

# A CASE FOR THE EXISTENCE OF GOD

*Dean L. Overman*

Foreword by Robert Kaita  
Afterword by Armand Nicholi

ROWMAN & LITTLEFIELD PUBLISHERS, INC.  
*Lanham • Boulder • New York • Toronto • Plymouth, UK*

## ABRIDGED CONTENTS

Foreword, Robert Kaita	xix
Preface	xxiii
Acknowledgments	xxxii
<b>1</b> Introduction	1
<b>2</b> The question of God's existence: the radical contingency of the universe points toward a necessary being	7
<b>3</b> Many generations of philosophers have made the mistake of assuming Hume and Kant's objections disposed of the cosmological argument	33
<b>4</b> A universe with an infinite past would still require a necessary being to sustain its existence	39
<b>5</b> Because the universe (or multiverse) had a beginning, it is contingent and has a cause for its coming into existence	43
<b>6</b> The philosophy of nature set forth in this book emphasizes the intelligibility of the universe noted in Einstein's statement: "The most incomprehensible thing about the world is that it is comprehensible." A significant issue in examining the "something" that exists is Why is it intelligible?	53

ABRIDGED CONTENTS

<b>7</b>	Evolution is not dispositive of the question of why there is something rather than nothing and why the universe is rational and intelligible	67
<b>8</b>	The mystery of information challenges a strict materialism	73
<b>9</b>	The existence of God gives an absolute that is consistent with the real existence of right and wrong	89
<b>10</b>	Evidential force of religious experience: If God is a person, God can be known to only a very limited extent by abstract reasoning and is more fully known by personal acquaintance in an I-Thou relationship with the Wholly Other	101
<b>11</b>	Recorded experiences of encounters with the divine bear witness to a way of knowing that includes Kierkegaard's <i>Kendskab</i> , Buber's <i>I-Thou</i> , Otto's <i>Wholly Other</i> , and Marcel's <i>Mystery</i>	115
<b>12</b>	These nine witnesses testify to another way of knowing that is compatible with the empirical and the metaphysical rational ways of knowing, but is beyond the describable and requires personal participation, commitment, and personal transformation	147
<b>13</b>	Concluding reflections and summary: Theism requires a leap of faith, but it is a leap into the light, not into the dark; theism explains more than atheism, which also requires a leap of faith	151
	Afterword, Armand Nicholi	161
	Appendix A: The new mathematics of algorithmic information theory is relevant to theories concerning the formation of the first living matter	163
	Appendix B: The limits of mathematics and the limits of reason: Why everyone will always live by faith rather than certainty	181

ABRIDGED CONTENTS

Appendix C: The evidence from contemporary physics supports the concepts of personal responsibility and free will	185
Notes	189
Selected Bibliography	211
Index	217
About the Author	229

# 1

## INTRODUCTION

How are we to understand our existence? How are we to understand the existence of anything at all? Why is our universe intelligible and not simply a chaos? Why are its laws mathematical? Where did these laws come from? What breathes fire into these laws that makes a physical universe? Why does our universe have its particular components?

These questions present the initial central subject matter of this book. We live on a relatively small speck of matter orbiting a star, our sun, which we now know has a finite existence. Physicists tell us with considerable certainty that our sun is exhausting its hydrogen fuel and in about five billion years will go into its death throes and expand to become a red giant. At that time this whole earth, indeed, our whole solar system, will be engulfed by the sun as it swells in its dying phase. The earth and all of the planets in our system will disintegrate. This planet and its sun will disappear completely, as will all earthly life. Not only the planets but also all of life seems to lack any permanence.

Our earth appears to be a very rare planet.<sup>1</sup> Even if we assume that we could find another planet hospitable to human life, we will not overcome our finitude, because all the stars in the universe will eventually follow the sun's path and extinguish their nuclear fuel and die.

We live in a relatively short niche of cosmic history. The expanding nature of our universe only allows for the possibility of conscious life after about fourteen billion years of expansion. After the fiery hot Big Bang that marked the beginning of the universe, the universe gradually cooled, allowing atoms, molecules, galaxies, stars, planets, and living matter to form. We have only a finite niche of time before all stars will exhaust their nuclear fuel and die.

John D. Barrow, professor of mathematical sciences at the University of Cambridge, has created the graph<sup>2</sup> on page 3 to illustrate the history of the universe and its eventual heat death.

The existence of conscious human life appears to be a finite phenomenon, whether the universe continues to expand or whether it collapses in a Big Crunch.<sup>3</sup> The fact that all of life will die out long before the death of the universe does not require us to conclude that there isn't any intrinsic value in existence. After all, one can enjoy a Mozart symphony and experience a value in listening to the symphony, even though the experience comes to an end.<sup>4</sup> Existential philosophers emphasize the importance of living in the present, and many religious persons agree. For example, French Jesuit priest, Jean-Pierre de Caussade, wrote in the eighteenth century about the sacrament of the present moment.

Viktor Frankl, a psychiatrist from Vienna who survived the death camp of Auschwitz, wrote an influential book that began a significant psychological movement in the mid-twentieth century known as "logotherapy." Frankl emphasized man's freedom to find meaning in his life even in the most horrid circumstances. Frankl developed his thought on the basis of his observations regarding the ability of persons to survive when they perceived some meaning in their lives.<sup>5</sup>

Although Frankl's early writings appeared to emphasize meaning even in the finite, as he continued to develop his thought, he emphasized the need for persons to find *ultimate* meaning. Many persons are familiar with Frankl's early writings but do not know that approximately forty years after writing *Man's Search for Meaning*, he wrote another book updating his perspectives, entitled *Man's Search for Ultimate Meaning*.

In his more recent book he made the argument that "a religious sense is existent and present in each and every person, albeit buried, not to say repressed, in the unconscious."<sup>6</sup> As one who survived the death camp and observed the psychological states of his fellow prisoners, he noted that religion did not die in Auschwitz: "The truth is that among those who actually went through the experience of Auschwitz, the number of those whose religious life was deepened—in spite, not to say because, of this experience—by far exceeds the number of those who gave up their belief."<sup>7</sup> As a psychiatrist, Frankl treated religion as the fulfillment of the human "*will to ultimate meaning*."<sup>8</sup> He was convinced that everyone at his or her deepest core had this will to *ultimate* meaning. In other words, humans inherently have a basic desire for an ultimate meaning, not simply a meaning that transcends the self, but a permanent, ultimate meaning. For Frankl this de-

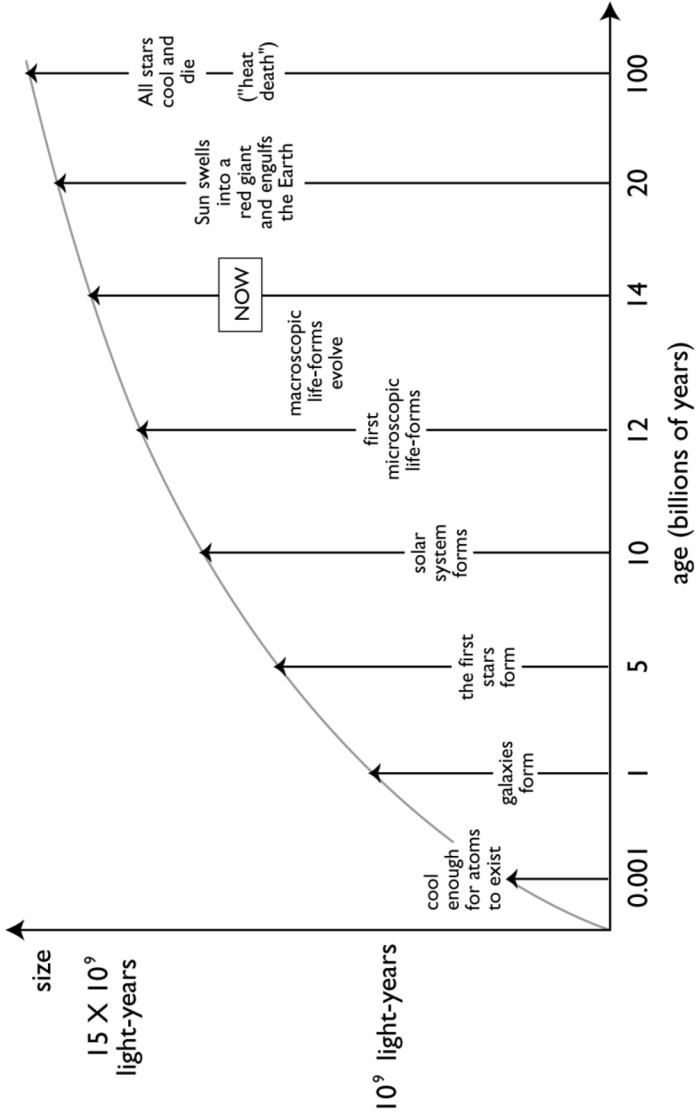


Figure 1.1. History of the universe. Graph from *The Constants of Nature* by John D. Barrow, Pantheon Books, a division of Random House, Inc. (2002), p. 115. Reprinted with permission.

