Introduction

The year 1972 was a good one for the American scientific community. That year several groups of biologists across the nation created the first recombinant DNA molecules, artificial genetic chains that opened the door for research into human genetics and new medical treatments. In Batavia, Illinois, physicists activated the main accelerator ring of the Fermi National Accelerator Laboratory, inaugurating what would become one of the world’s most productive subatomic particle research centers. At Bell Laboratories in New Jersey, computer scientists invented a new programming language called “C” that allowed them to write more complex programs, reshaping the field of computer science and computer technology more broadly. Such scientific progress contrasted with the harsh realities of politics and international affairs: the Watergate break-ins, the Munich massacre of eleven Israeli athletes, and the Bloody Sunday riots in Northern Ireland all occurred that year as well.¹

The year 1972 also witnessed developments among new religions in America. The International Society for Krishna Consciousness, better known as the Hare Krishna movement, released under its publishing wing a new American edition of its founder’s seminal text on religion and science. This short book, Easy Journeys to Other Planets, outlined their leader’s vision of how a science rooted in Indian religiosity could supplant or replace Western materialistic science, not to mention religion. That spring, two spiritual seekers named Marshall Herff Applewhite and Bonnie Lu Nettles met in a Houston hospital, bonded over their shared interest in astrology, and founded the movement eventually named Heaven’s Gate. The two would seek to incorporate or absorb science and scientific thinking into the religion that they founded. In the autumn, the Holy Spirit Association for the Unification of World Christianity, more widely called the Unification Church, sponsored the first of what would become a series of symposia called the International Conferences on the Unity of the Sciences (ICUS). The conferences brought together scientists, ethicists, philosophers, and scholars of religion, and demonstrated how
the Unification Church and its leaders hoped that religion could shepherd or guide scientific research and development.

This book considers how three new religious movements—the Hare Krishnas, Unification Church, and Heaven’s Gate—treated the idea of science and the relation of science to religion and wider American society during the latter half of the twentieth century. Though these religions were small, their study reveals an important fact about religions in America during the late twentieth century. Science had become so big, powerful, and important that all religions had to respond to it. New religions reacted to science with a clarity and alacrity that more established religions could not. During the period considered in this book, each of these new religions possessed a living founder who shaped the movement’s theology and philosophy, responding to science directly. Understanding these religions’ treatments of science sheds light on the power and prestige that science had come to take hold in American society during the latter half of the twentieth century. The manner in which these new religious movements reacted to the scientific endeavor and to individual crises and debates within the scientific world acted as bellwethers for how older, more established religions would come to contend with—and sometimes be shaken by—such issues. As the sociologist of religion William Sims Bainbridge has written of new religious movements, “[b]y being small and fast-changing, and possessing distinctive characteristics, they give scientists clear vision into the processes that create and sustain new culture.”

This book considers such new cultures, and what they reveal about the older religious cultures of America. The manner in which new religions responded to science generally reflected broader religious responses to science, though taken to greater extremes. I have found that the ideological and theological positions of new religions are not so different from old religions after all. In addition, they offer a useful typology of how religious movements—old or new—respond to science.

Each of the three religions offered a distinct position on the nature of science and how religion and science ought to interact. Yet all of the three new religions understood their views of science as crucial to their wider theological views and social stances. For each of these new religious movements, the nature and meaning of science served a central role in the group’s self-understanding and conceptualization. Because the roles and boundaries of science so concerned each of the groups, their founders, leaders, and ordinary members offered both implicit and explicit re-envisionings of science. These views developed out of each group’s historical circumstances and theological positions, but also evolved in concert with concurrent social develop-
ments and cultural influences. Such varying factors resulted in three different perspectives on science. The Unification Church aimed to guide science and the American scientific establishment. It positioned science as a sphere separate from religion, yet at the same time attempted to direct science's ethical boundaries, methods, and even research goals. The Hare Krishnas sought to replace Western science with an alternative scientific-religious system rooted in their own Hindu religious tradition. The science of ancient Indian religious texts, they insisted, offered a more accurate and socially healthy paradigm than that of the contemporary American scientific establishment. Heaven's Gate attempted to absorb or incorporate science and scientific elements into their religious system. It looked to methodological materialism and naturalism as the ideal epistemology, and declared itself the truest form of both science and religion.

