Hinduism, Buddhism, and Science

with Jeff Wilson, "The New Science of Health and Happiness': Investigating Buddhist Engagements with the Scientific Study of Meditation"; Oliver Zambon and Thomas Aechtner, "Vaishnavism, Antievolutionism, and Ambiguities: Revisiting ISKCON's Darwin-Skepticism"; and Renny Thomas and Robert M. Geraci, "Religious Rites and Scientific Communities: Ayudha Puja as 'Culture' at the Indian Institute of Science."

VAISHNAVISM, ANTIEVOLUTIONISM, AND AMBIGUITIES: REVISITING ISKCON'S DARWIN-SKEPTICISM

by Oliver Zambon and Thomas Aechtner

The International Society of Krishna Consciousness (ISKCON), commonly known as the Hare Krishna Movement, has disseminated a flurry of antievolutionist media since its inception in 1966. Such communications frequently co-opt arguments employed by Christian creationists and Intelligent Design theorists. At the same time, however, there are indications that a scattering of ISKCON publications have articulated relatively ambiguous, less oppositional statements about evolutionary theory. This article reconsiders ISKCON's Darwin-skepticism by appraising recent, largely unexamined Hare Krishna publications, as well as responses to evolutionary theory expressed by ISKCON's founder, A. C. Bhaktivedanta, and his immediate Vaishnava forerunners. The analysis reveals that, although the majority of contemporary ISKCON materials are vehemently opposed to evolution, some leading voices demonstrate less combative, cautiously accommodating stances. These cases are suggestive of complexities in ISKCON's responses to evolution, both past and present, which are not necessarily encapsulated in the terms Vedic creationism or antievolutionism.

Keywords: antievolutionism; Bhaktivedanta; creationism; Hare Krishnas; ISKCON; Vaishnavism; Vedic

The International Society of Krishna Consciousness, commonly known as the Hare Krishna Movement or ISKCON, was founded in 1966 by the religious leader A. C. Bhaktivedanta Swami Prabhupada. After gathering

Oliver Zambon is a PhD Candidate at the University of Queensland, School of Historical and Philosophical Inquiry, Faculty of Humanities and Social Sciences, St. Lucia, Australia; e-mail: oliver.zambon@uqconnect.edu.au. Thomas Aechtner is Lecturer in Religion and Science, University of Queensland, School of Historical and Philosophical Inquiry, Faculty of Humanities and Social Sciences, St. Lucia, Australia; e-mail: t.aechtner@uq.edu.au.

a counterculture following in the United States, the Hare Krishnas spread from New York City to the rest of the country, before mustering an international community of adherents. This happened, in part, because the movement attracted several high-profile celebrities such as Allen Ginsberg and members of The Beatles. Celebrating its fiftieth year anniversary in 2016, the Hare Krishnas now claim to have "five hundred major centers, temples and rural communities, nearly one hundred affiliated vegetarian restaurants, thousands of *namahattas* or local meeting groups, a wide variety of community projects, and millions of congregational members worldwide" (iskcon.org 2014a). Intriguingly, ISKCON has not only represented an emergent form of Western Hinduism, but Bhaktivedanta and his Hare Krishna followers have also frequently been associated with vocal objections toward modern science.

In particular, Bhaktivedanta and succeeding ISKCON leaders have been identified with persistent challenges to the theory of biological evolution. These contestations are often co-opted arguments used by Christian creationists and Intelligent Design (ID) theorists, which are employed to deny scientific evidence and conclusions appearing to conflict with ISKCON's own Vedic creation narrative. Consequently, existing religion science scholarship on the Hare Krishna Movement has rightly focused upon the association's ongoing resistance to evolutionary theory. At the same time, however, while strident Darwin-skepticism has certainly characterized ISKCON media, it is also apparent that the movement's responses to science have sometimes included cautious attempts to accommodate evolutionary theory. In an effort to shed additional light on these complexities, this study appraises recent, largely unexamined Hare Krishna publications, as well as responses to evolutionary theory that were expressed by Bhaktivedanta and his immediate Vaishnava forerunners. The analysis reveals that, although the majority of contemporary ISKCON materials actively oppose the theory of evolution, some leading voices have made elementary efforts to harmonize ISKCON beliefs with evolutionary science. Though often problematic, these efforts are noteworthy as they reveal attempts on the part of various ISKCON members to engage with science in ways that are not explicitly antievolutionist. Moreover, this analysis has found that Bhaktivedanta and ISKCON's Vaishnava predecessors articulated Darwinskeptic views that differ in mode from the modern antievolutionism so frequently reflected in more recent ISKCON publications.

BHAKTIVEDANTA AND ISKCON'S RISE

Though it is a fledgling movement in the West, ISKCON identifies with the much older South-East Asian tradition of Vaishnavism. Vaishnavism is a form of monotheism, advocating Vishnu and his many manifestations as the supreme God (Colas 2012; Rosen 2012). Key figures

identified with the tradition include the eighth- to early tenth-century South Indian poets known as the Alvars, the eleventh-century theologian Ramanujacharya, and the thirteenth century-Madhavacharya (Lipner 2012; Narayana 2012; Sheridan 2012). While Vaishnavas are unified in their focal worship of Vishnu, there have existed numerous subsets throughout history, and ISKCON identifies specifically with a branch distinguished as Chaitanya Vaishnavism (Rosen 2012; Valpey 2014, 1; iskcon.org 2014b). Also known as Gaudiya Vaishnavism, the tradition is now largely based upon the teachings of Sri Chaitanya (1486–1533), who maintained that Krishna is the fountainhead of all forms of Vishnu. Additionally, the tradition considers Chaitanva to be a dual incarnation of Radha, Krishna's divine consort, and Krishna himself (Urban 2015, 203; Valpey 2012). Key texts adhered to within this form of Vaishnavism include the Bhagavata Purana, the Bhagavad Gita, and various Upanishads. Of note is that Chaitanya taught a method of God-worship based on the chanting of the Hare Krishna mantra (Urban 2015, 204). This chanting, for which ISKCON has come to be known around the world, is believed to purify an adherent's consciousness, and ultimately bring devotees into communion with God (Stewart 2010, 4). Importantly, the Chaitanya Vaishnava movement, centered upon such devotional practices, initiated a "hugely popular revival of devotion to the Hindu deity Krishna, which spread across north India for the next five centuries" (Urban 2015, 203–04).

As "founder, prophet, and priest" of ISKCON, Bhaktivedanta is of central significance to the Hare Krishna movement (Goswami and Schweig 2012, 23). Born Abhay Charan De in 1896 in Calcutta, India, Bhaktivedanta was raised in a high-caste, middle-class Chaitanya Vaishnava family (Zeller 2010, 73). After studying at the prestigious Scottish Church College of Calcutta, he settled into domestic life, and began working as a manager and pharmacist in a small company owned by a family friend (Goswami 1995, x, xv). Abhay would meet his spiritual master, Bhaktisiddhanta Sarasvati, for the first time in 1922. Bhaktisiddhanta immediately instructed him to "preach Lord Chaitanya's message throughout the whole world" (xv), and later requested that Abhay explain "in English our thoughts and arguments to the people who are not conversant with the [Bengali and Hindi] languages" (xviii). In 1944, with this directive in mind, Abhay began publishing the English-language Chaitanya Vaishnava periodical Back to Godhead, and in 1947 the Gaudiya Vaishnava Society bestowed upon him the title Bhaktivedanta. Finally, in 1959 he became a sannyasin by accepting the renounced order of life. After preparing translations and commentaries for the first three volumes of the Bhagavata Purana, he travelled to the United States of America in 1965 and founded ISKCON the following year (Neubert 2016).

Bhaktivedanta maintained an active publishing agenda, and his ISKCON followers have continued authoring scores of Vaishnavasupporting books, while also producing magazines, audio-visual materials, and developing numerous Hare Krishna websites. Additionally, ISKCON adherents have amassed a vast record of Bhaktivedanta's commentaries on sacred texts, lectures, transcribed conversations, and personal correspondences, which are readily available to the public. Within this vast corpus of ISKCON media can be found conspicuous references to evolutionary theory and Vaishnavism. Though these cases may not represent the views of all its members, it is evident that ISKCON's body of publications exhibit a myriad of antievolutionist messages. Such Hare Krishna assaults on evolutionary theory have been described by C. Mackenzie Brown as "often screamingly explicit," leading him to conclude, at least in part, that "discord, if not outright conflict, best characterizes the Hindu-Darwinian discourse of the last century and a half' (2012a, 610). Examining how such Hindu "anti-Darwinism" has been expressed throughout recent ISKCON materials, as well as by Bhaktivedanta and his predecessors, exposes additional complexities concerning Hare Krishna responses to evolution.

