution, that it operates independently from his plan for creation. Both of these positions are *philosophical* in nature and go well beyond what the science can demonstrate. They are also clearly in conflict with the teachings of the Church. This is why the Magisterium has spoken out repeatedly against these erroneous “evolutionary” claims for the past hundred years.

#### A GUIDE MAP TO THE BOOK

While the Church allows faithful Catholics to hold many different positions on the science of evolution, this does not mean that all such positions described above are equally valid. In fact, only one of the scientific positions can be correct. Either natural processes can explain the physical evolution of organisms or they cannot. Either evolution can explain the origin of the man’s physical form or it cannot. One of these positions must be closest to the truth, and seeking the truth matters, particularly given that the truth

8. This will be discussed in more detail in chapter 2.

about this topic impacts both our understanding of God's creation and our understanding of God's Word in Sacred Scripture. If the science of evolution is correct about the emergence of new life forms over time, this reveals something about the relationship between God and his creation. If the science of evolution is true, it also reveals something important that impacts the correct exegesis of the first chapters of Genesis. The truths science reveals about the natural world must align with the truths we learn from Scripture because, as Pope Leo XIII wrote in *Providentissimus Deus*, "truth cannot contradict truth"<sup>9</sup> given that all truth comes from one source, the triune God.

Thus, there can only be one perspective that holds to the truths of the faith *and* is consistent with what actually happened during the course of natural history. And if the truth is worth seeking (hint: it is), then we have an obligation to seek it. This is not an easy task though, particularly given the tentative nature of science and the incomplete understanding we have of the mysteries of the faith.<sup>10</sup> Pope Leo XIII's words regarding the caution and care needed to discern the proper interpretation of Scripture apply aptly to the difficulties of discerning the truth at the heart of the evolution/creation discussion:

Judicious theologians and commentators should be consulted as to what is the true or most probable meaning of the passage in discussion, and the hostile arguments should be carefully weighed. Even if the difficulty is after all not cleared up and the discrepancy seems to remain, *the contest must not be abandoned; truth cannot contradict truth*, and we may be sure that some mistake has been made either in the interpretation

9. Leo XIII, *Providentissimus Deus* 23, encyclical letter, November 18, 1893, vatican.va.

10. While science is tentative, there are things we can know with relative certainty via the scientific method. However, new knowledge can always lead to revisions of that knowledge. In terms of our understanding of the mysteries of the faith, we will never completely grasp them precisely because they are mysteries. This does not mean we cannot have some reasonable knowledge of them, but it does mean we can never fully grasp their riches.

of the sacred words, or in the polemical discussion itself; and if no such mistake can be detected, we must then suspend judgment for the time being.<sup>11</sup>

Pope Leo XIII was not alone in exhorting scholars to engage with these difficult questions. Pope Pius XII, in *Humani Generis*, encouraged that “in conformity with the present state of human sciences and sacred theology, research and discussions, on the part of men experienced in both fields, take place with regard to the doctrine of evolution.”<sup>12</sup> Likewise, Pope St. John Paul II and Pope Benedict XVI actively encouraged, supported, and took part in such discussions during their respective pontificates.

In my own life, I have been blessed to play a small role in this interdisciplinary work and to realize some of the fruit that comes from the “research and discussions” envisioned by the Church on this matter. As a faculty member at Franciscan University and through my work in the greater Catholic and Christian academic community, I have been able to participate in regular discussions (both formal and informal) with colleagues in theology, philosophy, history, and science regarding evolution and the faith. I have had the good fortune of learning from Scripture scholars, patristics experts, Thomistic philosophers, personalist philosophers, moral theologians, and Church historians. This is in addition to the many stimulating conversations I have enjoyed with fellow members of the Society of Catholic Scientists, conversations that broadened my scientific knowledge beyond my narrow area of expertise. Without the assistance, guidance, expertise—and most importantly fraternal correction—from these colleagues, this book, which draws upon a wide range of scientific, philosophical, and theological knowledge, would not have been possible.

11. *Providentissimus Deus* 23 (emphasis added).