The Construction and Meaning of Science

Thomas Kuhn, in *The Structure of Scientific Revolutions*, reminds scholars that scientific paradigms develop historically and change periodically as new scientific models replace earlier ones. Such shifts entail that the science of one era, community, or region might look very different than alternative scientific paradigms. Other scholars, such as Michel Foucault and Bruno Latour, extend the Kuhnian conceptualization of paradigm shifts within science by arguing that human social groups construct the meaning of science itself. In *Birth of the Clinic*, for example, Foucault argues that the modern understanding of medical science grew out of a specific European social location and defeated alternative conceptualizations of disease, healing, and the body. Latour’s *Laboratory Life: The Social Construction of Scientific Facts*, coauthored with Steve Woolgar, indicates that production of knowledge in the physical sciences depend as much on social networks as it does on empiricism or the scientific method. Though some scholars have criticized the particular arguments of Kuhn, Foucault, and Latour, most accept that the meaning of science is not static.

The meaning of science also varied among the new religious movements considered here. Even within single movements or even single individuals within a movement, science meant something different in different contexts. For members of the Hare Krishna movement, for example, science sometimes represented an empiricist epistemology with which they differed, a modern technological worldview that they rejected, or the collective corpus of legitimate knowledge that they claimed to possess. This book untangles

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these multiple meanings of science and how they related to religion, showing how three religious groups constructed alternative definitions of science and illuminating, as appropriate, parallels to wider religious engagements with science, both inside and outside new religions.

One must be wary of any attempt to codify any single definition of science, since individuals and groups use the word in so many different ways. Yet because I argue that members of leaders of new religions responded to science, I want to explain how I understand the term. When I use the word “science” in this book, I use it to signify both an epistemology and a worldview dependent on that epistemology. I make no claims as to the universality of this approach to the concept of science, and indeed philosophers of science continue to debate the definition and limits of science. Yet this understanding provides traction for the study of how religious groups responded to, and engaged with, science. It also reflects a wider cultural view of science. In the way that the American public commonly employs the term, “science” represents several distinct phenomena. It is both a way of knowing (an epistemology) as well as a manner of understanding predicated on that epistemology (a worldview). Science—meaning scientific research—might prove one chemical dangerous and another benign, for example, but one also relies on science—meaning something much broader—to cure the sick, fix (or destroy!) the ozone layer, or improve crop production.

Historically, Western science has depended on empiricism and the naturalistic assumption that observable origins cause observable effects. The professional practitioners of American science, those calling themselves scientists, depend on such a definition to police the boundaries of their field. In 1986/87 the United States Supreme Court considered a case that raised the issue of whether Creationism counted as science. A group of seventy-two Nobel laureate scientists and twenty-four scientific organizations filed an amicus curiae brief that offered an explicit formulation of science as an empirical and naturalistic epistemology. They declared that “[s]cience is devoted to formulating and testing naturalistic explanations for natural phenomena. It is a process for systematically collecting and recording data about the physical world, then categorizing and studying the collected data in an effort to infer the principles of nature that best explain the observed phenomena.” Here, science operates as a process of gathering information through observation and producing new knowledge based on those observations. It is both empirical and naturalistic, meaning it considers only the observable world. Importantly, the brief’s authors composed the statement in order to distinguish what they considered real science from the nonscienc-
tific alternative of Creationism, something they considered neither empirical nor naturalistic. Though its authors intended it as a polemic, the amicus curiae brief correctly notes that science operates as an epistemology. However, not everyone agrees on the boundaries or nature of that epistemology. Just as Creationists did, the religious groups considered here each challenged scientists’ assumptions about what such an epistemology should entail.

Yet the scientists’ brief indicates a second view of science as well, one that reflects the way in which many Americans employ the term. In the abstract of their statement, the amicus curiae scientists employed the term “science” to represent something far broader than merely an epistemology. They used the word to mean a system of thought and way of understanding the world, what one might call a worldview. They wrote that “[t]eaching religious ideas mislabeled as science is detrimental to scientific education: It sets up a false conflict between science and religion, misleads our youth about the nature of scientific inquiry, and thereby compromises our ability to respond to the problems of an increasingly technological world.” That there might exist a conflict between science and religion hints at the possibility that the former may also function as an entity more akin to religion than to alternative epistemologies such as Kantian rationalism or social constructivism. The scientists implied in their brief that science entails a manner of not only knowing the world, but understanding that knowledge and relating to it. That is, science is more than an epistemology. It is also a worldview. The new religious movements considered here also understood science in that way, in addition to its epistemological nature. As I use the term “science” in this book, I mean both science as an epistemology as well as science as the worldview that grows out of such an epistemology.