ISKCON AND SCIENCE

Brown's verdict on Hinduism and evolutionary theory is fortified by observations of ISKCON's "Vedic- based creationism." Brown demonstrates that leading Hare Krishna Darwin-skeptics such as Richard L. Thompson Michael A. Cremo and Richard L. Thompson (1998) have attempted to dispute the geological record using "anomalous fossils," in much the same way that Christian Young Earth Creationists have contested fossil discoveries found throughout geological strata (Brown 2002, 95). In this way, both ISKCON and Christian creationists claim that the incomplete fossil record proves Darwinism to be unscientific, while both Hare Krishnas and Christian Darwin-skeptics also have mutually declared that evolution is actually a form of atheistic religion (96). Importantly, as Cremo and Thompson are both disciples of Bhaktivedanta, Brown provides context for their beliefs by attempting to outline Bhaktivedanta's views on evolutionary theory. He explains that Bhaktivedanta's "Vedic creationism is founded upon a very traditional theistic perspective," which comes from a literal interpretation of Hindu scriptures (100). Furthermore, he notes that Bhaktivedanta's theology unavoidably leads to distrust in the senses, and an ensuing distrust in the empirical methods of science. Accordingly, Bhaktivedanta's rejection of evolution stems from "his perception that any theory of organic evolution undermined or even contradicted his conviction that the universe and all its parts, including all species of life, were created by Krishna" (101). Brown further suggests that while it is questionable whether Bhaktivedanta believed that all species were divinely created simultaneously, he reasons

that non-evolutionary, simultaneous creation was in fact Bhaktivedanta's perspective. Any acknowledgement of evolution in Bhaktivedanta's work, according to Brown, refers to a type of spiritual or *karmic* evolution quite separate from Darwinism. Brown thus concludes that Bhaktivedanta's views "remained inexorably opposed to Darwinian evolution with its bottom-up progression from simpler to more complex life forms and its naturalistic explanations of apparent design by the mechanisms of variation and natural selection" (103).

Along with Brown, Benjamin Zeller has also contributed significantly to scholarship on ISKCON antievolutionism. Zeller details Bhaktivedanta's response to Western science both before and after he founded the Hare Krishna movement. This analysis uncovers a lineage of anti-science rhetoric in Bhaktivedanta's publications stretching back to the first edition of the Back to Godhead magazine, which was published in 1944, long before the founding of ISKCON (2010, 81, 84). Zeller highlights Bhaktivedanta's "adjectival" usage of the word science, while he discusses Bhaktivedanta's apparent rejection of Western materialistic empiricism, which was combined with the affirmation of a sort of ancient "spiritual science" advocated in Gaudiya Vaishnavism (85). With this context in mind, Zeller states that "the Hare Krishnas in America adopted a strongly anti-science position, openly rejecting Western science and calling for its replacement with an idealized Indian alternative: the Vedic science that Bhaktivedanta insisted offered older, more valuable, and more accurate knowledge" (89). Zeller goes on to summarize the antievolutionism of Bhaktivedanta's early disciples in the following way: "Science accepted Darwinian evolution, but ISKCON knew that Krishna predefined all species at the moment of cosmic creation; science proclaimed that life on Earth originated from chemicals, but ISKCON understood that life came from Krishna" (96-97). Perceptively, he explains that ISKCON's antievolutionism was part and parcel of a "wider critique" (99) of science and evolution occurring in the United States at that time. In this way, the Hare Krishnas were reflecting the twentieth century rise of American religiously motivated Darwin-skepticism. Such observations parallel Chris Toumey's report of an incident in 1993, involving the chief creationist debater of the Christian Institute for Creation Research, Duane Gish, networking with ISKCON devotees. As he noted, Christian-style antievolutionism had "penetrated even into the subculture of the Hare Krishnas" (2004, x).

In concert with Brown's and Zeller's studies, an array of research provides additional insights into the contexts and nuances of Hindu responses to modern science, which are pertinent to understanding ISKCON's ongoing antievolutionism. This includes attention to assorted historical reactions to modern science in India, how the word "evolution" has been appropriated within several Hindu traditions, various Hindu design arguments, as well as the nature of, and reasons for, contemporary Hinduism's acceptance,

rejection, and/or assimilation of biological evolution (Brown 2009; Rothstein 1996; Edelmann 2012; Gosling 2007). Throughout these analyses it is clear that anti-Darwinist sentiments have often remained a notable historical feature in several Hindu traditions, and criticisms of evolution have been particularly apparent in ISKCON literature. When considering such data, however, it is evident that there remains room for further research into at least two potential key areas. The first of these is an appraisal of ISKCON's most recent publications not covered in previous studies, with the intent of examining the latest Hare Krishna assertions about evolution. The second is a more extensive attempt to further decipher Bhaktivedanta's responses to evolution, in light of statements made by ISKCON's founder not incorporated in prior scholarship.

The need to consider the first prospective area arises simply because ISKCON media referencing evolution have been disseminated since the publication of Brown's and Zeller's groundbreaking work. With respect to the latter potential area of research, it is also evident that there exist other primary source materials attributed to Bhaktivedanta that include discourses on science, which have not yet been considered to a great degree in religion-science scholarship. For instance, when assessing the views on evolution held by ISKCON's spiritual architect, Brown focuses on particularly radical and provocative statements that suggest an outright and unflinching rejection of the theory. In particular, one of Brown's key sources on Bhaktivedanta's antievolutionism is the book Life Comes from Life (Prabhupada 1979). This volume is based on a series of transcribed conversations between Bhaktivedanta and his disciples, and it has become one of ISKCON's most notorious antievolutionist texts. Many subsequent ISKCON antievolutionist publications refer to it extensively, which substantiates Brown's use of it. Despite being attributed to Bhaktivedanta, however, Life Comes from Life is known to have been heavily edited by his disciples. Consequently, while the text has remained an integral piece of the ISKCON's anti-Darwinist corpus, it may be problematic to use this book to build a case for Bhaktivedanta's own opinions on evolutionary theory.

Accordingly, Zeller has acknowledged of *Life Comes from Life* that "Bhaktivedanta's disciples heavily redacted the text before publication in the 1970s, leaving the book and intermediate manuscripts extremely unreliable in terms of revealing Bhaktivedanta's contribution in the original 1973 conversations" (2010, 96). Zeller's verdict is confirmed by Stewart Kreitzer, who first writes, "Perhaps more than any single project, this book has played a prominent role representing Bhaktivedanta Swami's view on modern science" (2015, 1). But as he then indicates, while the "archival transcripts offered a comparatively nuanced and complex exchange" on matters of science, it is apparent that the "actual published volume presented a textual representation so different, it could be considered a condensed stylized revision" (1). In fact, the *Life Comes from Life* conversations

were initially transcribed, translated, and published in German in 1973, and Bhaktivedanta may never have actually read the finished product (6). The English edition, published two years after Bhaktivedanta's death, is a translation not of the English transcripts, but of the German edition that "in turn took creative liberties as a translation of the original English language" employed in the recorded conversations (11–12).

By comparing the published version of Life Comes from Life with the original transcripts and voice recordings, Kreitzer uncovers some significant discrepancies. For example, in the 1979 English edition, in a conversation from April 19, 1973, Bhaktivedanta expressed doubt that scientists will one day create life from material elements, and then provocatively suggested that scientists are like frogs who invite hungry snakes by their croaking (Prabhupada 1979, 14). The published version of *Life Comes from Life* ends at this point. However, in a further six minutes of recorded conversation, Bhaktivedanta explained that he did not "protest" the pursuit of scientific knowledge itself, but rather "their [scientists'] defying the authority of God. That is our point." (Kreitzer 2015, 19; Prabhupada 2016b). Kreitzer indicates that these final six minutes of conversation present a central motivating theme in Bhaktivedanta's criticisms of science, and reveal that his primary concern was to defend ISKCON's Vaishnavism against the perceived threat of science-based atheism. Kreitzer explains that Bhaktivedanta "focused his analysis on natural philosophy, rather than on the methodological standards of natural science," and actually conveyed "a respect for scientific aspirations to advance in learning" (Kreitzer 2015, 19). The crucial point to be taken from Kreitzer is that Bhaktivedanta was not overly concerned with the methodologies of science. Bhaktivedanta's primary objection was with metaphysical naturalism, which contradicted his theistic Vaishnavaism and, he felt, overstepped what could be proven via empirical research. With these observations in mind, the present study will canvass the initial transcriptions used for the composition of *Life Comes* from Life, as well as other sources, to reassess Bhaktivedanta's position regarding evolution. In advance of this, more recent ISKCON publications will first be examined to gauge complexities in the movement's ongoing religion-science broadcasts.

Perspectives of Evolution in Contemporary ISKCON Media

Bhaktivedanta's followers have continued to produce a succession of ISKCON-related books, magazine articles, and online posts addressing evolution. The majority of the more recent materials unquestionably exemplify the Darwin-skepticism identified so clearly by Brown and Zeller. Such publications often appeal directly to non-ISKCON antievolutionists, and their arguments recapitulate assertions made against biological

evolution by Young Earth Creationists and leaders of the Intelligent Design movement (Hornyánszky and Tasi 2009, 8–11, 17). This includes defending ISKCON's beliefs by attempting to discredit a myriad of evidence supporting the scientific theory, while also criticizing various forms of naturalism (Hornyánszky and Tasi 2009, 137–39; Jensen 2010, 47–63, 121–29, 203–07). Nevertheless, it is also apparent that some of Bhaktivedanta's followers have attempted to respond to evolution in less combative ways. Instead of the outright rejection of evolutionary theory so frequently voiced in Hare Krishna publications, some ISKCON writers have made tentative attempts at reconciling modern science with their Vaishnava preconceptions. Consequently, while the assortment of modern ISKCON media display explicit antievolutionism, there also appear to be cautious efforts at accommodating facets of evolutionary ideas within Hare Krishna perspectives.

