

CHAPTER ONE

Science and Culture

What does “understanding religion” mean? This has to be an underlying question from the beginning, as the introduction of this volume pointed out and it remains a contested issue throughout the inquiry. If the inquiry can be said properly to end, the question can be rephrased to ask what the understanding of religion has turned out to be. The discussion here will be to start with the proposal popular among evolutionary biologists and cognitive scientists interested in religion that understanding religion means to “explain” it in terms of some more primitive concepts from which it is derived.

I. COGNITIVE SCIENCE WITH EVOLUTIONARY BIOLOGY

Biological evolution concerns the ways in which traits carried in human DNA that favor the reproductive capacity of those who carry them get passed on with greater prevalence than traits with less favorable reproductive capacities. Part of the complexity in this idea has to do with the different senses in which individuals and populations carry the adaptive traits. A population might carry a suite of traits that does not favor the reproduction of all individuals but that, when mixed with other suites of traits in the population, gives adaptive advantage to the reproductive capacities of the entire population.¹ The suites of traits, for instance, that typically are expressed in homosexual impulses and behavior, and those expressed in sterile intersex anatomy, do not favor the reproductive capacity of those who bear them but must have some adaptive advantage for the population. Otherwise, they would not have been passed down so universally in so many animal groups, including humans. Apparently, situations exist with some steadiness in which the genetic palette of the population has greater adaptive force for reproduction if not all individuals in the group are breeders.

Some controversy exists over whether religion, or its early elements, is adaptive in the sense of biological evolution, or whether it is a side effect of something else—for instance, the development of language—that is adaptive for other reasons.² Such side effects are called exaptations or spandrels.³ The likelihood is very high, however, that the early roots of religion are indeed adaptive in the biological evolutionary sense. Consider two examples.

Anthropologists argue that ritual behavior is essential for the biological evolution of the human (*II, 13, i*).⁴ Ritual, of course, is present in a number of “higher” animals and in all cases serves the purposes of group solidarity either well or ill. Group solidarity is adaptive in the ancestral environment in which the disposition of human genes was worked out. Now, to be sure, ritual is not only religion: In the ancestral environment it was the government, the artistic output, and economic structure too. Confucians have known that learned ritual behavior reaches down into patterns of posture and meaningful eye contact up into language and imperial court rituals to celebrate the seasons.⁵ But the genetically adaptive disposition to ritual behavior continues in religion to the present day and has become distinct from many dimensions of government, the arts, economics, and other elements of social life. The specific cognitive elements in religious ritual today might make little adaptive difference to contemporary group solidarity compared with the simple cohesiveness of the war band and child-rearing cadre.

Patrick McNamara, a neuroscientist, argues that religious experience is biologically adaptive to human evolution in the following sense.⁶ By religious experiences he means psychological states that “decenter” the self; these include states produced by exercise and posture, by prayer and meditation, by drugs, music, and other mind-blowing activities. His hypothesis is that the self is ordinarily a dicey achievement of partial integrations of many cognitive, emotive, and physical factors, and that under ordinary circumstances the self is stuck with that achievement. Religious experiences decenter that stuck self and allow for a better integration that is more ideally rational, integrated, and capable of self-control. This characteristic of religious experiences contributed over time, he argues, to the evolution of higher executive control functions that are mediated mainly in the right prefrontal cortex and right anterior temporal lobe, precisely the neural organs mediating much of the kind of religious experience at stake. Although the evidence is sometimes indirect and speculative, McNamara not only shows that the evolution of executive control functions is aided by religious experiences but also describes some of the underlying neural mediation of that. Here is an instance of a universal religious practice—decentering religious experience—that is adaptive to the evolution of more rational, integrated people who therefore have an evolutionary advantage.

Some people who worry about religion as genetically evolutionary identify religion not with ritual or cultivated religious experience but with

beliefs, particularly beliefs in the supernatural, which they immediately classify as false beliefs and therefore lacking in direct adaptive value. Most cultures, at least in their early forms, do include beliefs in supernatural agents, particularly agents who “know what you are thinking.” But these beliefs are likely not to be adaptive for their intellectual religious content as much as for their advantage in imputing agency to external things in the face of uncertainty: Wildman’s example is the sound in the bush that might be a tiger or the wind; people genetically disposed to impute agency (It’s a Tiger!) will run away to pass on their genes another day.⁷ Children of wholly secular parents who have been taught nothing about religion still develop beliefs in supernatural omniscient agents until they are taught otherwise.

Cognitive science with evolutionary biology is a relative newcomer to the disciplined study of religion. Insightful attempts to understand religion in terms of its evolution in human nature and society are not new, however, notable milestones being Lucretius’s *De rerum natura*, David Hume’s *The Natural History of Religion*, and Friedrich Nietzsche’s *On the Genealogy of Morals*. What is new in recent decades is the attempt to study religion within the clearly reductive tools of evolutionary biology; the psychology in cognitive science is closely connected with biology. Biology includes neuroscience, both as it understands neural-mental human functions and as it understands the genetic evolution of these neural structures and functions. Evolution is understood in Darwinian and Neo-Darwinian senses having to do with the passing on of genes. This is to say, what is taken to “explain” religion, strictly speaking, is some human function that evolved as part of human nature because it was adaptive in the Paleolithic environment for the passing on of genes.⁸

The significance of this sense of understanding by reductive explanation needs to be noted (*I, 2, ii*). First, hardly any scientifically educated person for the last century or so has doubted that the cognitive and emotional aspects of religion are made possible by the evolution of the human brain that can perform them. The great promise of contemporary cognitive science, especially its neuroscientific strains, is that it is developing exact theories of what these religious brain functions are and how they evolved. Some of these new explanatory concepts will be discussed shortly. Understanding how these mental/brain functions evolved and work helps to explain how religion is possible, insofar as religion employs them. Perhaps it even understands why religion is prompted by the development of these functions, why it is natural, although that is controversial.