sire is deeply rooted in each person's unconscious depths. In defining religion as the ubiquitous presence of a will to ultimate meaning, Frankl came to believe that every person's psyche had this will. Simply enjoying a finite symphony was not enough. The meaning had to be ultimate.

To find any ultimate meaning in our existence, perhaps something permanent, something that is not contingent or dependent on something finite, must exist. Ultimate meaning may require some infinite foundation. Some scientists who think about the finite nature of the universe fail to perceive any ultimate meaning in its existence. Realizing the bleak cosmic future described above and the eventual complete hostile nature of the universe to life, physics noble laureate Steven Weinberg remarked: "The more the universe seems comprehensible, the more it also seems pointless."<sup>9</sup>

Of course, we have known the finite nature of human constructs for many years. History discloses that human physical, social, and political constructs are all ephemeral. Consider nations: They rise and fall, showing little permanence in the perspective of a few thousand years. First one nation is dominant and then another. Monuments exalting once powerful leaders collapse and lie ruined in sand. This is the message in Percy Bysshe Shelley's poem *Ozymandias*:

Ozymandias

I met a traveller from an antique land  
 Who said: "Two vast and trunkless legs of stone  
 Stand in the desert. Near them, on the sand,  
 Half sunk, a shattered visage lies, whose frown,  
 And wrinkled lip, and sneer of cold command,  
 Tell that its sculptor well those passions read,  
 Which yet survive, stamped on these lifeless things,  
 The hand that mocked them, and the heart that fed,  
 And on the pedestal these words appear:  
 'My name is Ozymandias, King of Kings:  
 Look upon my works, ye Mighty, and despair!  
 Nothing beside remains. Round the decay  
 Of that colossal wreck, boundless and bare  
 The lone and level sands stretch far away."<sup>10</sup>

Because the universe will eventually be unable to support life and be devoid of any energy, all of the knowledge, art, culture, and insights of humanity appear to be futile efforts in a ridiculous cosmic scenario. Perhaps



all that humans can do is adopt a stoic attitude and move forward in a meaningless universe and face the eventual darkness and end of history. Without knowing about the modern physics of the universe and its ultimate end, Shakespeare captured this view in *Macbeth*:

She should have died hereafter;  
 There would have been a time for such a word.  
 To-morrow, and to-morrow, and to-morrow,  
 Creeps in this petty pace from day to day  
 To the last syllable of recorded time,  
 And all our yesterdays have lighted fools  
 The way to dusty death. Out, out, brief candle!  
 Life's but a walking shadow, a poor player  
 That struts and frets his hour upon the stage  
 And then is heard no more. It is a tale  
 Told by an idiot, full of sound and fury,  
 Signifying nothing.<sup>11</sup>

As Frankl observed, our innate tendency is to resist the idea that our lives, our nation, our planet, and the entire universe is valueless and without some sort of ultimate significance. After all, we spend our lives in a busy pattern of activity full of commitments based on our sense of values and meaning. Sir John Polkinghorne, Cambridge University quantum physicist and an Anglican theologian, notes that we rebel at the idea that the explosion of the sun, coupled with the ultimate collapse or heat death of the universe, will render useless the magnificent works of Mozart, Shakespeare, and St. Francis.<sup>12</sup> But he joins many other scientists, philosophers, and university professors who also believe in a more expansive worldview that offers some hope for meaning and a future that has continuity with history. In this book I will explore the essential basis for that hope and examine whether a concept of a new creation is a rationally plausible alternative to the despair that some persons sense in looking at the seemingly futile, inevitable end of the universe.

I write this book, not as a person with all of the answers, but as one who attempts to explore and inquire about the reality behind the visible and whose motivation derives in part from experiences that point to the presence of the divine. In making this exploration and asking questions about existence and reality, I am merely attempting to join countless others who also inquire, search, and sometimes find responses that lift a veil and reveal a glimpse of a beautiful and more perfect reality.

Most of what follows is concerned with logic, science, evidence, and history, but I want to emphasize at the outset that reason will only take us so far. Inevitably, all of us must look beyond and above reason to encounter reality. In addition to knowledge derived from reason, humans have other ways of knowing reality. Perhaps the deepest revelations of reality come to us beyond the senses in a more personal knowledge of beauty and truth. Reason should be coupled with faith in seeking an understanding of reality. For the scientist that faith will rest in the continuing reliability of the effectiveness of abstract mathematics and the laws of physics and their derivatives, such as the laws of chemistry. We cannot abandon reason or we will lose a significant source of verification.<sup>13</sup> But we should also be open to other ways of knowing, because we learn and experience reality as whole persons, not as Newtonian machines. The outmoded worldview of Newtonian mechanics does not address all of reality. Reason and faith are complementary ways of knowing. They need each other to understand reality more fully. Without reason, faith can become sheer fantasy, and without faith, reason can end up in contradictions and cul-de-sacs.

This book will not provide the reader with the assurance of absolute certainty about anything; however, my hope is that it will open a tiny path by which the writer and the reader can step closer to the reality that upholds the universe and sustains each and every breath of our being. For the reasons I set forth in this book, I view that reality as a Person.

## 2

### THE QUESTION OF GOD'S EXISTENCE

---

#### The Radical Contingency of the Universe Points Toward a Necessary Being

**EVERYONE MAKES A LEAP OF FAITH IN HOLDING  
PRESUPPOSITIONS THAT COMPRISE A WORLDVIEW, AND  
EVERY WORLDVIEW HAS INEVITABLE UNCERTAINTIES.**

Everyone lives with uncertainties. We cannot be certain of anything in the sense that we cannot even prove our own existence or the existence of other minds.<sup>1</sup> We all lack absolute certainty in our lives and are required to live by faith in something or someone. We may have faith in many areas, such as our country's economy, our own abilities, our personal wealth, our education, our family's support, our employer, our business, our medical care providers, or any one of a vast number of persons or things. All of us live by faith.

We all hold certain presuppositions or assumptions about the world and about the areas in which we place our faith. We use these presuppositions to interpret our experiences and to make decisions and choices. We all approach reality from some framework that helps us to function in the world. Everyone interprets the world from a particular perspective, a worldview, even if one's worldview is that there are no "valid" worldviews.