It is important to note that the word "evolution" is employed throughout ISKCON literature in variegated ways, which often do not plainly correspond with scientific conceptions of evolutionary theory. In an effort to disambiguate Hare Krishna usages of the term, the present study will apply the appellations "biological evolution," "evolutionary science," and "evolutionary theory" to refer to scientific notions of biology, which have at their core the premise that life on Earth has arisen from a common ancestor, through natural mechanisms involving descent with modification. The term "spiritual evolution," on the other hand, will be used to denote ISKCON's more theologically imbued premises of transmutation that appeal to metaphysical ideas of spiritual progress and transmigration. Nevertheless, even with such distinctions in mind, Bhaktivedanta and later ISKCON writers frequently do not clearly differentiate between scientific or largely Vaishnava notions of spiritual evolution. Indeed, Hare Krishna materials often remain ambiguous regarding exactly what sorts of evolutionary ideas they are addressing, and deciphering ISKCON writers' understandings of evolution can be a difficult task. As a result, scientific or more Vaishnava notions of spiritual evolution are regularly not treated by Hare Krishnas as discrete categories. What is particularly important for this project, therefore, is not simply whether ISKCON contributors are employing the term "evolution" in ways that are compatible with modern evolutionary theory. Instead, the focus is on how some Hare Krishna media are articulating ideas of evolution in less antagonistic ways, which contrast with materials that largely rearticulate Christian creationist and ID rhetoric in ISKCON lexis.

Regarding the latest of ISKCON's antievolutionist publications, two books published in 2009 and 2010 epitomize the movement's ongoing antipathy towards Darwin. The most recent of these is *Rethinking Darwin: A Vedic Study of Darwinism and Intelligent Design* (2010) by the Danish ISKCON devotee Leif A. Jensen. Jensen, who has been described

as the most prominent non-Christian antievolutionist in Scandinavia, is the founder of the Danish Society for Intelligent Design (Hjermitslev and Kjærgaard 2014, 96). In this role Jensen has collaborated with the Christian creationist Knud Aage Back, and *Rethinking Darwin* includes chapters written by the leading non-ISKCON Intelligent Design theorists Michael J. Behe, William A. Dembski, and Jonathan Wells (Jensen 2010, 31–46, 65–74, 81–104). Ultimately, Jensen dovetails a range of extant ID arguments into what he describes as a "paradigm derived from the Vedic literature," to describe "anomalies that Darwinism and its attendant materialistic worldview do not account for" (Jensen 2010, 196). These "anomalies" include ID's oft-employed notion of irreducible complexity, along with appeals to what are claimed to be controversial archaeological discoveries and paranormal experiences (196).

Before the publication of *Rethinking Darwin*, two Hungarian ISKCON devotees, Balázs Hornyánszky and István Tasi, released the English edition of Nature's IQ: Extraordinary Animal Behaviors that Defy Evolution (2009). There are numerous similarities between this book and *Rethinking Darwin*, and both cite ISKCON's antievolutionist publication Forbidden Archaeology: The Hidden History of the Human Race by Cremo and Thompson (1998). Notably, Hornyánszky and Tasi's text was also listed as a finalist in the General Science division of the USAbooknews.com Best Books awards (USAbooknews.com 2009). As with Jensen, the authors present readers with Darwin-skeptic arguments mounted elsewhere by notable non-ISKCON antievolutionists. These include references to irreducible complexity, anomalous archaeological discoveries, and claims that the fossil record is incomplete (Hornyánszky and Tasi 2009, 8–11). Additionally, they supplement such now generic antievolutionist arguments with numerous accounts of animal behavior that allegedly suggest "a superior intelligence created them" (17). As they categorically maintain, "In the Vedic view, evolution in the way people understand it today never took place" (141).

Antagonism towards evolution has also been sustained by ISKCON's official bi-monthly magazine *Back to Godhead*. As Zeller has observed, the earliest American editions of this Hare Krishna Movement periodical already expressed conflict between Vaishnavism and modern science (2010, 101). Likewise, suspicion concerning evolutionary theory has remained a theme in more recent issues presenting articles written by the devotee-scholar Edith Best. Best (also known as Urmila Devi Dasi) is a direct disciple of Bhaktivedanta, who holds a PhD in educational leadership from the University of North Carolina, Chapel Hill. Highly respected within the movement, her articles include the antievolutionist piece, "Education and Evolution: A Look at the Influence of Evolutionary Theory in Modern Education" (Best 2009). Best's central claims also parallel those made by other antievolutionists, which contend that the materialistic

and mechanistic processes of evolution diminish human value and meaning (Aechtner 2016). For Best, the "harmful consequences" of evolutionary theory are clear: the theory it does away with the need for God, it promotes the idea that life is purely material, and it encourages "competition for resources" (2009). If we are "merely machines," she adds, then our experience of life must amount to no more than "meaningless blips of chemicals and electricity." Therefore, she reiterates, evolutionary theory is contrary to "goodness" and it is a dangerous idea to teach to impressionable students.

In the same edition of *Back to Godhead* containing Best's 2009 antievolutionist article, there appears another piece entitled "Hare Krishna Statement on Darwin's Two Hundredth Anniversary." Markedly, this article begins with the declaration that its contents have been "approved by the executive committee of the Governing Body Commission of the International Society for Krishna Consciousness" (Vedic Science Research Centre 2009). As a result, the article represents one of ISKCON's most recent official statements on the topic of evolution. The main purpose of the statement is to reiterate the problematic nature of evolutionary theory, and to convey that it is simply "one of several possible interpretations of the facts." Echoing the ID theorists Behe and Dembski, the article argues that evolution cannot explain "how major new features of organisms can arise," and that "scientists have applied mathematical statistical analysis" to determine the impossibility of "the spontaneous origin of a single-celled organism from chemicals." Its authors also blame evolutionary theory for the "economic, environmental, and food crises looming over humankind." Therefore, they propose that "the leaders of society—politicians, teachers, intellectuals" should encourage a "more balanced discussion of life," and promote "divine creation as a justified and rational alternative" to evolutionary theory.

In addition to print media, ISKCON websites provide a widely read and frequently updated source of information for devotees. The movement maintains several official web pages, which present essential teachings, provide an internal news forum, display articles written by devotees, and give free access to an archive of ISKCON books and magazines. An antievolutionist theme is prominent on several of these sites; iskconnews.org is particularly representative of the movement's ongoing Darwin-skeptic position. Described as the "news agency of the International Society for Krishna Consciousness" (iskconnews.org 2015), the website features an eclectic range of articles, including original features written by ISKCON devotees, and articles reposted from external blogs and news sites. An interesting feature of iskconnews.org's evolution-related material is that much of it is written by non-ISKCON antievolutionists. Nevertheless, along with non-Hare Krishna materials, the website features pieces written by authoritative ISKCON voices, including an article authored by Mukunda Goswami, an ISKCON guru, and a direct disciple of Bhaktivedanta. In the document, entitled "The Religious Angle to Evolutionary Theory," Goswami delivers a distinctly antievolutionist message, including the declaration that "theories based on Darwinism, which embrace survival of the fittest and amorality, are intellectually and spiritually restrictive, and cannot co-exist rationally with full knowledge of God" (2011).

It should be noted, however, that amidst ISKCON's considerable quantity of boldly antievolutionist publications there have also appeared a handful of attempts at producing more accommodating responses to biological evolution. Though these efforts fall well short of a comprehensive synthesis of Vaishnava beliefs and evolutionary science, they differ from more strident ISKCON antievolutionism in their attempts at establishing some sort of compatibility with evolutionary theory, as well as in their relative openness to notions of theistic evolution. An example of such undertakings can be can be discerned in Thoudam D. Singh's *Life and Spiritual Evolution* (2005). Singh held a PhD in physical organic chemistry from the University of California, Irvine, and for over thirty years served as the director of ISKCON's Bhaktivedanta Institute, which has been described as ISKCON's science research center (Brown 2002, 102; binstitute.org n.d.).

In his book, Singh implies that Vaishnava teachings do not necessarily rule out the possibility of life forms manifesting via biological evolutionary processes (Singh 2005, 37). Citing the Nobel laureate microbiologist Werner Arber, he contends that Vedantic ideas actually "corroborate" the "observation that genetic mutation is not due to error or mistake" (34). Rather than species forming by chance, he explains, Vedanta teaches that all lifeforms exist in a "subtle state, either manifested or unmanifested," within a "cosmic plan" (33-34, 37). These archetypical forms manifest on Earth at various stages in cosmic history, fulfilling the physical requirements of souls as they "spiritually evolve" (37). Though Singh denies that the genetic mutations involved in evolution are purely random, he does not reject the evolutionary mechanism of mutation itself. At the very least, then, this account represents an attempt to explain the processes of evolution through a theistic, Vaishnava lens, rather than via the prototypically Christian creationist or ID antievolutionist language exhibited so frequently elsewhere.

Although Singh considered some aspects of Vedantic cosmology to be "in direct contradiction with the Darwinian paradigm," he also reasoned that there is a degree of potential compatibility between evolutionary theory and ISKCON's Vaishnavism (2005, 37). Notably, while he rejected methodological naturalism, and insisted that science must acknowledge the existence of the "spiriton" or soul, Singh did not attack modern science in the typical antievolutionist ways exemplified by his Hare Krishna contemporaries (37, 43). Rather, instead of simply appropriating existing Darwinskeptic arguments, he attempted to metaphysically interpret scientific

evidence in order to synthesize aspects of evolution with Vaishnava beliefs (33–41). Hence, Singh concludes that if the idea of the soul is not completely jettisoned, then the "spiritual paradigm of Vedanta could integrate the Darwinian paradigm" (Singh 2005, 37). To be sure, Singh did not himself demonstrate how this integration could occur while leaving both paradigms intact. However, in making such a proposition he revealed a tentative readiness to consider ways of assimilating evolutionary theory with ISKCON tenets.