But in no way does this particular kind of reductive explanation explain everything that is interesting to understand about religion. Pascal Boyer, one of the leaders in this field, takes pains to reject other senses of explaining or understanding religion because they do not appeal to evolved mental/brain modules; for instance, he rejects the understanding of religion as itself a mode of understanding or explaining things (he cites puzzling natural phenomena,

puzzling experiences such as dreams, the origin of things, and why there is evil and suffering).⁹ But this is bizarre! Of course, religion has attempted to understand things like these, and it would be remiss not to study how this has been and is so now. He rejects the explanation of religion as providing comfort, “making mortality less unbearable” and alleviating anxiety; but, of course, religion has done this, and it is important to understand this aspect of religion. He discards the explanation of religion as providing social order, an approach dear to sociologists of religion, accounting for religion’s contribution to holding society together, “perpetuating a particular social order,” and supporting morality. But, of course, religion has done this, and it is bizarre not to appreciate this line of interpretation. He rejects the skeptical approach that explains religion as a cognitive illusion based on superstition, the employment of irrefutable beliefs, and the greater ease of believing than refuting beliefs. But, of course, religions have superstitions of many kinds and often have attempted to make their beliefs invulnerable to refutation. This, too, is important to understand about religion. He does not even consider the interpretation of religion in terms of its meanings, the meanings of its symbols in culture and the arts, its presence in music, the bearing of religion on other aspects of life, and other lines of interpretation practiced in the humanistic disciplines. Why is it even intelligent for him to disregard these various ways of understanding aspects of religion that have been practiced by accomplished scholars for ages?

His motive is that these approaches other than his own “all fail to tell us why we have religion and why it is the way it is.” This, too, is bizarre, since in various senses we have religion because it explains some things, provides comfort, provides social order, and in some respects is the result of certain cognitive illusions. These approaches do answer certain important questions about why we have religion and why it is the way it is. But they do not answer the question in the only sense in which Boyer and many of his colleagues understand explanation, namely, that given the evolved mental/neural structures, religion necessarily follows. The model of explanation in his kind of scientific reductionism is the “forward causation” approach: If *a*, then *b*. If the right mental/neural modules evolve, religion is the necessary result. To be sure, this is an important sense of explanation if, in fact, it can be developed plausibly in detail. If we are to understand religion, we need to know what mental/neural capacities are required for it and how they evolved. But would it be a vast mistake to take interest also in other approaches to explanation that reveal other important aspects of religion?

A second significant point about the cognitive science approach to understanding religion is that it scrupulously avoids any responsible consideration of the reality of putative religious objects. Its account of evolution treats the natural environment as that which puts pressure on the adaptiveness of various mental/neural modules. This is consistent with a physicalist or materialist inventory of what is real. But it assumes without appropriate

argument that religious objects (which are usually characterized by cognitive scientists interested in religion as supernatural agents) are not real, calling them “counterfactuals.” What if part of the way religions come to be and are the way they are is that they have learned something about what is real? That surely is how most reflective religions understand themselves. Often this learning takes the form of rejecting false gods, inappropriate objects of devotion, and the like. As soon as human beings evolve semiotic systems complicated enough to think in terms of boundary conditions, they have symbolic tools for engaging those boundary conditions and they can learn something about which tools are inappropriate. This supposes that religions evolve for cultural reasons as well as for those of evolutionary biology, which they do, as any historian would say. But this point is difficult to register within the cognitive science approach when it is devoted to its own exclusive sense of explanation of religion.

A third significant point about that sense of explanation has to do with its definition or delineation of religion as the phenomenon to be explained. Boyer and Scott Atran, another leader in cognitive science, are anthropologists who are vastly learned in cross-cultural religious phenomena, as is Justin Barrett, a psychologist. But, strangely, they define religion as belief in supernatural agents, noting the cultural ubiquity of those beliefs. Why define religion as belief in supernatural agents, or rather, as they really do, define belief in supernatural agents as religion?¹⁰ Belief in supernatural agents is a belief about what the universe contains, along with strategies, where appropriate, for relating to those alleged supernatural agents. As such, that belief is science, albeit folk science. Why associate it with religion? Western monotheisms, the home cultures for most of the cognitive scientists, do indeed symbolize the principal religious object, the ultimate, in personalistic metaphors ascribing supernatural agency in some sense or at least in certain parts of their symbolic systems.¹¹ On the other hand, the Western monotheisms also have conceptions of God as far transcendent of anything that might be called a supernatural agent, for instance, the Neo-Platonic One, the Thomistic Act of To Be, the Kabbalistic Ein Sof, and the Tillichian Ground of Being. At the very best, the identification of religion with belief in supernatural agents can apply only to symbols toward the folk religion end of the folk religion–sophistication continuum of worldview symbols (*I, 4*). Outside of the Western monotheisms plus some forms of Hinduism, most forms of Buddhism, Hinduism, Confucianism, and Daoism explicitly reject any ultimate status for supernatural agents of any sort. The metaphoric systems of consciousness and spontaneous emergence for ultimacy give little if any religious play to supernaturalism. Emptiness, Brahman, Heaven and Earth, the Dao, and their variants are not supernatural agents. In fact, in many of the cultures in which these religions are embedded, agents of any sort, supernatural or natural, are subject to the round of reincarnation and the law of Karma. These East and South Asian religious cultures have had robust beliefs in supernatural agents of many sorts, good and bad, and

in the transformation of living people through death into honorific ancestor status. But these supernatural beings were not conceived to be ultimate: Rather they were conceived as also subject to the boundary conditions of ultimacy defined in non-agential ways.¹² Again, belief in supernatural agents might well be a universal cross-cultural phenomenon, but that in itself is a scientific (perhaps folk-scientific) factor, not necessarily related to religion. It is related to religion only if ultimacy is ascribed to supernatural agents, that is, if they are taken to be boundary conditions.

