

THE THIRD WAY OF RELIGIOUS STUDIES:
BEYOND *SUI GENERIS* RELIGIOUS STUDIES AND
THE POSTMODERNISTS

by Donald M. Braxton

Abstract. This essay advocates dual-inheritance theory for the renewal of Religious Studies. *Not by Genes Alone*, by Peter J. Richerson and Robert Boyd (2005), presents this approach in an admirably clear manner. To make my case, I survey the development of Religious Studies since the Enlightenment, with special attention to the American context. The historical survey brings us to the dawn of the twenty-first century, where Religious Studies is often unnecessarily limited to *sui generis* Religious Studies and its postmodern critics. Neither approach engages regnant Darwinian theoretical frameworks of gene-culture coevolution productively. In this context, I situate the contributions of dual-inheritance theory as presented by Richerson and Boyd and offer examples of its utility for progress in Religious Studies, its ability to open cooperation across disciplinary boundaries, and its salutary demystification of religion as a culturally unique and coherent phenomenon. I conclude by addressing concerns scholars of religion might entertain regarding the issue of reductionism and how an emergent science of religion might contribute to the traditional concerns of religion-and-science dialogue as it has evolved in the English-speaking context.

Keywords: Robert Boyd; cultural evolution; cultural selectionism; dual-inheritance theory; Religious Studies; Peter J. Richerson; science of religion

In this essay I offer an analysis of the contribution of the methodological tools of cultural selectionism for the student of religion generally, and the work of Peter Richerson and Robert Boyd in particular. I argue that the

Donald M. Braxton is J. Omar Good Professor of Religious Studies and Chair of the Department of Religious Studies at Juniata College, 1700 Moore Street, Huntingdon, PA 16652; e-mail braxton@juniata.edu.

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distinctive tool set of cultural selectionist models of religion makes an important, indeed crucial, contribution to the academic study of religion, and the deployment of these conceptual tools reclaims a lost thread in the academic study of religion. Reaching back to the founding figures of Religious Studies, men such as Max Mueller and C. P. Tiele, I show that the latter half of the nineteenth century was replete with aspirations for the creation of a science of religion, or at least a scientific approach to the study of religion.

By the middle of the twentieth century, however, that thread had been lost or abandoned, at least in the United States, in favor of a religiously motivated agenda more palatable to the broadly liberal Protestant educational context. This agenda is still the legitimating ideology of the discipline of Religious Studies and its attendant professional societies such as the American Academy of Religion. By the late twentieth century, the ideological commitments of Religious Studies in the United States began to surface in an increasingly politicized climate. More diverse forms of religious behaviors and beliefs were being studied, and scholars in these fields began to feel the weight of the diffuse ideology on their ability to investigate these religious phenomena. As adjectives such as postcolonial, hegemonic, and gynocentric proliferated in the discipline, novel methodological approaches were embraced derived largely from the field of literary criticism and summarily labeled as postmodernism. This anti-essentialist movement rejected the identification of a unified methodology for the study of religion, abandoned entirely the idea of a science of religion, and resituated engagement with religious phenomena variously as forms of discourse analysis, power-knowledge explanations, or emancipatory forms of praxis. Generally labeled postmodernism, the academic study of religion now often consisted largely of disputes and contestations between adherents of an earlier quasireligious phenomenology of religion and adherents of the play of signifier and signified in the distributions of cultural-linguistic power distributions. Mutual confession of identity relative to text and context became the new coin of the realm in Religious Studies as it prepared to enter the twenty-first century.

It is in this politically charged context that I situate the contributions of cultural selectionism. Richerson and Boyd's *Not by Genes Alone* (2005) is at first blush a book designed to bridge the gap between the standard considerations of biologists, behavioral ecologists, and evolutionary psychologists, on one hand, and the social sciences and humanities, on the other. Their arguments are directed at displaying to these reluctant conversation partners that cultural constructions among humans make powerful modifications to the trajectories of human societies and may introduce considerable behavioral adaptations, even at the level of genetic change. Although likely not to be controversial to social scientists and humanists, it says something about the discipline of Religious Studies that it is rarely aware of this

dispute's controversy among biologists and other members of the natural science community who study humanity. For Religious Studies, situated as it is on the cusp of the social sciences and the humanities, the contribution of this approach to the academic study of religion should not be underestimated. I suggest that cultural selectionism, along with other explanatory regimens from the natural and social sciences, now offer the promise of redeeming a central aspiration for the academic study of religion—the creation of a science of religion. This suggestion is not intended to imply that cultural selectionism is *the* basis of a science of religion, although it may well come to assume that position. Rather, I contend that it represents a set of tools and methodologies that, when integrated into a larger multitiered hierarchy of explanatory investigations, has the potential to create a genuinely scientific approach to the study of religion. The development of a multitiered hierarchy of explanatory regimens nested in an evolutionary framework constitutes a genuine candidate for a science of religion, a third way beyond the battles between the quasireligious phenomenology of religion and its postmodernist antagonists.

To elaborate this claim, I first discuss how Religious Studies traversed the historical period from its founding to the present moment such that its accepted landscape has come to be dominated by the battle between quasireligious, essentialist projects and quasireligious, anti-essentialist postmodern posturing. Next, I elaborate on the basic assumptions of cultural selectionism and display some of its most significant findings, especially as these illuminate the academic study of religion. Finally, I show how cultural selectionist tools offer a way through the impasse between the essentialism/anti-essentialism, modernism/postmodernism options, both of which seem to have abandoned aspirations for a science of religion.

THE BIRTH OF RELIGIOUS STUDIES IN THE UNITED STATES

Core figures in the Enlightenment first postulated the idea of a naturalistic approach to religion. In these early philosophical statements, important Enlightenment figures undertook a naturalistic treatment of religion, examples of which can be found in important works such as Thomas Hobbes's *Leviathan* (1651), Jean-Jacques Rousseau's *The Social Contract* (1762), and especially David Hume's *The Natural History of Religion* (1757). It may well have been, in fact, Immanuel Kant's dense *Critique of Pure Reason* (1781) that most directly set the stage for what was to emerge as Religious Studies. His indirect banishment of traditional notions of revelations from the repertoire of the academic study of religion, via the reformulation of the epistemological foundations of philosophy, started the process of reinventing what Religious Studies could and could not be. To be sure, the continuing prominence of orthodox and, much later, neo-orthodox approaches to Christianity would only slowly diminish, but what increasingly counted as legitimate concerns of a university faculty began to shift,

in Kant's wake, from the harmonization of various revelational resources found in scripture to the historical study of the development of Christianity, the social life of the church, and the role of ecclesiastical institutions in the support of civil society.

