

An abstract painting of a coastline, showing a dark, textured sea on the left and a lighter, textured sky on the right, separated by a vertical line. The painting is composed of various shades of blue, white, and yellow, with visible brushstrokes and textures.

SCOTT D. G. VENTUREYRA

ON THE ORIGIN OF CONSCIOUSNESS

AN EXPLORATION
THROUGH THE LENS OF
THE CHRISTIAN CONCEPTION
OF GOD AND CREATION

“With the revival of natural theology in the last few decades, there has been an outbreak of fresh, rigorous arguments for God’s existence. In turn, this has raised afresh new issues about the relationship between Christian philosophy and theology with science. Interestingly, little attention has been given to questions about the origin of consciousness, especially self-awareness. But that is no longer the case. In *On the Origin of Consciousness*, Dr. Ventureyra has produced a stunning book, based on wide and careful research, that brings the resources of a philosophically informed theology to bear on showing that such a theology explains the origin of consciousness better than do the natural sciences. Along the way, Ventureyra treats us to a rich study in metaphysics, systematic and natural theology, philosophy of mind, and philosophy of science. I am enthusiastic about this book and highly recommend it.”

—**JP Moreland**, Talbot School of Theology, Biola University

“Sometimes you read a book where you disagree with just about everything the author claims—starting with the dedication! And yet . . . You learn and you rethink. I feel exactly that way about Scott Ventureyra’s *On the Origin of Consciousness*. I intend that as high praise.”

—**Michael Ruse**, Florida State University

“Consciousness can become less mysterious when we see our universe as created by God. Scott Ventureyra helps to prove it by this very wide-ranging and interesting book.”

—**John Leslie**, University of Guelph

“Dr. Ventureyra’s book, *On the Origin of Consciousness*, is surely the most complete and most thoroughly researched treatment of the subject from a theological standpoint. Readers may not agree with all of the author’s conclusions, but they will be deeply impressed with the comprehensiveness of his discussions of this very difficult philosophical-theological question. There is no doubt that a study of *On the Origin of Consciousness* will stimulate further intellectual labour on a subject of critical importance.”

—**John Warwick Montgomery**, University of Bedfordshire

“A refreshingly robust defence of the contributions of theology and scripture to understanding consciousness that also deftly handles scientific and philosophical aspects. The clear position developed and the trajectories for future research that are traced will be important for the future theology and science debate.”

—**David Grumett**, University of Edinburgh

“Ventureyra’s *On the Origin of Consciousness* is not only a very good read; it provides a fertile primer for grasping the metaphysical significance of consciousness. But it is the careful examination of the origins of consciousness through the prism of contemporary scientific, philosophical and theological contexts that gives this enquiry resonance. Ventureyra offers readers in philosophical theology, epistemology of theology, philosophy of mind, and philosophy of science a model study of how to think about the origins of consciousness—conscientiously.”

—**Robert M. Berchman**, Director General and Academic Fellow,
Foro di Studi Avanzati, Gaetano Massa, Roma

“*On the Origin of Consciousness* presents a Christian theological understanding of consciousness. In developing his argument, Scott Ventureyra provides a comprehensive overview of different models for the interaction between faith and science, and he describes the role philosophy plays in guiding the integration. What makes the book unique is his insightful interactions with the work of such intelligent design researchers as Bill Dembski and myself. He identifies the concept of information as not only central in the discussion of the origin and development of life but also in understanding consciousness’ origin and operation. Ventureyra’s approach is both compelling and practical. I highly recommend this book for anyone interested in how theology can help guide scientific research on consciousness and in the topic in general.”

—**Stephen C. Meyer**, best-selling author of *Darwin’s Doubt*

“Scott Ventureyra’s compelling book applies my interactive method for relating theology and science (CMI) to the problem of consciousness. In doing so, Ventureyra creatively describes contributions theology might make to the scientific understanding of the origin and emergence of consciousness in nature. I am very pleased to recommend this book to both technical and general readers in theology and science.”

—**Robert John Russell**, Graduate Theological Union, Berkeley, California

“Scott Ventureyra’s *On the Origin of Consciousness* is a rich, albeit somewhat eclectic, work. Although there are many points at which I disagree—Scott takes the emergentism of Teilhard de Chardin and Philip Clayton much more seriously than I think is warranted—I found the book a rewarding read.”