The presuppositions that comprise our worldview are formed by taking a leap of faith in interpreting the nature of the world with which we interact. Our presuppositions are derived from our environment, education, family, culture, and experiences. They influence our thoughts,

choices, and behavior and to a great extent determine our beliefs about life, death, the nature of humanity, and the nature of all that exists. We need to recognize that the presuppositions that make up our worldview may or may not be true, in whole or in part, and they may or may not be held consciously, consistently, or coherently. Nevertheless, these preconceived ideas that make up our worldview provide the basis by which we analyze our world and make our decisions.<sup>2</sup>

We should attempt to examine and evaluate the coherency of our presuppositions. They are extremely important, because they constitute the first step in the leap of faith we all must take, whether that leap is toward materialism or theism. In other words, one's thoughts and actions are dependent on faith, not certainty. For example, even science is done pursuant to a faith in the rational, intelligible structure of the universe. As physicist Paul Davies writes: ". . . science has its own faith-based belief system. All science proceeds on the assumption that nature is ordered in a rational and intelligible way. You couldn't be a scientist if you thought the universe was a meaningless jumble of odds and ends haphazardly juxtaposed. When physicists probe to a deeper level of subatomic structure, or astronomers extend the reach of their instruments, they expect to encounter additional elegant mathematical order. And so far this faith has been justified."<sup>3</sup> Davies makes the point that science's "claim to be free of faith is manifestly bogus." The same applies to an atheist; the belief system of an atheist is based on faith, not on knowledge. Given the visible expression of the rational intelligibility of the universe discovered in the mathematical laws of physics, I will argue that it takes a more abundant faith to be an atheist than to be a theist.

Although absolute certainty eludes us in science, that conclusion does not mean that there isn't an absolute truth underlying all of reality. The presuppositions with which we build our worldview should be as consistent as possible with what we know of reality. There is a unity in truth that requires a consistency in our presuppositions if we are to have an effective interpretation of reality and make appropriate ethical decisions. As noted by Mortimer Adler, the unity of truth requires that the presuppositions for one's worldview must be consistent with truths already known in philosophy, history, science, and other disciplines. If various worldviews claim truths that are in conflict with each other, their claims cannot all be true.

To understand further how a presupposition could influence the outcome of one's thinking, consider a presupposition stated by former Cornell University astronomer Carl Sagan that the physical universe is all there is,

all there was, and all there ever will be. Sagan's statement is a leap of faith, because Sagan did not know with any certainty that his statement was true. Similarly, Nobel physicist Steven Weinberg's statement that the universe seems pointless is also a leap of faith.

Sagan's and Weinberg's statements represent leaps of faith because neither could know with any certainty whether their perspective represented a true reflection of reality.<sup>4</sup> But taking the leap of faith and assuming the veracity of their presuppositions, it follows that there is nothing outside of the physical aspects of the cosmos to investigate. Given this conclusion we may consider all human beings to be merely physical things that will perish and have no lasting value or meaning. Human beings may be more complex than other physical structures, but we know that the universe will eventually be unable to support any life so that complexity will not endure. Under Sagan's stated presupposition or the presuppositions implied in Weinberg's statements, it is difficult to see how human, physical, finite "objects" have any permanent, intrinsic, nonexistential value.

If one continues down the path inaugurated by their initial presuppositions in a consistent, logical manner, one can see how, in some circumstances, humans could be perceived as mere "things." Such a perspective can affect how human beings treat each other. This is one reason why Russian philosopher Nicholas Berdyaev and German theologian Paul Tillich used the term *thingification* (*Verdinglichung*) to criticize the dehumanization of persons. The Jewish philosopher Martin Buber also emphasized that human relations (for example, in the relationship between two true friends) could not be adequately expressed in an "I-It" (*Ich-Es*) analytical treatment of beings as only objects.

One's behavior is affected by complex variables so that one cannot simply assert the position that a given person's leap of faith toward theism, for example, automatically makes that person a more integrated individual with a greater capacity to love and exhibit certain characteristics that most persons consider as human virtues. We learned from Gordon Allport to distinguish between a mature religious sentiment that assists in integrating one's personality and an immature religious sentiment that assists in dis-integrating one's personality. Not all forms of theism contribute to the attributes of a mature personality.

Allport argued that most of the criticism aimed against theism is directed against an immature religious sentiment, such as one that has not progressed beyond a stage focused on impulsive self-gratification. This stage could serve only a childish wish fulfillment or an interest mainly

centered around an immature self. Such an immature religious sentiment is also characterized by an unreflective attitude that does not include the ability to see one's self more objectively and does not provide a context of meaning for one's location in life. This absence of a context of meaning precludes one from finding a meaningful place in the world. A person with an immature religious sentiment cannot perceive his or her own conduct in an objective manner. Such a sentiment excludes much of reality and is disjointed and fragmented. If one's immature religious sentiment is sufficiently fanatically intensive, this sentiment will serve to dis-integrate one's personality and lessen one's capacity for love and gratitude.<sup>5</sup>

Allport spent his career encouraging psychologists to gauge the maturity of a religious sentiment by objective criteria. He insisted that, with respect to the wholeness, health, and integration of one's personality, the criteria of a mature religious sentiment should be more objective and that these criteria should be formed from a justifiable theory of human personality. In his insightful book, *The Individual and His Religion*, Allport set forth three attributes of a mature personality: (1) mental processes that concern ideal objects and values beyond mere infantile physical desires, (2) an ability to reflect insightfully concerning one's life and to see one's self in a cosmic perspective (with a developed sense of humor), and (3) a coherent, but not necessarily complete, unifying philosophy for one's life that serves to integrate one's personality.<sup>6</sup>

Allport's three criteria corroborate the importance of presuppositions in one's behavior. I want to emphasize how significant the examination of our assumptions can be in determining the outcome of logical thought processes and how these assumptions make up our worldview and affect our behavior. We will act in a manner consistent with our presuppositions. They powerfully influence how we interpret evidence and make conclusions about the nature of reality.

Recently, my classmate, Richard Smalley, who received the 1996 Nobel Prize for Chemistry, died after a six-year struggle with cancer. He was the leading academic in the area of nanotechnology. At the time of his death, his worldview was dramatically different from the worldviews expressed by Sagan and Weinberg. After receiving the Nobel Prize, he began to reflect on matters of faith and eventually made a leap of faith toward Christian theism. He wrote commenting on his worldview:

Recently I have gone back to church regularly with a new focus to understand as best I can what it is that makes Christianity so vital and powerful

in the lives of billions of people today, even though almost 2000 years have passed since the death and resurrection of Christ.

Although I suspect I will never fully understand, I now think the answer is very simple: it's true. God did create the universe about 13.7 billion years ago, and of necessity has involved Himself with His creation ever since. The purpose of this universe is something that only God knows for sure, but it is increasingly clear to modern science that the universe was exquisitely fine-tuned to enable human life. We are somehow critically involved in His purpose. Our job is to sense that purpose as best we can, love one another, and help Him get that job done.<sup>7</sup>

Smalley's view is shared by many scientists, philosophers, and other academics who consider the purposeful nature of the universe in a manner diametrically opposed to the worldviews of other scientists, philosophers, and academics, such as Sagan and Weinberg. Persons from all walks of life have different presuppositions and make different leaps of faith in constructing their worldviews. How can we know which of the worldviews is more plausible or if any are plausible at all? In order to begin to consider that question, we will first have to consider valid ways of knowing.

## WHAT ARE VALID WAYS OF KNOWING?

Our presuppositions also provide our basis for determining how we know anything at all. Every worldview has to confront the issue of *how* we know anything. I remember my freshman year in college attending my first philosophy class where I listened to an introductory lecture on epistemology. D. Ivan Dykstra, a profound professor with a unique ability to communicate complex philosophical ideas, began by raising the question whether it was true that one would know what one knows when one knows *how* one knows.