The official ISKCON website krishna.com offers another cautious attempt at incorporating evolutionary notions into the movement's theology. The webpage is an initiative of the Bhaktivedanta Book Trust, ISKCON's publishing house, and it was created for the purpose of "sharing the teachings of Lord Krishna on the Internet, and ministering to the diverse needs and interests of students, teachers, scholars, spiritual seekers, the Hindu community, devotees and anyone else interested in practical spiritual life" (krishna.com 2015). In a section underscoring the movement's fundamental beliefs, seven articles are included that reference evolution. Of these, six are manifestly antievolutionist, and authored by either Thompson or Cremo. The remaining article, on the other hand, is entitled "What's the Krishna Conscious View of Evolution?" Strikingly, the piece attempts to identify common ground between ISKCON's central principles and evolutionary theory. The author's main point is that Vedic scripture, including the Srimad Bhagavatam, contains "detailed explanations of how evolution takes place," which are said to describe the steady development "of the material elements, the planets, the bodies of all living creatures, and how conscious beings (atmas, or souls) enter the material world to inhabit the specific material bodies suited to their particular consciousness." Though the interpretation of evolution expressed by the article, with its allusions to ideas of both biological and spiritual evolution, contrast with entirely naturalistic explanations of species development, the author's primary message is to communicate that tension need not necessarily exist between Vaishnava and scientific understandings of the universe. Undoubtedly, one goal of the article is to marshal an apologetic by appealing to the apparent scientific validity of "Vedic literature." Nevertheless, it still endeavors to offer an avenue through which ISKCON adherents may accept biological processes of evolution by interpreting evolutionary development as the intention of a "profoundly intelligent consciousness."

Along with the krishna.com and Singh examples, another case of an ISKCON member laboring to accommodate evolutionary ideas can be found in the work of Steven J. Rosen. Rosen is one of ISKCON's most prolific authors, and an associate editor of the *Back to Godhead* magazine. Notably, in an Iskconnews.org article entitled "Evolutionary Theory and the Incarnations of Vishnu," Rosen begins by asking whether anyone could credibly envisage consonance between evolutionary theory and "something

as esoteric as the incarnations of Vishnu" (2014). To address this question he assures readers that "science and spirituality do overlap in numerous ways, and great sages of the latter-day Vaishnava tradition have shown how the manifestations of God... do indeed shine light on what modern science has come to call evolutionary theory." Rosen then illustrates what has been referred to as "avataric evolutionism," a Hindu response to modern science originating in the nineteenth century writings of Keshub Chunder Sen and Helena Petrovna Blavatsky (Brown 2007, 423).

The Hindu deity Vishnu is traditionally believed to incarnate in ten avatar forms, and according to avataric evolutionists these incarnations correlate with various stages of biological development in scientific evolutionary models (423-24). Referring to this perspective, Rosen explains: "Man's origins in the waters is evoked by the pisciform nature of Matsya [the fish-form of Vishnu]. Then comes the tortoise and the boar, taking us from amphibians to land animals. This is followed by a therianthropic form (Narasimha), and the Homo sapiens proper." According to Rosen, Vaishnavas agree with evolutionists that "initially the earth was covered with water, and that then gradually with the emergence of land new species manifest themselves." However, he clarifies, they "do not accept evolutionary theory as it is commonly understood," as they do not believe that species are "created" at the time of their manifestation, "even if the bodies gradually arise according to necessity." Admittedly, Rosen's musings on avataric evolution do not engage deeply with scientific theory, and his views may not be widely shared within ISKCON (Brown 2012b, 180, 224). Even so, this article provides a noteworthy example of an ISKCON author highlighting what is perceived to be common ground between Vaishnavism and evolutionary theory, in terms of the progressive development of species, whilst avoiding the antievolutionist contentions found in numerous other ISKCON media.

Chaitanya Charan Das, a Hare Krishna "monk, mentor, and spiritual author," provides a fourth example of recent ISKCON media that seeks to accommodate evolutionary notions (Das, n.d.). Das was educated in electronics and telecommunications engineering at the Government College of Engineering, Pune, and now travels the world, "sharing the spiritual wisdom of the Bhagavad Gita under the aegis of ISKCON." Much of Das's work can be found through his website, www.thespritualscientist.com, which is regularly updated with articles and podcasts. In a recent podcast entitled "Are Scripture and Evolution Contradictory?" Das considers ISKCON's position on evolutionary theory by engaging with three possible definitions of evolution: adaptation and variation within species; the transmutation of species; and an "all-explaining ideology" that can be applied to every facet of life (Das 2017). Regarding the first definition, Das notes that it is an "observable fact" that life forms, whether plants, animals, or microorganisms, adapt and exhibit variation according to their natural

environments. He argues that it has been known "since Vedic times" that "material nature is constantly changing," and that such a conception is thoroughly compatible with scripture. Das considers his second definition of evolution to be equally agreeable with Vaishnava scripture, though he displays some doubt about whether it has yet been completely demonstrated with empirical science. This "intermediate" evolutionary conception refers specifically to transmutation, which he describes as a "natural law" or "mechanism for change" by which new species originate and develop. Das notes that "one species changing into another cannot be observed, because it happens over a long, long time," and "there is some evidence of intermediate forms, but there are a lot of questions." However, he indicates that he is willing to accept the concept of transmutation "if the evidence is there," and that it does not present any theological contradiction to ISKCON beliefs. To substantiate this point he refers to a verse of the Bhagavad Gita in which Krishna declares, "Under My supervision, material nature undergoes various transformations" (9.15).

Das refers to a range of metaphors to further illustrate the compatibility between Vaishnava beliefs and notions of evolutionary theory. For example, he describes a game of billiards wherein a cue strikes a ball, which then strikes another ball, and so forth, until finally one ball falls into a pocket. He opines that the events of such a game could be explained within a paradigm of materialism and physical laws only. However, he also remarks that it would be equally valid to describe the outcome with reference to the intention and expertise of a billiards player. Both descriptions, for Das, are true and indeed complementary. In this sense, he believes that the origin and evolutionary development of species on Earth can be attributed to both physical laws and the intention of God, depending upon the "level" and perspective taken of events that one is describing. Applying this reasoning even further, Das refers to the creation myths of the Bhagavata Purana:

When the Bhagavatam is giving us a narrative, saying that things came from the navel of Mahavisnu, or Garbhodaksayi Vishnu, and then Brahma appeared, and the planetary systems are created, the Bhagavatam is not talking about what happened on the Earth. Evolution is talking about what happened on the Earth. So, Bhagavatam is talking about a completely different level of existence. That's why they need not contradict. So that means, by Krishna's arrangement, the species appeared at various places, and then on Earth they could have come by the mechanism of evolution.

While Das makes allowances for the first and second definitional characteristics of evolution, he considers the third description of evolution, described as a universal ideology, to be entirely incompatible with ISKCON beliefs. Das pronounces this perception of evolution to be a "magic wand" that is falsely believed to be able to "explain everything." Not only does he consider this notion dangerous as a potential "alternative to any need for

God or anything higher," but he also labels it as both empirically and logically unsubstantiated. Significantly, he further asserts that Bhaktivedanta was only ever presented with such ideological and inherently atheistic definitions of evolutionary theory. Therefore, he hints that had Bhaktivedanta been better educated in biological science, he may also have arrived at Das's explicit conclusion that we "don't have to be at war with evolution." Altogether, Das's discussion appears to be consistent with the views of Singh, iskcon.com, and Rosen, and differs strikingly from the antievolutionism voiced so recurrently by other leading ISKCON writers.

By and large, the aggregate picture that emerges from more recent ISKCON publications on evolutionary theory proves similar to the Darwin-skeptic image reported by Brown and Zeller. The majority position is one of committed antievolutionism. Even so, there are also suggestions in Hare Krishna materials of bids to accommodate evolutionary ideas, and hints that some members believe aspects of modern science can be amalgamated with ISKCON theologies. All of the movement's media still universally oppose notions that life emerged by chance, that living beings are purely material entities, and that species are formed via a blind process of natural selection. Nevertheless, they do reveal a level of complexity regarding ISKCON responses to evolutionary theory, which often incorporate ideas of Vaishnava spiritual evolution, and indicate that vehement antievolutionism may not be the only Hare Krishna response to modern science.

Interestingly, the limited social scientific research conducted to date on the acceptance or rejection of evolution by ISKCON members also reflects overarching Darwin-skepticism, as well a small cohort of Hare Krishna devotees who express openness to evolutionary ideas. Hence, in *Hindu* Perspectives on Evolution (2012b), Brown's survey of one thousand Hindu practitioners, and their views on modern science, included forty-seven ISKCON participants. The bulk of the Hare Krishnas canvassed expressed greater faith in scripture than modern science "concerning both spiritual and scientific truths," and rejected Darwinian evolution in almost every respect (Brown 2012b, 214, 224-25). Even so, there was also a small contingent of ISKCON participants who voiced endorsement for modern science and evolutionary theory. These Hare Krishna members disagreed that scripture and enlightened persons are more trustworthy than science and scientists "concerning factual knowledge about the physical universe" (214), while also agreeing that "there is no conflict between Hinduism and evolution" (224). Additional social scientific research, however, is necessary to make definitive statements about the views of the movement's adherents overall, as ISKCON claims that millions of individuals around the world are Hare Krishna devotees. Nevertheless, Brown's preliminary findings indicate that ISKCON is not a homogeneously anti-science, anti evolutionist movement, despite some of the loudest Hare Krishna voices presenting it as such, and the research presented here appears to support this

tentative conclusion. It is also important to consider how such variegated perceptions of evolution in ISKCON, ranging from the explicitly hostile to the cautiously accommodating, compare and contrast with views expressed by the movement's founder.