Yet the new religions of late twentieth-century America understood science in another manner as well, one in keeping with a wide cultural view. In the United States of the 1950s through 1990s, “science” also stood for an industrial-technological-scientific establishment, what some scholars have called American “big science.” Big science was (and is) the massive government- and corporate-sponsored scientific apparatus that led to the growth of the prestige, power, and place of science and technology in American culture during the late twentieth century. Many people merely called it “American science.” Big science galvanized economic growth, increased standards of living, and maintained a defense against the Cold War enemy of the Soviet Union. It brought televisions, antibiotics, microwave ovens, and plastic to American households. It also enabled Agent Orange, Three Mile Island, and Love Canal. Throughout the latter half of the twentieth century, Americans

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both inside and outside new religions attempted to come to grips with the potential of big science to improve as well as destroy life.

Americans responded to big science in multiple ways. Paul Boyer has documented the immediate boost of interest in science and respect for scientists after the war, tendencies that coexisted with anxieties about the nuclear bomb and the possibilities of atomic annihilation. The atomic physicist Heinz Haber gave voice to the perspective emphasizing the almost utopian possibilities of science in his 1956 book, *Our Friend the Atom*. Haber regaled the reader with promises of endless cheap atomic energy, supersonic atomic-powered planes, and stout nuclear-powered naval ships to defend American borders. In the broadest sense, science offered universal beneficence, he insisted. “The magic power of atomic energy will soon begin to work for mankind throughout the world. It will grant the gifts of modern technology to even the remotest of areas. It will give more food, better health—the many benefits of science—to everyone.” Haber represented a wider assumption that science and technology held solutions to the nation’s problems, an approach so popular that his book received corporate sponsorship. The Walt Disney corporation subsidized its publication as well as produced a filmstrip and amusement park exhibit of the same name. Even when the allure with nuclear science faded, Americans’ dependence on technology and continuing scientific development increased. The Cold War itself led to a reliance on science and technology and encouraged increased spending on defense research, much of which occurred in the new centers of government-sponsored science. Yet not everyone shared Heinz Haber and Walt Disney’s enthusiasm.

Some commentators in America offered a less affirmative view of the growth of American science. The 1960s witnessed an increase in the criticism of the growing place and power of science in the United States, alongside criticisms of America’s other establishments, such as educational institutions, corporations, the nuclear family, and the churches. Such opponents of mainstream culture, eventually called the counterculture, linked the critique of modern science and technology to a variety of concerns. One popular criticism of science during this period complained that science failed to live up to the expectations of its postwar proponents, that rather than usher in a brave new world of utopian life, science had fostered a Huxleyan *Brave New World* of dystopic social control and devaluation of human individuality. Others made the opposite accusation, that science had devastated community and the social fabric of life. Those with more Marxist leanings charged science and technology with contributing to an unjust capitalist culture, while still others focused
on environmental damage or risks to human health. Popular culture often combined these sentiments. Kurt Vonnegut’s *Cat’s Cradle* (1963) described worldwide environmental devastation and the destruction of the human race at the hands of an irresponsible scientific community, as well as that community’s tendency to enable dictatorial social control.\(^\text{14}\) Ernst Schumacher’s *Small is Beautiful*, published a decade later in 1973, accused science of “mutilating” humanity’s self-worth and fostering a harmful economic system.\(^\text{15}\) Among the countercultural readers of Vonnegut and Schumacher, the new religious movements played an important role, serving as theological nuclei that presented new options to the religious mainstream. Each offered alternative religious visions of the ideal individual and society, and several of them—the Unification Church, the Hare Krishnas, and Heaven’s Gate—offered alternative imaginings of science as central components of those visions.

**Creative Tension**

The Unification Church, the Hare Krishnas, and Heaven’s Gate adopted three different perspectives on the meaning, nature, and role of science, and its relation to religion. The first of these movements to arrive in the United States, known formally as the Holy Spirit Association for the Unification of World Christianity, looked to science as an analog of religion. Though they sometimes disagreed on details, generally its members viewed science as a separate sphere that considered the material nature of the cosmos, just as religion explained the spiritual levels. In their proselytizing and training of seminarians, Unificationists stressed the compatibility of their own religious perspective with that of Western science. Eventually the Unification Church assumed a generally supportive perspective toward the American scientific establishment, as demonstrated through the International Conferences on the Unity of the Sciences that they sponsored. As a whole, Unificationism looked to *guide* science, to set boundaries and goals for its research, and to help scientists focus on improving both human knowledge and human living conditions. They took a particularly positive position—albeit sometimes paternalistic—toward America’s science establishments. The Unificationist position evolved from its founder’s hopes to merge what he considered Oriental religiosity and Occidental science, a position that emerged from the colonial Korean experience.