12. Pius XII, *Humani Generis* 36, encyclical letter, August 12, 1950, vatican.va.

## THE GOALS OF THE BOOK

The very name *university*, an institution borne from the heart of the Church, belies the Christian belief in the unity of all knowledge. While all disciplines have their unique methods and subject matter, they are all meant to be rowing in the same direction. Each is meant to discover what is good, true, and beautiful in its own discipline, a revelation that moves man closer to the ultimate source of goodness, truth, and beauty. The picture gleaned from any one discipline, though, is limited and incomplete, like a mosaic produced with only one color of tile. To glimpse reality in all its splendor, one must attempt to properly integrate the truths revealed from all the disciplines.

This interdisciplinary work is immensely difficult, though, and requires significant collaboration as well as intellectual humility. To make matters worse, everyone who enters this dialogue carries with them biases and prejudices. When it comes to the evolution/creation discussion, everyone, this author included, carries cognitive, scientific, metaphysical, educational, and religious biases and preferences that affect how they view and interpret the data. None of us come with a purely objective view or what the philosopher Thomas Nagel called “the view from nowhere.” This is not to deny that there is an objective reality; it is simply an acknowledgement of our common human condition, a condition that can hinder our collective search for the truth.

For the benefit of the reader, it is important that I lay out my position regarding creation and evolution here at the beginning of the book because it will be the lens through which I interpret and discuss the data. I believe that the scientific evidence for the evolution of life over the past roughly 3.8 billion years on Earth is robust. I believe natural processes—natural selection plus other natural processes that will be discussed in later chapters—can explain the evolutionary changes that have occurred on our planet. However, I believe, for both philosophical and theological

reasons, that mankind is more than a material being. As such, the origin of mankind cannot be fully explained by a material evolutionary process but required the direct intervention of God in the creation of a man's immaterial soul.

In addition, I believe that God created a highly ordered world, a rare universe in which evolution via natural processes is indeed possible. This order, which has been gifted to our universe, is essential for evolution to work at all and can also affect the direction and outcomes of the evolutionary process. While there is order at the heart of the evolutionary process, chance still plays an important role. It is through this dynamic interplay of order and chance that, in the fullness of time, evolution produced the physical entity that was fitting to be informed by a rational human soul, man made in God's image.

While I believe this position is reasonable and can be supported scientifically, theologically, and philosophically, I recognize it is not the only logically possible conclusion. I also realize that my position, like every other position in the evolution/creation debate, raises several sticky issues, from the interpretation of Genesis to the nature of original sin. I certainly do not claim to have the answers to all these questions. In fact, as Pope Leo XII stated, maybe "we must . . . suspend judgment for the time being" on some of them. However, this does not diminish the value of partaking in serious reflection upon these questions.

In my twenty-plus years of teaching at Franciscan University, I have encountered a good number of students who have told me that they reject evolution because they believe it to be incompatible with Catholicism. I have also had others come talk to me about friends and family members who fell away from the faith, in part because they felt the science of evolution had completely undermined Christian belief. This book is largely written with these two populations in mind: those who reject evolution because they believe it inherently conflicts with the faith and those who

have jettisoned their Catholic faith because of the belief that it is incompatible with the scientific truths of evolution.

While I have outlined my specific position regarding the evolution/creation question, my primary goal with this book is not to convince readers of the validity of my position. Rather, the goals I have in writing the book are much more modest. My first goal is to provide the reader with a framework that allows them to see how the science of evolution can be reconciled with the truths of the faith. Even if the reader still has scientific concerns regarding evolution after reading the book, if he or she walks away with an understanding that one does not have to choose between evolution and Catholicism, I deem my efforts a success.