—**Robert Larmer**, University of New Brunswick

“Scott Ventureyra’s *On the Origin of Consciousness* is a brave and illuminating book that could easily serve as an advanced primer on the topic. The book starts from the obvious but no less striking premise that unlike physics, biology, and even psychology, consciousness is not a surprising phenomenon to theology. In fact, theologians expect consciousness, understood as the existential basis for humanity’s relationship to God. This suggests that theologians should be central to the emerging interdisciplinary study of consciousness. Ventureyra makes good on this proposal by showing the mutual bearing that theological and scientific arguments have on each other. While himself a traditional Christian, he is mindful not to overstate the probative character of theological arguments. Here Ventureyra updates the appeal to philosophy as an honest broker between the claims of science and theology that had been instrumental in legitimizing of the Scientific Revolution in the seventeenth and eighteenth centuries. An especially welcome feature of this book is the extended, sympathetic, yet also critical treatment of the work of Pierre Teilhard de Chardin.”

—**Steve Fuller**, University of Warwick, Author of *Dissent over Descent*

“As remarkable as science’s progress has been, it has been completely stumped trying to explain its own foundation—the existence of conscious, rational agents like ourselves. In *On the Origin of Consciousness* Scott Ventureyra explores how theology and philosophy may be able to rescue science from its doldrums.”

—**Michael J. Behe**, author of *Darwin’s Black Box*

“Dr. Ventureyra’s *On the Origin of Consciousness* provides an excellent analysis of the interactions between theology and science. It gives a clear explanation of the different creation-evolution models. It also outlines some of the promising modern theories of consciousness. The most intriguing aspect of Ventureyra’s book is his proposal of God’s action through the connection between information and consciousness, something which can open new lines of research in the theology and science dialogue.”

—**Miguel A. Rodriguez**, former Biochemistry Teaching Labs Coordinator at the University of Ottawa, Canada

“In *On the Origin of Consciousness*, Ventureyra offers a critique of naturalistic explanations for the emergence of mind. Yet he also offers a positive account for how theology can contribute to the quest for a satisfactory account. This book is well-researched, insightful, and an exemplary model for how to integrate scientific, philosophical, and theological questions.”

—**Sean McDowell**, author of *The Fate of the Apostles*

“The twofold strength of this exceptionally well-argued volume resides in its rational commitment to Christian Theism while allowing a rich variety of sub-positions to serve as potential paths for reaching the ultimate goal of explaining human consciousness. Though all trails cannot be ultimately or equally successful, Ventureyra argues persuasively for a carefully-delineated cadre of options from which to achieve the final goal. The result poses a profound and growing amalgam of insurmountable problems for Naturalism.”

—**Gary R. Habermas**, Liberty University

“Wanting to specify God’s role in the origin of consciousness, Dr. Ventureyra painstakingly presents a critical overview of theories in neuroscience, philosophy, and especially different entangled theologies. A useful categorization of the theories, although overlapping, is a major contribution; but the field remains ever a jungle. Nonetheless, this lay of the land might serve as a welcome provocative prelude to other takes on the matter.”

—**Daniel A. Helminiak**, University of West Georgia, author of
Brain, Consciousness, and God: A Lonerganian Integration

“Scott Ventureyra has tackled one of the most challenging issues in the field of science and theology: how to account theologically and scientifically for the origins of consciousness. In a wide-ranging and thoroughly-researched book, he develops a distinctive and sometimes provocative account, which will offer both stimulation and challenge to anyone with an interest in these questions.”

—**Neil Messer**, University of Winchester

On the Origin of Consciousness

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*An Exploration through the Lens of the Christian
Conception of God and Creation*

Scott D. G. Ventureyra

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ON THE ORIGIN OF CONSCIOUSNESS
An Exploration through the Lens of the Christian Conception
of God and Creation

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This book is dedicated to the God of all mercy and love;
the co-Creators of all existence: God the Father, God the Son,
and God the Holy Spirit.