The International Society for Krishna Consciousness (ISKCON, or Hare Krishnas) took a much dimmer view of the science of the Western world. Whereas Unification’s founder Sun Myung Moon had accepted the Western
science introduced to Korea through Japanese colonialism, ISKCON’s originator Swami A. C. Bhaktivedanta rejected the bulk of the Western modern worldview that he encountered during his life in British-colonized India. The majority of the intellectual leaders of the Hare Krishna movement considered Western science, like Western society more broadly, a bankrupt system. They singled out government- and corporate-sponsored science as particularly unlikely to either alleviate human suffering or increase quality of life. Yet the adherents of the group did not reject the concept of science. Instead, they looked to the Hindu tradition for a replacement to that of the West. ISKCON offered a scientific approach to understanding God, they declared, but members of the group rooted this science in ancient Indian texts rather than the norms and establishments of American science. The Hare Krishnas sought to replace the form of science most prevalent in the United States with an alternative scientific approach. This position developed not only from Bhaktivedanta’s experience in India but from the countercultural perspective of the Hare Krishna converts and leaders.

Heaven’s Gate, the final of these three new religions to emerge, took yet another approach to science. Led by two Americans who rejected their Protestant heritage as well as many of America’s social mores, this movement nevertheless looked to science as a legitimate form of knowledge. Ambivalent about scientists and the institutions of science, they nonetheless borrowed from science its methodological underpinning—materialistic naturalism—and applied that approach to religion. In their engagement with the outside world, Heaven’s Gate’s founders and members used naturalistic explanations of religious terms and the scientific language of biology and chemistry in order to present themselves as a scientific religion. At the heart of their message they offered an explicitly naturalistic explanation of what most would regard as a religious concept: heavenly salvation. Heaven’s Gate attempted to absorb from science its foundation of naturalism and build upon it a religious edifice. This movement fundamentally embraced American technology and science, transforming it into a religious ideology.

These three approaches—guiding, replacing, or absorbing—offer a typology of how religious movements, both new and old, responded to the tremendous growth of the presence, power, and prestige of science in late twentieth-century America. These perspectives represent three ways of answering the same questions: What is science, How does science relate to religion, and What can religions do in response to science? Americans far removed from new religions asked similar questions and came to similar conclusions. As Robert Booth Fowler has documented, during the 1970s and 1980s Ameri-
can Protestants increasingly turned their attention to environmental issues. Protestants as diverse as mainline liberals, evangelicals, fundamentalists, and ecofeminists each sought to guide environmental science and policy. Their approaches varied, but like Unificationists, these American Protestants hoped to set limits and goals for the American scientific establishment. Though it would not achieve prominence until the twenty-first century, an alliance of conservative Protestants, Catholics, and Jews calling itself the Intelligent Design (ID) movement meanwhile worked toward replacing the Darwinian scientific paradigm with a new theologically oriented one. Like the Hare Krishnas, the ID movement rejected the naturalistic assumptions and approaches of Western science, preferring a methodology more in keeping with their particular religious sensibilities. While mainstream examples of the absorption of science into religion may seem less likely, the naturalizing or demythologizing movements within mainline and liberal churches during the late twentieth-century belie that assumption. During the era of TIME magazine’s “Is God Dead?” cover story and Harvey Cox’s The Secular City, liberal religious leaders increasingly adopted the naturalistic and empiricist epistemologies more often associated with science than religion. When such liberal theologians are considered synoptically with the ID movement and Protestant engagement with ecology, the history of American religion during this time frame clearly reveals an engagement with science. Though few Americans joined new religious movements (NRMs), their positions on science serve as a useful barometer of the social forces facing the wider religious world. The rapidly emerging and transforming NRMs often prefaced how more established religious groups responded to those social forces.