If one no longer thinks he or she must demonstrate that natural evolution is false in order to save appearances for Catholicism, he or she is much more able to learn about evolution on fair terms. This leads into the second goal of the book: to provide the reader with a proper understanding of the science of evolution. Unfortunately, students often come into my class with a rather one-sided understanding of evolution. They tend to view it as merely a chance process, one in which random mutations do all the work and organisms are passive bystanders. The reality is quite different, as evolution is built upon a bed of order and shaped by active living agents. The order in the cosmos—the order described by modern physics—is an essential gift to evolution that allows it to operate and helps “direct” it toward certain biological solutions. In addition, biological systems operate in ways that aid and abet the evolutionary process. This orderly view of evolution, although it does not discount the chance elements of the process, leads to a more accurate and awe-inspiring view of that process.



## CREATION AND EVOLUTION

When people disagree with certain scientific data, you often hear them discount this data with the claim that the science is always changing and that new data may totally upend the way we think about certain scientific issues. Many proffer this as an excuse to discount our current understanding of evolution. Why try to integrate Catholic teaching with a scientific theory that will be obsolete fifty to one hundred years from now? This type of reasoning, though, is an example of not seeing the forest for the trees. Science is indeed always providing new data for us to integrate into our understanding of the world, and of course evolutionary science is no different. Particularly when it comes to the science of human evolution, the data we have today is constantly being updated and revised. However, while many of the details about evolution will certainly change, the broader theory of evolution is not going away and is about as likely to be discarded by future scientific discoveries as the theory of gravity. In fact, there are many big picture generalities regarding evolution and human evolution that are extremely well supported by multiple lines of evidence. The question is how best to make sense of this evidence in light of a Catholic understanding of both creation and the human person.

Like many things in Catholic theology (and science for that matter), I believe the best way to make sense of the evolution/creation question is to view it as a both/and situation rather than an either/or situation. Just like Christ is both human and divine, just like light displays properties of both a wave and a particle, the truth is that humans have both evolved *and* been directly created by God. The rest of the book attempts to unpack what exactly this means.

# Evolution and Creation

## The Unity of Faith and Reason

The theory of evolution does not invalidate the faith, nor does it corroborate it. But it does challenge the faith to understand itself more profoundly and thus to help man to understand himself and to become increasingly what he is: the being who is supposed to say *Thou* to God in eternity.<sup>1</sup>

—Joseph Ratzinger

In the 1980s, Cardinal Joseph Ratzinger (who would go on to become Pope Benedict XVI), gave a series of four homilies devoted to unpacking the riches of the first chapters of Genesis. Not long after, these homilies were compiled into a short book entitled *“In the Beginning . . .”: A Catholic Understanding of the Story of Creation and the Fall*. While the subject matter of this book is quite expansive, one highlight of the book is the productive framework that Ratzinger laid out for Catholics seeking to integrate evolutionary theory and Catholic theology. Rather than seeing the evolutionary account and the Genesis creation account as two competing theories regarding man’s origin, Ratzinger points out in the third homily of the book that evolution and creation are “two complementary—rather than mutually exclusive—realities.”<sup>2</sup> He argues that while both accounts provide information regarding man and his origins, they do so on different levels. One offers a scientific account of the relationship between man

1. Joseph Ratzinger, “Schöpfungsglaube und Evolutionstheorie,” in *Wer ist das eigentlich—Gott?* ed. H.J. Schulz (Munich: Kösel, 1969). Reprinted in *Creation and Evolution: A Conference with Pope Benedict XVI in Castel Gandolfo*, ed. Stephan Horn and Siegfried Wiedenhofer (San Francisco: Ignatius, 2007), 16.

2. Joseph Ratzinger, *“In the Beginning . . .”: A Catholic Understanding of the Story of Creation and the Fall* (Grand Rapids, MI: Eerdmans, 1995), 50.

and other primates, while the other offers a theological account of both man's relationship to the Creator and his ultimate destiny. Thus, each account offers a perspective that the other lacks, and it is only when both accounts are properly understood that one can gain an integrated understanding of man and his origin. From Ratzinger's perspective, instead of competing against each other for dominance, the science of evolution and the theology of creation can partner to provide a wider, wiser, and deeper account of reality.