There are a variety of theories of knowledge or epistemologies. They are all concerned with how we can justify the statement that we know something or someone. In this book I am considering the question of God's existence. As I attempt to think about that question, I may need to understand how I will know the answer. As indicated above, this book will discuss knowledge derived from the rational and personal. It is my contention that reason and what Oxford chemist and philosopher Michael Polanyi termed "personal knowledge" are authentic ways of knowing. I am proposing that empirical verification, deduction from theoretical con-

structs, metaphysical reasoning, and mystical participation are all valid ways of knowing. With respect to the knowledge of God, if God is a person, perhaps such a being can only be known as a person and not merely as an inference. In the words of distinguished theologian Michael Buckley: “Whether one affirms or denies the reality of God, one does not even understand the question if it is reduced to a problem to be solved or a wrangle to be fought out rather than a mystery to be apprehended. For this great question about God also engages the depth of the human person: it shapes the fundamental interpretation of human life and human destiny.”<sup>8</sup>

Reason can only take us so far. Dante Alighieri understood this when he wrote *The Divine Comedy*, perhaps the supreme literary masterpiece of medieval literature with its compelling portrayal of Christian love. Dante inserts himself as the principal fictional pilgrim in his symmetrical poem written in the first part of the fourteenth century. The poem begins on the eve of Good Friday, 1300, when Dante at age thirty-five finds himself in a dark forest. He does not know how he lost his way but knows that he is lost and cannot find the true path.<sup>9</sup>

Dante gains some footing but is confused by a Leopard (lust), then perplexed by a Lion (pride), and a She-Wolf (avarice). He turns toward a valley and meets the spirit of Virgil, who is a symbol of reason. Dante greatly admired Virgil, the Roman poet, who wrote the epic, *The Aeneid*, about the origins of Rome and the basis for political institutions and leadership. Virgil is sent by heaven to guide Dante through hell and purgatory and appeals to Dante to think more rationally on his journey. But Dante is convinced that reason can only take us so far. Hence it is Beatrice, a symbol of divine grace and love, who ultimately takes over as Dante’s guide to usher him into the Empyrean, “the Heaven of pure light, a light intellectual, full of love.” Here Dante beholds the Beatific Vision and participates in a marvelous feast of light, song, and dance. It is only through a personal encounter with divine love that Dante fulfills his purpose in *Paradiso*.

Dante stresses that reason is important and helpful, but to complete the journey one must also be willing to follow the revelation of divine love. As I will discuss in describing the thought and life of Mortimer Adler, reason, coupled with a revelation of divine love, produces a very profound way of knowing. I will argue that reason is important but not sufficient. Ultimately it is the realization and experience of divine love that enhances the knowledge of the reality of God’s existence.

In more recent times, in his magisterial opus, *At the Origins of Modern Atheism*, Michael Buckley agreed with Dante and demonstrated how the



strategies of theistic apologetics in the eighteenth century resulted in theologians relying on the new sciences for evidence of the existence of God, excluding the evidential force of religious experience. According to Buckley, by insisting on a focus on the evidence from scientific discoveries and disregarding the authenticity of religion's own foundation and the unique character of religious knowledge, the apologists inadvertently laid the groundwork for modern atheism.

In his subsequent book, *Denying and Disclosing God*, Buckley calls for a restoration of the use of the evidential force of religious experience and an acknowledgement of the credibility of religious knowledge. In this regard, although he does not rely on Kierkegaard's writings, his arguments are consistent with Kierkegaard's epistemology of knowledge by personal acquaintance (*kendskab*), which I will discuss more thoroughly later. For one with religious experience, this kind of cognition carries more knowledge than the deductive arguments that result only in an abstract inference. Although the latter also has credibility and is important, one cannot have transformational knowledge only from mere reason, no matter how compelling one might consider the inference from deductive logic. A personal God disclosed as a presence is a required foundation for the knowledge of the reality of God. If God is a person, such a being can only be known in reality as a person, not merely as an inference: "One will not long affirm a God who is fundamentally inferred from a conclusion rather than disclosed as a presence, one with whom there is no intersubjective communication. The most compelling witness to a personal God must itself be personal."<sup>10</sup>

As noted in the preface, in this book I will examine an argument that modifies and expands an argument for the existence of God made by Mortimer Adler, who modified the arguments of Aristotle, Aquinas, Clarke, Leibniz, and others. Adler believed that his argument produced a rational inference with certainty beyond a reasonable doubt (but not beyond a shadow of a doubt).<sup>11</sup> In discussions with Clare Boothe Luce at the Aspen Institute, he insisted that his argument did not create a real faith for him, even though he was convinced of its intellectual integrity. What many readers of Adler's significant writings do not know is the story of his conversion experience. Many years after the development of his argument for the existence of God, he experienced a personal God, disclosed to him as a presence in a hospital room. Adler then dramatically moved from what he called a "dead faith" to a transformational belief in the reality of God. Deeply moved by his experience of that reality, he converted to the Anglican faith and later died a Roman Catholic. I will let Adler describe his story

in his own words later, but for now I only point out how his story confirms Buckley's insistence that, when concerned with the knowledge of God's existence, the rational can never be separated from the experiential. Religious experience carries its own form of cognition or way of knowledge that is beyond pure reason.

Scottish theologian Thomas Torrance corroborated this perspective emphasizing that in revelation the person of the divine brings a unique logic and method of knowing into the revelatory experience. This way of personal knowing may be a higher degree of knowledge than logical inference alone. For example, Thomas Aquinas, after a lifetime of brilliant writings, had a mystical experience that made him consider all of his writings (including *Summa Contra Gentiles* and his *Summa Theologiae*) as "mere straw" (*sicut palea*) compared to the knowledge of God that came to him in this experience. His experience is not unusual in history. It is a repeated phenomenon well attested in a vast array of excellent literature.

At the same time, one cannot rely only on mystical, religious experience. If one accepts the principle of the unity of truth, one must also use his or her mind to consider the rational merits of any proposition. Reason and faith complement each other. Saint Anselm of Canterbury described this unity of knowledge as *fides quaerens intellectum*, or "faith seeking understanding."

Many persons hold the perception that science and faith are adversaries. Not only are science and Christian belief compatible, science gives supportive evidence to many aspects of faith. In order to conduct science one must believe in the intelligibility of the laws of nature. Nature proceeds in accordance with laws that can be described by abstract mathematical principles. Abstract mathematics allows us to discover their existence. Eugene Wigner called this "the unreasonable effectiveness of mathematics," and its significance in examining the question of God's existence is difficult to overstate.

In their most successful theories, physicists do not impose their equations on nature but rather *discover* the mathematical characteristics that are *inherently present in nature*. The inherently mathematical structure of the laws of nature allows physicists to predict events in the physical world. On this basis, scientists and engineers have invented many useful and productive machines and devices. This predictable, intelligible aspect to nature is a prerequisite to science. Science could not be done if the universe was only a chaos of arbitrary events. The intelligibility of the laws that are

the foundation of science is consistent with a worldview that a rational mind is behind the universe.<sup>12</sup>

Science, however, is not the only avenue for knowledge or evidence concerning the question of God. I am emphasizing that religious experience has its own method of knowledge and cognition. This method should not be isolated from some of the interesting work moving forward in theology and science. If science alone is embraced for evidence, one may follow a misconception of Immanuel Kant, which I will discuss more thoroughly later. The Kantian criticism of any knowledge reaching beyond the explanation of an empirical verification of our senses has been refuted by contemporary physics, mathematics, and information theory. Although the scientific method is consistent with much of the theologian's method of inquiry, religious evidence also supplies a justification with its own internal integrity, its own intellectual cogency, and its own inherent grounds for belief. One seeking understanding should hold to Adler's criteria on the unity of truth and should include all the avenues available for the knowledge of reality without ignoring the cognition that comes from personal religious acquaintance. Even the highly empirical Bertrand Russell noted that one kind of knowledge (abstract, descriptive knowledge) may come from hearing or reading about Julius Caesar, but another more basic knowledge (knowledge of acquaintance) comes from *meeting* Julius Caesar.

I want to be clear that I am not arguing against an openness to the disclosure of God implied in the scientific evidence and in the fact that there is something rather than nothing. This book contains several discussions in that area. I merely want to include the witness of concrete religious experience and note that the most compelling evidence for the reality of a personal God may be from personal experience.<sup>13</sup>

How we think about God to a significant extent, perhaps far more than contemporary figures may realize, is heavily influenced by the intellectual movement effected by the dynamic persuasive abilities of Immanuel Kant, the greatest philosopher of the eighteenth century. The effect of his writings strengthened and grew in influence through succeeding centuries. *Inter alia*, he influenced the development of German idealism and then logical positivism in the Vienna Circle of philosophy, the atheist English positivist position of A. J. Ayer, the mid-twentieth century theological phenomena of the "Death of God" movement, current scientific materialist reductionism, and even the presuppositions of Rudolf Bultmann's New Testament scholarship.