Liberal Protestant theologians and philosophers of religion were among the first religious figures to be favorably disposed to pursuing this project. Friedrich Schleiermacher, Georg W. F. Hegel, and Ernst Troeltsch were each in their own way concerned with the exploration of religion in historical terms, paying particular attention to how religious traditions evolved over long periods of time, how they shaped social and political life, and how their distinctive communal dynamics molded personality. Schleiermacher's *On Religion* (1799) was, after all, directed at a post-Enlightenment audience of "cultural despisers" for whom naive claims to revelation seemed repulsive. Like Kant before him, and true of all liberal Protestant theology since, Schleiermacher sought to distill Christianity to a specific essence, in his case the feeling of absolute dependence, of which the vast wealth of Christian doctrine and behavior was best conceived as temporally extended elaborations of this feeling, the woof and weave of a culture from which a singular pattern emerged, or so he proposed. For Schleiermacher, dogmatic theology had become not the elaboration of a set of ahistorical revelations into a systematic, cohesive theoretical corpus—an agenda item still carried out among the orthodox theologians of the nineteenth century, renewed in the neo-orthodox interlude between the world wars of the twentieth century, and still practiced to this day under the heading of narrative theology—but the elaboration of a historically mediated set of cultural resources that dramatized an essentially anthropological task: the formation of human nature in the presence of the sense of absolute dependency. This shift required theology to begin not with doctrine but with cultus. A little less than a century later, Troeltsch echoed this assumption when he opined that the central concern of Christian theology was

... a practical difference of mood and feeling in the total religious attitude. . . . [It] is a matter of social psychology. It applies to Christianity as to any other spiritual and ethical religious faith which is neither tied to the natural divisions of society nor expressed in magical cult. . . . With the central place it gives to the personality of Jesus Christianity does not have something special which distinguishes it from all other religions and makes redemption possible here alone. Rather, in this it only fulfills in its own particular way what is a general law of man's spiritual life. (Troeltsch [1903] 1977, 202)

The formulation of a *Religionswissenschaft* (science of religion) agenda in the second half of the nineteenth century articulated the foundations of what might be a genuine academic and scientific program for the naturalistic study of religion under the heading of comparative religion on the European scene, but it often was infused with an implicit assumption of the superiority of liberal, Protestant, and Western categories of analysis

and content. Theologians of the liberal Protestant establishment labored in institutional settings distinct from, but parallel to, these early theoreticians of social anthropology, but they were generally well disposed toward the others' agendas. Indeed, it was largely assumed that the embrace of a science of religion was a direct expression of the enlightened cultural status of an ecumenical Protestant Christianity. Thus, Troeltsch could argue that his own theological work in the Christian tradition had a vested interest in the success of the emergent science of religion, but only under specific terms. He asserted that the science of religion "does not produce religion or give birth to true religion, but it analyses and appraises religiosity as a datum." Its goals are practical, "namely to organize and clarify what itself grows in naive and tangled form." In a word, it is an inquiry into "*the essence (Wesen) of religion*" ([1903] 1977, 89, 93, 111).

His interpretation of the contributions of a science of religion is notable not just for what it affirms in typical liberal Protestant fashion but also in terms of what it rejects. He explains what forms of a science of religion must be rejected:

The issue is how one is to consider cultural creations of the human mind. Does one recognize in them the independent dispositions and powers of the mind, giving form from their own inner necessity to their own ideas and values? Or does one see in the mind nothing more than the formal power to shape a system of generalisations out of the positive facts as far as possible objectively conceived, and to make this system serve the aims of human survival and the advancement of the race? In the first case we have before us *mysterious, unconditioned tendencies and impulses of the reason*, appearing constantly in new forms, out of which autonomous spontaneity spring up the great cultural formations of family, state, society, law, art, science, religion, and morals. In the second case, we have above all the regular and homogeneous linkage of the objective facts of the external world, and *the inward world of no mystery* other than the ability to recognize the laws of nature and to use them for maintaining the life of the species. The first is the position of idealism. . . . The second is the position of positivism. ([1903] 1977, 83; emphases added)

For a liberal Protestant theologian such as Troeltsch, his engagement with the emergent science of religion was always premised on the assumption that a residue of mystery associated with human consciousness and mind was preserved, an assumption that came to be the prevailing assumption of Religious Studies in the United States through most of the twentieth century under the heading of a nonreducible and *sui generis* residuum in religion not intelligible to the investigator unless it is experienced.

The "positivism" to which Troeltsch refers he associates with Hume, Auguste Comte, and Herbert Spencer. He would probably also include Karl Marx and perhaps Emile Durkheim. Interestingly, he does not mention the important figure of Max Mueller, whose *Introduction to the Science of Religion* (1893) is regarded as the foundation document of Religious Studies. In this important lecture, Mueller argued that at that point in time

The very title of the Science of Religion will jar . . . on the ears of many persons, and a comparison of all the religions of the world, in which none can claim a privileged position will no doubt seem to many dangerous and reprehensible because *ignoring the peculiar reverence which everybody, down to the mere fetish worshiper, feels for his own religion and for his own God*. Let me say then at once that I myself have shared these misgivings, but that I have tried to overcome them, because I would not and could not allow myself to surrender either what I hold to be the truth or what I hold still dearer than the truth, the right of testing truth. ([1903] 1977, 8; emphasis added)

For Mueller and his associates, no distillate of religious essence, no mystery of human consciousness, no *sui generis* dimension that was distinctively religious needed to be posited to carry out the science of religion. The study of religion did not require the supposition of the ontological reality of the objects of religious devotion or the development of a special epistemology that could accommodate the supernatural claims that populate religious beliefs and behaviors. It needed only empirical investigative tools on par with the natural sciences, and rapidly being adopted at that time in the social sciences, and the assumption that the ultimate status of religious claims was irrelevant. What mattered was not whether gods existed but that people seem to believe they do and act in very public ways on the basis of that belief. The objects of belief are not part of the science of religion. Rather, the cultural processes that mediate religious representations, and the minds that evolved to produce them, are its proper domains of investigation. These empirical realities are, of course, completely available for naturalistic, that is to say empirical, investigation.

These convictions and aspirations were not to make much of an impact in the United States during the twentieth century, although they did gain a significant foothold in a more secular European setting. The creation of Religious Studies programs in the United States did not begin in earnest until after World War II. The form it assumed was indicated by its leading ideological figures—philosophers, phenomenologists, and history-of-religions specialists such as Gerardus van der Leeuw, Mircea Eliade, and Rudolf Otto, and on the theological side Paul Tillich and the brothers H. Richard and Reinhold Niebuhr. Donald Wiebe has admirably documented and analyzed the creation of programs of Religious Studies in the United States in his important *The Politics of Religious Studies* (1999). In what follows, I largely repeat his analysis.

Wiebe's analysis of the developments leading up to the post–World War II context in American higher education is largely consistent with my foregoing survey. He contends that, rather than a *Religionswissenschaft*, American schools began to commission a hybrid form of “Christian *Wissenschaft*” during the 1950s and early 1960s that undertook “a liberal form of theological reflection embracing science and the importance of scientific method in all learning” yet was “still dominated by theological and ministerial concerns” (Wiebe 1999, 73, 71). By the 1960s, growing religious pluralism in

the United States ignited a set of institutional discussions and public exchanges that eventuated in the formation of the American Academy of Religion (AAR) out of the older National Association of Biblical Instructors (NABI). In some ways, this step weakened the overt governing liberal Protestant bias in scholarship, ousting many assumptions of cultural superiority, but in other ways it simply resituated the religious residue motivating much of the inquiry to a quasireligious, scientifically questionable set of criteria. Rather than the dominance of theological and biblical topics and church-sect typologies, and the privileging of great text scriptural traditions, categories derived from the ascendant history of religions tended to dominate and organize the structure and discourse of the AAR. Wiebe includes in his study a complete listing of the Presidential Addresses of the NABI and the AAR (pp. 272–73), and one can discern this clear trend from the list. Whereas the 1960s addresses explored such topics as “The Search for the Theology of the Fourth Evangelist,” in the 1970s the topics shifted to the study of cargo cults, antiquities, the anxiety of nonbeing, and the symbols of death. As we can readily discern from even a casual glance of these flagship proclamations of the AAR, overtly Christian categories are being relegated to exemplars of larger, seemingly more general categories of religion. At the same time, these more general categories look naively biased in retrospect because they reflect the classic interests of typical existentialist, phenomenologist methodology and content.