This illustrates the point made in the introduction to this volume and in *Philosophical Theology One*, introduction, that a defensible definition of religion is needed to orient and legitimate reductionist studies of religion. The cognitive scientists and evolutionary biologists interested in explaining religion really are aiming to explain its origin. But they do not have good control over what it is whose origins they attempt to explain. Their ideas of religion come from their own commonsense understanding of religion in their own culture, not from a disciplined analysis of the round of their religious situation.

Another way of putting this point is that the discussion of the origins and nature of religion within evolutionary biology and cognitive science has not internalized the lessons of Michel Foucault and the postmodern, post-structural, postcolonial, feminist, and queer theories that have been inspired by Foucault's understanding of the social construction of categories. One does not have to agree with those postmodernists who say that every category is a social construction and that there are no natural kinds in order to accept the lesson that one should look for the historical embeddedness of categories in both science and religion that gives rise to bias and distortion. The critical discussions of the category of "religion" as such make it irresponsible to assume any commonsense notion of religion with naiveté, as so often happens in the scientific discussions. Therefore, the failure to understand in a subtle way what religion is when explaining its origins is a serious matter.

The seriousness has to do with a misunderstanding of legitimate reductionism in science. Scientific reductionism is legitimate when it is clear that it is talking only about those elements in the subject matter that are amenable to analysis in the terms of its theories, instruments, and traditions of inquiry, and that it is not talking about the subject matter in any sense that is not so amenable. Moreover, scientific reductionism is legitimate only when it is clear that even those aspects of the subject matter that are amenable to its particular inquiry might be distorted when abstracted from the rest. Clarity about this second point requires the scientific inquiry to have a subtle grasp of the whole of the subject matter in order to understand the force of the abstractions in its inquiry. For this subtle grasp, the science needs to collaborate with the humanistic disciplines whose very heart is the protection of the whole of the subject matter from abstractive distortion. The correct force of the postmodern critique of science as well as older forms of humanistic study is the protection of the marginalized and obscured elements. Postmod-

ernism is so extreme in its attempt to delegitimize any abstractions that it undermines its own work in the eyes of many scientists. Nevertheless, it is a fault of the sciences of religion not to look to the humanistic discussions of the contours of religion, the difficulties of defining it, the history of the categories of analysis, and all the other arrows in the postmodern quiver, to gain a sense of the limits of their own reductionisms. The cultural dissociation of the sciences and humanities is definitely not a good thing for the sciences of religion.

By defining religion in terms of the symbolic engagement of ultimacy, we can gain traction on understanding religion as a contemporary phenomenon. Sophisticated Hindus, Buddhists, Daoists, and Confucians, as well as sophisticated Jews, Christians, and Muslims, can reject much if not all of the supernatural imagery associated with past cultural contexts for their traditions while still affirming those traditions. The traditions need to be interpreted so as to contain plausible transcendent symbols of ultimacy and plausible intimate symbols as well, and the latter might not include supernatural agents to whom existence is ascribed. Rather, “belief” in supernatural agents might well be an interpretive symbolic engagement whose reference is indexical, not iconic.

A fourth significant point about the paradigm of explanation in cognitive science of religion is that the distinction between the natural and supernatural is extremely problematic. For many if not most scientists in the field, the natural means what is material and can be measured by the tools and theories of biology and psychology. Barbara Herrnstein Smith has shown how confusing and question begging this is.¹³ Any conception of nature is relative to the science of its day. A first-century scientist in the Mediterranean countries would have believed that nature includes the stack of heavens above the earth and the hells beneath, each with its own proper physical properties, including angels and devils of various ranks; none of the angels or devils would be considered supernatural. For certain cognitive scientists to define religion in terms of belief in supernatural agents and to say that these are false beliefs, and then to explain religion as an interestingly false set of beliefs arising from evolved cognitive capacities, is entirely question begging. The reason usually given for the definition and for the claim that those beliefs are false is the citation of the authority of the presuppositions of cognitive science, not an appropriate study of what is going on with alleged supernatural agents.

Given these critical observations about the significance of the particular reductive sense of explanation in these cognitive scientists of religion, it is important to return to their positive contribution, namely, the research program to determine how the mental/neural system evolved that makes religion possible. They should not be looked to for helpful definitions of religion.¹⁴ Nevertheless, their studies might well open up new aspects of religion not noticed otherwise.

The most important new aspect, new at least in the contemporary situation, is that to the extent that cognitive science of religion can explain

how mental/neural structures evolve that make religion possible and play roles in religious life, it locates religion as a more or less universal phenomenon. Religion in its mental/neural substrates underlies religions that employ them in their diversely symbolized cultural ways.

The current status of the research program of those cognitive scientists of religion whom Barbara Herrnstein Smith calls the “New Naturalists” is at a highly speculative stage. She points out that they model mental/neural activity on the analogy of computer functions and postulate “modules” of behavior that evolve for specific functions in the evolutionary environment. These modules, say for recognizing agents, connect with others that bring a train of inferences about agents, which connect with others that make agents fearsome or welcome in the environment. The modular approach to modeling mental/neural activities has limited usefulness. What is needed is a model that can describe semiotic activity, which is interpretive of things in terms of purposes and intentions. The computer model is “forward causation” exclusively, whereas semiotic causation is a much more complicated, teleologically involved, causal process, which Dewey called a “reflex arc.” There is good hope that cognitive neuroscience can move from the reductionism of computer modeling of modules to the more expansive reductionism of semiotic modeling of interpretive symbolic engagements. Nathaniel Barrett, for instance, proposes an “interactive model” that rejects the computer analogy in favor of a strategy of embodied cognition.¹⁵

Not all cognitive scientists are preoccupied with explaining religion as belief in supernatural beings with computer models of mental/neural modules. Neuroscientists such as Patrick McNamara, for instance, study certain kinds of religious experience, the cultivation of ecstatic or transcendent states, to see how they contribute to the evolution of the modern brain. His research suggests that at least this kind of religious practice contributed to the evolution of higher executive control functions in the prefrontal cortex.¹⁶ In this sense, religion is not “explained” by evolution but helps to explain human mental/neural evolution itself. His finding is an extremely interesting thing to know about this kind of religious experience, even if it does not “explain” the experience.