Because many interpreted Kant's theory of knowledge as an account that removes the philosophy of religion outside the realm of reason, Kant's theory also influenced the turn toward human subjectivity in the writings of Sören Kierkegaard, Rudolf Otto, Martin Buber, Paul Tillich, and other philosophers of religion. One factor encouraging subjectivity was Kant's description of the concepts of mind as *synthetic a priori* (with an inborn capacity to contribute to and organize one's sense experience). According to Kant, the mind of a human being has innate categories by which the mind actively classifies the sensory data it receives. For example, the concepts of space and time are forms of *a priori* categories that the mind imposes on sensory data. The mind is not a passive receiver of truth from the outside world but an active participant in knowledge, shaping the logical categories of judgment. This means that empiricism is not alone complete. Pure, unaltered sensory experience of the world does not exist according to Kant. The mind's action means that experience is not purely objective because the mind plays an important role.

Kant gave these existential philosophers and theologians the avenue to emphasize the inner, subjective workings of the mind as capable of generating knowledge. This concept later influenced postmodern thought, as seen in the writings of Derrida, Lyotard, Foucault, Rorty, and Jean-Luc Marion. I will not examine their positions fully here, but for the moment I want only to emphasize that, despite his influence on subjectivity, Kant may have given too prominent a role to empiricism in his theory of knowledge.

Given that Kant's thought was founded on flawed Newtonian physics, it is surprising that his influence remains so powerful in contemporary thought. In a later discussion of quantum physics I will address how certain quantum physicists hold that Kant's epistemology is undermining current moral philosophy and jurisprudence. I turn now to a closer look at Kant's theory of knowledge for the purpose of examining it in the light of our current understanding in contemporary science.

**IN ATTEMPTING TO SYNTHESIZE RATIONALIST  
AND EMPIRICAL PHILOSOPHIES, KANT DEVELOPED  
AN INCOMPLETE, OVERLY RESTRICTIVE THEORY  
OF KNOWLEDGE.**

A Prussian by birth and nature, throughout most of his adult life, Immanuel Kant lived a very structured, rational life, rising every morning at

precisely five a.m. for a one-hour period of reflection. This extraordinarily gifted and disciplined university professor then worked on his classroom lectures from six to seven, taught until nine and then wrote until noon each day. His main meal was a lunch with three to four colleagues or guests, followed by a daily walk with a servant carrying an umbrella behind him in the event of rain. Prussian citizens were rumored to set their clocks by the precise time of his daily walk. Every evening he read until 10 p.m., when he retired for bed. He became the leading modern philosopher and the epitome of the Enlightenment. His *Critique of Pure Reason*, published in 1781 and revised in 1787, is perhaps the most important work of the Enlightenment.

In this book Kant set forth a new theory of knowledge that attempted to synthesize the apparently conflicting positions of rationalism and empiricism. Rationalists, such as Descartes, Spinoza, and Leibniz, were Continental European philosophers who took the position that reason is a more reliable path to knowledge than experience. Deductive philosophy was their method with particular emphasis on the use of mathematical logic as a dependable method of determining truth. Empiricists,<sup>14</sup> on the other hand, such as Locke and Hume, were British philosophers who maintained that all knowledge came from direct observation of phenomena. For them sense perception was the dominant characteristic of dependable knowledge. In empiricism only by means of the senses can we have access to knowledge about reality. Empiricism in the seventeenth and eighteenth century laid the cornerstone for the philosophy of logical positivism, which became a dominant philosophy for part of the mid-twentieth century.<sup>15</sup> Logical positivism held that not all religious and metaphysical language could be verified by the senses and was consequently meaningless. This view had such influence in twentieth century society that even theological schools began curricula with “Death of God” studies.

For Kant the two sources of knowledge are sensibility (empiricism) and understanding. Understanding proceeds from certain *a priori* categories or concepts of the mind. These concepts of understanding organize and synthesize data from the senses. They exist in the mind and participate in the process of understanding. In his attempt to synthesize the rationalists and empiricists, Kant held that experience was not a passive reception of sensations but the product of our senses and our own thought processes that reveal our sensations to us. Kant’s analysis in the *Critique of Pure Reason* stunned the philosophical world. His argument was directed against any attempt to use reason to consider objects that were beyond our senses. In

Kant's new theory, empiricism held so prominent a position that he considered all of our knowledge a consequence of human understanding resulting from experiences of our senses. Consequently, for Kant, metaphysical questions, such as the existence of God, were outside the scope of human reason. In his view, reason could not be applied to matters outside of one's experience through the senses.<sup>16</sup> In Kantian epistemology, reason could never lead one to knowledge of God, and theological inquiry could not be made by means of rational analysis. Because God is not subject to the senses, Kant dismissed any attempt to discuss God by the use of rational concepts.<sup>17</sup>

Kant wrote in a ponderous Germanic style which, coupled with his tendency to invent words and phrases and the complexity of his thought, requires careful reading. His ideas were profound, brilliant, and, with respect to the rational inquiry concerning God's existence, modern science indicates that they were *overly restrictive*.

Kant did not have the benefit of the discoveries and methods of contemporary physics, so his position (based on Newtonian physics) may have seemed unassailable in his time. Nevertheless, given the discoveries in contemporary physics and science, it is astonishing how much of Kant's excessively limited theory of knowledge still pervades current thought. Developments in science in the past century issue profound challenges to his theory of knowledge, because, *inter alia*, quantum physics, particle astrophysics, cosmology, and information theory now use abstract rational concepts rather than empirical concepts to analyze objects that are beyond empirical experiences, beyond the senses. Kant's theory of knowledge is too restrictive to have a sufficient capacity to describe all that we can know. Kant's theory is too restrictive in terms of metaphysical reasoning and in terms of knowledge from personal acquaintance. In addition to reason we have "personal knowledge," as indicated in Michael Polanyi's statement: "We know more than we can tell."

Kant's position is that we can have no knowledge of a thing-in-itself and any attempt to access it by description is nonsensical. He insisted in the existence of an external reality but denied access to it. Kant distinguished between the *phenomenon* (things as we experience them) and the *noumenon* (things as they are in themselves, *das Ding an sich*). He concluded that we cannot know the noumenon but only the phenomenon. For Kant even our deepest perception of a phenomenon would be altogether different from the noumenon or the thing as it is in itself. We can only know our subjec-

tive experience of the world but nothing of the thing in itself. (One may wonder whether “nothing would do just as well as a something about which nothing can be said.”)<sup>18</sup>

As noted above, Kant understood that not all human thought is based on empirical or sense experience. Many of our concepts are *a priori* categories of our understanding, which we use to form judgments about our sense experiences. These concepts do not come from our sense experiences but are part of the structure of our minds. But, as I noted above, Kant, influenced by a Newtonian understanding of physics that dominated science in his time, made the mistake of presupposing that these *a priori* categories of understanding can only be applied to empirical experience (i.e., experiences of the senses) in space and time. This presupposition unnecessarily excludes rational inquiry into anything beyond the senses. Contemporary science, however, indicates that the fact that one cannot directly experience something with the senses does not mean that one cannot have knowledge about something.

Contemporary physics demonstrate that one can discuss God in rational terms, even if God is outside the experience of the human senses. This merely follows accepted methods of reasoning, such as employing abstract rational concepts in quantum physics. John Polkinghorne notes the similarity in rational analysis between theological inquiry and contemporary physics:

No one has ever seen a quark, and we believe that no one ever will. They are so tightly bound to each other inside the protons and neutrons that nothing can make them break out on their own. Why, then, do I believe in these invisible quarks? . . . In summary, it's because quarks make sense of a lot of direct physical evidence. . . . I wish to engage in a similar strategy with regard to the unseen reality of God. His existence makes sense of many aspects of our knowledge and experience: the order and fruitfulness of the physical world; the multilayered character of reality; the almost universal human experiences of worship and hope; the phenomenon of Jesus Christ (including his resurrection). I think that very similar thought processes are involved in both cases. I do not believe that I shift in some strange intellectual way when I move from science to religion. . . . In their search for truth, science and faith are intellectual cousins under the skin.<sup>19</sup>

In criticizing Kant's theory of knowledge, Mortimer Adler distinguished among methods of knowing about physical objects we experience. We

perceive some objects *directly* through our five senses (sight, hearing, touch, smell, and taste). Other objects we perceive only *through* instruments of observation (e.g., microscopes or telescopes).