Despite this genuine and not-to-be-underestimated movement toward greater academic openness, and its consequences for the integration of the study of religion into universities and colleges on grounds other than theological and ministerial agendas, the AAR still suffered from an identity crisis in justifying its own contribution to higher education. What was the proper theory and method of religious studies? How did it differ from the disparate ways in which religion might already be studied in departments of history, sociology, psychology, or literature? To answer these challenges, the phenomenological study of religion was singled out to offer justification for the unique approach of Religious Studies programs. The problem with other programs that studied religion was that they lacked a *sympathetic understanding* of the experience of religion, a claim echoing Schleiermacher’s arguments regarding a taste for the Infinite some 150 years earlier.

This supposed lack of a taste for the Infinite resulted in a deeply problematic disadvantage—reductionism—for which, rather heroically, only the new discipline of Religious Studies could offer a remedy. Reductionism is a kind of political charge designed to delegitimize any mode of analysis other than the *sui generis* categories of Religious Studies. These new categories of analysis were derived from such figures as Durkheim, van der Leeuw, Otto, and Eliade. Eliade was perhaps the most influential in this regard because of his many well-placed followers, including Joseph Kitigawa and Wendy Doninger at the University of Chicago. For Eliade, the history

of religions was more than a scientific discipline; it was an act of “cultural creation that dares to imagine the possibility . . . of a new humanism” (Wiebe 1999, 101). Eliade contended that the academic study of religion was to be a “saving discipline,” that is to say, a process that overcame narrow ethnocentrism using the tools of scientific investigation, and resulted hopefully in a new humanistic vision of mutual understanding and respect in the face of cultural differences (1999, 127). Concepts and categories such as *mana*, *the sacred*, *the numen*, *mysterium tremendum et fascinans*, *in illo tempore*, and *ground of being* and specialized doctrines of myth and symbol were promulgated as nonreductive analytical tools uniquely designed for the study of a panhuman religiosity. Wiebe, as well as Timothy Fitzgerald in his fine *The Ideology of Religious Studies* (2000), both underscore the theological transcendentalism of Eliadean theory in the assumption of a distinctive essence of religion that can be explicated only on its own terms, terms over which its ideological representatives exercised discretionary control. Although such a move was probably important, and may have been crucial, to the establishment of Religious Studies programs in the peculiar milieu of the United States with its separation of church and state and its pious cultural setting, it nevertheless clearly shows how incomplete the development of a genuine science of religion was.

THE COUNTERDISCOURSE OF POSTMODERNISM

If the 1960s gave rise to many Religious Studies programs and transformed the largest gathering of scholars of religion from the National Association of Biblical Scholars to the AAR, it also opened the door for its own politicization at the hands of postmodernist attacks (Ellwood 1994). As the 1960s advanced, empowerment movements among disenfranchised groups in the United States (chiefly African Americans and the women’s movement) and around the world began to bring novel and neglected voices to the study of religion. Until the 1960s, anthropology-of-religion programs around the world depended upon extensive colonial networks for the gathering of ethnographic data on what were then called primitive religions. Beginning in the 1960s and continuing for decades, the removal of these political arrangements enabled the inclusion of indigenous voices in the study of religion. It was perhaps inevitable that when a critical threshold of diversity was achieved, the reign of ecumenical Protestantism would be directly challenged for being white, male, and First World. In part, the mid-century emergence of Eliadean-like phenomenological and hermeneutical approaches to the study of religion was responsible for the appearance of these new and challenging voices, but at the same time it had planted the seeds of its own most important counterdiscourse.

That counterdiscourse came in the form of what is now generally called postmodernism. We can take as our initial definition of postmodernism that offered by Pauline Marie Rosenau:

Postmodernism challenges global, all-encompassing world views, be they political, religious, or social. It reduces Marxism, Christianity, Fascism, Stalinism, capitalism, liberal democracy, secular humanism, feminism, Islam, and modern science to the same order and dismisses them all as logocentric, transcendental totalizing meta-narratives that anticipate all the questions and provide pre-determined answers. (in McCutcheon 2001, 107)

It was difficult to say beyond such vague characterizations as “a style of argumentation” or a tendency to “dismiss . . . totalizing meta-narratives” just what postmodernism was, what exactly its leading claims were, and what constituted its distinctive boundaries. In fact, its critics may have employed the term postmodernism more often than its practitioners did in its later incarnations. Nevertheless, the term remained useful to the extent that it did describe a more or less coherent body of theory in Religious Studies. More important for our purposes in this essay is that this movement became the chief challenger to the essentialist study of religion characteristic of the middle decades of the twentieth century.

Building on Rosenau’s definition of postmodernism, what did the postmodern investigator of religion do? On the most basic level, postmodernists sought to expose the particularistic rules that govern the cultural-linguistic practices of social systems. These rules were to be understood more as Wittgensteinian language games than as general features of panhuman religiosity. A chief characteristic that postmodernists often identified was the tendency to take a specific adjectival quality of a particular religious cultural construct and transform it into an essentialist property. Hence, the adjectives *sacred* and *profane* became the sacred and the profane. *Numinous* became the numen. Sometimes, wholly exotic concepts like *mana* were imported into this emergent panhuman framework. Postmodernists sought to create space for themselves by deconstructing these efforts, declaring all such projects now dead. As the Spanish postmodern anthropologist Vincent Crapanzano argued,

. . . in an age that has been declared postmodern . . . the ruin has been replaced by the quotation, the trace, really a pseudo-trace, a detritus, a re-ferent, a carrying back to/from a past, which is so completely decontextualized, so open to recontextualization, that is, the quotation, the trace, becomes at once an emblem of a past evacuated of history (history understood as a somehow meaningful account of the past) and a signal of the artifice of any such account, and history. (Crapanzano 1991, 431)

For the postmodern critic, the historical development of the categories of analysis associated with the academic study of religion became the new subject of investigation. The anthropologist and the religious scholar needed, so the postmodern argument went, to turn their own investigative tools upon themselves. The result showed that scholars themselves represented a discrete cultural system whose interpretive categories were far from neutral but rather were an artifice that belied the artificiality of their explanations.

Often, charged the postmodernist critic, the works of modernist interpreters told more of the story of writers than their subjects. Emblematic of the transition might be the publication of Clifford Geertz's *Local Knowledge* (1983) in which he doubted the validity of his own ethnographies. His earlier work was published in the very influential *The Interpretation of Cultures* (1973) and is regarded by many to this day as the definitive statement on the academic study of religion, especially its very important definition of religion (p. 90) and its agenda of sympathetic, thick description.

So how was the postmodern critic to pursue the study of religion? On one level, the primary task seemed to be reduced to the deconstruction of all interpretations, a task that could be accomplished by a constant "repositioning" of previous works in an (endless?) play of discourse. In its most extreme expressions it concluded with the impossibility of genuine, even partial understanding across culturally discrete systems of meaning. Fitzgerald, for example, sees in the self-doubt of the postmodern the denial of "the possibility of writing objective accounts of other people's (or even one's own) 'culture' or 'society', seeing in these reifications, the products of the anthropologist's own needs to invent a spurious object that can be described, classified, and compared" (2000, 236). If objectivity were really impossible even as a goal, as some postmodernists seemed to think, the agenda of Religious Studies generally, not to speak of a science of religion, was at an end. It was a corpse the decomposition of which was the only task remaining for the scholar of religion. The more constructive of the postmodernists, however, saw in the deconstruction of the categories of Religious Studies an emancipatory praxis that might well open the discipline to a new era of "dialogue" and "conversation," an aspiration of Religious Studies since its inception, albeit one in which the superior host was the Western scholar and the guest was the primitive and naive religionist. This uneven meeting ground had always characterized Religious Studies, according to the postmodernist, but had only now been made explicit. Its abandonment freed the scholar of a Eurocentric hubris and disclosed a novel opportunity for a parity of exchange. Genuine understanding might now be possible, something that earlier phenomenologists and hermeneuticians had always sought but failed to achieve. Once the role of differential power in the construction of supposed Religious Studies "knowledge" had been exposed and debunked, a creative, interpretive space for a playful-serious engagement with the other was cleared.