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Acknowledgements

THIS BOOK IS A result of my thesis work on the science and theology interaction, and in natural theology and philosophical theology. In some senses it is a continuation of my master's thesis, which focused on Robert John Russell's "Creative Mutual Interaction"(CMI). It applies the CMI to the origin of consciousness and goes further in its argumentation to explain its plausibility in the universe we find ourselves in. It certainly embodies my insatiable fascination on the question of origins. Although I do not presume this work provides a definitive answer to question of the origin of consciousness, I hope that it can act as an impetus to stimulate deeper thought on the matter within an interdisciplinary framework. I argue for a holistic approach to science, philosophy and theology while also respecting each discipline's limitations.

First, I would like to thank my parents, Enrique and Maria-Elba, for their unwavering support, encouragement, love and faith in me. They have always emphasized the value of education, so I hope this book is a testament to that. The long hours of thought and writing are my way of expressing my gratitude towards their consistent support and love. Their graciousness has made the completion of this book possible.

Second, my daughter, Julianna, for her innocence and the light she shines onto an increasingly dark world. I thank her patience for the many hours I couldn't spend playing games with her. I also thank Julianna's mother, Tanya, who looked after our precious daughter when I was busy with my research and writing.

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Abbreviations

AC	Argument from Consciousness
AIR	Attended Intermediate-Level Representation Theory
CENTAC	Cumulative Evolutionary Natural Theological Argument from Consciousness
CTL	Category Theory Logic
CTNS	Center for Theology and the Natural Sciences
CMI	Creative Mutual Interaction
DAP	Divine Action Project
DCC	Divine Collapse Causation
DE	Directed Evolution
ECA	Embodied Conscious Agent
FINLON	First Instantiation of a New Law of Nature
FINLONC	First Instantiation of New Law of the New Creation
fMRI	functional Magnetic Resonance Imaging
IBE	Inference to the Best Explanation
IDT	Intelligent Design Theory
IIT	Integrated Information Theory
KCA	The Kalam Cosmological Argument
LLII	Leibniz's Law of the Indiscernibility of Identicals
MSRT	Mirror Self Recognition Test
ND	Neo-Darwinism
NDE	Near Death Experience
NDT	Neo-Darwinian Theory
NE	Naturalistic Evolution

NIODA	Non-Interventionist Objective Divine Action
NOMA	Non-Overlapping Magisterium
NT	New Testament
NTE	Non-Teleological Evolution
OCD	Obsessive Compulsive Disorder
OEC	Old Earth Creationism
Orch-OR	Orchestrated Objective Reduction
PE	Planned Evolution
PSII	Psycho-Semantic Integrated Information
QEEG	Quantitative Electroencephalography
QFT	Quantum Field Theory
QM	Quantum Mechanics
RSMEs	Religious/Spiritual/Mystical Experiences
SRP	Scientific Research Program
TE	Theistic Evolution
TRP	Theological Research Program
UCD	Universal Common Descent
YEC	Young Earth Creationism

Introduction

Introductory Remarks

THE ORIGIN OF CONSCIOUSNESS intimates some of the most profound questions a human person can ask. It is deeply interconnected to many perennial questions, although refined through the constant development of our understanding of ourselves and the cosmos. The questions revolving around consciousness are intimately linked to other recalcitrant questions, such as: Does God exist? What is God's nature? Why does anything exist at all? What is the structure of reality? Why are the constants, initial conditions, and laws of physics the way they are? What is mind? Where did mind come from? Is our perception accurate with how reality actually is? Is the cosmos intelligible? What is human nature? Do we have free will? Are we morally responsible for our actions? And a multiplicity of other related questions. To be sure, these questions have been approached in many distinct ways throughout the ages. There is no definitive consensus amongst theologians, philosophers, and scientists. Despite there being disagreements, as there typically are with theological, philosophical, and scientific issues, this does not mean that progress in learning more about ourselves and reality is not possible, at least in the sense that we can inch our way closer to truth.