THE FOUNDER'S VIEWS: BHAKTIVEDANTA AND EVOLUTION

Bhaktivedanta's chief textual contributions are his translations and commentaries of Gaudiya Vaishnava scriptures, including the *Bhagavata Purana* (*Srimad Bhagavatam*), *Bhagavad Gita*, and the *Chaitanya Caritamrita*. References to evolutionary theory are rare in this body of writings. In fact, Bhaktivedanta's translation and commentary on the *Bhagavad Gita*, the centerpiece of his teachings, contains no mention of evolution whatsoever. His nine-volume *Chaitanya Caritamrita* contains only one reference to it, found in a remark that claims "materialistic anthropologists" consider people like Darwin to be *mahajanas* (great personalities), when in fact *mahajanas* are only those who "are fully engaged in devotional service because they know [Krishna] as the Supreme Personality of Godhead" (Prabhupada 1975a, 101).

Bhaktivedanta's eighteen volume translation and commentary of Srimad Bhagavatam includes a scattering of allusions to Darwinism, including the assertion that in advance of Darwin's theory, the "development of the evolutionary process was known long before from the Bhagavatam, which was written 5,000 years ago" (Prabhupada 1974, 1263). As he went on to insist, "This knowledge has existed since the Vedic time, and all these sequences are disclosed in Vedic literature" (1263). Later in the commentary, Bhaktivedanta also outlined how a Puranic sequence of animals displays a sort of evolutionary hierarchy, in which land-based organisms are conceived of as being superior to fish, and reptiles in a higher station than insects. The Fourth Canto of the *Srimad Bhagavatam* contains three further references to biological evolution. In the eleventh chapter, Bhaktivedanta explained that the "Lord impregnates the material energy" with individual souls, who are "part-and-parcel" of God (Prabhupada 1972a, 467). Due to the "different desires and karmic activities" of these souls, "different types of bodies in different species are produced" in a sort of spiritual evolutionary sequence of progression (467). This, for Bhaktivedanta, is understood to be an explanation of evolution. Thus, he concluded, "In Darwin's theory there is no acceptance of the living entity as spirit soul, and therefore his explanation of evolution is incomplete" (467). While this reveals a criticism of Darwin and an estimation of "Vedic" knowledge as superior to science, Bhaktivedanta's ultimate concern was not in mounting an antievolutionist argument in the vein expressed by several modern ISKCON writers. Instead, his primary unease was with natural selection's materialistic explanations of biological life that did not reference a divine cause.

In the twenty-ninth chapter of the Fourth Canto, Bhaktivedanta again claimed that purely physical accounts of evolution are deficient. He argued that modern scientists "cannot explain how the gross body is changing" because they are "too materialistic" (Prabhupada 1972b, 1445). For Bhaktivedanta, the changes of the gross body are intimately connected to "activities of the subtle body," which are produced by the soul, and "are also guided by the Supersoul [Krishna]," who is "seated in everyone's heart" (1445). Therefore, according to Bhaktivedanta, Darwin "could not clearly explain how the evolutionary process is going on" because "he had no knowledge of either the subtle body or the soul" (1444-45). A similar notion is developed in the Seventh Canto, as Bhaktivedanta argued that Darwin's evolutionary theory is incomplete because it does not account for the possibility of transmigration from animal to human, and from human to animal (Prabhupada 1976, 108–09). What is important about such references to Darwin in the *Srimad Bhagavatam* is that, while Bhaktivedanta is critiquing the apparent metaphysical failings of his theory, he does not in fact deny that evolution has occurred. Instead, his claim is that Vaishnavas have been aware of a more extensive conception of evolution for thousands of years, which includes aspects of Hindu theology.

Throughout his writings, Bhaktivedanta often did not clearly delineate between biological and spiritual evolution. This may have been due to a lack of education, misunderstandings, his rhetorical strategy, or because he simply envisaged a degree of confluence between the two. Whatever the case, it is important to read any positive allusions to evolution in light of Bhaktivedanta's other, more evident rejections of the theory. In the twentyeighth chapter of the Fourth Canto, he professed that "all the species or forms of life are simultaneously created," and that it was nonsensical for Darwin to claim "that no human being existed from the beginning" (Prabhupada 1972b, 1350). Such statements seem to contradict Bhaktivedanta's previous contention that evolution is known and accepted in the Vaishnava scripture. Other than a rather perplexing comment Bhaktivedanta made about "modern anthropologists like Darwin" confirming that some people had previously been incarnated as monkeys, there are no further direct references to evolutionary theory in *Srimad Bhagavatam* (Prabhupada 1975b, 45).

In addition to his major works, Bhaktivedanta also wrote several smaller monographs. Of these, only three refer to Darwinian conceptions of evolution. In a translation and commentary on *Sri Isopanisad*, Bhaktivedanta contrasted the "inductive knowledge" of "Darwin's theory" with "Vedic knowledge," the latter of which originates "beyond this universe," and "comes down by disciplic succession" (Prabhupada 1969, 3–4). This alludes to an important feature of ISKCON's epistemology whereby revelation is considered "the highest knowledge," and is deemed unattainable by purely speculative or empirical methods (Prabhupada 1975c, 23). In

Easy Journey to Other Planets, Bhaktivedanta again claimed that the ancient Vaishnava scriptures contain knowledge of evolutionary processes. He noted that "Darwin's theory of the evolution of organic matter is, of course, very prominent in the institutions of learning" (Prabhupada 1970, 66–67). Yet according to Bhaktivedanta this "is not a new idea," for the Bhagavata Purana and other Hindu texts already described "how the living entities in different forms evolve one after another" (66-67). In Elevation to Krishna Consciousness he conveyed that "Darwin expresses the opinion that the species are evolving from lower forms of life," but importantly, this theory "is not the whole truth" (Prabhupada 1973, 8–9). Again, for Bhaktivedanta, while Darwin was correct in supposing that animals have evolved by some means, his theory lacked the key Vaishnava metaphysical explanation of evolution, established upon the ideas that the "soul may progress from lower forms to higher forms" (9). Finally, in The Science of Self Realization, Bhaktivedanta wrote:

Human life is attained after many, many millions of years of evolution. We should remember that there are 8,400,000 species of life according to the *Padma Purana*. Life began with the aquatics, for we can understand from the Vedic literature that at the beginning of creation the entire planet was merged in water (Prabhupada 1977, 234).

By insisting that the author of the *Padma Purana* was cognizant of some form of evolutionary processes, Bhaktivedanta did not vigorously oppose the scientific theory and data supporting evolution in the same fashion expressed by many later ISKCON writers. Concurrently, Bhaktivedanta also intimated that Krishna had created all species simultaneously. This combination of evolution and simultaneous creation represents a conspicuous theme in Bhaktivedanta's overall response to evolution.

Though *Life Comes from Life* has been deemed a questionable source of Bhaktivedanta's words, the original transcripts upon which the book was based are considered more reliable. These records also provide additional insight into Bhaktivedanta's perceptions of evolution. For instance, on several occasions he does not deny that evolution has occurred, but insists that its source, or initial "seed" of life, comes from Krishna (Prabhupada 2016c). His attention was not on whether evolution has taken place, but what the original cause of life actually is. For this reason, whilst discussing modern scientists, Bhaktivedanta argued that such researchers "are giving the theory that 'From these chemicals, life begins, or evolution begins'" (Prabhupada 2016e). As he concluded of these scientists: "But wherefrom that chemical developed? That they do not know. That explanation is here, Krishna: 'I am the source" (Prabhupada 2016e). Consequently, Bhaktivedanta did not always explicitly protest against the possibility of evolution itself, but was largely concerned with the metaphysical exclusion of God in such theories.

Along with what can be found in his writings, as well as the original Life Comes from Life transcripts, Bhaktivedanta's most extensive discussion about Darwinian evolution appears in a series of conversations recorded in 1972. These conversations were led by the ISKCON disciple Syamasundara Dasa, who presented an evolutionist critique of Vaishnava creationism. Syamasundara pushed Bhaktivedanta to explain the Vaishnava account of creation in light of scientific evidence supporting evolutionary theory, and Bhaktivedanta responded with both defenses of Vaishnava creationism and attempts at synthesizing Vaishnava scripture with evolutionary ideas. Strikingly, this conversation reveals that Bhaktivedanta had neither a clear understanding of evolutionary theory, nor a consistent response to it, and that many of his objections appear to be based upon misapprehensions of its scientific underpinnings. Nevertheless, throughout these exchanges Bhaktivedanta acknowledges various scientific ideas, while recurrently attempting to affirm that God is the ultimate creative force behind evolutionary processes, whatever they may be. For instance, when Syamasundara described natural selection, Bhaktivedanta replied, "That natural selection, that law is made by Krishna" (Prabhupada 2016f). Later, Syamasundara explained that Darwin had "observed there are mutations in nature" (Prabhupada 2016f). In response, Bhaktivedanta stated simply that while this denotes that "nature is working," Darwin was still unable to "explain how nature is working" (Prabhupada 2016f). That is, evolutionary theory was unable to relate what the initial cause of natural laws, including natural selection or the physical principles behind mutations, actually is. Furthermore, to the claim that evolution occurs through chance variation and adaptations, Bhaktivedanta protested only against the notion of randomness in nature. He thus retorted that there "is no such chance," instead insisting that "our question is, who has made these circumstances, different circumstances for the existence of different animals?" (Prabhupada 2016f). He emphasized that behind "nature's law there is a brain," and maintained that this "brain is God" (Prabhupada 2016f). Once again, it appears as though his primary concern was not debating whether evolution has or has not occurred. Rather, his central goal was to ensure that God was recognized as its initial cause, and that there was a divine purposefulness in the natural world.