The chief metaphor for the subject of study became "religion as text," given postmodernism's roots in literary criticism (Fitzgerald 2000, 236). The idea of text, now understood very broadly as not only sacred text but also tradition, oral narrative, gestural behavior in ritual, and even facial expression or body image, was endowed with a kind of inexhaustible interpretive depth. Given that meaning now resided primarily in the creative act of engagement itself, and the number of interlocutors who could po-

tentially sustain conversation was infinite, an equally infinite number of interpretive repositionings became possible. Any attempt to adjudicate between interpretations, and especially any attempt to render judgment about better and worse interpretations, became problematic. That kind of move was indicative of a recidivist methodology into ontotheology—a form of rudeness under the new rules.

Perhaps most disturbing to the ecumenical Protestant sensibilities of the progenitors of Religious Studies, the once marginal (neo)orthodox theologies of earlier periods of American religious history came roaring back into the fold on the tail of the postmodern revolution. The reason why is simple and cogent: The liberal rules of ecumenism were subjected to a political interpretation and found to be suspect. Tolerance, rationality, and former definitions of *academic*, *scholarly*, or *public* were declared particularistic and were therefore not the only epistemological regime possible. They were political constructs that privileged some discourses over others. Orthodox, neo-orthodox, and neo-neo-orthodox (narrative) theologies displayed great vigor given the change in the landscape of American Religious Studies. The postmodern turn removed the constraints of academic inquiry to such an extent that no basis for questioning exclusivist religious discourses remained. As Russell McCutcheon has persuasively argued, the postmodern turn liberated exclusive theologies because these theologies saw in “discursive relativity” the potential argument that all Religious Studies was “theology” (McCutcheon 2001, 109). Theologian Darrell Fasching claims that the academy represented a form of “secular orthodoxy” that unjustifiably excluded theology from the public realm of the university. The banishment of “sacralization” from public spaces was dangerous to the well-being of American society because it “cuts modern individuals off from a sense of participation in life as a meaningful drama” (Fasching, in Cady and Brown 2002, 168). Fasching argues that the postmodern turn in the academic study of religion enables and justifies a resacralization of public spaces—in this case, the reentry of theology into publicly funded universities.

In summary, the emergence of a postmodernist agenda in the academic study of religion is both the legitimate offspring of the ecumenical Protestant roots of the discipline and at the same time a development that in many ways spells the end of many of its most cherished ideals. After all, because it limits the role of the scholar to a form of confessional positioning relative to any particular claim, postmodernism opens the door for novel, and much needed, critical scholarship within the discipline. But, interestingly enough, it generates the important side-effect of a newly robust industry of orthodox religious scholarship—a development that surely would shock those founders of Religious Studies in the United States who envisioned a new pan-world humanism (Wiebe 1999, 111–12, 287–88; McCutcheon 2001, 61).

For our purposes in this essay, these contradictory results set the groundwork for understanding the contributions of a science of religion. As I emphasized in the historical overview, the creation of a science of religion was always an aspect of the discipline, but it often has eluded the discipline's leading theoreticians. In fact, in organizations such as the AAR it appears to be further from realization than at that society's inception. It is in this context that I want to now discuss the contributions of cultural selectionism. I contend that it offers a third way forward for the academic study of religion when Eliadean essentialism and postmodernist literary studies seem equally unsatisfactory.

Much more could, and should, be said about the developments I have outlined above. The already lengthy treatment was necessary to set the foundation for understanding the role of cultural selectionism arguments in future Religious Studies programs. Others have presented more comprehensive analyses of these developments, and I encourage the interested reader to consult the works cited in the essay.

CULTURAL SELECTIONISM AND THE STUDY OF RELIGION

Richerson and Boyd's *Not by Genes Alone* (2005) is a readily accessible retelling of a dual-inheritance theory they have been working on for thirty years. Their first book-length treatment of the subject, *Culture and the Evolutionary Process*, appeared in 1988. For those not enamored of the mathematics of population-dynamics models, this new book comes as a relief.

So-called dual-inheritance theory begins with the basic Darwinian assumption that populations of species are understood as pools of organisms carrying variable inherited information through time as gene frequencies. Cultural selectionism extends the Darwinian model to the transmission of cultural information as a second or dual track of heritable information. Richerson and Boyd understand *culture* as "information capable of affecting individuals' behavior that they acquire from other members of their species through teaching, imitation, and other forms of social transmission" (2005, 5). They specify *information* as "any kind of mental state, conscious or not, that is acquired or modified by social learning and affects behavior" (p. 5). Understanding any form of human behavior therefore entails explicating both the genetic and nongenetic modes of information transmission that constitutes the distinctively human niche.

Richerson and Boyd emphasize that their approach is not simply to treat culture as an environmental factor constraining a more fundamental biological inheritance. On the contrary, they believe culture makes a powerful informational contribution to the trajectory of human evolution itself, even to the point of genetic modifications. For example, they contrast themselves with both evolutionary psychologists and standard behavioral

ecologists who also pursue Darwinian explanations. Whereas these approaches emphasize gene and environmental factors and relegate cultural forces to largely epiphenomenal status, Richerson and Boyd believe this temptation neglects “the inevitable feedback between the nature of human psychology and the kind of social information that this psychology should be designed to process” (p. 12). The complexities of genetic information, socially transmitted cultural information, and environmental conditions are the crucible in which human behavior has evolved and continues to evolve. Dual-inheritance theory suggests that attention to this interplay of genes and culture can account for the powerful motor that has driven the rapid, indeed unprecedented, pace of evolutionary change of humanity in the last 200,000 years.

We should not underestimate the difficulty of making this argument in the aforementioned context of religious studies. On one hand, the dual-inheritance model will appear to the *sui generis* Eliadean tradition as reductionistic and to the postmodern as hegemonic metatheory. Neither of these quasireligious approaches is likely to be very receptive to any agenda that seeks to explain religion. Despite all their disagreements, these two groups tend to present a unified front vis-à-vis scientific agendas where the watchword, and bogeyman, is reductionism. On the other hand, to natural scientists who regard religion (and perhaps the entirety of culture) as an epiphenomenal by-product of brain-states, or an empirically nontestable thicket of categories and definitions, it will appear to be at best an incorrigible empirical problem and at worst a step back into the dark ages of pseudoscience. For scholars of religion, however, the reductionism charge is likely to be paramount, and to this, Richerson and Boyd offer quite simply the following encouragement:

Cultural scientists, we believe, should not fear a reunion with biology. Culture is a brawny phenomenon and is in no real danger of being “reduced” to genes. Of course genetic elements of our evolved psychology shape culture—how could it be otherwise? But at the same time, natural selection acting on cultural variation shaped the environments in which our psychology evolved (and is evolving). The coevolutionary dynamic makes genes as susceptible to cultural influence as vice versa. (pp. 14–15)