Related to the cognitive science and evolutionary approach is a neuroscientific concern with religious experience. It does not attempt to explain religion but rather the neural basis of certain kinds of religious experience. Its most important spokesman now is Andrew B. Newberg with his *Principles of Neurotheology*. The “principles” that he lays out, unfortunately, illustrate the failure of the discussions of which he is a part to internalize with much precision the historicist lessons that are so important to humanistic ways of thinking. Wesley J. Wildman examines religious experience in a much broader sense, relating the neurological to other scientific approaches in his *Religious and Spiritual Experiences*.

Extraordinarily delicate questions arise about the differences between

biological evolution understood scrupulously in terms of fitness for passing on genes and the evolution of human nature and religion that comes from learning. These questions will be raised in various sections to follow in this chapter and the next.

II. SOCIAL SCIENCE AND PHENOMENOLOGICAL UNDERSTANDINGS OF RELIGION

The study of religion in American universities has come to be dominated by the social sciences, perhaps mainly because they can claim that their scientific objectivity fits a university setting better than theological approaches that include discussions of first-order religious issues. *Philosophical Theology* argues that theological discussions of first-order religious issues are entirely appropriate for the academic study of religion if they make themselves vulnerable to correction. In fact those discussions are necessary if proper academic attention is to be paid to religiously important first-order issues. To leave out the theological discussions is to leave out very basic elements of the topic of religion. Nevertheless, not all approaches to the study of religion need to be theological, and the social sciences have contributed enormously in their own ways. This section comments on what can be learned from them, although it is by no means a comprehensive commentary.

The social sciences studying religion can be named, in an old-fashioned way, by their departments: anthropology, sociology, psychology, and in rare cases political science and economics.¹⁷ In the study of religion, philology in the sense of the editing, contextualization, and interpretation of texts is developed as a social science as much as it is as a literary study. This way of naming is old-fashioned because so much real research and teaching are carried out across disciplinary lines.¹⁸ Important things are to be learned, however, from the developments of these disciplines and their interactions.

The nineteenth- and early twentieth-century origins of the social sciences were much influenced by the interests of the positive sciences in objectivity. As such, they were reductive in form, as discussed in the previous section in connection with cognitive science. When clear about their reductionism, they were careful to say that what they were explaining is religion, or some religious phenomenon, only insofar as it registers in their theories and methodologies. Much was learned about religion as part of culture and as contributing to social stability, or instability (e.g., Durkheim). Similarly, the various approaches to psychology (e.g., James, Freud, Jung) differed radically among themselves and lifted up important aspects of religion that were explained according to the disciplines involved. Some psychological approaches treat religion as a coping mechanism, in which capacity it might or might not be delusional. Others focus on religious experience, which also might or might not be regarded as delusional.¹⁹ All the limits to reductionism discussed in Section I apply to the reductive social sciences, raising questions about what is left out in the reduction and how the results of the sciences need to be

amended when what is left out is brought back in. In particular, all the social sciences left out disciplined consideration of the first-order theological questions, often with the presumption deriving from their theories and methods, even more from their own scientific cultures, that the first-order questions have no real reference (*I, 2*). Sometimes they had strong views about some of the first-order questions but did not subject them to disciplined analysis.

The various forces feeding into the development of postmodernism, however, had their critical influences on those disciplines as they developed. In particular was a critique of “essentialism,” to use the pejorative term. For instance, can anthropologists impose a uniform notion of culture on all the societies they study? Or should the nature of culture be an empirical question? Perhaps culture means different things in different cultures. More particularly, is the anthropological goal of describing “the culture” of a given society, as in a thick description, a proper one? Or does it distort by highlighting common elements in a society while obscuring divergences and margins? Does it distort the actual situation by suggesting that individuals are more defined by a dominant culture than they really are, given the many ways people relate to cultures?²⁰

Questions such as these have been pressed with particular force by the liberationist intellectual movements, especially ethnic and minority studies, feminism, queer theory regarding gender identities, and postcolonial studies. By paying attention to those who are marginalized in a society, and by calling attention to the plays of power within those societies that cause the marginalization, these liberationist movements have called into question the steadiness of the theoretical and methodological tools of the classic social sciences. Just as queer theorists queer (to use the verb form) the distinctions between genders and gender roles, so many of the liberation movements queer the theoretical categories as well as the methodological practices for gathering evidence, assessing it, and employing it to explain the religious phenomena.²¹

Although postmodernism has not entirely carried the field in challenging essentialism, to the extent it has, it has turned the whole goal of obtaining objectivity into an undesirable orientation. The very grounds for claiming scientific objectivity in the first place is that the social science disciplines have clear (“essential”) theoretical categories and methods of analysis. The “object” they study is a methodological construct of the phenomenon reduced to what can be formulated in the disciplines’ theoretical terms and is accessible through its methods of empirical analysis. The defense against vicious reductionism is always to say that the disciplines do not study the phenomenon in itself and do not say anything about it; they study only the phenomenon as reduced to their disciplinary structure.²² Of course, this has not been how the social sciences have been viewed by outsiders, who see them as studying real religious cultures, social influences, psychological effects and manifestations, and so forth. Sometimes philosophers try to say what is left out in the reduction and what the consequences are of integrating the

social scientific results with what had been left out. By and large, however, the social sciences have been viewed by their insiders as well as by outsiders as studying their subject matters without much reduction. Just that far, then, they cannot lay claim to objectivity. The result of the postmodern critiques of essentialism is decisive on this score: If the categories and methods of the social sciences, and their own cultures of scholarship and argument-making, are problematic, then the phenomena cannot be reduced to them. The subject matter cannot be turned into an “object” about which the sciences can have objectivity. Postmodernists view the modernist social sciences as distortions that implicitly carry over the power structures of their intellectual social and political arrangements.