**Tension, Not Warfare**

Despite their many differences, the three new religions considered here share a commonality: none took the position that religion innately conflicted with science. They complicate the popularly held belief that science and religion are at war, the “warfare thesis” (sometimes “conflict thesis”) as historiographers call it. Though each of these movements contested specific positions and establishments of science, they did not call for holy war against it. Creative tension, not outright conflict, characterized the three new religions on science, as it does other new religions and “old religions.”

The nineteenth-century chemist John William Draper and the Cornell historian Andrew Dickson White offered the most concise distillations of the warfare thesis. Both Draper’s History of the Conflict Between Religion
and Science and White’s History of the Warfare of Science with Theology in Christendom positioned science as involved in a continual war with religion, particularly conservative or hierarchal religion. The Draper-White perspective gained wide parlance among scholars and other readers, and their books enjoyed frequent reprintings for decades. Later historians stressed the warfare thesis and used it to explain late nineteenth- and early twentieth-century debates over evolution, geology, critical historical study of the Bible, and scientific approaches to social reform. Edward White’s Science and Religion in American Thought and Norman F. Furniss’s The Fundamentalist Controversy, 1918–1931 repeated and amplified the Draper-White warfare model. The historian Richard Hofstadter incorporated it as a central motif in his Anti-Intellectualism in American Life, viewing the warfare between science as religion as part of a wider gulf between intellectual and practical culture.

Nevertheless, recent historians have pointed to the failings of the warfare thesis. Two recent edited collections focus particularly on the history of Christianity and science. The twenty-seven essays included in these two collections correctly note that Christians, and particularly Christians in America, have responded to science in a multitude of ways, ranging from constructive engagement to complete acceptance to strong disagreement. David Livingstone’s “Situating Evangelical Responses to Evolution,” included in the anthology that he also edited, represents the consensus of all the contributors to both compilations. Religious people encountered science in different historical, social, and cultural circumstances, and careful study of each of those circumstances must precede assessments of how they responded to science. The warfare thesis simply does not fit the evidence.

The intellectual positions of the three new religious movements add to the growing mound of evidence covering the pitfall of the warfare thesis. None of the new religions rejected science or fled from it. Even the Hare Krishna position calling for the replacement of Western science with an Indian alternative represented not a war with science, but creative tension with it. ISKCON critiqued the American scientific establishment and the methodologies of Western science, but it also offered an alternative science embedded within an alternative religion. Individuals within the movement lived out this approach. One of the movement’s leading proponents of Indian science, Svarupa Damodara, obtained a PhD in chemistry from a secular American university and later sought out fellow scientists to participate in the alternative scientific institute that he founded. ISKCON did not go to war with science, though in a Kuhnian move, it did wish to replace the major paradigms of Western science.
The other two new religious movements, Unificationism and Heaven’s Gate, explicitly valued science, and both rejected any notion of conflict between their own religious positions and science. The Unification Church upheld science and religion as deeply compatible. Whereas science examined the material world, religion considered the spiritual world and thus provided moral and ethical guidance to science. The two could not go to war, because they occupied separate territories. Heaven’s Gate took an even more positive view of science, embracing the concept and absorbing its methodological foundations. While the leaders and members of the movement admitted that they sometimes disagreed with particular scientists, for example on the need for faith in their religious leaders, they believed that science and religion could not conflict because a true religion followed the same approaches as did science.

Three New Religions

This book considers three new religious movements so as to triangulate the different ways that the adherents of new religions, alongside religious people more broadly, talked about science. By examining three groups synoptically one finds that new religions responded to similar historical circumstances and ideological questions in very different manners. Though I recognize that my work makes an implicit comparison between the three groups, I have chosen to structure the book around three separate treatments of the new religions. This allows them to stand on their own as three different traditions that developed apart from one another.

Nevertheless, the three new religions considered here shared several commonalities. First, they each grew and thrived during the American counterculture of the 1960s and 1970s, though all three movements continued to exist well past those decades, and each has origins in their founders’ experiences before that time. They continued to relate and react to the same wider cultural events, ranging from the political to the social to the scientific. In addition to reservations about big science, they responded to the assassination of John F. Kennedy, the Summer of Love, Woodstock, and the rise and fall of Richard Nixon. The era witnessed the widespread availability of the birth control pill, the moon landings, the birth of ecology, and rapid developments in computer technology. Second, each of the movements offered a comprehensive vision of the world, which included everything from explanations of the meaning of life and death to instructions on how a person should date and marry, what to eat, and predictions of the future shape of global society. Therefore the movements offered wide-ranging pronouncements on science.