Among specialists in the field, dual-inheritance models have gained a significant following in recent years with additional titles such as *A Cognitive Theory of Cultural Meaning* (Strauss and Quinn 1997), *Thought in a Hostile World* (Sterelny 2003), *Evolution in Four Dimensions* (Jablonka and Lamb 2005), and *Missing the Revolution: Darwinism for Social Scientists*, edited by Jerome Barkow (2006), to name but a few of the more prominent. Among at least some scholars of religion, it also seems to fit the bill for helping the discipline move forward and redeem aspirations for a science of religion. For example, Wiebe ends his study of the history of Religious Studies in the United States by noting that “it is on the strength of

evolutionary theory that the Science of Religion initially made an appearance as a new research field. . . . I suggest that we need to reconsider the value of a return to evolutionary theory to re-establish a unifying framework for the study of religion" (Wiebe 1999, 291–92). Likewise, Fitzgerald concludes his study of ideological currents in Religious Studies by observing that, while "the phenomenologists and liberal ecumenical theologians criticize so-called reductive tendencies," a movement toward the more scientific and explanatory regimes proposed by scholars such as Thomas Lawson and Robert McCauley (1990) and Dan Sperber (1996) would be most welcome. Even McCutcheon, whose sensitivity to the political contrivances of Religious Studies is very high, suggests that the renewal of a tradition of "naturalistic theorizing in the human sciences" would be a welcome relief from the "sometimes paralyzing critiques of the exclusively culturalist approach" (McCutcheon 2001, 60). To these voices, I would heartily add my own.

So what are the specific tools employed by dual-inheritance theory, and what is the payoff for using them? I list nine mechanisms from Boyd and Richerson and add several other tools mentioned by their peers that they do not include. The tools they explicitly address in their population-level investigations of the distribution frequency of cultural variants are:

1. Inertial transmission: simple, unbiased sampling of faithful copying of cultural variants ambient in a population (pp. 67–68)
2. Biased transmission: diffusion of cultural variants due to nonrandom factors such as contact, geographic proximity, or universal laws of human cognition; this collection of mechanisms can be further subdivided into content-based, frequency-based, and model-based biases (pp. 68–72)
3. Imitation: true imitation excluding other potential causal factors such as simple local enhancement or stimulus enhancement (pp. 107–8)
4. Selective learning: decision algorithms that enable choosiness in the presence of cheap information (pp. 112–13)
5. Decision heuristic 1—frequency bias: fast and frugal decision mechanisms to conserve scarce cognitive resources based on popularity of behavior (pp. 120–21)
6. Decision heuristic 2—conformist bias: fast and frugal decision mechanisms to conserve scarce cognitive resources based on successful behaviors in slowly changing environments (pp. 121–24, 157, 162)
7. Prestige bias: imitation of those behaviors associated with socially derived admiration patterns (pp. 124, 157, 163)
8. Transmission of maladaptive behaviors: not a true mechanism, but rather a result of the deployment of some of the other mechanisms

listed above, an inevitable by-product of the vulnerability that results from the use of the aforementioned tools (pp. 151–90)

9. Multilevel selection: also called group selection, processes that favor culturally derived group-level differences (pp. 196–211)

These nine analytical tools constitute an initial, but not complete, toolbox for the study of how cultural transmission and change occurs or fails to occur over time. In the complex interplay of these forces, cultural continuity and variation may be better elucidated and explained. I first take two examples from the book to illustrate how this can occur and then propose several of my own.

One example to which Richerson and Boyd dedicate significant space is maladaptive self-sacrifice. They look at reproduction patterns among academics and the clearly maladaptive trends among academics to postpone or forgo reproduction for the sake of achieving the rarified quality of prestige in the academic arena (pp. 148–50, 176–77). They contrast this behavior with the capacity of intact cultural systems of piety that buck the forces of the modern demographic transition. Their examples are Anabaptist groups in the United States and Canada. They argue that it is a mistake to think of these groups as truly isolated from modern economies. Rather, their separation is maintained by specific cultural mechanisms that allow intense economic, and very modern, exchange while blocking the invasion of their lives by other values. The cultural difference resides in a theological retention of a Calvinist asceticism that gave rise to a variety of symbolic markers of separateness and a set of cultural norms that short-circuit other selection pressures such as prestige-bias (pp. 184–86). The result is a coherent set of distinctive cultural traits that allow continued but selective interaction with the forces of modernization and enable the maintenance of high communal fertility rates in contrast to the larger trends of society to which, say, modern academics are subjected.

A second example is derived from witchcraft studies. Witchcraft is a universally distributed cultural phenomenon. It follows a form of abductive reasoning in which a premise is assumed to be true if any implications of that premise are observed. Richerson and Boyd's example of this cognitive process is intercessory prayer, where it is assumed that if a person recuperates from an illness, interventionist prayer on the ill person's behalf was efficacious. They argue that this quick and dirty form of reasoning works in many instances of life and therefore represents a relatively cheap form of cognition. By contrast, the understanding of cause-and-effect relationships in the natural world via science is time-consuming and entails elaborate statistical calculations and probabilities and the running of highly structured, controlled experiments to generate reliable data. Although a fine form of reasoning, scientific reasoning is so costly as to be maladaptive when applied to most forms of cognition in everyday life. Decisions about

driving routes, weekly culinary plans, or preferences for shoe styles might benefit from scientific investigations, but it would surely be a poor investment of scarce processor time given all of the other more demanding problems toward which it could be directed. Short of a 24-hour scientific monitoring system, we seem to do quite well with more pragmatic compromises. Some forms of abductive reasoning seem false but patently harmless, like remembering to take a lucky charm along with you to the casino, whereas others seem to be deleterious to the well-being of practitioners. Of this latter type, Richerson and Boyd associate charges of witchcraft and resultant violence in Africa, Asia, and South America. Witchcraft pogroms occur repeatedly around the world, especially at the margins of cultural systems where cultural identities are in flux or endangered. They often produce outbreaks of torture and executions. Richerson and Boyd's survey of ethnographic data to support this analysis is fairly limited in the text (pp. 167–69) but is consistent with data generated by anthropologists in far greater detail (see, for example, Sidel 2006, 132–95). Abductive reasoning is deployed in this setting as follows: I am sick today, and I see no normal basis for this being the case. If there is illness without discernible etiology, this condition must indicate the presence of witches. I seek out a diviner, identify potential culprits, and then bribe them, threaten them, or do violence to them. In several days I feel better. It must be that my intervention, whatever it was, has put a stop to the witchcraft. Note that this line of reasoning is not special in any way; it is the normal reasoning we all use in many contexts, and successfully so. A swelling on my leg leads me to realize that I have been stung by a bee, even though I have seen no bee. Most of the time, under most conditions, it is a form of reasoning that gets us by on the cheap. I did not go in for lab tests before I reached for the calamine lotion! But the benefit of reasoning on the cheap comes with the risk of susceptibility to various cognitive exploits that can take advantage of these loopholes. Witchcraft, they suggest, is one likely candidate for this kind of maladaptive yet robust cultural trait. Its cost is potentially high, but not so high as to force us to forgo the underlying mechanism.