As twenty-first-century humans, we find ourselves in an era of utter awe and discovery with the rapid advancement of the natural sciences and the exponential development of technology, all of which serve as indispensable aids to scientific, philosophical, and theological inquiry. Through this ever-evolving correspondence between our understanding of the natural sciences and technological development, it is astonishing, for instance, to observe the features of "low life" (microorganisms) endowed with specified complexity,¹

1. Specified complexity refers to the arrangement of the structure of something. It is a designation for the organization of a particular thing, commonly used to describe functionally integrated systems such as organisms and their components but can also refer to a computer program, literature, recipes, a telephone book, etc. For instance, a

something that has been only possible because of our advancement in technology. Most remarkable is the fact that we can unravel a world far more intricate than any computer or device we have been able to design. This is especially true with the informational content embedded on the spine of the double helical DNA molecule. Indeed, our technology has allowed us to discover an exquisite world of “nano-technology” that is far more sophisticated than our own, yet vastly more primitive (e.g., even primordial singled-celled organisms such as eukaryotes or prokaryotes bacteria), exhibiting much lower orders of specified complexity and obvious cognitive capacities than humans possess. Such advancements provoke us to reflect deeply on our philosophical and theological outlooks. The success of the modern sciences has raised a series of intriguing questions revolving around a string of variant phenomena: the universe itself, the physical laws that govern the universe, the information necessary for the existence of the first cell and consciousness, particularly as related to the human mind. The intelligibility of the cosmos and our advancement in the natural sciences, with corresponding technological advancement, presupposes an inherent rational order and structure to reality.² It is not a requirement of existence that our minds correspond with how reality actually is and that we are able to gain understanding of it with our various theological, philosophical and scientific “instruments.” Yet this is the intriguing state we find ourselves in.

It is worth noting that consciousness as a human phenomenon is a term and an idea that has undergone a variety of changes over the years. This is particularly true with advancements in the neurosciences. Some maintain that the findings of neurosciences have had a deep impact on how we are to understand mental states as they are related to the neurophysiology of the brain. Others suggest that such findings, although very interesting to a variety of disciplines including psychology, psychiatry, neuroscience,

strew of letters arranged in a random manner may be complex, but it does not necessarily specify anything; however, a series of letters organized in a particular fashion as we observe with the English alphabet to formulate certain words, phrases or sentences, can be considered as specified complexity since it conveys a certain pattern or message based on both its complexity and specificity in the arrangement of the letters and words. The same is true in life, whether within a cell or in the arrangement of trillions of cells like those that make up the human brain. See Orgel, *The Origins of Life*, 189; Davies, *The Fifth Miracle*, 112; Dembski, *No Free Lunch*, 19.

2. In chapter 8, we will briefly discuss a philosophical and theological argument (Lonergan) and a scientific argument (Gonzalez/Richards) related to intelligibility and the correspondence between the two. For works supporting the inherent rationality, structure and comprehensibility that permits the very endeavor of science, see Klaaren, *Religious Origins of Modern Science*; Jaki, *The Origin of Science and the Science of its Origin*; Hooykaas, *Religion and the Rise of Modern Science*; Whitehead, *Science and the Modern World*; Lindberg and Numbers, *God & Nature*.

biology, etc., are nonetheless irrelevant to philosophical and theological understandings of consciousness.³ This is applicable to those who believe in substance dualism.⁴ There are also disputations over how to interpret what the ancients believed about consciousness.⁵ There is, so to speak, an evolving understanding according to which prior to the period of Teilhard (a thinker whose notion of evolution and consciousness we will explore in chapter 4 of this book) there may have been a different understanding of consciousness than the one we find in our present day. J. P. Moreland's version of substance dualism will be explored. In the final section of this book, we will also explore the thoughts on consciousness of Bernard Lonergan and Daniel Helminiak, and Philip Clayton.