Syamasundara, however, exhorted Bhaktivedanta to explain how he could suggest that he accepted evolution, while also affirming that all species were created concurrently (Prabhupada 2016f). Syamasundara argued that there is no evidence that complex organisms like humans were alive millions of years ago, while there is substantial data supporting the relatively recent emergence of humans in the Earth's history, through a gradual evolutionary development of species. Addressing this point, to which Syamasundara obstinately returned to again and again, Bhaktivedanta responded with an array of metaphysical explanations of how evolution and

simultaneous creation can both be true at the same time. He proposed that all species of life have always existed, but not necessarily on Earth. Such species were already alive elsewhere in another realm of "material nature," which includes "millions of universes and millions of planets in each and every universe" (Prabhupada 2016f). In this account, Bhaktivedanta claimed that when a living entity desires to adapt to its environment, it is provided with a suitable form through transmigration. Therefore, new forms may manifest on Earth for the first time in the planet's history, but these forms were already extant somewhere else within the Puranic cosmos or in the mind of God. Bhaktivedanta also argued that the entire process of mutation, natural selection, and the appearance of new species on Earth happens according to higher principles.

Illustrating this amalgamation of evolutionary ideas and immediate Vaishnava creationism, Bhaktivedanta referred to the lungfish. According to Bhaktivedanta, the earthly form of a lungfish appeared when a normal fish "desired to survive" without water (Prabhupada 2016f). The lungfish seems to have evolved from a lobe-finned ancestor species. However, according to Bhaktivedanta, lungfish forms were "already existing" elsewhere in another ambit of the Puranic cosmos, and simply manifested on Earth for the first time (Prabhupada 2016f). The *Padma Purana* has specified that "there are 900,000 species of fish," and Bhaktivedanta concluded that the lungfish was simply one of these extant species (Prabhupada 2016f). Significantly, this conversation is perhaps the only definitive attempt made by Bhaktivedanta to account for both transmigration and biological evolution within the Vaishnava worldview. And while the ideas proposed may seem rather peculiar, and quite unrelated to Darwin's conclusions, they again divulge an important characteristic about Bhaktivedanta. Rather than only assailing the scientific evidence buttressing evolutionary theory, as later ISKCON leaders have been wont to do, he instead provided Syamasundara with an elaborate Vaishnava rendering of evolution.

To further make sense of Bhaktivedanta's views on evolution, it is also helpful to consider the views of those who most directly influenced the ways in which ISKCON's founder perceived Darwin's theory. For example, Bhaktisiddhanta Sarasvati was the immediate spiritual master to Bhaktivedanta, and the son of Bhaktivinoda Thakura. Both Bhaktisiddhanta and Bhaktivinoda are accepted in ISKCON as genuine gurus in the Chaitanya Vaishnava lineage. Their written work contributes to ISKCON's official canon, and for Bhaktivedanta and his followers, their words have been revered as the highest truth. Ferdinando Sardella appears to be the only scholar to have written at any length about Bhaktisiddhanta's responses to modern science. In fact, very little can be found concerning Bhaktisiddhanta's views on evolution, and it is apparent that he did not directly address evolutionary theory in his written work (Sardella, 2016. E-mail message to author, August 20). Nevertheless, Sardella explains that

Bhaktisiddhanta endorsed religion—science dialogue, he believed both pursuits were complementary, and he regularly invited scientists to lead "interactive discussions" at various events (Sardella 2013, 208). Bhaktisiddhanta believed that "Empirical knowledge is useful on the level of the external reality, while religious knowledge is useful on the level of internal consciousness" (Bhaktisiddhanta, as cited in Sardella 2013, 209). At the same time, he considered scientific knowledge to be limited, and expressed concern about a growing commitment to philosophical materialism that seemed prevalent in Bengal during his lifetime (208). Furthermore, he cautioned that an exclusive commitment to "empiric thinking" will eventually breed an "aversion to the service of the Absolute" (Bhaktisiddhanta, as cited in Sardella 2013, 208–09).

Though Bhaktisiddanta's written materials lack any reference to evolutionary theory, the subject did arise in a conversation between Bhaktisiddhanta and Professor Albert E. Suthers of Ohio State University. This conversation is transcribed in the rather hagiographical A Ray of Vishnu: A Biography of a Saktyavesa, written by Rupa Vilasa Dasa. As the transcript details, Bhaktisiddhanta introduced the topic, commenting that in Europe "theories of physical evolution of Darwin and Lamarck have been considered" (Bhaktisiddhanta, as cited in Dasa 1988, 66). He then articulated that it is in the "Vaishnava philosophy alone that we see the fully scientific and real conception of each eternal and transcendental Divine Form for worship by the freed souls according to their evolutionary growth of serving mood" (Bhaktisiddhanta, as cited in Dasa 1988, 66). He went on to provide a Vaishnava account of species development that resembles the avataric evolutionism presented later by ISKCON's Rosen (Bhaktisiddhanta, as cited in 67). While such a spiritual conception of evolution is thoroughly removed from Darwin's natural selection paradigm, it is nevertheless a notably different response to the antievolutionism expressed so forcefully throughout much of ISKCON's materials. Akin to Bhaktivedanta's conversation with Syamasundara, rather than simply denying evolution, Bhaktisiddanta argued that Darwin's physical theory was incomplete, and that the full conception of evolution is revealed in Vaishnava scripture. Consequently, while the exchange in A Ray of Vishnu is a small amount of material to work with, the tact employed by Bhaktivedanta's spiritual guide is similar to the founder of ISKCON's own colloquy on evolution with Syamasundara.

Interestingly, like Bhaktisiddhanta, Bhaktivinoda also did not discuss the topic of evolution extensively. His only direct reference to biological evolution can be found in his Chaitanya Vaishnava text *Sri Krishna Samhita* (Dasa, Shukavak. 2016. E-mail message to author, August 10). Here, Bhaktivinoda offered an account of avataric evolutionism that is almost identical to Bhaktisiddhanta's, explaining that "all the created separated expansions, the living entities, are products of Krishna's energy, therefore Lord Sri

Krishna is the origin of all expansions," such that Krishna "is the source of all forms" (Thakura [1880]1998, 88). Also of import is that Bhaktivinoda apparently endorsed a non-literal understanding of Hindu scripture, pointing out that those with a critical mind will "quickly become faithless" when confronted with literalism (Thakura [1880]1998, 2). Shukavak Dasa contends that ultimately Bhaktivinoda tried to show how the Vaishnava tradition can "plausibly be redefined and reappropriated according to the culture of the modern world" (Dasa 2004, 103). By emphasizing the eternal, transcendent, and non-literal nature of scriptural truth, his Vaishnavism was not concerned with scientific and historical critiques, and he presented no reason to object to the methods and evidence of modern scientific enquiry. What can be observed in the communications of Bhaktivedanta's most proximate Vaishnava predecessors, and in Bhaktivedanta's own comments, therefore, are considerations of evolution that are frequently not expressed by the bulk of later ISKCON publications.

ANTIEVOLUTIONISM AND AMBIGUITIES: MORE THAN VEDIC CREATIONISM?

Surveying responses to evolution articulated in more recent ISKCON media, as well as comments made by Bhaktivedanta and the Vaishnava spiritual leaders who influenced him, reveal several commonalities. For instance, a theme that often occurs throughout the range of materials canvassed here are descriptions of Vedic scriptures as having foreshadowed Darwinism, or presenting a more complete, ancient model of evolution that also takes into account evolution's metaphysical infrastructure. This theme, of course, is not unique to ISKCON, and is found in the work of numerous modern Hindu representatives, beginning with Vivekananda in the nineteenth century (Brown 2012b, 78). A further, related consistency in several ISKCON responses to evolution is the appeal to concepts of spiritual evolution in relation to evolutionary theory. This can involve overlaying Hindu models of transmigrational progress from non human to human life onto ideas of biological evolution, as well as avataric evolutionism, which attempts to correlate Krishna's incarnate forms with evolutionary lineages of species (Rosen 2014; Dasa 1988, 67; Thakura [1880]1998, 88). Finally, another overarching commonality is the implicit or explicit rejection of metaphysical naturalism in association with evolutionary theory, and dismissals of the idea that life arose from mere chance contingencies. This similarity exists regardless of whether the materials are overtly antievolutionist, resembling non-ISKCON Christian creationist and ID rhetoric, or if they are more ambiguous towards evolution in the manner of Bhaktivedanta's communications.

Aside from these similarities, however, underlying divergences mark the Gaudiya Vaishnava materials associated with ISKCON. These distinctions

occur in the mode of critique levelled upon evolutionary theory. In particular, there seems be a general shift in this mode from approaches observed in the works of Bhaktivedanta and his immediate influences, contra the tactics employed by most later ISKCON writers. While Bhaktivedanta and his forerunners all considered Vedic scripture to contain "higher" more spiritually complete knowledge than the modern canons of science and history, they also expressed makeshift attempts at reconciling the two (Prabhupada 2016e, 2016f; Thakura [1880]1998, 42, 46). Bhaktivedanta rejected metaphysical naturalism, and as a theist assessed critically what he thought might be evolutionary explanations that disregarded God's involvement in the natural world. However, as with his Vaishnava predecessors, Bhaktivedanta seemed largely ambivalent towards the evidence and methods of modern science, in which he seems to have been largely unschooled. While hesitant to accept certain notions, he also proved willing to interpret evolutionary concepts, to the extent that he appeared to understand them according to Vaishnava theological premises. Overall, it appears that his concern was not necessarily whether evolution has actually occurred, or attempting to discredit evolution as a scientific model. Though he did criticize scientists, at times resorting to ubiquitous creationist arguments to do so (Prabhupada 2016d, 2016f; Brown 2012b, 178), while conveying metaphysically imbued ideas about evolution hardly resembling Darwin's theory, Bhaktivedanta's chief point was to ensure that God was perceived to be behind the functioning of the natural world. Whether this functioning was evolutionary or otherwise was not as important as maintaining the Vaishnava emphasis on Krishna's activity within natural processes.