I now want to suggest several ways in which these tools may be deployed to assist with some thorny issues in the study of religion. As a result of the origins of the discipline, scholars in Religious Studies often are biased toward textual traditions and doctrinal codes. This bias derives from the evolution of Religious Studies from the culturally specific traditions of ecumenical Protestant theology. Although perhaps fitting for literate Western Protestantism, this bias is surely misleading when applied to preliterate cultures where oral traditions dominate and where no premium is placed upon doctrinal orthodoxy or systematic elaboration. Traditional studies of magic, witchcraft, sacrifice, body modification, religious architecture, and a vast array of religious phenomena commonly suffer from a form of text-biased investigation where such phenomena are either studied as substi-

tutes for texts or explained as manifestations of doctrinal beliefs rooted in implicit cosmologies. Neither assumption is justified on the basis of direct empirical inquiries into the behaviors of adherents of these various traditions. In most cultural patterns in the world, oral performance is the norm and literacy is the exception. The keepers of doctrinal orthodoxy often are not religious specialists but rather practitioners of esoteric and unsystematic knowledge. Many studies of religious beliefs and behaviors therefore suffer from a projection of a theological fallacy, the assumption that one understands a religious behavior only when it is situated against a systematic ideology. This assumption is even forced in situations where adherents clearly display a complete lack of interest in abstract conceptual structures.

Dual-inheritance theory focuses not on text but on transmitted patterns of information on both genetic and cultural levels. This interest forces the investigator to zoom in on the mechanisms that enable and constrain informational transmission rather than the outputs as such. These mechanisms are all data-processing behaviors or transactions. To state this differently, the emphasis shifts from doctrines and elite texts to everyday actions and performances that enable the generation and transmission of cultural variants through time and space. In Religious Studies, a novel salutary accentuation then occurs where one understands phenomena by parsing action trajectories rather than deciphering hidden textual meanings, implied dogmas, and the like. For example, historic studies of magic around the world often have sharply, and I think falsely, distinguished magic from other forms of religious thought and practice on various grounds (Agassi and Jarvie 1973; Mauss 1972). The shift in attention from the putative logic of magic, as opposed to the logic of religious discourse, to the performative or pragmatic context in which cultural variants are transmitted, retained, or extinguished, breaks down this bias. Rather than assuming a false dichotomy between magic and true religion, dual-inheritance theory starts with the common mechanisms, both genetic and cultural, that allow humans to entertain magicoreligious beliefs and behaviors and seeks to explain their differential success in spreading through cultural systems.

We saw a relatively simple example of this with witchcraft, or, more accurately, witchcraft persecution. Other examples might be added. How does prestige-bias affect the performative context in oral traditions? Even more interesting, how does it shape the success or failure of oral performances in literate settings? Are there situations in which oral performance countermands official, literate doctrines despite chastisements and disincentives simply because the oratorical skills of an admired speaker override such commands? Another example might be to study the role of texts in religious transmission. I have stated that I think there is a Protestant assumption, largely untested in Religious Studies, that states: If one wants to know the real teachings of a religious tradition, go to its official texts. But this assumption seems to me to be false even in textual traditions. Texts

often function as icons or fetishes in literate traditions where familiarity with the content is low, or the content of the text is very poorly understood or systematically distorted. Yet practitioners of the tradition remain extremely loyal to the text as icon even as they engage in behaviors for which there is little or no warrant in the text. Literate specialists often denounce the theological illiteracy of the laity, launch campaigns against it, and engage in self-referential soul-searching when targeted goals for literacy are not reached.

This is a classic example where cultural selectionism can offer tremendous aid. First, it will raise questions about the privileging of theological literacy. Second, it will identify the mechanisms that condition human attentiveness to text, religious specialist, ritual forms, and the like. Third, it can propose scenarios in which various mechanisms are operative or effectively sequestered. Fourth, it can show the consequences of these changes using computer models to map the potential design space of a targeted text under various contextual factors and in the presence of universal constraints. Fifth, it can suggest empirical and quantitative investigations to test for the relative selective force of potential operative mechanisms. These may prove to be various forms of cultural biases, evolved psychological mechanisms, underlying neuronal organizations, or more general genetic predispositions. Whatever the results, the approach promises to offer evidence and repeatable experimental protocols and, hence, genuine progress in explaining how people *are* religious rather than assuming how people ought to be religious.

Returning now from examples of applications to Richerson and Boyd's theory, I want to briefly consider the theory's reception. I have selected one review in particular because it illustrates important points for situating the theory in a larger disciplinary field and allows me to underscore some additional considerations of the theory itself. (I suggest that the motivated reader also consider other reviews I consulted in the preparation of this essay: Brown 2006; Graber 2006; Pysiäinen 2006.) Anthropologist Agustín Fuentes, who reviewed the book for the journal *American Anthropologist*, suggests "any anthropologists worth their salt should agree that evolutionary perspectives are important to understanding humanity and that culture does change over time." But he goes on to argue that the models Richerson and Boyd employ are too simplistic relying on relatively "uncomplicated notions of what evolution and culture are" (Fuentes 2006, 547). He suggests that developmental systems theory, developmental plasticity, and niche construction arguments add levels of complexity beyond natural selection scenarios and that these processes are not considered in Richerson and Boyd's linear models.

It is not clear whether Fuentes means by these comments that Richerson and Boyd cannot accommodate these additional layers of analysis or whether it is simply a problem that they do not. On either reading, I believe

Richerson and Boyd have responses. On the former, the idea that they cannot accommodate these additional levels of analysis, such a claim strikes me as odd, even absurd. Developmental systems theory suggests that normal human development generates novel configurations of gene-culture interactions. It is hard to see how Richerson and Boyd would deny this basic feature of human behavioral complexity or why they would be motivated to exclude it. Rather, the focus of Richerson and Boyd is on population-level distributions of cultural variants and necessarily assumes more complex developmental issues at the individual level. It is a question of the grain of analysis, a point Fuentes completely ignores. Likewise, developmental plasticity refers to the capacity for novel response strategies as a result of information gleaned from environmental conditions and not specified in genes. Again, Richerson and Boyd are not exploring the origins of novelty or the levels of plasticity in behavioral repertoires, nor is there anything in dual-inheritance theory that suggests they cannot engage this additional set of considerations productively. Finally, niche construction references the feedback systems that are generated by behavioral impacts on the environment. Here, Fuentes is simply wrong. Richerson and Boyd specifically draw upon F. J. Odling-Smee, Fuentes's chief example, when they comment, "Other organisms are also active in their own evolution through 'niche construction'; culture is just a particularly efficient mechanism for doing so" (p. 282). Another example is this: "Another way to think about gene-culture coevolution is in terms of 'niche construction' (p. 276). So any fair reading of the book, and a charitable reading of Fuentes's response, would conclude that it is not that Richerson and Boyd cannot accommodate these complexities but that they simply do not. An interesting question is why that is the case.

I suggest that the answer lies in the book's audience and aspirations. The target audience is not evolutionary theorists or anthropologists already convinced of the productivity of dual-inheritance theory but natural scientists such as many behavioral geneticists who do not, or will not, engage the consideration that cultural forces explain human behavior and genetic evolution—that is, they utterly reject a coevolutionary analysis. Similarly, on the other end of the spectrum, a very large audience of cultural anthropologists inhabits a theoretical position (often dubbed the standard social-science model) that divorces culture from genetic explanations. Richerson and Boyd want to reach both of these potential constituencies rather than the specialists who, in Fuentes's words, "agree that evolutionary perspectives are important to understanding humanity and that culture does change over time." But I think the more compelling argument lies in what *Not by Genes Alone* aspires to accomplish, namely, lay a foundation for scientific investigations of culture and, as an indirect consequence, a science of religion.