Two Prongs and Why

This book endeavors to develop a theological understanding of the origin of consciousness through the Christian conception of God and creation. This is something that had not been explored until now with any great depth, aside from the work of Pierre Teilhard de Chardin. This book is primarily a work of a theology set in the science-theology interaction and, as such, will have strong ties to several branches of both philosophy and science.⁶ As a work in theology, it ultimately affirms St. Anselm of Canterbury's (1033–1109) motto: *fides quaerens intellectum*. One is not suspending reason in such an exercise; rather one is engaging in loving God with all of one's mind (Matt 22:37) and actively seeking an ever-deepening understanding of God through this commitment.⁷ This book affirms that God is the Creator of all, both things visible and invisible (Col 1:16). Any meaningful work of Christian theology presupposes the truth of Christian theism, but it is a work that engages deeply with the rational endeavor of natural theology,

3. This is true in J. P. Moreland's exposition of substance dualism which will be explored in chapter 8.

4. Moreland, *The Soul*, 74–116.

5. See Caston, "Aristotle," 751–815. Victor Caston has pointed out that, for well over thirty years, philosophers have debated, for instance, on whether Aristotle had a notion of consciousness. Nonetheless, he agrees that both sides are correct to one degree or another and that Aristotle had a concept of perception.

6. It is tied to various branches of philosophy, including philosophy of science, philosophy of mind, and philosophy of religion. It is also closely tied to various branches of science, including evolutionary biology, neuroscience, cosmology, physics, and chemical evolution.

7. See Anselm, *Monologion* chapter 68. Here Anselm argues that a dead faith is one that merely accepts what one "ought" to believe without further investigation. See Thomas Williams, "Saint Anselm."

which has traditionally relied on different philosophical tools and concepts. Natural theology is a rational means to infer the existence of God and the purposiveness in nature through empirical observation of the created world and human intellect.⁸ Moreover, the current enterprise of natural theology not only relies on philosophical reasoning, but also modern science (as will be seen with the Cumulative Evolutionary Natural Theological Argument from Consciousness [CENTAC]). However, any engagement with the naturalists will have to be rather brief and cannot be expected to be exhaustive. An in-depth refutation of naturalism is beyond the scope and project of this book. A work responding to such critics would have to be a separate project in and of itself. Given this, it should be stated that this book is of an exploratory nature and as such, is meant to initiate a dialogue on the examination of the origin of consciousness from the perspective of Christian theological interactions with science—a dialogue which has so far not taken place. It does not intend to have a final say on the matter, its purpose being to inspire future research into one of the most difficult areas of human intellectual endeavors. For example, in this book, some of the arguments presented in chapter 5 have a long history and have found more defenders and detractors; however, by no means can this book address all of the arguments, counter arguments, rebuttals, and defeaters. These arguments have been subject to vigorous debates in both philosophy and theology journals. What can be said is that they are taken seriously by detractors and have sufficient support to justify sound arguments in defense of theism in general and Christian theism in particular (when taken as part of a cumulative case).

There are two broad prongs I wish to explore with respect to this book. The first has to do with a methodological question, namely, what fruitful contribution can Christian theology provide the sciences?⁹ Put more specifically, in which ways can the Christian conceptions of God and creation shed light on potential research avenues into the discernment of the origin of consciousness? It is my contention that through our developed understanding(s) of science, philosophy, and theology, we can answer this question in a more precise fashion than was possible in the past. The question of consciousness, as I will demonstrate throughout this book, requires the cooperation of a variety of disciplines within theology, philosophy, and science. It cannot be examined adequately in isolation, i.e., as a purely scientific question since it overlaps with both theology and philosophy. Neither do I purport to argue that Christian theology alone can account

8. See Brent, “Natural Theology,” lines 1–5.

9. Here I use the term sciences in a broad sense to cover natural sciences, neuroscience, the humanities, etc. In the first chapter, we will explore a modified version of Robert John Russell’s program suggested by William Stoeger.

for consciousness since philosophical and scientific engagement are also required. It would be a gross misunderstanding to suggest otherwise. It must also be understood that the science of consciousness is a developing enterprise which is still in its speculative stages since consciousness is not observable through conventional scientific-empirical means.