More recent ISKCON media, however, are expressly antievolutionist, and tend to pursue systematic attacks on both the scientific evidence and methods underpinning biological evolution, with no concern for reframing theological premises with respect to science. Such publications unequivocally exhibit the movement's conflict posture towards evolution identified by Brown and Zeller. Notably, not only are these materials Hare Krishna facsimiles of non-ISKCON Darwin-skeptic arguments, but they also openly cite and include works produced by other prominent antievolutionists. This observation coincides with Brown's identification of links between Christian creationist assertions and the work of Thompson and Cremo (Brown 2002, 96). ISKCON's ongoing adoption of Darwin-skeptic materials is embodied in publications fashioned by Best, Hornyánszky, Jensen, and Tasi, as well as articles appearing on iskconnews.org, which all make explicit references to non-ISKCON Intelligent Design theorists and/or Christian creationists. Indeed, Jensen's edited text contains contributions from leading ID theorists, and Best provides ISKCON adherents with a recommended reading list on evolutionary theory that consists primarily of material authored by Christian creationists (Best 1992).

Along with these examples of ISKCON's continuing antievolutionism, a scattering of recent Hare Krishna publications also demonstrate less combative, comparably accommodating responses to evolutionary theory. Though such media question evolutionary concepts, and postulate idiosyncratic Vaishnava models of evolution, their responses lack the antievolutionist fervor of other ISKCON materials. Consequently, there are important complexities in the movement's communicated position on evolutionary theory, ranging from Bhaktivedanta through to the present day. Despite Brown and Zeller having rightly pinpointed ISKCON's prevalent Darwin-skeptic record, it seems that Bhaktivedanta was not correspondingly antievolutionist in the same manner expressed by many of the movement's subsequent leaders. Likewise, a smaller number of prominent Hare Krishna members have produced materials that, in many ways, reflect Bhaktivedanta's often equivocal discourse on evolution.

Therefore, there subsist ambiguities in ISKCON's past and present responses to evolutionary theory, albeit the majority of the movement's publications are Darwin-skeptic in the vein of Christian creationism and ID theory. This ambiguity may, in part, be reflective of Bhaktivedanta's own multiplicity when addressing the topics of modern science and evolutionary theory. For instance, as has been mentioned above, Bhaktivedanta at times described Darwin's theory as being absurd, and he also maintained that all species have in some sense always existed (Prabhupada 1972b, 1350; 2016d; Brown 2002, 95). At other times, he related that Darwinian theory was expressed in ancient Hindu scriptures, while he expounded upon Vaishnava theology to construe both simultaneous creation and a form of gradual evolutionary progress, insisting that God is the foundation of natural laws that govern the emergence and disappearance of species on Earth. This complex assemblage of responses relate both opposition as well as attempts to adopt evolutionary ideas.

An explanation for Bhaktivedanta's assorted responses may simply be that he was not fully educated in evolutionary theory, but also that there was no contradiction regarding evolution and simultaneous creation in the mind of ISKCON's founder. For Bhaktivedanta, Vaishnava theology may not have required a strict dichotomous choice between evolutionary and non-evolutionary explanations of biological life. This may be in part because a variety of creationist and evolutionary notions are entertained within the spectrum of Vaishnava sacred literature. In *Hindu Perspectives on Evolution* (2012b), Brown identifies three major Hindu theories of cosmogenesis, described as theistic creationism, descending evolutionism, and ascending evolutionism. Despite their theoretical variations, each view is derived from prominent *Upanisads* or other sacred texts. Consequently, for Bhaktivedanta an amalgamation of these perspectives may have enabled him, in his own mind, to endorse a variety of evolutionary or creationist notions under the same extended theological banner.

Of course, as Brown also argues, none of the traditional Hindu cosmogonies, nor Bhaktivedanta's amalgamation of them, are strictly comparable to the modern theory of evolution. Nevertheless, the essential point to be taken is that Bhaktivedanta sought, within his own conceptual framework, to find parallels and consistencies between Hindu theology and modern science, and such an approach is altogether more accommodating than the inflexible antievolutionism expressed by many recent ISKCON authors.

Furthermore, it would appear that Bhaktivedanta's ambiguities toward evolution also relate to the broader themes and aims of his teachings. Tamal Krishna Goswami and Graham Schweig have argued that for Bhaktivedanta the full gamut of Vedic knowledge is "governed by one axiomatic truth: Krishna is the Supreme Personality of Godhead" (2012, 127, their italics). All of Bhaktivedanta's instructions can be viewed in light of his dedication to best communicating that principle to others. Accordingly, Bhaktivedanta's discourse on evolution must be considered in relation to this singular goal, and how he adapted his teaching strategies for different audiences. When Bhaktivedanta's audience was skeptical of science, and inclined to disregard evolution and accept simultaneous creation, he tended to limit his explanation to a simple creation narrative (Prabhupada 2016a). Whilst conversing with interlocutors such as Syamasundara, on the other hand, Bhaktivedanta seemed ready to appropriate evolutionary ideas (Prabhupada 2016f). He entertained a variety of notions, insofar as they allowed for the communication that Krishna is the Supreme Personality of Godhead.

The resulting array of ideas is also conceivably supportive of both the Darwin-skeptic and less hostile responses to evolution that have been expressed in subsequent ISKCON literature. Case in point: When bearing in mind Bhaktivedanta's assertions that Darwin's theory is nonsensical and that all organisms were created simultaneously, added to the twentieth-century rise and growing influence of antievolutionism in America, it seems unsurprising that succeeding ISKCON leaders assumed a more rigid Darwin-skeptic stance. Likewise, Bhaktivedanta's conciliatory responses to evolution also look as though they have been reflected in more recent ISKCON publications attempting to accommodate various evolutionary ideas. Despite the fact that the first position is clearly articulated most frequently in Hare Krishna literature, Bhaktivedanta's ostensible inconsistencies on evolution still seem discernible in the corpus of modern ISKCON media. Thus, while Darwin-skepticism characterizes much of the movement's communications on evolution, ambiguities remain. These ambiguities cannot be overlooked, as they are suggestive of complexities in ISKCON's responses to evolution, both past and present, which are not sufficiently encapsulated in the terms Vedic creationism or antievolutionism.

REFERENCES

- Aechtner, Thomas. 2016. "Terrorism in the Evolution Wars: Mass Media and Human Nature." Theology and Science 14:495-517.
- Best, Edith (Urmila Devi Dasi). 1992. "Kick Out Darwin." Back to Godhead 26(1). http://www.backtogodhead.in/kick-out-darwin-by-urmila-devi-dasi/ (accessed Septem-
- -. 2009. "Education and Evolution." Back to Godhead 43(6). http://www.backtogodhead.
- in/kick-out-darwin-by-urmila-devi-dasi/ (accessed September 23, 2016). binstitute.org. "About Us." N.d. Bhaktivedanta Institute. http://binstitute.org/ (accessed September 20, 2016).
- Brown, C. Mackenzie. 2002. "Hindu and Christian Creationism: 'Transposed Passages' in the Geological Book of Life." Zygon: Journal of Religion and Science 37:95–114.
- -. 2007. "Three Historical Probes: The Western Roots of Avataric Evolutionism in Colonial India." Zygon: Journal of Religion and Science 42:423-47.
- -. 2009. "Hindu Responses to Darwinism: Assimilation and Rejection in a Colonial and Post-Colonial Context." Science and Education 19:705-38.
- -. 2012a. "Conciliation, Conflict, or Complementarity: Responses to Three Voices in the Hinduism and Science Discourse." Zygon: Journal of Religion and Science 47:608–23.
- -. 2012b. Hindu Perspectives on Evolution: Darwin, Dharma, and Design. Abingdon, UK: Routledge.
- Colas, Gérard. 2012. "Vaisnava Samhitas." In Brill's Encylopedia of Hinduism, edited by Knut A. Jacobsen, Helene Basu, Angelika Malinar, and Vasudha Narayanan. Brill Online. https://doi.org/10.1163/2212-5019_beh_COM_2020090
- Cremo, Michael A., and Richard L. Thompson. 1998. Forbidden Archeology: The Hidden History of the Human Race. Los Angeles, CA: Bhaktivedanta Book Trust.
- Das, Chaitanya Charan. N.d. "About the Author." The Spiritual Scientist. http://www. thespiritualscientist.com/about-the-author/ (accessed August 18, 2017).
- -. 2017. Are Scripture and Evolution Contradictory? In Answer Podcast: The Spiritual Scientist. https://www.thespiritualscientist.com/2017/03/scripture-evolution-contradictory/ (accessed August 18, 2017).
- Dasa, Rupa Vilasa. 1988. A Ray of Vishnu: The Biography of a Saktyavesa. Washington, MS: New Jaipur Press.
- Dasa, Shukavak N. 2004. "Bhaktivinoda and Scriptural Literalism." In The Hare Krishna Movement: The Postcharismatic Fate of a Religious Transplant, edited by Edwin F. Bryant and Maria L. Ekstrand, 73–96. New York, NY: Columbia University Press.
- Edelmann, Jonathan B. 2012. Hindu Theology and Biology: The Bhagavata Purana and Contemporary Theory. Oxford, UK: Oxford University Press.
- Gosling, David L. 2007. Science and the Indian Tradition: When Einstein Met Tagore. New York, NY: Routledge.
- Goswami, Mukunda. 2011. "The Religious Angle to Evolutionary Theory." iskconnews.org. http://iskconnews.org/evolutionary-theory-the-incarnations-of-vishnu,4364/ (accessed September 10, 2016).
- Goswami, Satsvarupa Dasa. 1995. Prabhupada: Your Ever Well-Wisher. Sydney, Australia: Bhaktivedanta Book Trust.
- Goswami, Tamal Krishna, and Graham M. Schweig. 2012. A Living Theology of Krishna Bhakti: The Essential Teachings of A.C. Bhaktivedanta Swami Prabhupada. New York, NY: Oxford University Press.
- Hjermitslev, Hans Henrik, and Peter C. Kjærgaard. 2014. "Scandinavia." In Creationism in Europe, edited by Stefaan Blancke, Hans Henrik Hjermitslev and Peter C. Kjærgaard, 85–104. Baltimore, MD: Johns Hopkins University Press.
- Hornyánszky, Balázs, and István Tasi. 2009. Nature's IQ: Extraordinary Animal Behaviours that Defy Evolution. Badger, CA: Torchlight Publishing.
- iskcon.org. 2014a. "What Is ISKCON?" The International Society for Krishna Consciousness. http://www.iskcon.org/what-is-iskcon/ (accessed October 10, 2016).
- -. 2014b. "What Is Vaishnavism?" The International Society for Krishna Consciousness. http://www.iskcon.org/what-is-vaishnavism/ (accessed October 10, 2016).