The postmodern critique of the social sciences, like its critique of the natural sciences, often carries an animus that goes beyond the intellectual critique of obscured reductionism. Many postmodern thinkers speak for people who have been brutalized by the sciences in the nineteenth and twentieth centuries. Distinguished scientists such as Harvard’s Louis Agassiz in the nineteenth century, for instance, certified the “racial inferiority” of non-white peoples.²³ Science in the age of European colonialism objectified the colonized cultures as inferior and the peoples as in need of Europeanizing. Medical science thought it was making a humanitarian scientific advance by proving that homosexuals are diseased rather than morally “disordered” (the latter remains the position today of the Roman Catholic Church).²⁴ Medical “treatments” of homosexuality as a disease included electroshock and other brutal forms of aversion therapy as well as psychosurgery.²⁵ The empirical studies that made the disease model of homosexuality implausible were done in 1956, and yet the American Psychological Association did not declassify homosexuality as a disease until the early 1970s; even then the declassification debate was regarded by both sides as more political than “scientific.”²⁶ From the perspectives of these different groups who have been “objectified” by the sciences, all of the claims for objectivity are tarnished by political values and interests that are hurtful to them but hidden behind the ideology of objectivity. So, these groups and their postmodern spokespersons view the sciences with a strong dose of suspicion and skepticism, even when they acknowledge that in certain instances the sciences are self-correcting. Identifying with those who are scientifically “objectified,” the hostility, or at least allergy, of many postmodernists to the sciences is understandable and legitimate to a certain extent.

In the name of the marginalized and objectified, postmodernists launch a countermovement to change the power structures, giving up claims to objectivity in favor of staying closer to the truth. The postmodern emphasis on studying very local communities and discourses through learning to read their narratives is an attempt to stay closer to the truth by letting the analytical categories emerge from interactions between the scientist and the subjects. The cultures, social structures (especially power structures), and the psychological

and historical characteristics of the local subjects—often those marginalized by the “essentialist” categories that reflect and reinforce the larger social power structures—are clarified and brought to voice in the close interaction. The results of these micro-studies in principle are difficult to generalize beyond the local populations studied (although generalizations are often made!). But such postmodern studies are attempts to achieve a greater realism by sweeping the artificially imposed essentialist categories out of the way. Much of postmodernism is a self-conscious philosophical nominalism, arguing that no overarching universal categories can be legitimate. But it need not be nominalistic. It needs only to say that the essential categories and methods should not be used to reduce phenomena to the questions and terms imposed by the scientists. Perhaps in empirical fact there are some universal categories.

Postmodern approaches, however, agree with the reductive social sciences in bracketing out first-order questions of theological interest. If a social group experiences the world as filled with spirits and supernatural agents, that experience should be understood on its own terms without asking what would be represented as an outsider’s question, namely, whether there are any such things. Whereas cognitive scientists such as Boyer, Dennett, and Dawkins (to the extent he belongs to the group) would hold beliefs in spirits and supernatural beings in mild to harsh derision, because they conflict with the more objectively sound scientific culture, most postmodern anthropologists, sociologists, and students of psychology would say that it is fine to hold those beliefs if that is your richly textured experience.

Another approach to the study of religion is that of phenomenology, and it has done far more than the social sciences to provide a common fund of understanding about religion in the Western world. Associated most prominently with Mircea Eliade, but with massive earlier contributions from Edward Burnett Tylor, James George Frazer, Rudolf Otto, and Gerardus van der Leeuw, phenomenology had its roots in the Cartesian philosophy of consciousness, German idealism (Kant, but most especially Fichte), and the great philosophical phenomenologist, Edmund Husserl.²⁷ Although the methodological definitions of phenomenology of religion are extremely complicated, it rejects the reductionist claims of other social sciences that involve the reconstruction of the phenomena into the disciplines’ categories. Instead, phenomenology of religion claims a kind of objectivity that comes from examining the phenomena on their own terms and laying that out descriptively. As Husserl insisted that philosophical phenomenology “bracket” out all judgments of whether the phenomenon had existence beyond its appearance in experience, or whether the terms have reference to experientially transcending realities as would be supposed by the “naturalist” posture, so phenomenology of religion brackets out first-order theological truth questions.²⁸ Its great advantage is that phenomenology of religion provides descriptions of enormous amounts of data, describing many, many religious practices and beliefs, in many contexts, and attempting to develop comparative categories inductively.

Of course, the standard criticism of phenomenology of religion is that, despite its inductive intent, it describes with biased categories. The great summary characterizations of religion and religions provided by Eliade have been appreciated as wonderful organizing principles for the masses of data he and others bring forward. But still they reflect his own theoretical interests. Indeed, Eliade is accused of being too theological!²⁹ Gavin Flood states the situation this way:

The most important paradigm in the academic study of religion has been phenomenology. Through the adoption of its method religious studies hoped to reach an objective, unbiased, empathetic understanding of religions that moved away from the traditional Christian attitude to other religions either as wrong, or as pale reflections of its truth. In this sense the phenomenology of religion offered a welcome antidote to theological dogmatism and opened the way for the West to encounter other horizons of possibility. But the objectivism of the phenomenological research program can be brought into question from the perspective of postmodern indeterminism, and an argument presented that the understanding and/or explanation of religion is always historically contingent; knowledge is always produced from a social base, though this base is rendered invisible by objectivist science.³⁰

What Flood calls “objectivism” is phenomenology’s attempt to let the phenomena appear as objects on their own terms. He rightly says, however, that even phenomenological description is biased by its social base, is historically contingent in its terms and methods, and is fallible (“postmodern indeterminism” is his phrase).