This book affirms that Christian theology is not in conflict¹⁰ with, but can support, scientific hypotheses and conclusions. Indeed, scientific theories dealing with the subject of origins will inevitably have theological implications and points of intersection. The very interactions of these three disciplines form a synergy, including interdependence with one another. Synergy is not a vague term used to mask any problem, but the reality in which we must deal with the inseparability of the three disciplines. However, it must be acknowledged that each of the three disciplines still have their own set of epistemological options, structures, and limits. What must be kept in mind is that this synergy among the three is not taken for granted by all scholars, although those involved in the science-theology dialogue, as we shall see in chapter 2, are closely tied despite a series of objections (such as the verificationist principle and the criterion of falsification). Philosophy's important role in the science-theology dialogue illustrates this in chapter 2. Alan Padgett asks the following question: What role does philosophy play in theological reflection?¹¹ His answer demonstrates how theology cannot be separated from philosophy:

For one thing, philosophical training can bring clarity and logic to the reflective, systematic, and constructive tasks of Christian theology. Philosophy may also provide key ideas necessary to explicate revelation. More than this, philosophers may pose problems of internal coherence within the patterns of life and thought that are Christian tradition, religion, and theology. This is a valuable service, and one which theologians have not ignored over the long history of engagement with philosophical partners. Philosophy can also pose other questions to the Christian religion, giving shape in sharp and poignant ways to the problems of our place and time.¹²

10. If there is such a thing as a conflict between science and theology, it is mainly at a superficial level, for example, the claim of evolutionary psychology that religion is nothing more than an aid for survival. According to philosopher Alvin Plantinga's evolutionary argument against naturalism, the real conflict lies between naturalism and science. See Plantinga, *Where the Conflict Really Lies*; Ventureyra, "Scratching the Surface," Review of *Where the Conflict Really Lies*.

11. Padgett, *Science and the Study of God*, 93.

12. *Ibid.*, 93.

What I mean by synergy, in the context of the origin of consciousness, is that the interaction and combination of theology, philosophy, and science is greater than the sum of the individual disciplines bearing on the question at hand. It is not to say that any of these disciplines is invading in the territory of the other. For instance, science will not dictate questions about the nature of the Holy Trinity, nor will theology impose a method of multiplying microbial organisms, etc. Science, for example, has absolutely nothing to say directly about God's nature (as understood in classical theism). This would be the domain of philosophical theology. But that is not to say that certain findings of the natural world, gathered through scientific observation, cannot say anything about God's action which may reveal something about His nature. Moreover, science takes for granted the existence of space, time, and matter—science is inoperable without these in place. This implies that engagement over metaphysical nothingness is the domain of philosophy and engagement upon spiritual beings is the domain of Catholic theology.

A bidirectional approach helps examine the complex interaction between science and theology, which itself is a philosophical question, one having to do with how theology can influence science on the origin of consciousness. The response to this first question reveals the first prong of this book, which examines the approach of physicist and theologian Robert Russell, whose novel approach to the science-theology discourse, Creative Mutual Interaction (CMI), allows for a bidirectional interaction between the two disciplines. CMI involves eight pathways; five from science to theology and three from theology to science. All pathways have been examined throughout the book but there will be a stronger focus on the latter three. I must emphasize again that theology's interaction is not meant to denigrate or subsume the sciences. The sciences do have many interesting things to say on consciousness, which will be explored in detail in our application of Russell's CMI to the origin of consciousness, but the point, as renowned philosopher of mind David Chalmers says, is this:

The problem of consciousness lies uneasily at the border of science and philosophy. I would say that it is properly a scientific subject matter: it is a natural phenomenon like motion, life, and cognition and calls out for an explanation in the way that these do. But it is not open to investigation by the usual scientific methods. Everyday scientific methodology has trouble getting a grip on it, not least because of the difficulties observing the phenomenon. Outside of the first-person case, data are hard to come by. This is not to say that no external data can be relevant, but we first have to arrive at a coherent philosophical understanding before we can justify the data's relevance. In this book

I reach conclusions that some people may think of as “anti-scientific”: I argue that reductive explanation of consciousness is impossible, and I even argue for a form of dualism. But this is just part of the scientific process. Certain sorts of explanation turn out to not work, so we need to embrace other sorts of explanation instead. Everything I say here is compatible with the results of contemporary science; our picture of the natural world is broadened, not overturned.¹³

I completely endorse Chalmers’s insights here, but I do part ways when he later reveals his naturalistic inclinations. This is where the second prong of the book, which is intertwined with the first, provides justification for the origin of consciousness. Therefore, I maintain that Christian theology has something to contribute to this interaction in a number of ways. The second prong is also one that I contend will help in discerning the origin of consciousness, but this is to be detailed in chapter 1 with respect to Russell’s “CMI.” The precise ways in which Christian theology make a contribution to the sciences in terms of explaining the origin of consciousness will be detailed in chapter 7.