Ratzinger's position that science and Catholic theology are partners in the search for truth is not a novel position. Rather, it is one that has deep roots in the Catholic tradition, a tradition that has produced such scientific luminaries as St. Gregory the Great, Copernicus, Galileo, Mendel, and Lemaître. Yet, despite this impressive track record, the default cultural stereotype often assumes that science and Catholicism (or theology in general) are warring combatants. It assumes that science and faith are two disparate ways of viewing the world, with the former relying on reason and logic and the latter relying on superstition and myth. In fact, recent surveys have found that over half of young people who leave the Church cite the incompatibility with science as one of the factors in their decision.<sup>3</sup> For these young people (and many others), it is science that holds the answers to all the pertinent questions that face humanity, while faith seems to be an archaic and increasingly irrelevant system of beliefs that is slowly losing any influence over our increasingly technology-driven society.

In this cultural milieu, it seems quite ironic that Pope Benedict could proclaim, in a 2009 visit to Africa, that "the task of religion today is to unveil the vast potential of human reason."<sup>4</sup> Benedict's view that religious faith holds the key to unlocking the "potential

3. Saint Mary's Press Catholic Research Group and the Center for Applied Research in the Apostolate, *Going, Going, Gone: The Dynamics of Disaffiliation in Young Catholics* (Winona, MN: St. Mary's, 2017).

4. Benedict XVI, "Pope's Words to Cameroon Muslim Leaders," May 19, 2009, <https://www.catholicculture.org/culture/library/view.cfm?recnum=8830>.

of human reason” runs counter to the slow atrophy of religious belief in the Western world. For those like the scientific atheist Richard Dawkins, a leading popularizer of the view that evolutionary theory has removed any need for God, Pope Benedict’s statement must seem downright ludicrous. Contrary to Benedict, Dawkins views religious faith as a crutch that obstructs human reason rather than a tool that can unleash it. He argues that “faith is the great cop-out, the great excuse to evade the need to think and evaluate evidence. Faith is the belief in spite of, even perhaps because of, the lack of evidence.”<sup>5</sup>

However, Dawkins’ caricature of faith bears no resemblance to the Catholic understanding of the term. From a Catholic perspective, faith is seen not as the antithesis of reason, but rather as a necessary partner with reason in the ongoing search for the ultimate truth. For Catholics, as John Paul II stated, “faith asks that its object be understood with the help of reason”<sup>6</sup> rather than in spite of reason. In light of this, Dawkins’ view of faith is the *exact opposite* of the Catholic understanding of the term. He confuses faith with fideism, the belief that understanding comes from faith alone, often at the expense of (or in opposition to) the use of human reason, which is a theological position distinctly at odds with the Catholic faith.

Dawkins fails to capture not only the Catholic understanding of faith but even the popular everyday use of the term. For example, when a man states that he has faith in his wife, he normally states this because he has *evidence* to justify that faith—his wife has given him *reason* to have faith in her based upon her actions and words. Faith for the husband is not a blind naïve trust that flies in the face of the evidence. Rather, it flows from the abundant amount of evidence provided by countless instances of his wife’s loving and caring behavior. Faith in this

5. Richard Dawkins, Speech at the Edinburgh International Science Festival, April 15, 1992; reprinted as “EDITORIAL: A Scientist’s Case against God,” *The Independent*, 1992, p. 17.

6. John Paul II, *Fides et Ratio* 42, encyclical letter, September 14, 1998, vatican.va.

context is usually consistent with what is known through the use of human reason.

While faith can certainly be reasonable, it is important to recognize that faith is not scientific in nature. This is an important distinction for the evolution/creation discussion, as many like Dawkins erroneously equate reason with science. The case of the husband described above can illustrate aptly this distinction between reason and science. While it would be quite reasonable for the husband to have faith in his wife if she has exhibited years of loving behavior toward him, there is no scientific experiment that one can perform to measure, quantitate, or justify the amount of faith the man should have (or actually does have) in his wife. Of course, one could scientifically study the wife's behavior and attempt to quantify the number of specific "loving" actions or behaviors she exhibits. However, such a study could never justify the man's faith *scientifically* because it could never get at his wife's inherent motivations, her beliefs, or her actual love for her husband, as these are not physical things that are amenable to scientific investigation. Science, at least modern empirical science as currently understood, is limited to observing and measuring her physical behavior, whether this be the physical actions she performs or the physical changes that occur in her brain. It takes a rational human being to interpret these actions and changes as loving, as coming from a person in whom it is worthy to place one's faith. While such an interpretation is not scientific, it can certainly be rational and reasonable.