Richerson and Boyd conclude their book with a modified version of Theodosius Dobzhansky's well-known dictum: Nothing about Culture

Makes Sense Except in the Light of Evolution (p. 237). Their most important argument is that cultural analysis can hope to progress only if it avails itself of the tools of evolutionary theory. Human cultural productivity cannot be adequately explained unless it is situated within the ultimate explanation of evolution. Embedded in evolutionary explanations, we can begin to both explain the continuity of human behavior against the backdrop of nonhuman behavior and explore the reasons for the peculiarity of the extreme human prosociality that is the pathway of all cultural inheritance. They conclude that "selection directly on genes is unlikely to produce such predispositions," so the alternative is that "cultural evolutionary processes constructed a social environment that caused individual natural selection to favor empathetic altruism" (p. 238). Even if this conclusion proves to be too coarse or, much less likely, ungrounded, they argue that the claim's virtue, as it derives from dual-inheritance theory, is that it produces new sets of questions that are empirically tractable. From a scientific point of view, the ultimate outcome of a theory is far less significant than its capacity to generate a novel and well-developed research agenda. This value cannot be underestimated in the larger picture of the development of a science of culture (and religion).

Throughout the book, Richerson and Boyd are hindered in the prosecution of their case by a relative dearth of useful studies. They write:

Our knowledge of the basic patterns of cultural variation is grossly incomplete, and understanding patterns is often the key to understanding the process. While we have argued that many patterns of variation in human behavior are inconsistent with genetic and environmental explanations and quite consistent with cultural ones, high-quality, systematic studies are very few. (p. 251)

Their diagnosis is not that ethnographic data do not exist. On the contrary, anthropologists are awash in lengthy treatments of many cultural systems both historical and contemporary. Rather, the issue is the nature of the ethnographic data collected to date. Specifically, the development of anthropology during the twentieth century tended to result in highly detailed qualitative descriptions of cultures around the world, but very little of it offered quantitative detail. If a science of culture is to be undertaken, far greater precision in the mathematics of cultural variation is required, approaching in fact the same level of sophistication now exercised by evolutionary biologists when they model gene frequencies in populations. One recent three-year program funded by the European Commission under the heading "Explaining Religion," and led by Oxford anthropologist Harvey Whitehouse, aspires to make progress in this regard by systematically coding cultural variants in the ethnographic data gathered in such comprehensive catalogues as the Human Relations Area Files (HRAF) (<http://www.yale.edu/hraf/>). Only this kind of data can then become the basis for modeling cultural variation and the exploration of the cultural and genetic

mechanisms of cultural transmission. And this is the principal, and quite praiseworthy, aspiration of the book.

Here we also see what I regard as the most important reason to look with some degree of suspicion on the arguments of anthropologists such as Fuentes. In the words of Richerson and Boyd, “The gold-standard study of organic evolution is one in which the investigator estimates the strength of natural selection and other forces in an evolving population. In the case of culture, such studies are still very few” (p. 252). To achieve this degree of explanatory rigor, the investigator has to be very careful to determine at what level of explanation he or she is looking and, therefore, what mechanisms are most likely to be at play. Further, once the level of analysis has been fixed, a far more demanding requirement is to isolate the causal force of the factor being investigated while controlling for all of the others. One reason to look with some degree of skepticism upon Fuentes’s charge that Richerson and Boyd are not complicated enough is that it requires a potential science of culture, and religion, to run before it even begins to walk. It is highly unlikely that intelligible outcomes would result from modeling gene-culture coevolution scenarios if the investigator tried to include every conceivable force in operation. Thus, charges of a lack of sophistication directed at Richerson and Boyd may be an underhanded way to set the complexity level of analysis so high as to doom the agenda before it starts. As Richerson and Boyd explain:

In order to actually make progress with theoretical or empirical work, you have to be willing to simplify, simplify, and then simplify some more. The Darwinian tradition encourages us to modularize problems and deal with highly simplified bits of nature one at a time. We are fond of simple models that are deliberate caricatures of the real world. We are also fond of abstract experiments that admit only a tiny bit of realism. We are fond of field data that clearly show the effects of one process and hate data where several processes interact to produce an unintelligible mishmash. (p. 98)

To be sure, gene-culture coevolution processes are extremely complex, and a realistic simulation of these processes is beyond the reach of even the most sophisticated modeling procedures. But realism in modeling transmission patterns is not the point. Rather, it is the artificial isolation of a controlled experiment such that the causal mechanisms of behavior are elucidated one at a time or in limited conjunction. In a 2007 conference on the evolution of religion, papers from which were published as *The Evolution of Religion* (Bulbulia, Sosis, Harris, et al. 2008), multiple evolutionary scenarios were proposed and their virtues and weaknesses debated. Likewise, the issue of whether we ought to think of religion as an adaptation, a maladaptation, an exaptation, or a true spandrel was subjected to many permutations with not a lot of agreement. What was nice to see was Richerson’s contribution to the discussion. His paper was titled “Is Religion Adaptive? Yes, No, Neutral, but Mostly, We Don’t Know” (Richerson 2008, 73–78). The article concludes:

In face of biological and cultural complexity and diversity, phenomena like religion are unlikely to support sweeping generalizations about adaptation versus maladaptation. Theory tells us that many things are possible and the empirical cases seem to agree. Any generalizations will have to be based upon careful empirical work. The basic task is to total up the various costs and benefits that accrue to religious variants at all relevant levels of organization. This project has barely begun in any domain of culture. (p. 78)

The clarion call of solid science is always painstaking and convergent evidentiary trails with no more generalization than the substance of the evidence warrants. The academic study of religion has for too long been driven either by normative assumptions that bias the data for the investigator or by speculation premised on single cases often not grounded in actual fieldwork or, still more troubling, by despair over the validity of explanations and the ultimate abandonment of any explanatory effort. How refreshing, then, to read accounts that treat religion as something deserving of explanation and are optimistic about the genuine progress that can be made yet careful and methodical about what can and cannot be said given the state of our knowledge. Understanding these aspirations, and their attendant standards for inquiry, in the context of the relative disarray in the anthropology of religion and in Religious Studies programs helps the reader appreciate the contribution of *Not by Genes Alone* to the field.

So how might these tools be deployed to advance the academic study of religion in the future? First on my list of desirable applications is the development of systematic accounting regimens for the difficult, painstaking, and often tedious job of quantification. In many respects this is the task that the nascent Cognitive Science of Religion is undertaking with regard to existing bodies of ethnographic data. The aforementioned Explaining Religion project is in the process of coding and quantifying vast bodies of cross-cultural data looking for recurrent patterns of cultural variants. From these data, the aspiration is to identify the most important cognitive mechanisms that seem to be implicated in the generation of durable and universal features of religious cognition and behavior. Understanding the mechanisms of universal religious traits based on the empirical evidence also will allow the isolation of cultural variation and begin the difficult identification of forces that trigger variation. Perhaps most ambitious of all is the translation of these empirical results into functional models and computer simulations of religious cognition and behavior for the prediction of novel behaviors under specified conditions. By prediction, of course, the project does not mean prediction of the caliber of natural phenomena but rather prediction in the sense of the social sciences—statistical likelihood, trends and tendencies. Pie-in-the-sky? asks the natural scientist. A new age of reductionism? asks the humanist. I think it is neither, of course, for efforts are already underway, and they are no more reductionistic than any of the putative phenomenological explanations offered for the last fifty years.