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that fit within broader imaginings of how the groups and their members ought to relate to American culture. Third, while each group had centralized leadership, the membership of the movement took active roles in formulating and explicating the religious groups’ ideological positions. This participation resulted in a chorus of voices that, although sometimes contradicting one another, indicated the boundaries of the movements’ positions.

The three groups had major cultural and intellectual differences as well. Two of the groups, the Hare Krishnas and Unificationism, formed abroad but experienced their greatest numerical growth and intellectual development in the United States during the countercultural period. The third, Heaven’s Gate, emerged and grew within the United States. The Unification Church imported Korean cultural and social norms as well as religious ideas, and the Hare Krishnas did the same with Indian perspectives. Heaven’s Gate, however, responded to the American social mores of its founders by both assuming and rejecting those norms. Both Heaven’s Gate and the Unification Church developed out of Christian backgrounds and incorporated many elements of Christian theology in their approaches, though one (Heaven’s Gate) combined such Christian presuppositions with influences from the New Age, whereas the other (Unification Church) synergized Korean spiritualism and Daoism. In contrast, the Hare Krishna movement grew out of a preexisting sectarian movement within Hinduism and, in America, drew from the countercultural positions of its many new members. These specificities combined with the shared cultural location and era to yield three distinct approaches to science and religion.

Three parts comprise the core of the text, each of which treats one of the NRMs in two chapters. I move chronologically within each, and the parts themselves follow the order in which the new religions appeared in the United States: the Unification Church in the late 1950s, the International Society for Krishna Consciousness in the mid-1960s, and Heaven’s Gate in the 1970s. The founders’ births represent the beginning points for each of the parts. In the case of the International Society for Krishna Consciousness and Heaven’s Gate, the death of their founders mark a natural end point for this study (1977 and 1997, respectively). Since the Reverend Sun Myung Moon, founder and leader of Unificationism, is still alive as of the time of this writing, I examined only what I consider the movement’s most formative era, its first three decades of existence. In each case, I cover the periods during which the movements achieved their greatest success and made the most concerted effort to define themselves intellectually.
The first part explores the Unification Church, sometimes also called “the Moonies.” Many Americans remember the Unification Church because of its mass wedding celebrations wherein Moon solemnized the marriages of hundreds or even thousands of couples in arenas and stadiums. Such weddings represented part of Unificationism’s millennial attempt to construct the new kingdom of God on Earth, which also hints at how the movement treated science. Unificationism attempted to guide science, envisioning it as a helpful tool with which humanity could build a better future, alleviate suffering, and glimpse the divine mysteries of the universe. Unificationists believed that they could guide science by helping it prioritize its research agenda as well as bring scientists together to consider central problems that cut across all fields.

The first chapter, “Science and the Foundation of Unificationism,” traces the emergence of the Unification movement from the nucleus of Rev. Sun Myung Moon to its burgeoning in the United States of America in the form of three distinct Unificationist movements. I begin with the early life and mission of Reverend Sun Myung Moon. Biographical details provide evidence of the importance of science in his formative years, as well as how such influences emerged in the church he founded. Next, I look at the movement’s transition from Korea to the United States at the cusp of the 1960s, and the sacred text that solidified its North American arm, Divine Principle (1973). This text, the central sacred text for English-speaking Unificationists, directly commented on science, scientific thinking, and the relation of science to religion, which forcefully shaped the resultant movement.

The second chapter, “Science in the American Unification Church,” focuses on the institutions and organizations during this period, beginning with the Collegiate Association for the Research of Principles (CARP), the Unification Church’s public face on college campuses. The church also embraced a more systematic approach to studying and teachings its theological tradition, creating its own divinity school in 1975. Students and faculty at the new school, the Unification Theological Seminary, hoped to bridge the gap between science and religion and demonstrate that their Unificationist tradition embraced the modern scientific world. Finally, I turn to the topic that opens part I, the International Conferences on the Unity of the Sciences (ICUS) and the manner in which Unificationism sought to bring its approach to science and religion to a wider audience. I conclude by analyzing the underlying logic of science and religion in Unificationist thought, with reference to wider American cultural currents and views.
The second part of the book turns to the International Society for Krishna Consciousness, known informally as the Hare Krishna movement and more formally as ISKCON. This new religion emerged when its founder, the Swami (religious leader) A. C. Bhaktivedanta transplanted an existent form of Hinduism into America and introduced it to members of the American counterculture. Unlike Unificationism, which adopted a positive view of Western science, ISKCON rejected the scientific paradigm and establishment of the West and, instead, insisted that it offered an alternative. The Hare Krishnas sought to replace American science with an alternative model predicated on Indian religious texts, which their founder and converts found both more accurate and better attuned to social needs than the empiricism and naturalism of Western science.