Flood’s own proposal is that religious studies embrace its historical contextuality and practice in what he calls (following Bakhtin and others) a dialogical research program. By “dialogical” he means an explicit interaction between the historically located self of the researcher and the subject matter, such that the outcome of the research is as much about the researcher as about the subject matter, at least with regard to the hermeneutical presuppositions. Thus, he aligns himself with the hermeneutical tradition of Gadamer and Ricoeur (especially the latter).

One very important point about the program of dialogical hermeneutics is the emphasis on language, texts, and practice as performance of narratives. Flood writes:

The critique of phenomenology means the recognition of the interactive nature of research, which firstly entails the recognition of the centrality of narrative in any research programme, and secondly that all research programmes are dialogical, constructed in interaction between self and the ‘data’ or subjects of research. The dialogical nature of research places

language, and particularly utterance, at the center of inquiry and provides the tools for the analysis of religious utterance. The dialogical nature of research entails that it is impossible to get behind language and its reference systems. The dialogical nature of research entails an ethic of practice which reflexively recognizes the contextual nature of research and its implicit values and is sensitive to the power relationship in any epistemology.³¹

Much in Flood's hermeneutical approach is consonant with the pragmatic theory developed in *Philosophical Theology*. Pragmatism is historicist in the sense of noting that all interpretations are contextual, with signs that are contextualized in the semiotic systems at hand. All knowledge is in the logical form of hypotheses that are fallible, or "indeterminate." Inquiry has as its moral ideal the making of itself vulnerable to correction, which includes the back-and-forth correction of the method and categories of analysis by the subject matter and the articulation of the subject matter by means of the questions of inquiry.

Nevertheless, hermeneutics for Flood and the traditional stream with which he identifies is caught by its model of interpretation. "The dialogical nature of research entails that it is impossible to get behind language and its reference systems." Interpretation is the interpretation of texts by other interpretations. By "reference systems" he does not mean the realities engaged interpretively but the texts—the language, utterances, practices—by which the realities are engaged. He does not mean that the texts refer to the things they seem to refer to, but that texts refer to other texts that give them meaning. So, his hermeneutics, like reductive science and phenomenology, cannot deal with first-order theological issues. It limits itself to the extensional meanings of interpretation and does not recognize the intentional meanings. Real engagement involves intentional meanings (*I, 3, ii*).

Jason Blum, although not citing Flood in his recent article, "Retrieving Phenomenology of Religion as a Method for Religious Studies," agrees with him about the importance of dialogue with neighboring disciplines in the social (and perhaps cognitive) sciences.³² But he takes the greatest challenge to phenomenology to be the claim made by many phenomenologists, for instance, Eliade, that there is an "essence" to religion, for instance, the sacred. The postulation of such essences is arbitrary, and non-empirical, according to phenomenology's critics, and Blum accepts the criticism. Of course, essences are out of fashion these days precisely because of their perceived arbitrariness. But what is it that makes religion irreducible to its social aspects, for instance, or its psychological, cultural, evolutionary, and other aspects? Even if these disciplines were complementary and, together with other reductive explanatory theories, exhaust the most salient traits of religion, what unites them so that they are all about the same thing? To justify the study of religion and seek out these multiple explanatory models requires some integrating compo-

nents that exhibit how the various theoretical analyses fit together. These, of course, are “essential components” in the technical terms of *Philosophical Theology*. No essence of religion exists, of course, because the varying conditional components of religion—for instance, the social, psychological, cultural, and evolutionary ones—have important components outside religion, and those are just as necessary to religion as its essential components.

But the essential components, according to the hypothesis in *Philosophical Theology* (I, introduction, ii), are those that relate engagements of various things to ultimate realities, either in direct engagement or through the religious dimensions of various domains of life. The argument in *Philosophical Theology* is not that the essential components are phenomenologically given or perceived, but that engagement of ultimacy is the best heuristic hypothesis for defining religion because, among other things, it indicates just what is religious in social, psychological, cultural, and evolutionary approaches to understanding what has been called religion. Engaging ultimacy is a “natural kind,” because there are ultimate realities and ultimate dimensions of experience to be engaged, and a sophisticated culture in the long run can no more escape engaging ultimates than it can escape engaging the weather. The long-range empirical question is whether studying engagement of the ultimate with all its social, psychological, and other components is a useful way of getting at more or less unified human cognitive, existential, and practical activities people have come to call religion. *Philosophical Theology* bets it does.

Instead of needing an “essence,” Blum argues the phenomenology of religion both unifies itself and is able to relate in fruitful ways to other approaches to religion by focusing on the meanings of things in religious experience and consciousness. He agrees with the phenomenological tradition that the discipline should “bracket or enact an ‘epoche’” on the question of whether what is experienced in the way of religious objects is really real and concentrate instead on what those things mean in the experience of religious believers. This point hides a crucial ambiguity we have noted before. Does “experience” mean engaging the real objects, however those objects are interpreted or misinterpreted? Or does it mean merely the content of consciousness, so that the interpretation of “meaning” means interpreting only what is internal to consciousness? If the latter, then it makes sense to bracket out the real objects to which experiential signs refer. But if it means the former, then the attempt to bracket out the question of the religious objects is sophisticated obfuscation and distorts the intentionality of the experience itself. Of course, even interpreting the meaning of symbols within the experiential symbol system is needful and helpful, regardless of the fact that it is a truncated sense of experience.

The hypothesis elaborated throughout *Philosophical Theology* is that religion is the symbolic engagement of ultimacy as expressed in cognitive, social, and existential ways. Of course, there are no noninterpretive ways to get at ultimacy. But there are many ways of triangulating in on what given religious

interpretations are getting at. In particular, the metaphysical arguments defining ultimate reality provide a way for discerning how symbolic engagements interpret them in certain respects, with certain forms of reference, and with various elements of truth. Truth, as argued here, is the carryover of what is important in the subject matter into the interpreter in the respects defined by the symbolic engagement (*I, 2, 3*).