Other physical objects we do not perceive directly but by *detection*. For example, physics laboratories have the ability to detect traces of imperceptible objects. These kinds of physical objects are not directly subject to the senses but detectable by the effect they produce under certain conditions. They are thus known by detection and by rational inference. Subatomic particles, black holes, and even the universe as a whole are objects that we know by the process of detection and rational inference.

Adler argued that one can only form an *empirical concept* of a physical object that can be perceived directly and immediately or through the use of instruments of observation such as a microscope or telescope. Even though we cannot form an empirical concept of subatomic particles, we have some understanding of these physical objects. Adler distinguished between empirical concepts and what logicians call *theoretical constructs* to refer to our understanding of objects of thought beyond our immediate perceptual experience.

When one thinks of God, of course, one does so by a theoretical construct, not an empirical construct.<sup>20</sup> If science can validly deal with physical objects that are completely outside ordinary experience (because they are not perceptible) and can employ theoretical constructs (not empirical concepts) to know something about these objects, then one cannot be precluded from employing theoretical constructs to deal with the question of God. Reason has its limits in considering the question of God, but to eliminate any attempt at rational inquiry into objects beyond the senses is an overly restrictive epistemology. As Adler wrote in referring to Kant's theory of knowledge:

His thundering issued from a theory of knowledge which was critical of any attempt on the part of reason to deal with objects that lie beyond the range of experience. To do so, he maintained, was an illegitimate and illusory use of reason. The empirical concepts that he thought reason must employ cannot be validly employed in thinking about non-empirical objects, the most eminently non-empirical object being God.

Kant's theory of knowledge should have been discredited in the eyes of the world by the non-Euclidean geometries and the post-Newtonian physics with which he was unacquainted. That his theory of knowledge is still respected in certain quarters is quite remarkable.

Be that as it may, his strictures against theological inquiry lose all their force when we recognize that theology, like nuclear physics and cosmology in



the 20<sup>th</sup> century, uses theoretical constructs, not empirical concepts, to deal with objects that lie beyond the range of ordinary or common experience. If, for that reason, theological inquiry cannot be legitimately and validly conducted, the same reason would make nuclear physics and contemporary cosmology illegitimate and invalid enterprises.<sup>21</sup>

The study of quantum physics, black holes, particle astrophysics, cosmology, and information allows us to know quite a bit about things that are beyond our senses. Similarly, there is merit in rational metaphysical inquiry concerning the knowledge of God, even though that knowledge will always be incomplete and distorted on a purely human rational basis. Although we cannot know everything about God through human rational inquiry and may not be able to achieve a genuine understanding of God's essence, we can know something about God.<sup>22</sup>

Former Parisian and Princeton philosopher Jacques Maritain also argued that there are several valid ways of knowing, including the empirical, the metaphysical, and the mystical. Maritain followed Thomas Aquinas in acknowledging that physical objects have a reality in themselves and that we can only have a limited knowledge of these objects. We cannot know their full essence as they are in themselves, but we can know something about them.

For example, although science does not cover all areas of knowledge, it is making strides toward a more accurate knowledge of the physical world. This is what makes technology possible. Most scientists adopt a critical realist approach that fits into Aquinas's perspective. The "critical" aspect of this approach means that direct observation is not the source of knowledge, but rational inference or interpretation interacting with experiment. In this respect, a critical realist considers all human knowledge to be personal knowledge.<sup>23</sup>

Because how we think about God affects how we live, no one approaches this question with a completely disinterested, objective interpretation of the evidence. As philosopher Stephen Evans claims, "Human beings think as whole persons. It is human beings who reflect, not brains or minds detached from concrete human persons. Their thinking therefore necessarily reflects the shape of their human interests and habits."<sup>24</sup> Human thinking is not only the thinking of a finite, contingent being but also a being whose thought processes are distorted by pride and self-interest.

Although modern scientific reasoning indicates that we can discuss the concept of God in rational terms, we need to acknowledge our limitations; a finite being will not comprehend fully an infinite being. If God is infinite,

any attempt to grasp such a being will be incomplete. As finite beings with a finite language, our attempts to discuss the infinite will always be inadequate. One cannot use words concerning God as one would use words to describe anything else. Our language is limited to descriptions of components of the universe or to the universe itself. God is beyond the universe and not limited to the categories of objects of our thoughts. God is beyond all categories and beyond the comprehension of the human mind. We encounter real limits in our reasoning and in our knowledge. However, as Jacques Maritain insisted, we can know something about God by combining the empirical, metaphysical, and mystical ways of knowing. The empirical way alone leads only to naturalism and denies the existence of the divine. As theologian Paul Tillich observed: "The main argument against naturalism in whatever form is that it denies the infinite distance between the whole of finite things and their infinite ground, with the consequence that the term 'God' becomes interchangeable with the term 'universe' and therefore is semantically superfluous. This semantic situation reveals the failure of naturalism to understand a decisive element in the experience of the holy, namely, the distance between finite man, on the one hand, and the holy in its numerous manifestations, on the other. For this, naturalism cannot account."<sup>25</sup>

Our language and finite minds are all we have, and reflection upon an infinite God can expand our awareness of reality. We can gain some valid insights by reflecting upon such a being. At the very least this reflection can show us that all of our concepts about God are too small. Just because we cannot know all of God does not mean that we cannot experience God. Our sense of awe and our understanding of reality may be enhanced as we catch even a tiny glimpse of the magnitude of God.

Each person must examine the evidence available and draw his or her own conclusions. One cannot be completely objective in this regard.<sup>26</sup> I want to emphasize that this book is not an attempt to construct a compelling proof for the absolute certainty of God's existence. I will consider an argument for the existence of God to show the plausible and rational possibility of God's existence. The argument I will examine is influenced by the thinking of Mortimer Adler, who believed that he had successfully modified the arguments of Aquinas and Aristotle. As noted above, Adler held that his argument proved the existence of God beyond a reasonable doubt, but not beyond a shadow of a doubt. My argument modifies Adler's discussion and also appeals to the intelligibility of the universe. I describe certain developments in philosophy and science that strengthen Adler's argument. I emphasize that the intelligibility of the universe is what

makes rational and scientific inquiry possible and, *inter alia*, is demonstrated in the inherently mathematical character of the universe. One should not accept this fact too casually. It is rather astonishing that the universe is intelligible, for it could also have been a disordered chaos rather than a mathematically ordered cosmos. One should marvel that abstract mathematics can perfectly describe the counterintuitive, invisible world of subatomic quantum physics and the unexperienced, invisible macro domain of relativity. Mathematical intelligibility in a universe finely tuned for the existence of human life raises rational questions.

One can never be certain, by reason alone, that there is no God.<sup>27</sup> The discussion in this book will merely describe what I consider to be certain signposts or signals pointing to the divine. As I noted earlier, everyone must live with uncertainties. Perhaps our most certain method of applying reason is in the area of mathematics, but even there Kurt Gödel's famous incompleteness theorem demonstrates that one must make a leap of faith concerning the completeness or consistency of any formalized rational system.

Adler's rational argument for God's existence appeared to prepare him for a religious encounter with the divine. His experience confirms that one cannot separate reason from a faith experience. They are complementary ways of knowing. Reason without experience is dead. Experience without reason can be fantasy, as we see in much of contemporary new age mysticism or gnosticism. Reason and religious experience need to remain coupled. One's heart and one's mind must each be fully engaged in the knowing process. There are ways of knowing beyond the senses. We know as complete persons, not only as sensory tissue.