I begin chapter 3 by examining the life circumstances of Swami Bhaktivedanta, considering his exposure to Western-style education in British colonial schools. Bhaktivedanta would come to reject the English educational foundation that he encountered, instead embracing a traditional sect of devotional Hinduism known as Gaudiya Vaishnavism. This Hindu sect itself formed in response to cultural encounters, first with Muslims in the sixteenth century and then with the British three centuries later. Having considered Bhaktivedanta’s background in Gaudiya Vaishnavism, the chapter treats his earliest published writings, the English-language Back to Godhead magazine, which the swami published in India. Bhaktivedanta focused on science in many of that journal’s articles, and I examine his underlying approach through a close reading of several of his most detailed contributions on the topic. I find that Swami Bhaktivedanta attempted to both claim the mantle and prestige of science as well as contest the value of the Western naturalistic science that the British had imported to India. The chapter concludes by considering Bhaktivedanta’s early work in the United States, to which he came as a missionary in 1965.

Chapter 4, “Science and the Expansion of ISKCON,” considers how the International Society for Krishna Consciousness expanded and institutionalized its founder’s views on science and religion, covering the group’s most productive and successful era, which ended with the death of its leader Swami Bhaktivedanta in November 1977. The chapter begins with the movement’s new American-born converts, who added their own countercultural opposition to America’s scientific establishments to their guru’s suspicions of science. I also consider a series of conversations that these new leaders of the movement had with their elder swami. In these dialogues, originally meant
for internal use as a guide the members of ISKCON on matters of science, Bhaktivedanta assumed a stridently dismissive view of science and particularly biology. The conversations showed how the group’s founder and the new cadre of leaders rejected the major paradigms of American science, particularly its empirical and naturalistic foundations. The new intellectual leaders of ISKCON took differing views on science within the Hare Krishna movement, ranging from envisioning science as irrelevant to rejecting it outright to accepting science as a possible support for the movement’s own positions. In particular I explore the work of Svarupa Damodara (Thoudam Damodar Singh), a Hare Krishna devotee, holder of a PhD in chemistry, and administrator of the Bhaktivedanta Institute. The chapter concludes by considering ISKCON’s attempt to convey its positions on science to an outside audience as well as the disintegration of consensus following the guru’s death.

Part III, on Heaven’s Gate, notes a third way that new religions could respond to science, by absorbing science into religion. While many people had not heard of Heaven’s Gate until the 1997 suicides that ended its existence, the movement had twenty-five years of history and represented the intellectual development of two Americans, born and raised as Protestants in Texas, who developed an alternative religion rejecting much of what Americans consider normative. Heaven’s Gate upheld a monastic vision of life, rejecting sexuality, consumption, and self-orientation. However, Heaven’s Gate extolled American science, in particular the epistemological foundation of science. Heaven’s Gate looked to absorb materialistic naturalism—the approach that looks to only the physical world and physical laws as sources of knowledge—into religion.

Chapter 5, “Science and the Foundation of Heaven’s Gate,” treats the period during which the group’s founders Marshall Herff Applewhite and Bonnie Lu Nettles led the group together, from the mid-1970s until Nettles’s death in 1985. The chapter first considers Nettles and Applewhite’s cultural and religious backgrounds. Though both had been raised as Christians, Nettles had left her Baptist heritage behind and become involved in the New Age movement, whereas Applewhite had followed his father’s vocation and trained at a Presbyterian seminary before dropping out to study music. I focus on the two’s transformation into “the Two,” as they came to call themselves, and their successful spread of a religious movement that questioned the very category of religion. Fundamentally, the Two attempted to absorb the methodological naturalism and materialism of science, and recast religion in that ethos, an act that they accomplished through a rereading of both Christian and New
Age concepts. The chapter concludes with a close examination of a meditative prayer that the Two and their followers used during the early 1980s. The prayer combined a fiercely naturalistic approach using the language of chemistry and biology with the overtly religious form of prayer.