In a similar fashion, when one says that he or she has faith in God's existence, one is not merely taking this position in spite of the evidence. Rather, faith in God's existence is a rational position for which one can offer well-reasoned arguments. As the *Catechism of the Catholic Church* points out, "The Church holds and teaches that God, the first principle and last end of all

things, can be known with certainty from the created world by the natural light of human reason.”<sup>7</sup>

Again, it is important to realize that these demonstrations, though reasonable, are not scientific in nature. Rather, the arguments for the existence of a Creator, some of which date back to the ancient pagan philosophers, are philosophical in nature. Such arguments have a rich history within the Catholic tradition and include St. Anselm’s ontological argument and St. Thomas Aquinas’ five ways. Aquinas’ first way illustrates the nature of these types of rational but non-scientific arguments. In his first way, Aquinas begins with the claim, which he justifies based on human experience, that anything in motion must have been set in motion by another object. Every time we observe an object set in motion, this motion or change is triggered by another object, *not* the object that undergoes the change in motion itself. However, this first object, which triggers the motion of the second, must have been itself set in motion/change by another object, and so forth. Aquinas argues that this series of causes cannot go on *ad infinitum*, as there would be nothing to generate the first movement. He then concludes, “Therefore it is necessary to arrive at a first mover, moved by no other; and this everyone understands to be God.”<sup>8</sup>

While much has been written regarding the validity of Aquinas’ first way, there is no experimental body of scientific work that can address this argument. Science can measure how physical objects move or how momentum is transferred from one physical object to the next, but there is no scientific experiment one can perform to answer the question of why movement exists in the first place. One can certainly quibble, as numerous authors have, with the logic Aquinas employs to build his argument, but that is beside the point here. The key is to recognize that one

7. *Catechism of the Catholic Church* 36.

8. Thomas Aquinas, *Summa theologiae* 1.2.3. All quotations from the *Summa* are from second and revised edition, 1920, trans. Fathers of the English Dominican Province, from [newadvent.org](http://newadvent.org).

can make rational arguments about faith and God and that such arguments are not scientific in nature. Rather, such arguments 1) are philosophical and/or theological in nature and 2) can provide useful knowledge about reality. Recognizing that there is real knowledge to be gained outside of the narrow confines of modern science, that science doesn't hold all the answers, is what allows Ratzinger to maintain that evolution and creation are "two complementary—rather than mutually exclusive—realities," and it is an essential first step toward integrating Catholicism and the science of evolution.

#### LIMITS OF SCIENCE

In our increasingly technologically reliant society, scientific knowledge holds a privileged place. Scientific departments proliferate at modern universities while departments devoted to theology and philosophy continue to be downsized and struggle with enrollment. On the one hand, science seems to provide knowledge that can improve our health and quality of life, while philosophy and theology seem to only produce unresolvable squabbles. Given this perception, it is little wonder that scientism, the belief that science is the only path toward real knowledge, continues to gain adherents. The advocates of scientism operate under the assumption that the material world is all that exists and that modern science alone has the resources to answer all the meaningful questions.

The adherents of this position tend to frame themselves as the guardians of rational inquiry, defending it against the antiquated superstitions of theology and the unfounded speculations of philosophy. But at its heart, scientism has a fatal flaw, one articulated succinctly by the philosopher Ed Feser: "Despite its adherents' pose of rationality, scientism has a serious problem: it is either self-refuting or trivial. . . . The claim that scientism is true is not itself a scientific claim, not something that can be

established using scientific methods. Indeed, that science is even a rational form of inquiry (let alone the only rational form of inquiry) is not something that can be established scientifically.”<sup>9</sup>

Feser makes the point that scientism is a philosophical position, and as such, it can only be defended by philosophical arguments. But for an adherent of scientism, philosophical arguments hold no value. This leaves the adherent of scientism in the unenviable situation of advocating for a position that he has no capability of defending given the limited tools he has left at his disposal.