To be sure, this first step, as ambitious as it is, still only scratches the surface of the larger agenda. Bigger tasks entail efforts such as neuroscientific levels of explanation, including but not limited to better understandings of neuroplasticity and modularity, better appreciation of the top-down effects of niche construction and its impact on specific human behaviors, Fuentes's developmental scenarios of cognition in context of age-specific cues, and new fields such as so-called distributed cognition studies. To my understanding, the academic study of religion faces tantalizing and wonderful opportunities on this new horizon of scientific investigation of religion. Despite recent atheist appropriations of the discourse of the science of religion, such as Richard Dawkins's *The God Delusion* (2006) and Daniel Dennett's *Breaking the Spell* (2006), the science of religion is not a pursuit that generates hostility to religion, organized or otherwise. Dawkins and Dennett on one side of the discussion, and normative defenders of religion in the ranks of the AAR on the other, have their motivations for casting the discipline in these terms, but neither is correct. The science of religion is best conceived as a piecemeal effort, like any science, that seeks to elucidate the various mechanisms at play in the generation of a culturally resilient and recurrent feature of human life employing diverse empirical methodologies. It does not have a horse in the race, so to speak, in the debates between religion's defenders and its vocal critics. The science of religion does not investigate the ontological and epistemological status of religious claims as such, only the processes active in human behavior that enable and constrain religion. It is enough that people display and deploy religious concepts and engage in religious actions to stimulate the scientist's urge to understand this phenomenon.

SUMMARY

In this essay I have attempted to highlight the important contributions of Darwinian understandings of cultural selection, taking Richerson and Boyd's *Not by Genes Alone* as my chief example of the promise of this approach for the study of religion. To this end, I dedicated significant space to situating Darwinian approaches to the study of religion within the larger framework with which most scholars of religion are likely to be familiar. The science of religion has long been a neglected but recurrent feature on the academic landscape, present already at the birth of Religious Studies in the nineteenth century but sidelined by ecumenical Protestant assumptions for much of the twentieth century, even among those who regarded themselves as promulgating something akin to a scientific form of investigation. That approach has eventuated into a cultural ethos of empathic phenomenology and postmodern literary analysis with little accountability to the objective standards that characterize science. At the beginning of the twenty-first century, the newly resurgent desire for a true science of

religion offers a third alternative. Richerson and Boyd, among others, have been at work building the foundations for such a science, often at the margins of the academic study of religion as it is practiced in professional societies such as the AAR.

For those who have been dedicated to the American version of religion-and-science dialogue, the science of religion will seem to be something new, and hopefully something of great promise. The goal of a science of religion is not dialogue as such, of course, but rather the application of scientific principles and methodologies to the explanation of religion. As religion-and-science dialogue has evolved in the twentieth century in American institutions, the phenomenological model of bracketing in order to delimit explanatory aspirations offered by science has been widely embraced. It is perhaps easy to see why, because a science of religion is dominated by a one-way mode of analysis and does not wonder about how religion can elucidate science. It may be that scientists and religionists alike will be concerned about the reductionist tendencies of this approach. Yet reductionism is an inevitable dimension of any intellectual undertaking, be it couched in terms of understanding, description, or explanation. The question is not whether reductionism is necessary but what forms of reductionism are warranted given the data and what forms are not.

I remind the reader of Richerson's warning against hasty generalizations without empirical justification, a quality that any informed reader of Dawkins's and Dennett's recent books on theism can identify. The science of religion is not the same as the religion-and-science dialogue, but for the open-minded reader it can perhaps supply valuable tools. In this spirit, I commend Richerson and Boyd's *Not by Genes Alone* along with the many other resources cited in this essay.

REFERENCES

- Agassi, J., and I. C. Jarvie. 1973. "Magic and Rationality Again." *British Journal of Sociology* 24:236–45.
- Barkow, Jerome H., ed. 2006. *Missing the Revolution: Darwinism for Social Scientists*. Oxford: Oxford Univ. Press.
- Boyd, Robert, and Peter J. Richerson. 1988. *Culture and the Evolutionary Process*. Chicago: Univ. of Chicago Press.
- Brown, Gillian R. 2006. "Culture, Genes and Human Evolution: A Long-Awaited Account." *Ethology* 12 (10): 1038–39.
- Bulbulia, Joseph, Richard Sosis, Erica Harris, et al., eds. 2008. *The Evolution of Religion*. Santa Margarita, Calif.: The Collins Foundation Press.
- Cady, Linell E., and Delwin Brown, eds. 2002. *Religious Studies, Theology, and the University: Conflicting Maps, Changing Terrain*. Albany: SUNY Press.
- Crapanzano, Vincent. 1991. "The Postmodern Crisis: Discourse, Parody, Memory." *Cultural Anthropology* 6 (4): 431–46.
- Dawkins, Richard. 2006. *The God Delusion*. New York: Houghton Mifflin.
- Dennett, Daniel. 2006. *Breaking the Spell*. New York: Viking Adult.
- Ellwood, Robert S. 1994. *The Sixties Spiritual Awakening: American Religion Moving from Modern to Postmodern*. New Brunswick, N.J.: Rutgers Univ. Press.
- Fitzgerald, Timothy. 2000. *The Ideology of Religious Studies*. Oxford: Oxford Univ. Press.
- Fuentes, Agustin. 2006. "The Origin and Evolution of Cultures; *Not by Genes Alone: How Culture Transformed Human Evolution*." *American Anthropologist* 108 (3): 474–79.
- Geertz, Clifford. 1973. *The Interpretation of Cultures*. New York: Basic Books.
- . 1983. *Local Knowledge: Further Essays in Interpretive Anthropology*. New York: Basic Books.
- Graber, Robert Bates. 2006. "Book Reviews." *Journal of the Royal Anthropological Institute (N. S.)* 12 (2): 505–6.
- Jablonska, Eva, and Marion J. Lamb. 2005. *Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life*. Cambridge: MIT Press.
- Lawson, Thomas, and Robert McCauley. 1990. *Rethinking Religion: Connecting Cognition and Culture*. Cambridge: Cambridge Univ. Press.
- Mauss, Marcel. 1972. *A General Theory of Magic*. London: Routledge and Kegan Paul.
- McCutcheon, Russell T. 2001. *Critics Not Caretakers: Redescriving the Public Study of Religion*. Albany: SUNY Press.
- Mueller, Max. [1893] 2001. *Introduction to the Science of Religion*. Boston: Adamant Media.
- Pyysiäinen, Ilkka. 2006. "Memories: Religion and Cultural Transmission." *Anthropological Quarterly* 79 (2): 341–53.
- Richerson, Peter J. 2008. "Is Religion Adaptive? Yes, No, Neutral, but Mostly, We Don't Know." In *The Evolution of Religion*, ed. Joseph Bulbulia, Richard Sosis, Erica Harris, et al., 44–54. Santa Margarita, Calif.: The Collins Foundation Press.
- Richerson, Peter J., and Robert Boyd. 2005. *Not by Genes Alone: How Culture Transformed Human Evolution*. Chicago: Univ. of Chicago Press.
- Sidel, John Thayer. 2006. *Riots, Pogroms, Jihad: Religious Violence in Indonesia*. Ithaca, N.Y.: Cornell Univ. Press.
- Sperber, Dan. 1996. *Explaining Culture: A Naturalistic Approach*. Oxford: Blackwell.
- Sterelny, Kim. 2003. *Thought in a Hostile World*. Hoboken, N.J.: Wiley-Blackwell.
- Strauss, Claudia, and Naomi Quinn. 1997. *A Cognitive Theory of Cultural Meaning*. Cambridge: Cambridge Univ. Press.
- Troeltsch, Ernst. [1903] 1977. *Writings on Theology and Religion*. Ed. Robert Morgan and Michael Pyc. Atlanta: John Knox.
- Wiebe, Donald. 1999. *The Politics of Religious Studies*. New York: St. Martin's.