Chapter 6, “Science and the End of Heaven’s Gate,” treats the era between the death of Bonnie Lu Nettles and the mass suicide that ended the group’s existence. I analyze the shifts in the group’s naturalistic approach engendered by the loss of Nettles, whose death resulted in a moment of cognitive dissonance for the group. The group had hitherto insisted that its members would enter the heavens in their current living bodies, something that failed to occur for Nettles. Applewhite and the other members of the group therefore shifted toward a more supernatural or nonmaterial interpretation of bodily salvation predicated on the transmigration of the souls, a clear break from Heaven’s Gate’s earlier position. Overall, however, the movement continued to attempt during this time to recast religious concepts in the languages of materialistic naturalism. Several sources from the 1980s and 1990s revealed the continuing emphasis on the incorporation of scientific language and the methodological foundations of science into the movement. This chapter also considers sources from this latter period of Heaven’s Gate that began to assume a vocally anti-religious perspective. These sources indicate how the group attempted to situate itself as more scientific than religious, despite making claims about salvation, God, and the nature of human life that most observers would consider religious by nature. Finally I consider the material produced in the final years of the group’s history by the adherents of Heaven’s Gate, especially the three longtime members of the group calling themselves Jnody, Chkody, and Jwnody. These three individuals, and others within the movement, wrote a number of statements that revealed their movement’s position as highly critical of both scientific and religious institutions. The chapter ends with an analysis of how the group’s view of science and the absorption of scientific approaches into religion led to the 1997 mass suicides that ended Heaven’s Gate.

**Methodological Considerations**

The approach I have used throughout this text fuses intellectual and cultural history methodologies. Intellectual history concerns itself with the development of ideas and ideologies and those who embody them. As an intellectual history, this study asks how ideas about science developed within each of the three movements and how these ideas resonated with wider culture. I con-
sider the historical forces that led to the development of these ideas, and how these ideologies of science and religion emerged from intellectual and cultural changes such as colonialism or new social movements. Here, the impact of these ideas emerges most forcefully in how ideologies of science proliferated through publications, institutions, and religious practices within each of the new religious movements, spreading from the mind of one founder to the words of an entire generation of new leaders. Although interesting, I leave questions of a more sociological nature—how these ideas might have impacted recruitment, social cohesion, or attrition—for other scholars. I find that one must understand new religions’ views of science as embedded within their historical and intellectual development. Particularly I look to the history of colonialism, modernization, and wider religious changes sweeping through culture. When considered alongside those forces, we see that new religions possessed remarkably well-developed assessments of modern science that in many cases paralleled wider intellectual currents.

This study also employs the tools of cultural history, which consider meanings, symbols, and socially embedded human identities. The historian Peter Burke has written that “[t]he common ground of cultural historians might be described as a concern with the symbolic and its interpretation. Symbols, conscious or unconscious, can be found everywhere, from art to everyday life, but an approach to the past in terms of symbolism is just one approach among others.” In this study, I consider how science operated as a powerful symbol within the religious rhetoric of three new religions, and where those operations intersect wider culture. For students of religion, the analysis of symbols through cultural history offers particular worth. Cultural history allows the historian of religion to analyze the subject while avoiding the perils of reductionism. Reductionism posits that religion is really something else—politics, psychology, social forces, etc.—other than the symbolic expressions of belief and practice. As a cultural history, this study takes religion seriously on its own ground, without claiming that the religions considered are really representative of something else. For this reason I consider resonances and parallels with wider culture without implying causation. For example, the first chapter of this book argues that Unificationist leader Sun Myung Moon’s ideas about science resonated with particular subcultures in both Korea and the United States, but it makes no claims about the origins of those ideas, or the Unificationist belief that Moon received divine revelation. Rather, I argue that Unificationism reflected the society out of which it emerged, without commenting on the nature of what its members consider divine revelation.
With intellectual and cultural history to guide me, this book asks what the study of science in three new religious movements can show us about wider cultural and intellectual changes. I find that science operates as a powerful symbol in how new religions understand themselves and their relationship to wider culture, including other religions. Ideas about science encapsulate perspectives on a much broader set of issues—among them colonialism, millenialism, and modernity. The consideration of how these three new religious movements have constructed alternative understandings of science and its relation to religion reveals multiple currents in the modern world. Together, they also illuminate a threefold paradigm of how new religious can respond to the place of science: guide, replace, absorb.