III. EVOLUTION AND SEMIOTICS

Reference has been made several times to the transition within human evolution to semiotic behavior, a point that needs to be explored in greater detail. If religion is symbolic engagement of ultimacy, nothing in human life is religious unless it is interpretive or meaningful. But this is not true only of religion. Thinking of any sort is interpretive. Attempts to explain religion, or to explain anything at all, are interpretive. Models of mind based on analogies with computers, with strictly “forward causation,” might have some utility in explaining some things. But they cannot explain the kind of thinking that goes into explanation, understanding, inquiry, and other forms of truth seeking. A judgment that is believed only as the end product of a mechanical set of calculations, and is explained by that mechanical set by analogy with a computer, cannot be believed to be true or false because it is not believed to be about anything. It has no intentionality. It is only the last thing a person is caused to say in a causal process of mental operations, a burp with syntax (for those with the intentionality to interpret syntax).³³

So, a crucial question for the study of the evolution of mental/neural structures is when and how the various sensory impingements on and within the human body are causally responded to with semiotic structures of causation as well as neurological ones. No one doubts that all mental responses have a neurological undercarriage. But the mental responses, insofar as they are intentional, are organized by causal connections of a semiotic sort. The semiotic causal connections are not possible without a sufficiently complex set of neural connections. They add a layer, or a great many layers, of causal connections on top of the neural ones, by means of organizing the neural connections, so that responses to the various sensory impingements are intentional.

Intentionality itself is by no means limited to human beings. A frog sits on a lily pad at the edge of a pond. An insect comes within its field of vision. The frog shoots out its sticky tongue, catches the insect, and dines. A mechanical description can be given of this incident, like the jerk of a patient’s leg when the doctor strikes the person’s knee with a rubber hammer. But a far more natural description is with a primitive form of intentionality: The frog is moved by the purpose of assuaging hunger to take up an habitual hunting position; the insect comes into view and is taken as a sign by means of an interpretation that consists of shooting out the tongue, catching, and eating. The mode of reference of the sign is mainly indexical, prompting an

interpretation that establishes a complex causal relation between the frog and the insect. Probably there is little iconic reference: The frog probably does not think, “I see something that looks like dinner—let me taste to make sure.” But consider a fox, similarly hungry and in a hunting mode, who sees a rabbit by the pond downwind; the fox thinks, “That looks like a good dinner, but the rabbit will bolt before I get close enough, unless I can get downwind of the rabbit.” So the fox sneaks around to approach from the other direction, catches the rabbit, and dines. The fox takes the complicated sensory field as a sign that refers iconically to the position of the rabbit relative to the wind, rotates the sensory image of the rabbit so as to imagine sneaking up behind, and does so. This interpretive engagement has much iconic reference. Whereas amphibians such as frogs probably cannot rotate iconic images in their imagination, advanced mammals such as foxes can. The fox engages the rabbit with a complex icon involving an image of the rabbit, wind direction, and habits of successful hunting from a downwind direction and interprets that icon with a successful hunting-and-eating ploy.

A camouflaged naturalist with binoculars crouches quietly, watching all this a few yards away, chuckling while trying to imagine the frog sneaking around behind the insect, hop, hop, hop. She thinks about all the layers of natural evolution at the pond, from the slime mold at the edge to herself in the blind, and wonders whether Thoreau could have thought of that biological complexity while meditating on Walden Pond. Prompted by musement about the stretch of a world picture from cosmic gasses to this pond’s nexus of biological ecosystems, by the literature on meditation she’s read, and by this moment in her watchful, reflective life, “What hath God wrought?” she asks. Her symbolic engagement of the pond at this moment, probably taking less than a minute, involves many indexical and iconic references but is most important for the ways the conventional symbols in her highly evolved semiotic system, with its particularly rich knowledge of nature, literature, and signs for reflecting on Big Theological Issues, allow her to engage the pond with highly civilized breadth, discernment of differences, and intensity. What distinguishes her as human from the fox and frog, among many other things, is that her intentionality employs a vastly superior semiotic system of conventionally interdefined meanings. Her semiotic system with all its meanings from different spheres of life can be articulated in a large, complex sign whose parts refer to one another in many kinds of extensional reference. And that single complex sign embracing indexical perceptions, iconic understandings, evolutionary and ecosystemic theory, literature, theology, and her own particular habits of meditation instanced on this one day at this paradigmatic moment, is the sign by which she intentionally engages the situation at the pond. Of course, many different interpretive judgments are going on at once, watching, hearing, and smelling many things while struggling to keep still, balanced in a crouch, and the engagement takes time moving not quite seamlessly from thought to thought; but all these are integrated into a single

experience by many qualities of continuity and integration that are also parts of her semiotic resources.³⁴

Human experience is intentional, with indexical, iconic, and symbolic or conventional references. To engage something symbolically is to employ a complex sign, set within a semiotic system (in fact, probably within several systems only loosely coordinated) to interpret the thing engaged. The engagement is guided by situational, cultural, and personal purposes as enabled and limited by the resources of the semiotic systems, the sensory apparatus for observation and action, and the continuities of the interpreter's self through the interpretive time. The engagement is an interaction between the interpreter and the thing interpreted, mediated by the signs. It is intentional in the sense that the interpreter takes the thing to be as the signs say when interpreted in this context for this purpose as relevant to this interpreter. The great promise of neuroscience and cognitive science is that it might someday soon show how the causal models for understanding the nervous system and body can evolve to the complexity that the relevant causal models are those of the intentionality of semiotically charged interpretive engagement.