### **LEIBNIZ'S BASIC QUESTION IS STILL ESSENTIAL: WHY IS THERE SOMETHING RATHER THAN NOTHING?**

Gottfried Wilhelm Freiherr von Leibniz (1646–1716) was a man of many parts with a broad knowledge in the areas of philosophy, mathematics, science, law, and theology, but his focus was on the philosophical arguments for the existence of God. His only published book was on that subject and entitled *Theodicy: Essays on the Goodness of God, the Freedom of Man, and the Origin of Evil*. Like his father, he was a professor of philosophy at the University of Leipzig and a committed Lutheran. Leibniz studied law and received a Doctor of Law from the University of Altdorf. Through his study of law, he encountered the archbishop-elect of Mainz, who became his

mentor, employing Leibniz in the role of a political adviser. This political position required him to study international politics and travel to various European cities. His travels on political assignments also allowed him to meet some of the substantial scientists and philosophers of his time, including Isaac Newton and Benedict Spinoza. Leibniz entered into a correspondence with many of these leading thinkers and attempted to apply a systematic thought process to his understanding of science, mathematics, and philosophy. In 1673, after the death of his mentor and employer, the archbishop-elect of Mainz, he was employed by the Duke of Brunswick and Hanover. Leibniz continued his philosophical thought and worked as part of the Hanoverian family for the last three years of his life, dying in 1716.

As noted above, contemporary science and mathematics raise certain questions concerning Kant's prohibition against any attempts to use theoretical reason to deal with nonempirical objects. For the purpose of this book, I want to focus on an important question articulated by Leibniz. Leibniz raised a basic question that remains unanswered in Kant's epistemology: "Why is there something rather than nothing?" We know that there is something. Why does it exist? Why is there anything at all? We know that nothing comes from nothing. *Ex nihilo nihil fit*. We know that there is something. Something could not have come from nothing. Why is there something?

Leibniz's question is based on the principle of sufficient reason: No fact can exist without a sufficient reason for its existence. This principle is necessary when one considers the intelligibility of the universe. This intelligibility was the fact that most amazed Albert Einstein. As I emphasize many times in this book, science could not proceed without this intelligibility. Stephen T. Davis, professor of philosophy at Claremont College, asks us to imagine a world without a principle of sufficient reason. He notes that we would all live with the concern that dangerous animals, such as a saber-toothed tiger, could at any time pop into existence and devour us. Even if we barricaded ourselves in a protected shelter, we would find no protection, because dangerous chasms, beasts, or bombs could at any time pop into existence inside the shelter without any reason and destroy us.<sup>28</sup>

British philosopher Bertrand Russell held to the position that the universe simply exists as a brute fact. He refused to address Leibniz's question why there is something (a cosmos) rather than nothing. But what would be his reason for holding his position, given the scientific understanding we now have concerning the universe? Unless he could distinguish the universe from other contingent things, he would have to explain why hotels, airplanes, and chemicals cannot come into existence without a cause, but the

universe can just pop into existence out of nothing. An appeal to quantum physics would not suffice, because a quantum vacuum is not nothing, but a precisely balanced series of conditions with a context of space/time, precise characteristics of mass and energy, complete with complex physical laws. Anyone appealing to a quantum vacuum would only move the question one step back; a quantum vacuum is a something and requires an explanation for its existence. I will explore this concept in more detail later in the book.

No one lives as if the principle of sufficient reason is false. The principle presupposes the existence of reason. When one argues against the principle, he or she begins to question the existence of reason itself. The conundrum of using reason to argue against the existence of reason appears odd if not self-defeating. The intelligibility of physical reality appears to require the principle of sufficient reason.

### **EVERYTHING THAT EXISTS IS EITHER CONTINGENT OR NECESSARY.**

When we consider the basic fact of existence, we can understand that whatever exists, including the universe as a whole, either has its existence in, through, and from itself or its existence is dependent on the existence of something else. In other words, everything that exists is either contingent (dependent on something else) or necessary (independent). A *contingent* thing depends on something else for its existence.

An example of a contingent existence is Toby, my golden retriever. Toby is the result of a particular mating between two adult golden retrievers. These two golden retrievers may never have met. The existence of Toby depended upon the mating of these two retrievers. Toby's existence is contingent (dependent) upon his parents having met. His continuing existence is also dependent, among other things, upon the frozen turkey dinners he devours each evening. Moreover, Toby's existence is not an *indefeasible* existence; his existence can be taken away from him.

In addition to Toby, the list of contingent things is almost endless. Other examples include our parents, my pen, the earth, our solar system, stars, and galaxies. All of these contingent things are not endowed with their particular existence indefeasibly.

In contrast to a contingent thing, a *necessary* thing has its existence in, through, and from itself and does not depend on anything for its existence.<sup>29</sup> A contingent thing can be otherwise, but a necessary thing cannot

be otherwise.<sup>30</sup> A necessary thing cannot be anything except what it is;<sup>31</sup> its existence is indefeasible and cannot be taken away.

**DO CONTINGENT THINGS IN OUR UNIVERSE DEPEND UPON SOMETHING NECESSARY AS THE CAUSE OF THEIR CONTINUING EXISTENCE?**

I have described the distinction between contingent and necessary things because this distinction is central to an understanding of the argument for a necessary cause continually sustaining and preserving the cosmos. In the traditional argument for God from contingency (Thomas Aquinas), contingent things have their existence from, through, and in another. As noted, their existence is not in themselves. When they come to be, they are not endowed indefeasibly with their existence. Their existence can be taken away. They are not completely independent. Contingent things come to be, but their coming to be does not make them necessary, independent things.

Adler made the distinction between *causa essendi* and *causa fieri*. Toby's mother may be *causa fieri* (the cause of coming into existence) of Toby, but she does not act as *causa essendi* (an efficient cause of continuing existence) of Toby. Toby's mother passed away while Toby continues to inhabit the earth. She cannot be the cause of his continuing existence. A match may be *causa fieri* of a flame, but oxygen acts as a required condition for the continuing existence of the flame. Although oxygen is one of the required conditions for the flame, it is not *the efficient cause of the continuing existence (causa essendi)* of the flame.

The contingent components of the universe always act as *causa fieri*. Their actions as causal agents affect the generation, becoming, motion, changes, corruption, and perishing of other contingent things. They do not cause the continuing existence of the products of their actions or being. In other words, they never function as *causa essendi* or the *efficient cause of the continuing existence of other contingent things*.

Adler could not think of any contingent component in the universe that would cease to exist absolutely. He held that everything in the universe is *superficially* contingent. When a contingent component of the universe ceases to exist, it is not reduced to absolute nothingness. It is important to note the distinction between *superficial* contingency and *radical* contingency. When an individual contingent thing has a superficial contingency, after it passes out of existence it is transformed into another form or con-

dition. But something with a *radical* contingency would simply cease to be and be replaced by absolute nothingness (annihilation).

To understand the concept of superficial contingency, picture in your mind's eye a log burning in a fireplace. The log is consumed by flames and transformed into ashes. The log ceases to exist, but it is not replaced by absolute nothingness. It is not annihilated. Similarly, the cremation of a human body reduces the body to ashes; it is not reduced to absolute nothingness. In the natural corruption of the contingent physical components of the universe, no thing is reduced to absolute nothingness. All superficial contingent things are transformed, but not annihilated. In the *Summa Theologiae*, Aquinas asserted that God did not annihilate anything, but transformed it. No one has any experience of a component of the universe having been annihilated or exnihilated (coming to be out of nothing).<sup>32</sup>

In what Adler described as the best traditional argument for the existence of God, a central conditional premise was that a contingent being required a cause of its continuing existence at every moment of its existence. Adler rejected this premise, which was based on Aristotle's concept that the continuous motion of a body requires a continuing cause to perpetuate its motion. His rejection of Aristotle's (and Aquinas's) concept was based on a potential inherent perpetuation seen in the principle of inertia (a body set in motion continues until a counteracting cause stops it). Adler held that an "inertia of being" might continue the existence of a contingent thing.<sup>33</sup>

However, Adler was convinced that the *continuing existence of the universe* required a supernatural sustaining cause. Without this sustaining cause the universe would vanish into complete, absolute nothingness. It would be annihilated. Adler did not believe that the *entire universe* (all physical reality) contained its own explanation for its existence. I move now to a portion of the argument that has some further confirmation in contemporary astrophysics, particularly when one considers the radically contingent nature of the entire universe.