- iskconnews.org. 2015. "Home." The International Society for Krishna Consciousness. http://iskconnews.org/ (accessed September 17, 2016).
- Jensen, Leif A. 2010. Rethinking Darwin. Los Angeles, CA: Bhaktivedanta Book Trust.
- Kreitzer, Stewart. 2015. "ISKCON's Views on Science and Vaisnavism: Comparing the 1979 *Life Comes from Life* Project with the Archival Transcripts of the Recorded Conversations." ISKCON Studies Institute Conference, Radhadesha, Chateau de Petit Somme, Septon-Durbuy, Belgium, May 22–24, 2015.
- krishna.com. 2015. "What's the Krishna Conscious View of Evolution?" Bhaktivedanta Book Trust. http://www.krishna.com/whats-krishna-conscious-view-evolution-0 (accessed September 14, 2016).
- Lipner, Julius. 2012. "Ramanuja." In *Brill's Encylopedia of Hinduism*, edited by Knut A. Jacobsen, Helene Basu, Angelika Malinar, and Vasudha Narayanan. Brill Online. https://doi.org/10.1163/2212-5019 beh COM 9000000121
- https://doi.org/10.1163/2212-5019_beh_COM_9000000121
 Narayana, Vasudha. 2012. "Alvars." In *Brill's Encylopedia of Hinduism*, edited by Knut A. Jacobsen, Helene Basu, Angelika Malinar, and Vasudha Narayanan. Brill Online. https://doi.org/10.1163/2212-5019_beh_COM_9000000099
- Neubert, Frank. 2016. "ISKCON and Bhaktivedanta Prabhupada." In Brill's Encyclopedia of Hinduism, edited by Knut A. Jacobsen, Helene Basu, Angelika Maligner, and Vasudha Narayanan. Brill Online. https://doi.org/10.1163/2212-5019_beh_COM_9000000244
- Prabhupada, A. C. Bhaktivedanta Swami. 1969. *Sri Isopanisad*. Los Angeles, CA: ISKCON Books.
- . 1970. Easy Journey to Other Planets. Los Angeles, CA: Bhaktivedanta Book Trust.
- ———. 1972a. *Srimad Bhagavatam—Fourth Canto: Part Two*. Los Angeles, CA: Bhaktivedanta Book Trust.
- ———. 1972b. *Srimad Bhagavatam—Fourth Canto: Part Four*. Los Angeles, CA: Bhaktivedanta Book Trust.
- . 1973. Elevation to Krishna Consciousness. Los Angeles, CA: Bhaktivedanta Book Trust.
 . 1974. Srimad Bhagavatam—Third Canto: Part Four. Los Angeles, CA: Bhaktivedanta Book Trust.
- ——. 1975a. *Sri Caitanya-caritamrta of Krsnadasa Kaviraja: Madhya-lila*. Vol. 7. New York, NY: Bhaktivedanta Book Trust.
- ——. 1975b. *Srimad Bhagavatam—Fifth Canto: Part Two.* Los Angeles, CA: Bhaktivedanta Book Trust.
- . 1975c. Srimad Bhagavatam—Sixth Canto: Part One. Los Angeles, CA: Bhaktivedanta Book Trust.
- ——. 1976. Srimad Bhagavatam—Seventh Canto: Part Three. Los Angeles, CA: Bhaktivedanta Book Trust.
- ——. 1977. The Science of Self Realization. Los Angeles, CA: Bhaktivedanta Book Trust.
- ———. 1979. Life Comes from Life: A Startling Challenge to the Modern Scientific Theory of the Origin of Life and the Universe. Los Angeles, CA: Bhaktivedanta Book Trust.
- . 2016a. "Hayagriva-Darwin Conversation." In *The Bhaktivedanta VedaBase (2016)*. Sandy Ridge, NC: The Bhaktivedanta Archives.
- ——. 2016b. "Morning Walk—April 19, 1973, Los Angeles, CA." In *The Bhaktivedanta VedaBase (2016)*. Sandy Ridge, NC: The Bhaktivedanta Archives.
- . 2016c. "Morning Walk—December 3, 1973, Los Angeles, CA." In *The Bhaktivedanta VedaBase (2016)*. Sandy Ridge, NC: The Bhaktivedanta Archives.
- . 2016d. "Morning Walk—May 11, 1973, Los Angeles, CA." In *The Bhaktivedanta VedaBase (2016)*. Sandy Ridge, NC: The Bhaktivedanta Archives.
- . 2016e. "Morning Walk—May 13, 1973, Los Angeles, CA." In *The Bhaktivedanta VedaBase (2016)*. Sandy Ridge, NC: The Bhaktivedanta Archives.
- ——. 2016f. "Syamasundara-Darwin Conversation—1972." In *The Bhaktivedanta VedaBase (2016)*. Sandy Ridge, NC: The Bhaktivedanta Archives.
- Rosen, Steven J. 2012. "Vaishnavism." In *Encyclopedia of Global Religion*, edited by M. Juergensmeyer and W. C. Roof, 1335–36. Thousand Oaks, CA: Sage.
- ——. 2014. "Evolutionary Theory and the Incarnations of Vishnu." *iskconnews.org.* http://iskconnews.org/evolutionary-theory-the-incarnations-of-vishnu,4364/ (accessed September 10, 2016).

- Rothstein, Mikael. 1996. Belief Transformations: Some Aspects of the Relation between Science and Religion in Transcendental Meditation (TM) and the International Society for Krishna Consciousness (ISKCON). Aarhus, Denmark: Aarhus University Press.
- Sardella, Ferdinando. 2013. Modern Hindu Personalism: The History, Life, and Thought of Bhaktisiddhanta Sarasvati. New York, NY: Oxford University Press.
- Sheridan, Daniel P. 2012. "Madhva." In *Brill's Encylopedia of Hinduism*, edited by Knut A. Jacobsen, Helene Basu, Angelika Malinar, and Vasudha Narayanan. Brill Online. https://doi.org/10.1163/2212-5019_beh_COM_9000000114
- Singh, Thoudam D. 2005. *Life and Spiritual Evolution*. Kolkata, India: Bhaktivedanta Institute. Stewart, Tony K. 2010. *The Final Word: The Caitanya Caritamrita and the Grammar of Religious Tradition*. New York, NY: Oxford University Press.
- Thakura, Bhaktivinoda. [1880]1998. *Sri Krsna-samhita*. Translated by Bhumipati Dasa and Pundarika Vidyanidhi Dasa. New Delhi, India: Vajraj Press.
- Toumey, Chris. 2004. "Preface." In *The Cultures of Creationism: Anti-Evolutionism in English-Speaking Countries*, edited by Simon Coleman and Leslie Carlin, ix-xiv. Aldershot, UK: Ashgate.
- Urban, Hugh B. 2015. New Age, Neopagan, and New Religious Movements: Alternative Spirituality in Contemporary America. Berkeley: University of California Press.
- USAbooknews.com. 2009. "The USA 'Best Books 2009' Awards." http://www.usabooknews.com/images/BBresults2009.pdf (accessed August 20, 2016).
- Valpey, Kenneth. 2012. "Gaudiya Vaisnavism." In Brill's Encylopedia of Hinduism, edited by Knut A. Jacobsen, Helene Basu, Angelika Malinar, and Vasudha Narayanan. Brill Online. https://doi.org/10.1163/2212-5019_beh_COM_9000000044
- . 2014. "Circling in on the Subject: Discourses of Ultimacy in Caitanya Vaisnavism." In *Caitanya Vaisnava Philosophy: Tradition, Reason, and Devotion*, edited by Ravi M. Gupta, 1–26. Burlington, VT: Ashgate.
- Vedic Science Research Centre. 2009. "Hare Krishna Statement on Darwin's Two Hundredth Anniversary." *Back to Godhead* 43(6). http://btg.krishna.com/hare-krishnastatement-darwins-two-hundredth-anniversary (accessed September 24,2016).
- Zeller, Benjamin E. 2010. Prophets and Protons: New Religious Movements and Science in Late Twentieth-Century America. New York, NY: New York University Press.