One of the functions of philosophy is to render a characterization of human intentional experience such that the reductive accounts of mental/neural models can be understood in terms of what they leave out. Then it is up to the neuroscientists and others to develop explanations of mental/neural functioning that do not leave out anything.³⁵

With regard to religion, our scientific understanding of its origins and development needs to articulate the transition from those elements of religion that are most usefully explained by evolutionary biology to those that are to be understood in terms of the intentionality of symbolic engagement. Suppose it is true that among the important components of religion is the development of mental/neural modules for attributing agency to things based on certain cues, and then to have ready-made templates for what agents are likely to do. Even if agency is not necessarily attributed to ultimate realities in religion, it surely is attributed to other people, and the engagement of other people is an ultimate condition of being in an existential field with them. That these modules and templates evolved in human beings is explained, perhaps, by the fact that they have greater adaptive value than their previous alternatives in the matter of passing on genes to the next generation. Suppose this is a correct theory for explaining certain experiential properties. Nevertheless, this theory does not understand them, for understanding them would have to include showing how intentionality is involved in taking something to be an agent, how that act of "taking" is a complex sign in a larger symbolic engagement with the thing so construed, related to contexts, purposes, and the like. For the elements of religion to be understood in terms of their roles in religion, most of them must be construed intentionally. The basic form of this is to understand religion as doing and believing what it does because of what people have learned about their environment in the relevant matters.

IV. THE CULTURAL EVOLUTION OF RELIGION

Given the definition of religion as symbolic engagement of ultimacy, the cultural evolution of religion takes its first significant step in the development of symbols for ultimacy. The question is how ultimacy in the sense of boundary conditions can be conceived or symbolized. The reflections here are highly speculative but lay out the logic of the problem.

Semiotic systems complicated enough for ordinary everyday communal life involve causal chains, sometimes very long ones. The conception of something happening because something else happened, which happened because something else happened, exhibits a rough rule of conditions with prior conditions. The same thing can be said for conceptions of a chain of consequences. A similar rule of conditions is exhibited in nests of contexts—meals take place in the home that is in the village that is in the territory. These seemingly linear sorts of conditions in real experience are mixed without confusion. Seeing affairs as a set of causes from the past, with potential consequences in the future, as nested in various sets of overlapping contrasts, is not rocket science. This kind of thinking does not have to involve reference to items not found in isolated village life and culture.

But it does involve thinking of things in ordered series of conditions and invites the thought of the outermost or last condition. Kant was perhaps overly rationalistic in his claim that reason itself cannot think of a series of conditions without thinking of the total series, or the series as totalized. He thought this was an intrinsic but dangerous element of thinking because we should never think we know anything in a series beyond that for which we have empirical evidence. But he did say that we cannot help but think of the series as a totality, with an ultimate (for him unknowable) boundary condition.³⁶ Somewhere in the evolution of human thinking processes it became possible and common to think about boundary conditions. The candidates for those boundary conditions might seem extremely primitive. The boundary conditions for the cause of illness might be witches, or imbalances of humors, or yin/yang elements, or germs that attack like an invading army, or a natural consequence of an intensely deep layering of nature underlying human life. The boundary condition for the past causes that determine present life might be the natural round of seasons, or a visit by the ancestors, or a creation as understood in a myth involving productive gods, or a Big Bang physical theory, or an ontological act of creation. Candidates for chains of contexts might be a mythic geography, as in the upside-down tree of Norse mythology, or an image of the plain of Earth with many levels of heavens above and hells beneath, or an island in an infinite sea, or a globe resting on an elephant, on another elephant, such that it's elephants all the way down, or a conception of existential media constituted by the things that are in it to the entire extent of any determinate relations. Perhaps the most significant chain of conditions is that which constitutes human life and whose boundary

condition is death: Death is the condition beyond which more food, better medicine, or more intense prayers for more life do not help.

Religions codify various symbols of ultimate boundary conditions in their sacred canopies, connecting them in ways that make sense of the interactions of the different lines of conditioning. Or rather, the sacred canopies often do not make sense of the integration of the various fields of conditions for which they symbolize ultimate boundaries but exhibit resonances and dissonances among the various symbol systems of ultimacy involved. Sometimes the sacred canopies become so inconsistent as to be implausible (*III, pt. 4*).

A crucial element for understanding religion thus is to understand how religion or religions learn from their experience and modify their sacred canopies appropriately. According to some cognitive scientists discussed in the first section, religion is formed in its earliest components by factors best understood in terms of biological evolution. But as soon as religion takes an intentional stance, interpreting affairs in terms of symbols of ultimacy, the structures of religion and its significant changes need to be understood in terms of what people learn about ultimate realities and ultimate dimensions of mundane domains of life.

The history of religions is filled with accounts of how changing situations cause people to change their religious practices and conceptions. Subtle histories of religion show how changing situations ramify throughout a given people's cognitive, social, and existentially embodied semiotic systems. A standard story form is that one religious culture learns from another. Another story form is that a "people" is moved from one territory to another, perhaps to a very different kind of territory. Or the conditions of nature change. In these and many other situations, changes prompt new learnings, new interpretations, new practices, and new religious forms generally. Of course, cultures cannot change completely without total disorientation; religious cultures are the embodiments of sacred worldviews, and these change. Anthropologists of a previous generation were impressed with the synchronic organization and diachronic stability of groups of people living in isolation from one another, as in New Guinea and Australia before the coming of Europeans. Nevertheless, those centuries-old, mainly stable religious cultures are to be understood in part by what the people learned as they arrived in the South Pacific from East Africa, having crossed Asia from Africa.

A more generalized statement of the point is that understanding religion means understanding how it symbolically engages ultimate reality in cognitive, social, and existential semiotic ways. To understand this in any particular case requires understanding how the people corrected their previous ways of symbolic engagement so as to arrive at their present one. Included in this is the need to understand the diffusion of cultures. This, too, is understood as learning from interpretive experience.

The history of the learning adventures of religious people(s) is not enough to understand their religions, however. One of the things most impor-