**ALTHOUGH THE COMPONENTS OF THE UNIVERSE ARE ONLY SUPERFICIALLY CONTINGENT, THE UNIVERSE AS A WHOLE IS RADICALLY CONTINGENT, BECAUSE THE UNIVERSE IS ONLY ONE AMONG MANY POSSIBLE UNIVERSES.**

As mentioned above, the obstacle presented by only superficially contingent things was that they did not cease to be absolutely, so there was no need for

a *causa essendi*, an efficient cause of their continuing existence. They actually continued to exist in a different form. However, when one considers the universe as a whole, one is confronted by a *radical* contingency that does require a *causa essendi* to prevent its vanishing or annihilation into absolute nothingness. When we move from a consideration of the superficial contingency of the components of the universe to the question of an efficient sustaining cause of the universe as a whole (cosmos), we are moving from an argument from contingency (Thomas Aquinas) to a truly cosmological argument.<sup>34</sup>

The universe is radically contingent because it is one among many *logically* possible universes. For the argument I am considering to be valid, one does not need evidence of a different kind of universe, but only the *logical possibility that there could be another kind of universe*. In other words, no other universes need *actually* exist. It is sufficient for the validity of the argument if they only can exist as a matter of logical possibility. Adler does not argue for the *actual existence* of other universes but only for their *possible* existence.

We can conceive of other universes that could exist with different characteristics and different physical laws than our universe. Because other universes are possible, this universe is not the only universe that could ever exist. It is not a *necessary* universe. Because it is merely a *possible* universe and not a necessary universe, its existence is not necessary in and through itself.<sup>35</sup> The universe could be other than what it is. A universe that could be other than what it is might not be at all. Such a universe has only a possible, not a necessary, existence.<sup>36</sup> *Such a universe also has the possibility or the potential for nonexistence.*<sup>37</sup>

**A MERELY POSSIBLE UNIVERSE MIGHT NOT EXIST; IT HAS THE POTENTIAL TO BE REDUCED TO NOTHINGNESS (ANNIHILATION) AND DEPENDS UPON A NECESSARY EXNIHILATING CAUSE OF ITS CONTINUING EXISTENCE.**

A universe that has the potential for nonexistence is a *radically contingent* universe, not a necessary universe. Anything that is radically contingent requires an efficient cause of its continuing existence; it depends upon something else for its existence. This merely possible universe is contingent and depends upon a cause of its continuing existence to prevent the possibility of nonexistence. This merely possible radically contingent universe requires a preservative cause of its continuing existence to protect it from the possibility of annihilation (its reduction to nothingness). This preservative activ-



ity is an action of exnihilation (existence coming out of nothing) as it is juxtaposed to an action of annihilation (vanishing into absolute nothingness).

Hume suggested that the universe was eternal. As discussed below, the universe appears to have had a beginning. But even assuming that the universe is eternal, because of its radically contingent nature, it requires a cause for its continuing existence.<sup>38</sup> To prevent the universe from vanishing into nothingness, the cause of its continuing existence cannot be a natural cause because natural causes are themselves contingent things. They depend upon something else. They may act as a necessary *condition* of continuing existence (like water for animal life), but they never act as *causa essendi* (an efficient cause of continuing existence) that prevents the annihilation of a radically contingent cosmos.

**GOD IS THE NECESSARY CAUSE OF THE CONTINUING  
EXISTENCE OF THE UNIVERSE AND ALL OF ITS  
COMPONENTS, EVEN IF THE UNIVERSE DID  
NOT HAVE A BEGINNING.**

If we define the concept of God as a necessary rather than a contingent being, God cannot be part of the universe, because the universe and all of the individual things in it are contingent in their existence. A necessary existence means that such an existence is uncaused, independent, unconditioned, and infinite. In this concept God has a necessary existence as a preservative cause of the existence of the universe. As a cause of its continuing existence, God would not be simply a cause that began or wound up a universe and then left it to run on its own, but a cause that intimately and constantly preserves the universe.

The important premise in this argument is that the universe is radically contingent and not necessary.<sup>39</sup> Because other universes are possible, our universe is not necessary in and through itself. If it is not necessary, it is contingent. If it is contingent, at every moment it has the potential for annihilation. If it has the potential for annihilation, it needs a sustaining cause to exist. The continuing existence of the universe is *radically* different from the continuing existence of any component of the universe. When something radically contingent ceases to be, it does not become something else but is replaced by sheer nothingness.<sup>40</sup>

If the universe is contingent, we do not have an explanation in terms of noncontingent natural laws from which the universe's existence follows.

And we do not have an explanation *why* the universe exists. This indicates the requirement of a personal explanation based in the *intentions* of a sustaining necessary cause of its existence. We know of no natural explanation for the existence of the universe in terms of noncontingent laws or principles that would cause its existence.<sup>41</sup> If no laws or principles can offer a natural explanation, a personal explanation is required. A personal explanation addresses the requirement of an *intentional* act of a sustaining necessary cause of the universe's continuing existence.

The universe cannot explain its own existence because it is merely a possible universe. As such, the explanation for its existence must come from outside the universe. Because the universe is the totality of all physical reality, the explanation must reside in a nonphysical reality. One could argue that the universe came into existence without any cause and for no sufficient reason. But to set forth that proposition, one would have to deny the scientific method and the results of this method in the production of technology that works in the physical world. There is then no reason to believe that our cognitive thoughts give us any ability to invent a laser, fly to the moon, or use information technology. Given the success of science in practice, the burden of proof appears to be on anyone claiming that there is no sufficient reason for the universe as a whole.

One may object that the conclusion to this argument is not the God of Abraham, but, under the cumulative case I am setting forth, the evidence points to an immaterial, simple, and infinite personal being. Philosopher Bruce Reichenbach set forth a rationale for the conclusion that the cause of the universe is a personal necessary being. I will address other issues relating to this concept when I discuss some of the writings of Søren Kierkegaard. For now I merely want to agree with Reichenbach's argument:

Defenders of the cosmological argument suggest two possible kinds of explanation. *Natural explanation* is provided in terms of precedent events, causal laws, or necessary conditions that invoke natural existents. *Personal explanation* is given "in terms of the intentional action of a rational agent" (Swinburne, 1979, 20). We have seen that one cannot provide a natural causal explanation for the initial event, for there are no precedent events or natural existents to which the laws of physics apply. The line of scientific explanation runs out at the initial singularity, and perhaps even before we arrive at the singularity (at  $10^{-35}$  seconds). If no scientific explanation (in terms of physical laws) can provide a causal account of the origin of the universe, the explanation must be personal, i.e., in terms of the intentional action of a rational, supernatural agent.<sup>42</sup>

The laws of physics are insufficient to serve in the role of a necessary thing sustaining the universe. They do not explain their own existence. They do not explain their mathematical characteristics. They do not explain why the world is intelligible to us. They are mere equations and do not explain why a physical world exists at all. They do not explain the fine-tuning of the universe that allows for the development of conscious life. They also appear to not exist prior to Planck time (an extremely small fraction of the first second of the initial event of the universe). Hence, they appear to be finite and consequently contingent and not necessary.

This is consistent with the reasoning of physicist John Wheeler, who worked with Einstein at Princeton's Advanced Institute. In commenting on the breakdown of the laws of physics that occurs in a singularity (a point of infinitely curved space and finite density found at the core of a high mass star's collapse into a black hole or in the initial event of the Big Bang), Wheeler wrote in his autobiography, *Geons, Black Holes & Quantum Foam*, that such a singularity "teaches us that space can be crumpled like a piece of paper into an infinitesimal dot, that time can be extinguished like a blown-out flame and that the laws of physics we regard as 'sacred,' as immutable, are anything but."<sup>43</sup>

The laws of physics are merely contingent components of the universe; their contingent characteristics do not allow them to serve as the necessary sustaining source of the universe. The cause of the universe appears to require a personal explanation.