In addition to being trapped inside a self-refuting philosophy, the practitioners of scientism make matters worse by seeking to answer questions that the scientific method has no ability to handle. An excellent example of this overreach can be found at the beginning of the biologist Richard Dawkins’ book *The God Delusion*, where he confidently states that “the existence of God is a scientific hypothesis.” However, as Dawkins attempts to build his “scientific” case against God, he unwittingly illustrates both the futility of such an exercise and the futility of scientism in general.

To construct his case, Dawkins invokes the results of what he calls the great prayer experiment, a scientific experiment in which researchers examined the outcomes of two groups of sick patients, those who were receiving intercessory prayer and those who were not. The study found that there was no difference in measurable health outcomes between the two groups, a result that Dawkins believes provides clear scientific evidence for the nonexistence of God. The results of the experiment, however, do nothing of the sort. The experiment merely provides evidence that 1) God is not what Dawkins thinks he is, an easily manipulated accountant that adds up prayers and doles out rewards based upon some predetermined calculus, and 2) prayer is not what Dawkins thinks

9. Edward Feser, “Blinded by Scientism,” *Public Discourse*, March 9, 2010, <https://www.thepublicdiscourse.com/2010/03/1174/>.



it is, a human petition whereby people manipulate a higher power to achieve a desired physical outcome.

Because Dawkins believes everything must be reduced to a materialistic explanation, he treats God and prayer in the same manner as he would treat physical entities such as a medication or a surgical treatment. However, if prayer is not merely a physical thing (and it isn't), then it is not the type of entity that is reducible to scientific inquiry.

This is not to claim that prayer doesn't have physical manifestations; it clearly does. The act of praying can be correlated with physical changes such as heart rate reductions or alterations in neural firing patterns. But, for the Christian, the act of prayer transcends the physical because at its essence, prayer is communion with God. As such, while the physical correlates of prayer may be accessible to scientific study, the true essence of prayer remains beyond the purview of science. For a Christian, prayer is the opening of oneself up to the will of the Creator, a divine will that no scientific experiment can measure. It is asking God that "thy will be done." This stands in stark contrast to Dawkins' view of prayer as an attempt to bend the will of the Creator to match our desires.

From a Christian perspective, both answered and unanswered prayers are wholly consistent with an omnipotent Creator who has a better grasp on our true needs than we do. Any possible outcome of the great prayer experiment is entirely consistent with the existence of the Christian God (not to mention other versions of God, such as deistic versions). The results of the experiment have no bearing on the question Dawkins is asking: the existence or nonexistence of the Christian God.

Dawkins, like many others who are immersed in scientism, is trying to use science for something it is not equipped to do. To his credit, he is correct that the existence or nonexistence of God is worth investigating, but the way he sets about doing so is bound for failure. As the Protestant theologian Keith Ward points

out, “The existence of God is certainly a factual question [God either exists or he doesn’t], but it is not a scientific one.”<sup>10</sup>

Recognizing the limits of science and what is and what is not a scientific question gets at the heart of the evolution and creation discussion. In fact, not acknowledging the limits of science is one of the biggest obstacles that hinders a more fruitful engagement between the science of evolution and a Catholic understanding of creation. The recognition that modern science has limits, that it provides rational explanations regarding only how the *physical* world is structured and operates, is essential for any effort to successfully integrate evolution and creation.