Second is the question of content: Does Christian theism, in light of the Christian conception of God and creation, provide a plausible explanation for the origin of consciousness? In other words, do particular arguments in natural theology, philosophical theology, and systematic theology provide a plausible explanation for the origin of consciousness? Philosophical theology is the application of philosophical tools to analyze theological concepts. In this book, it is used to understand the nature of God in the doctrine of divine simplicity. Unlike both philosophical theology and natural theology, systematic theology attempts to formulate a coherent picture of both special and general revelation.¹⁴ Moreover, it is worth noting that systematic theology takes into account both philosophy and science, but unlike natural theology and philosophical theology (general revelation), draws also on biblical texts (special revelation).

It is my contention that the Christian conception of God and creation can help provide a satisfying response to this question. However, in order

13. Chalmers, *The Conscious Mind*, xiv. To be sure, albeit controversial, there are several developing scientific theories of consciousness that attempt to account for its nature and origins. These will be examined later in greater detail and include the following: Integrated Information Theory, see Tononi and Koch, “Consciousness: here, there and everywhere?” 1–18. There are others such as Stuart Hameroff and Roger Penrose’s Orchestrated Objective Reduction (Orch-OR Theory): see Hameroff and Penrose, “Reply to criticism of the ‘Orch OR qubit’—‘Orchestrated objective reduction’ is scientifically justified,” 94–100.

14. Geisler, *Systematic Theology*, 14.

to require a truly compelling response, it would require much more rigor since the development of each of these arguments has entailed book-length treatments and/or dissertations by scholars who have defended them. The arguments also have a long history of back-and-forth rebuttals in peer-reviewed journals and anthologies. Thus, it is not my intention to retrace the history of each of the arguments in natural theology, philosophical theology, and systematic theology, nor am I arbitrating between the many debates surrounding them individually. My intention is to simply propose plausible paths for the science and theology dialogue and an overall explanation for the origin of consciousness. Nevertheless, individually, these arguments are strong and defensible in the face of the strongest detractors. However, cumulatively these arguments, in my estimation, are even more powerful and persuasive. The reason I state this is because they paint a picture of a universe where the likelihood of the origin of consciousness is quite high given the plausibility of the premises of each argument. My goal is solely to provide a sketch of these arguments in order to give the background information pertaining to this particular universe whereby Christian theism provides a plausible explanation for the origination of consciousness. For this purpose, I utilize CENTAC. The steps in this line of argumentation include: the Kalam Cosmological Argument (KCA), the fine-tuning of the laws of physics and biology, the origin information necessary to build the first organism, and evolutionary convergence where biological complexity meets consciousness in its human form. Further argumentation in philosophical theology to affirm God's nature includes the notion of God's simplicity, which is in part derived from the implications of CENTAC. The systematic theological arguments, which further indicate the nature of consciousness as manifested in humanity, work in addition to CENTAC, further delineating the type of God responsible for the origin of consciousness, specifically the Christian God. These arguments include: the image-likeness of God, the origin of moral consciousness and the Trinitarian Mode of Creation.

It is worth pointing out that CENTAC on its own would be akin to what Blaise Pascal had famously named "the Philosopher's God," but the closer and more intimately involved this God becomes with His creation (e.g., the fine-tuning of the laws of biology, the origin of information for the first replicating system and the origin of self-consciousness) the closer to theism, and then eventually to Christian theism one gets with the systematic theological arguments. It would be wholly inadequate to suggest that an argument such as the Kalam Cosmological Argument or any of the others in CENTAC could possibly affirm the Christian conception of God since in isolation these arguments are not meant to do so. Thus, the second prong of the book is in combination and conjunction with the arguments

of CENTAC, divine simplicity, and the ones I offer in systematic theology, according to which we get a fuller picture of the Christian God. We could, of course, go on arguing for other justifications of Christian theology such as Jesus's divine self-understanding and the historical evidences of Jesus's resurrection, but this would take us beyond the scope of the origin of consciousness. It is also worth mentioning that each of the arguments of CENTAC, taken on their own, only demonstrate a very generic type of God, even a deistic understanding of God. But when the arguments are cumulatively understood, in conjunction with the systematic theological ones—a specific Christian understanding of God is revealed. In developing these arguments, I intend to present a reasonable explanation for why the Christian conception of God and creation helps affirm the origin of consciousness. This will be explored in chapters 5 and 6.