Science is not the sum of all our knowledge. While science is an extremely powerful and useful tool for addressing how the physical universe operates, humans naturally do not end their inquiries there. It is quite normal for humans to inquire into not only how the universe is structured but also *why* it is structured in the manner described by science. Humans quite naturally inquire regarding the ultimate purpose and meaning of things. All great literature and art touch on these big questions regarding the purpose of existence, the purpose of human life, or the purpose of the universe. In a similar manner, when one examines the process of evolution from a scientific perspective, it is quite natural for this scientific investigation to spur deeper, more penetrating questions regarding the ultimate purpose of evolution. Does evolution operate to fulfill God’s plan and purpose? Is evolution devoid of any sense of purpose or meaning? Do humans have any more worth or value than other primates?

All of these questions are very real and very relevant to how we live our lives. However, they are not scientific questions because the subject matter, ultimate purpose, is not a physical entity that is quantifiable in any meaningful scientific way. Purpose is something that lies outside this realm; it is a question beyond

10. Keith Ward, *The Big Questions in Science and Religion* (West Conshohocken, PA: Templeton, 2008), 30.

the ontological limits of science. Attempting to use science to demonstrate that humans have no purpose or meaning is akin to using a hammer to try and fix your desktop computer when it doesn't boot up properly. It is the wrong tool for the job.

#### FIDEISM AND YOUNG EARTH CREATIONISTS

While advocates of scientism sever the connection between faith and reason by making science the sole arbiter of rational thought, there is an equal but opposite problem that exists on the flip side of the evolution/creation spectrum. Young Earth Creationists (YECs), rather than looking to evolutionary science to provide insights into legitimate scientific questions, rely upon the revelation of Scripture as the ultimate arbiter of natural history.<sup>11</sup> They rely upon the historical accuracy of the scriptural account even if it is not consistent with the scientific data garnered through the proper application of human reason. In this context, faith is seen as something that can and should override scientific reasoning if that reasoning legitimately comes to a conclusion that does not coincide with some narrow understanding of the faith.

Of course, the Church recognizes that human reason is prone to mistakes and that in a fallen world, greed, pride, and arrogance can corrupt human reason such that it distorts rather than enlightens our understanding. Pope Pius XII made this point in the 1950 encyclical *Humani Generis*: “There are not a few obstacles to prevent reason from making efficient and fruitful use of its natural ability. . . . Hence men easily persuade themselves in such matters that what they do not wish to believe is false or at least doubtful.”<sup>12</sup> But despite this concern, Pope Pius XII makes it clear that human reason, on its own, *is* capable of coming to know God: “Human reason by its own natural force and light can arrive

11. The term Young Earth Creationists here refers to those who regard the Genesis text as a historical description of the events of creation and believe that the earth is young, less than ten thousand years old.

12. Pius XII, *Humani Generis* 2, encyclical letter, August 12, 1950, vatican.va.

at a true and certain knowledge of the one personal God, Who by His providence watches over and governs the world, and also of the natural law, which the Creator has written in our hearts.”<sup>13</sup>

Pope Pius XII’s confidence that human reason can bring one to knowledge of God flows from the Catholic understanding that the human capacity for reason reflects God, the ultimate source of reason. The Creator God has endowed humans with the rational capacity to come to knowledge of him and his rationally ordered creation through the application of our reason. Therefore, human reason, when properly applied, either philosophically or scientifically, can draw us closer to the truth about both God and his creation.

This appreciation for the capability of human reason is a stumbling block for many YECs who see faith alone, particularly as revealed through a historical reading of Scripture, as the sole means to bring us to the truth. This is a position that naturally leads to a denigration of the capacity of human reason, for if one takes on faith that God created the world in six days (as described by the author of Genesis), one must then put aside what human reason has uncovered regarding the age of Earth, the age of the universe, or the evolutionary connections between living organisms. This is exactly the position in which staunch YECs find themselves. Hugh Owen, a Catholic YEC, illustrates this type of reasoning: “Since it is impossible to reconcile the long ages of evolution with the traditional doctrine of creation as set forth, for example, in the *Roman Catechism*, without ‘recasting’ it, this . . . effectively rules out any possibility that theistic evolution could be deemed acceptable for Catholics by the Magisterium.”<sup>14</sup>

Another Catholic YEC, Fr. Peter Fehlner, displays a similar rationale for rejecting the scientific data indicating that the Earth is old: “The Creator, being the only witness to what happened

13. *Humani Generis* 2.

14. Hugh Owen, “Hugh Owen’s Response to Cardinal Ruffini on the Days of Creation,” [https://www.pcpbooks.net/hugh\\_owen\\_and\\_cardinal\\_ruffini.html](https://www.pcpbooks.net/hugh_owen_and_cardinal_ruffini.html).

in the beginning, has told us He made the stars and made them shine within a period of 24 hours, thus providing a key to the interpretation of the appearances ‘in the beginning.’”<sup>15</sup> Thus, even if the preponderance of the scientific evidence indicates that the Earth is 4.5 billion years old, one is required to explain away or ignore this data in order to maintain what is “known” by faith.

Ironically, this creates a situation in which both extremes in the evolution debate, the YECs and the atheistic evolutionists like Richard Dawkins, have become strange bedfellows. Both groups have deliberately severed the connection between faith and reason (although they have cut the cord from opposite ends). As John Paul II articulated in *Fides et Ratio*, “Faith and reason are like two wings on which the human spirit rises to the contemplation of truth.”<sup>16</sup> It is not surprising then that the severing of this crucial link can lead both groups astray.

Once this cord is cut, both the atheistic evolutionists and the YECs tend to place God in competition with other possible explanations for the emergence of organisms. As the philosopher Conor Cunningham has pointed out, “The only difference is that the [atheistic evolutionists] think [this God] does not exist, or that at most it is a blind watchmaker.”<sup>17</sup> For YECs, the commitment that God crafted the universe in the manner described in Genesis inherently puts their view of God in conflict with any scientific explanations regarding the evolution of the universe. They have—unwittingly perhaps—set up a situation in which God is forced to compete with creaturely causes to maintain his relevance: either God is the cause, or some scientific process is the cause. From this perspective, the establishment of a robust scientific account regarding the emergence of stars, planets, and organisms would necessarily remove God from the picture.

15. Peter D. Fehlner, “In the Beginning,” Kolbe Center for the Study of Creation, November 1, 2001, <https://www.kolbecenter.org/in-the-beginning/>.

16. *Fides et Ratio*.

17. Conor Cunningham, *Darwin’s Pious Idea: Why the Ultra-Darwinists and Creationists Both Get It Wrong* (Grand Rapids, MI: Eerdmans, 2010), 151.

This, though, is the exact same limited framework from which atheistic evolutionists operate. They see evolutionary explanations for the emergence of organisms as replacing the need for God. God is seen as one cause among many, and a relatively impotent one at that. Science, on the other hand, is seen as offering a more accurate explanation of cosmic and biological evolution. It is for this reason that Dawkins claimed the science of evolution allowed him to be an intellectually fulfilled atheist. If the science of evolution can explain everything, then Dawkins can echo Laplace's famous remark regarding the need to invoke God: "I have no need for that hypothesis."

Yet the God of the YECs and the atheistic evolutionists is not the God that Catholics worship. The Catholic Creator God is not one cause among many, but rather the source of all existence. He is the reason that anything exists at all. He is the reason that stars can burn and produce heavier elements, and he is the reason that species can become modified and shaped by their interactions with the environment. As the *Catechism* points out, the Church's understanding of creation is meant to address "the basic question that men of all times have asked themselves: 'Where do we come from?' 'Where does everything that exists come from and where is it going?'"<sup>18</sup> It is meant to address the question of why things exist in the first place.<sup>19</sup>

While these questions will be expanded upon throughout this book, the key point to grasp up front is that for Catholics, creation is not a point in time or some isolated act. Rather, it is a deep metaphysical reality. It is the continual reliance of everything and everyone on God for existence at every point in time. From this metaphysical perspective, creation is neither a six-day process nor a fourteen-billion-year process (although the question of how God's creative act has unfolded is a related and

18. CCC 282.

19. Certainly, the questions of how the material world came into existence or how humans came into existence are related to this question, but those questions are secondary to the question of existence itself.