One may now ask the following questions: What is the value of the second prong to the book? And how is it connected to the first prong? At least intuitively, the nature of our own consciousness seems indicative of an ultramundane consciousness, but its justification is dependent on additional argumentation. This is partly because of the objection that humans have never experienced nor directly encountered a disembodied consciousness. Humans of course encounter other minds all the time; they engage in acts of self-consciousness when they think and reflect about their own existence and thoughts. They also experience God in a personal way throughout their lives. However, to have a direct encounter with God as a disembodied consciousness is something that is not typically pursued on the level of involving rational argumentation.¹⁵

It is worth indicating that due to the very nature of consciousness, it appears to be a subject-dependent type of "thing." Furthermore, it seems not only plausible but reasonable to think that the connection between consciousness and matter is contingent and not necessary. Therefore, careful consideration between complexity and consciousness is necessary. This being said, further argumentation is needed to draw the connection between finite/contingent consciousness and necessary consciousness, i.e., God (eternal consciousness among many other attributes). Thus, the second prong provides a backdrop and justification for finite consciousness pointing toward the eternal existence of God. From the implications of CENTAC, some insights toward several attributes of God are revealed, such as being

15. Unless one is engaging in argumentation for God's existence, but such arguments do not directly link God's disembodied nature with His existence; rather they are derived from the implications of arguments like the Kalam Cosmological Argument or other cosmological arguments. For a unique work that attempts to provide epistemic warrant for belief in God and other minds, see Plantinga, *God and Other Minds*.

uncaused, immaterial, spaceless, timeless, changeless, and inconceivably intelligent and powerful. Some of these attributes will be argued in chapter 5. This prong, alongside the systematic theological arguments, in my estimation, points persuasively not only to the existence of the Christian God as understood by classical Christian theism, but also to an explanation as to why consciousness ever originated in this universe. In other words, it is the sort of thing you would expect to originate given such an understanding of the universe and the data of human consciousness.

In response to the second question, it is worth noting that the second prong is embedded within the pathways and guidelines of the first prong of the book. For the purposes of the book, I see the two prongs mutually informing one another. This is precisely where philosophy plays a vital role in not only mediating between both science and theology, but also deeply interconnecting the two great disciplines. In my estimation, it is naïve to think that science, theology, and philosophy can be neatly segregated from one another (we will return and elaborate more on this in chapter 1). Through Russell's CMI and my use of it, a synergy appears between science, philosophy, and theology; strongly bonding the three disciplines together. The second prong is intimately linked to the arguments in natural theology, philosophical theology, and systematic theology. These arguments help form a basis for providing the background information for the possibility of the origination of consciousness, i.e., it sets up a universe allowing not only for the possibility of the origin of consciousness, but for its high likelihood since we start with mind or consciousness, not matter or metaphysical nothingness alone. As this is a work primarily in theology, a major presupposition, although a highly plausible one (as demonstrated through CENTAC), of this book is that the emergence of consciousness is impossible without mind in the first place. If all that exists is matter somehow self-assembling itself through the laws of physics and chemistry into more numerous and large segments of complex matter, then the question of how consciousness emerges in the absence of a source consciousness is troubling. Naturalistic emergence merely asserts that complex forms of matter give rise to something fundamentally different, but a detailed, cogent, and plausible explanation is never truly provided. It is truly an example of getting something from nothing. The only "viable" alternative to a world where consciousness results from God would be panpsychism, whereby consciousness is a fundamental property of matter. However, this position is fraught with difficulties, including the combination problem.¹⁶ Nevertheless, it is still very well

16. This seems like the final subterfuge for naturalists to attempt to circumvent God in their reliance on an archaic explanation of consciousness (dating back to Thales and East Ancient Buddhism). The combination problem is a significant problem for